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FEDEX OVERNIGHT

January 15, 2010

Mr. Jonathan Holtom, P.E.
Bureau of Air Regulation
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: C.D. McIntosh, Jr. Power Plant 1050004
Unit 3 (E.U. 006) – Interim Sulfuric Acid Mist Test

Dear Mr. Holtom:

Per Condition 1 of Permit No. 1050004-027-AC, Lakeland Electric performed performance tests to demonstrate that the installation of the low NOx burners, overfire air, and selective catalytic reduction system did not result in an emission increase of sulfuric acid mist emissions which would equal or exceed the respective significant emission rates as defined in Rule 62-210.300 for Unit 3 (E.U. 006) in early December 2009. Attached to this cover letter you will find the test report provided by Catalyst Air Management along with Lakeland Electric's Responsible Official Certification page signed by Mr. Tom Trickey.


If you have any questions regarding this submittal please feel free to contact me at (863) 834-8180.

Sincerely,

Bret Galbraith, E.I.
Environmental Permitting
bret.galbraith@lakelandelectric.com

Enclosures: Unit 3 SAM Stack Test Report (Catalyst); R.O. cert. page (T. Trickey)

Responsible Official Certification

1. Responsible Official Name :
Thomas J. Trickey, P.E., Plant Manager
2. Responsible Official Mailing Address...
Organization/Firm: Lakeland Electric
Street Address: 501 E. Lemon St.
City: Lakeland State: FL Zip Code: 33801-5079
3. Owner/Authorized Representative Telephone Numbers...
Telephone: (863) 834-6477 ext. Fax: (863) 834-5670
4. Responsible Official Email Address: Tom.Trickey@lakelandelectric.com
5. Responsible Official Statement:
<i>I, the undersigned, am a responsible official of the Title V source addressed in this submittal. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this submission are true, accurate and complete. The air pollutant emissions units and air pollution control equipment described in this submittal will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this submittal to which the Title V source is subject. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in any compliance plan(s) previously submitted.</i>
Subject: Lakeland Electric C.D. McIntosh, Jr. Power Plant - Unit 3 (E.U. 006) Interim Sulfuric Acid Mist Test 1050004-027-AC
 Signature
<u>1-15-2010</u> Date



**LAKELAND ELECTRIC
MCINTOSH POWER PLANT
UNIT 3**

ACID MIST EMISSIONS TEST REPORT

**CATALYST AIR MANAGEMENT, INC.
REPORT NUMBER 138-147**

JANUARY 11, 2010
Test Dates: December 2&3, 2009

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BUREAU OF AIR REGULATION

Prepared for
Mr. Steve Marshall
Lakeland Electric
3030 East Lake Parker Dr.
Lakeland, FL 33805



STATEMENT OF VALIDITY

**Lakeland Electric – McIntosh Power Plant
Catalyst Report 138-147
January 11, 2010**

To the extent practical, information and data provided in this test report has been verified as true and correct.

A handwritten signature in cursive script that reads 'Margaret S. Cangro'.

Margaret S. Cangro
Manager - Catalyst Air Management, Inc.
29541 Morningmist Dr.
Wesley Chapel, FL 33543
(813) 994-5880

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PROJECT FACT SHEET

NAME OF SOURCE OWNER: City of Lakeland

SOURCE IDENTIFICATION: McIntosh Power Plant
Unit 3

LOCATION OF SOURCE: 3030 East Lake Parker Dr.
Lakeland, FL 33805

TYPE OF OPERATION: Coal Fired Steam Generating Unit

TYPES OF TESTS PERFORMED: Sample Traverse-EPA Method 1
Volumetric Flow Rate-EPA Method 2
Oxygen/Carbon Dioxide-EPA Method 3A
Moisture Content-EPA Method 4
Sulfuric Acid Mist-NCASI Method 8A

TEST COMPANY: Catalyst Air Management, Inc.
2505 Byington-Solway Road
Knoxville, TN 37931

LABORATORY ANALYSIS: Maxxam Analytics, Inc.
5555 North Service Road
Burlington, Ontario L7L 5H7
Mike Challis - Project Manager

SITE SUPERVISOR: Joshua Nicely – Testing Supervisor

TEST PERSONNEL: Huedon Love - Technician
Ryan Groff - Technician

TEST DATES: December 2-3, 2009

OWNER'S REPRESENTATIVE: Robert Kniss

TEST OBSERVER: Bill Schroeder - FDEP
James Burkholder - FDEP
Malik Pickering - FEDP

1.0 Introduction

Catalyst Air Management, Inc. (Catalyst) was contracted by the City of Lakeland to perform source emission testing at McIntosh Power Plant, Unit 3, to determine the sulfuric acid mist emissions.

The sampling program was conducted December 2 and 3, 2009. The testing was performed by Messrs. Joshua Nicely, Huedon Love and Ryan Groff of Catalyst with the assistance of personnel assigned by Lakeland Electric. Mr. Robert Kniss of Lakeland Electric coordinated plant operation during the testing.

2.0 Summary of Test Results

A summary of test results developed by this source-sampling program is presented in Tables 1 through 4. The summary tables are presented as follows:

<u>Table</u>	<u>Description</u>	<u>Page</u>
1	Summary of Acid Mist Emissions	1
2	Acid Mist Sampling Summary – Sorbent Off	2
3	Acid Mist Sampling Summary – Sorbent On	3

3.0 Results of Testing

The individual test run results are shown in Tables 2 and 3, and tabulated in Appendices 1 through 3.

TABLE 1
Summary of Sulfuric Acid Mist Emissions
Lakeland McIntosh Unit 3

Date	Sorbent Injection	Concentration (gr/dscf)	Emission Rate (lb/mmBtu)
12/2/09	Off*	9.88 E-04	2.19E-03
12/3/09	On**	1.16E-04	2.54E-04

*Run 1 less than 0.2 RDL Sulfuric Acid Mist

** All runs less than 0.2 RDL Sulfuric Acid Mist

4.0 Description of Combustion Unit

McIntosh Unit 3 is a steam generating utility boiler. The unit is permitted to burn natural gas, No. 6 residual fuel oil, bituminous coal, and co-fire with refuse derived fuel (RDF) and petroleum coke at a maximum heat input rate of 3,640 MMBtu/hr. The rated generation capacity of the turbine/generator is approximately 364 MW gross. The flue gas from the unit is passed through an electrostatic precipitator and wet scrubber for control of particulate and SO₂ emissions. Low NO_x burners are used to control NO_x emissions. The flue gas is exhausted into the Unit 3 stack.

Without Sorbent Injection

Client: **Lakeland Electric**

Plant: **McIntosh U3**

Location: **Stack**

Run Number:	1	2	3	4	5	6
Date:	12/2/09	12/2/09	12/2/09	12/2/09	12/2/09	12/2/09
Heat Input	2688.80	2684.32	3031.51	3079.90	3512.97	3516.60
Load (MW):	280	280	320	320	365	365
Run Time						
Start	6:30	8:00	9:30	11:00	12:45	14:15
End	7:30	9:00	10:30	12:00	13:45	15:15
Pbar - Barometric Pressure:	29.70	29.70	29.70	29.70	29.70	29.70
TT - Sampling Time:	60.0	60.0	60.0	60.0	60.0	60.0
VM - Meter Volume:	26.405	27.020	27.039	27.417	27.170	27.656
TM - Avg. Meter Temp (F):	64	68	73	76	77	80
PM - Avg. Delta H (in. of H2O)	0.71	0.71	0.71	0.71	0.71	0.71
Y - Meter Calibration Factor:	0.99	0.99	0.99	0.99	0.99	0.99
VMSTD - Std. Gas Volume (SC	26.237	26.613	26.422	26.608	26.354	26.707
Vlc - Volume Water Collected:	56	58	74	70	70	70
%M - Percent Moisture:	9.13	9.31	11.65	11.02	11.12	10.99
Bws - Mole Fraction, Dry:	0.091	0.093	0.117	0.11	0.111	0.11
%CO2 - Carbon Dioxide, Dry:	12.4	12.4	12.4	12.4	12.4	12.4
%O2 - Oxygen, Dry:	7.7	7.7	7.7	7.7	7.7	7.7
MD - Dry Molecular Weight:	30.29	30.29	30.29	30.29	30.29	30.29
MS - Wet Molecular Weight:	29.17	29.15	28.86	28.94	28.93	28.94
PS - Static Press. (in. of Hg):	29.66	29.66	29.66	29.66	29.66	29.66
TS - Stack Temp. (F):	173	181	177	177	177	175
CP - Pitot Coefficient:	0.84	0.84	0.84	0.84	0.84	0.84
VS - Stack Gas Velocity (AFPS	43.4	43.7	43.8	43.7	43.8	43.7
QS - Stack Gas Volume (DSCF)	532,366	528,104	518,638	521,599	521,118	522,424
QA - Stack Gas Volume (ACFV	708,097	712,959	714,275	713,368	713,556	712,423

SO3

gr/dscf - Emission Concentration	0.00012	0.00070	0.00082	0.00099	0.0015	0.0018
lb/mmbtu - Emission Rate:	0.00026	0.00154	0.00181	0.00218	0.0034	0.004

Average gr/dscf **9.88E-04**
Average lb/mmBtu **2.19E-03**

With Sorbent Injection

Client: **Lakeland Electric**
 Plant: **McIntosh U3**
 Location: **Stack**

Run Number:	7	8	9	10	11	12
Date:	12/3/09	12/3/09	12/3/09	12/3/09	12/3/09	12/3/09
Heat Input	3089.04	3087.82	2660.82	2753.54	3489.20	3495.30
Load (MW):	320	320	285	285	365	365
Run Time						
Start	7:05	8:35	10:25	11:55	14:09	15:40
End	8:05	9:35	11:25	12:55	15:09	16:40
Pbar - Barometric Pressure:	29.90	29.90	29.90	29.90	29.90	29.90
TT - Sampling Time:	60.0	60.0	60.0	60.0	60.0	60.0
VM - Meter Volume:	26.578	26.754	27.258	27.397	26.568	26.544
TM - Avg. Meter Temp (F):	68	71	68	68	68	68
PM - Avg. Delta H (in. of H2O)	0.71	0.71	0.71	0.71	0.71	0.71
Y - Meter Calibration Factor:	0.99	0.99	0.99	0.99	0.99	0.99
VMSTD - Std. Gas Volume (SCF)	26.404	26.420	27.028	27.194	26.407	26.352
Vlc - Volume Water Collected:	90	90	66	71	65	64
%M - Percent Moisture:	13.83	13.83	10.32	11.02	10.39	10.26
Bws - Mole Fraction, Dry:	0.138	0.138	0.103	0.11	0.104	0.103
%CO2 - Carbon Dioxide, Dry:	12.4	12.4	12.4	12.4	12.4	12.4
%O2 - Oxygen, Dry:	7.7	7.7	7.7	7.7	7.7	7.7
MD - Dry Molecular Weight:	30.29	30.29	30.29	30.29	30.29	30.29
MS - Wet Molecular Weight:	28.59	28.58	29.02	28.94	29.01	29.03
PS - Static Press. (in. of Hg):	29.83	29.83	29.83	29.83	29.83	29.83
TS - Stack Temp. (F):	177	177	174	176	175	176
CP - Pitot Coefficient:	0.84	0.84	0.84	0.84	0.84	0.84
VS - Stack Gas Velocity (AFPS)	43.9	43.9	43.5	43.6	43.5	43.5
QS - Stack Gas Volume (DSCF)	509,403	509,471	527,619	523,624	526,955	526,890
QA - Stack Gas Volume (ACFM)	715,932	715,874	708,716	710,978	709,247	709,944

SO3

gr/dscf - Emission Concentration	0.00012	0.00012	0.00011	0.00011	0.00012	0.00012
lb/mmBtu - Emission Rate:	0.00026	0.00026	0.00025	0.00025	0.00026	0.00026

Average gr/dscf **1.16E-04**
 Average lb/mmBtu **2.56E-04**

The Unit 3 stack height is approximately 275 feet. The testing platform is located on the stack approximately 86 feet above the inlet duct. Four test ports facilitate the sampling. A schematic of the process and stack sampling location is included.

5.0 Description of CEMS

The Unit 3 CEMS is a dilution extraction system (400:1 ratio) that measures SO₂, NO_x and CO₂ concentrations and flow at the sampling location. The CEMS analyzers include a Thermo Environmental model 42i NO_x monitor, a Thermo Environmental model 43i SO₂ monitor, a Thermo Environmental model 410i CO₂ monitor, a Thermo Environmental model 48i CO monitor, and a United Sciences Ultraflow Model 100 monitor. The recording and reporting requirements are performed by a computerized data acquisition and handling system (DAHS).

Unit 3 CEMS

- (1) TECO NO_x - 42i-0608716016
- (1) TECO SO₂ - 43i-06087106018
- (1) TECO CO₂ - 410i-0608716015
- (1) TECO CO - 48i-TLE 0712221616
- (1) United Sciences Ultraflow 100 - Serial No. 1001060

The data acquisition and handling system utilizes an Fc factor (scf/mmBtu) based on the fuel to calculate NO_x emissions in lbs/mmBtu. The analyzers measure on a wet basis. The data acquisition and handling system reports the volumetric flow data in standard cubic feet per hour (SCFH).

6.0 Sampling Program Procedures

The following test methods were utilized during the test program:

EPA Method 1	Sample and Velocity Traverse for Stationary Sources
EPA Method 2	Determination of Stack Gas Velocity and Volumetric Flow Rate
EPA Method 3A	Gas Analysis for CO ₂ , O ₂ , Excess Air and Dry Molecular Weight (Instrumental Analyzer Method)
EPA Method 4	Determination of Moisture Content in Stack Gas
NCASI Method 8A	Determination of Sulfuric Acid Vapor or Mist and Sulfur Dioxide Emissions from Stationary Sources from Kraft Recovery Furnaces

Test runs were 60 minutes in duration. The sampling procedures, quality assurance, analysis and calculations utilized for the program were performed in accordance with the test protocol submitted and approved and the Code of Federal Regulations, Title 40, Part 60, Appendix A.

6.1 **Sulfuric Acid Mist - NCASI Method 8A**

Acid Mist emissions were determined in accordance with EPA Method 8A procedures. A gas sample was extracted at a constant flow rate from the flue gas and the sulfuric acid mist, including SO₃, was separated and measured by barium-thorin titration. The sulfuric

acid mist fraction of the train was the only portion analyzed. The probe and filter were maintained at 500 °F. The condenser coil was maintained between 167 and 185°F. The sampling train consists of the following equipment connected in series:

- Quartz nozzle and heated quartz lined probe
- Heated quartz filter holder with quartz filter
- A modified Graham condenser with Type C glass frit and 200 cm of 5-mm ID glass
- A Greenburg-Smith impinger containing 100 ml of a 3% hydrogen peroxide solution
- A modified Greenburg-Smith impinger containing 100 ml of a 3% hydrogen peroxide
- A Greenburg-Smith impinger containing 100 ml of DI H₂O
- A modified Greenburg-Smith impinger containing 250g of silica gel

The sample volume was measured by passing it through a calibrated dry gas meter. An S-type pitot tube was attached to the probe to measure stack gas velocity and to maintain isokinetic sampling. A K-type thermocouple was attached to the probe to measure the gas temperature.

After the run, the probe was disconnected from the sample train. The remaining portion was purged for 15 minutes at the average sampling rate of the run.

The probe, filter holder and condenser were triple rinsed with deionized and the washings were retained for SO₃/H₂SO₄ analysis. The peroxide and deionized H₂O impingers' contents were recovered and the impingers and connecting glassware were rinsed with distilled water and were retained, however SO₂ analysis was not performed. Each sample was analyzed by barium thorin titration to determine SO₃/H₂SO₄ concentrations.

6.2 Stack Gas Velocity and Volumetric Flow Rate

An EPA Method 2 stack gas velocity traverse was performed with each acid mist test run to determine the velocity and volumetric flow rate.

6.3 O₂ and CO₂ – EPA Method 3A

The O₂ and CO₂ concentrations were determined simultaneously with each of the test runs. A sample was continuously extracted and introduced into a Telgan O₂/CO₂ analyzer for determination of gas concentrations. The sample was extracted through a heated stainless steel probe, heated sample line and sample conditioner to dry the sample before it enters the analyzer. A sample flow control system was used to control the flow into the analyzer. The analyzer was calibrated prior to starting the testing with EPA Protocol 1, calibration gases.

All the sampling procedures, quality assurance, analysis and calculations utilized for the program were performed in accordance with the Code of Federal Regulations, Title 40, Part 60, Appendix A.

7.0 Operating Conditions

Lakeland Electric personnel monitored operating conditions throughout the duration of the sampling program.

8.0 Quality Assurance Procedures

The quality assurance procedures utilized during the testing activities followed guidelines set forth by the previously mentioned methods and the EPA Quality Assurance Handbook for Source Sampling. The specific procedures for this test program are listed below.

8.1 Sampling Equipment

The S-type pitot tubes were visually inspected and measured to meet the design specifications of EPA Method 2 for a 0.84 pitot coefficient.

Both legs of the pitot tube were leak checked before and after each sample run.

The stack thermocouples were calibrated prior to the testing and a post-test check was performed after the testing project.

The manometer was leveled and zeroed before each sample run.

The dry gas meter is fully calibrated annually using an EPA intermediate standard. Post -test dry gas meter checks were completed to verify the accuracy of the meter Yi.

Pre-test and post-test leak checks were completed and were less than 0.02 cfm at the highest sampling vacuum.

8.2 Instrumental Methods

Analyzer calibrations, system bias check and drift checks were completed before each test utilizing EPA Protocol calibration gases.

The analyzer interference responses were determined in accordance with Section 8.2.7 of Method 7E and Section 16 of Method 6C.

8.3 Data and Calculations

A manual calculation check is performed on a single run.

9.0 Discussion

9.1 Chain of Custody

The field samples were sealed and transported to the Catalyst facility in Knoxville, TN and shipped to the Maxxam Analytics laboratory in Burlington, Ontario, Canada under the supervision of Joshua Nicely. The samples were labeled to identify the following. The samples were labeled to identify the following:

Client and source

Date

Type of Sample
Run number
Sample location
Sample fraction

9.2 Sampling Conditions and Concerns

There were no interruptions or delays during the testing.

APPENDIX 1
REFERENCE METHOD TEST RESULTS

Catalyst Air Management, Inc.
Method 8A Isokinetic Sample Sheet

Client: **City of Lakeland**
 Unit Tested: **McIntosh 3**
 Sampling Location: **Stack**

Run No: **1**

Date: **12/2/09**

Start Time: **6:30**

End Time: **7:30**

BAROMETRIC PRESSURE: **29.70** P_{bar}
 GAS METER Y-FACTOR: **0.99** Y

STACK DIAMETER = **223.25** in
 STACK AREA = **271.8** sq. ft.
 VOLUME OF MOISTURE: **56.0** V_{lc}
 PITOT COEFFICIENT: **0.84** C_p

POINT	TIME	GAS METER	VEL HEAD	PM ORIFICE	METER TEMP IN	METER TEMP OUT	COIL TEMP	CO2%	O2%	STATIC PRESS	SDE	VEL
		379.456										
B-1	5.0	381.5	0.50	1.20	60	59	169				17.73	43.3
	5.0	383.8	0.50	1.20	61	60	172	12.4	7.7	-0.55	17.78	43.4
	5.0	385.9	0.50	1.20	62	60	176				17.83	43.5
	5.0	388.1	0.50	1.20	64	61	173				17.79	43.4
	5.0	390.3	0.50	1.20	65	61	168				17.72	43.3
	5.0	392.5	0.50	1.20	66	61	181				17.90	43.7
	5.0	394.7	0.50	1.20	67	62	176				17.83	43.5
	5.0	396.9	0.50	1.20	67	63	169				17.73	43.3
	5.0	399.1	0.50	1.20	68	63	168				17.72	43.3
	5.0	401.4	0.50	1.20	68	63	174				17.80	43.5
	5.0	403.6	0.50	1.20	68	63	173				17.79	43.4
	5.0	405.861	0.50	1.20	69	64	172				17.78	43.4
RESULTS	TT	VM	SQRT PIT	PM		TM	TS	CO2	O2	STATIC	SDE	VEL
	60.0	26.405	0.707	1.200		64	173	12.4	7.7	-0.55	17.78	43.4
	net	net	avg	avg		avg	avg	avg	avg	avg	avg	ft/sec

$P_s = 29.66$ $V_{m(std)} = 26.237$ $V_{w(std)} = 2.638$ $\%M = 9.13$
 $B_{ws} = 0.091$ $M_d = 30.29$ $M_s = 29.17$ $\%EA = 57.49$

STACK GAS VELOCITY = **43.4** AFPS V_s
 STACK GAS VELOCITY = **2,605** AFPM
 STACK GAS VOLUME = **532,366** DSCFM Q_{std}
 STACK GAS VOLUME = **708,097** ACFM Q_a

EMISSIONS **** <0.2 detection limit** F_d
 Weight (mg) Concentration (gr/dscf) Emission Rate (lb/mmBtu)
 SO3/H2SO4 **0.2 **** **0.0001** **0.000**

Catalyst Air Management, Inc.
Method 8A Isokinetic Sample Sheet

Client: City of Lakeland
 Unit Tested: McIntosh 3
 Sampling Location: Stack

Run No: 2

Date: 12/2/09

Start Time: 8:00

End Time: 9:00

BAROMETRIC PRESSURE: 29.70 P_{bar}
 GAS METER Y-FACTOR: 0.99 Y

STACK DIAMETER = 223.25 in
 STACK AREA = 271.8 sq. ft.
 VOLUME OF MOISTURE: 58.0 V_{lc}
 PITOT COEFFICIENT: 0.84 C_p

POINT	TIME	GAS METER	VEL HEAD	PM ORIFICE	METER TEMP IN	METER TEMP OUT	COIL TEMP	CO2%	O2%	STATIC PRESS	SDE	VEL
		416.130										
B-1	5.0	4183.0	0.50	1.20	68	65	168				17.72	43.3
	5.0	420.5	0.50	1.20	69	65	172	12.4	7.7	-0.55	17.78	43.4
	5.0	422.8	0.50	1.20	69	65	178				17.86	43.6
	5.0	425.0	0.50	1.20	70	65	180				17.89	43.7
	5.0	427.3	0.50	1.20	70	65	182				17.92	43.8
	5.0	429.4	0.50	1.20	71	65	182				17.92	43.8
	5.0	431.8	0.50	1.20	71	66	183				17.93	43.8
	5.0	434.0	0.50	1.20	71	66	185				17.96	43.9
	5.0	436.3	0.50	1.20	72	66	185				17.96	43.9
	5.0	438.5	0.50	1.20	72	66	184				17.94	43.8
	5.0	440.8	0.50	1.20	72	67	186				17.97	43.9
	5.0	443.150	0.50	1.20	73	67	185				17.96	43.9
RESULTS	TT	VM	SQRT PIT	PM	TM	TS	CO2	O2	STATIC	SDE	VEL	
	60.0	27.020	0.707	1.200	68	181	12.4	7.7	-0.55	17.90	43.7	
	net	net	avg	avg	avg	avg	avg	avg	avg	avg	avg	ft/sec

$P_s = 29.66$ $V_{m(std)} = 26.613$ $V_{w(std)} = 2.732$ %M = 9.31
 $B_{ws} = 0.093$ $M_d = 30.29$ $M_s = 29.15$ %EA = 57.49

STACK GAS VELOCITY = 43.7 AFPS V_s
 STACK GAS VELOCITY = 2,623 AFPM
 STACK GAS VOLUME = 528,104 DSCFM Q_{std}
 STACK GAS VOLUME = 712,959 ACFM Q_a

EMISSIONS

	Weight (ug)	Concentration (ug/dscm)	Fd Emission Rate (lb/mmBtu)
SO3/H2SO4	1.2	0.0007	0.002

Catalyst Air Management, Inc.
Method 8A Isokinetic Sample Sheet

Client: **City of Lakeland**
 Unit Tested: **McIntosh 3**
 Sampling Location: **Stack**

Run No: **3**

Date: **12/2/09**

Start Time: **9:30**
 End Time: **10:30**

BAROMETRIC PRESSURE:	29.70	P_{bar}	STACK DIAMETER =	223.25	in
GAS METER Y-FACTOR:	0.99	Y	STACK AREA =	271.8	sq. ft.
			VOLUME OF MOISTURE:	74.0	V_{lc}
			PITOT COEFFICIENT:	0.84	C_p

POINT	TIME	GAS METER	VEL HEAD	PM ORIFICE	METER IN	TEMP. OUT	COIL TEMP.	CO2%	O2%	STATIC PRESS.	SDE	VEL
		452.539										
B-1	5.0	454.7	0.50	1.50	73	70	184				17.94	44.0
	5.0	456.9	0.50	1.50	74	70	180	12.4	7.7	-0.55	17.89	43.9
	5.0	459.2	0.50	1.50	74	70	177				17.85	43.8
	5.0	461.4	0.50	1.50	74	70	176				17.83	43.8
	5.0	463.7	0.50	1.50	74	71	175				17.82	43.7
	5.0	466.0	0.50	1.50	74	71	175				17.82	43.7
	5.0	468.3	0.50	1.50	75	71	176				17.83	43.8
	5.0	470.5	0.50	1.50	75	71	175				17.82	43.7
	5.0	472.8	0.50	1.50	75	71	176				17.83	43.8
	5.0	475.0	0.50	1.50	75	72	176				17.83	43.8
	5.0	477.3	0.50	1.50	76	72	176				17.83	43.8
	5.0	479.578	0.50	1.50	76	72	176				17.83	43.8

RESULTS	TI	VM	SQ RT PIT	PM	TM	TS	CO2	O2	STATIC	SDE	VEL
	60.0	27.039	0.707	1.500	73	177	12.4	7.7	-0.55	17.84	43.8
	net	net	avg	avg	avg	avg	avg	avg	avg	avg	ft/sec

$P_s =$ 29.66 $V_{m(std)} =$ 26.422 $V_{w(std)} =$ 3.485 %M= 11.65
 $B_{ws} =$ 0.117 $M_d =$ 30.29 $M_s =$ 28.86 %EA= 57.49

STACK GAS VELOCITY = 43.8 AFPS V_s
 STACK GAS VELOCITY = 2,628 AFPM
 STACK GAS VOLUME = 518,638 DSCFM Q_{std}
 STACK GAS VOLUME = 714,275 ACFM Q_a

EMISSIONS

	Weight (ug)	Concentration (ug/dscm)	Emission Rate (lb/mmBtu)
SO3/H2SO4	1.4	0.0008	0.002

Catalyst Air Management, Inc.
Method 8A Isokinetic Sample Sheet

Client: City of Lakeland
 Unit Tested: McIntosh 3
 Sampling Location: Stack

Run No: 6

Date: 12/2/09

Start Time: 14:15

End Time: 15:15

BAROMETRIC PRESSURE: 29.70 P_{bar}
 GAS METER Y-FACTOR: 0.99 Y

STACK DIAMETER = 223.25 in
 STACK AREA = 271.8 sq. ft.
 VOLUME OF MOISTURE: 70.0 V_{ic}
 PITOT COEFFICIENT: 0.84 C_p

POINT	TIME	GAS METER	VEL HEAD	PM ORIFICE	METER TEMP. IN	COIL TEMP. OUT	CO2%	O2%	STATIC PRESS.	SDE	VEL
		563.239									
B-1	5.0	565.5	0.50	2.00	78	77				17.79	43.6
	5.0	567.9	0.50	2.00	79	77	12.4	7.7	-0.60	17.82	43.7
	5.0	570.2	0.50	2.00	80	77				17.80	43.6
	5.0	572.4	0.50	2.00	80	77				17.82	43.7
	5.0	574.7	0.50	2.00	80	78				17.83	43.7
	5.0	576.9	0.50	2.00	81	78				17.83	43.7
	5.0	579.2	0.50	2.00	82	79				17.82	43.7
	5.0	581.5	0.50	2.00	83	79				17.85	43.7
	5.0	583.7	0.50	2.00	83	80				17.83	43.7
	5.0	586.0	0.50	2.00	82	80				17.83	43.7
	5.0	588.3	0.50	2.00	82	80				17.82	43.7
	5.0	590.895	0.50	2.00	82	80				17.82	43.7

RESULTS	TT	VM	SQ RT PIT	PM	TM	TS	CO2	O2	STATIC	SDE	VEL
	60.0	27.656	0.707	2.000	80	175	12.4	7.7	-0.60	17.82	43.7
	net	net	avg	avg	avg	avg	avg	avg	avg	avg	ft/sec

$P_s = 29.66$ $V_{m(std)} = 26.707$ $V_{w(std)} = 3.297$ $\%M = 10.99$
 $B_{ws} = 0.110$ $M_d = 30.29$ $M_s = 28.94$ $\%EA = 57.49$

STACK GAS VELOCITY = 43.7' AFPS V_s
 STACK GAS VELOCITY = 2,621 AFPM
 STACK GAS VOLUME = 522,424 DSCFM Q_{std}
 STACK GAS VOLUME = 712,423 ACFM Q_a

EMISSIONS

Weight (ug)	Concentration (ug/dscm)	Emission Rate (lb/mmBtu)
SO3/H2SO4 3.1	0.0018	0.004

Catalyst Air Management, Inc.
Method 8A Isokinetic Sample Sheet

Client: **City of Lakeland**
 Unit Tested: **McIntosh 3**
 Sampling Location: **Stack**

Run No: 7

Date: 12/3/09

Start Time: 7:05

End Time: 8:05

STACK DIAMETER = 223.25 in
 STACK AREA = 271.8 sq. ft.
 VOLUME OF MOISTURE: 90.0 V_{lc}
 PITOT COEFFICIENT: 0.84 C_p

BAROMETRIC PRESSURE: 29.90 P_{bar}
 GAS METER Y-FACTOR: 0.99 Y

POINT	TIME	GAS METER	VEL HEAD	PM ORIFICE	METER IN	TEMP. OUT	COIL TEMP.	CO2%	O2%	STATIC PRESS.	SDE	VEL
		600.715										
B-1	5.0	602.9	0.50	1.50	67	65	177				17.85	43.9
	5.0	605.1	0.50	1.50	66	65	178	12.4	7.7	-1.00	17.86	43.9
	5.0	607.3	0.50	1.50	66	65	176				17.83	43.9
	5.0	609.5	0.50	1.50	67	65	179				17.87	44.0
	5.0	611.7	0.50	1.50	68	65	178				17.86	43.9
	5.0	613.9	0.50	1.50	69	66	177				17.85	43.9
	5.0	616.1	0.50	1.50	70	66	177				17.85	43.9
	5.0	618.4	0.50	1.50	71	66	177				17.85	43.9
	5.0	620.6	0.50	1.50	71	66	178				17.86	43.9
	5.0	622.8	0.50	1.50	72	67	177				17.85	43.9
	5.0	625.0	0.50	1.50	72	67	178				17.86	43.9
	5.0	627.293	0.50	1.50	72	67	177				17.85	43.9

RESULTS	TT	VM	SQ RT PIT	PM	TM	TS	CO2	O2	STATIC	SDE	VEL
	60.0	26.578	0.707	1.500	68	177	12.4	7.7	-1.00	17.85	43.9
	net	net	avg	avg	avg	avg	avg	avg	avg	avg	ft/sec

P_s = 29.83 V_{m(std)} = 26.404 V_{w(std)} = 4.239 %M = 13.83
 B_{vs} = 0.138 M_d = 30.29 M_s = 28.59 %EA = 57.49

STACK GAS VELOCITY = 43.9 AFPS V_s
 STACK GAS VELOCITY = 2,634 AFPM
 STACK GAS VOLUME = 509,403 DSCFM Q_{std}
 STACK GAS VOLUME = 715,932 ACFM Q_a

EMISSIONS ** <0.2 detection limit Fd
 Weight (ug) Concentration (ug/dscm) Emission Rate (lb/mmBtu)
 SO3/H2SO4 0.2 ** 0.0001 0.000

Catalyst Air Management, Inc.
Method 8A Isokinetic Sample Sheet

Client: City of Lakeland
 Unit Tested: McIntosh 3
 Sampling Location: Stack

Run No: 8

Date: 12/3/09

Start Time: 8:35

End Time: 9:35

STACK DIAMETER = 223.25 in

STACK AREA = 271.8 sq. ft.

VOLUME OF MOISTURE: 90.0 V_{ic}

PITOT COEFFICIENT: 0.84 C_p

BAROMETRIC PRESSURE: 29.90 P_{bar}

GAS METER Y-FACTOR: 0.99 Y

POINT	TIME	GAS METER	VEL HEAD	PM ORIFICE	METER TEMP		COIL TEMP.	CO2%	O2%	STATIC		VEL
					IN	OUT				PRESS.	SDE	
		636.248										
B-1	5.0	638.5	0.50	1.50	71	69	177				17.85	43.9
	5.0	640.8	0.50	1.50	72	69	177	12.4	7.7	-1.00	17.85	43.9
	5.0	643.0	0.50	1.50	72	69	178				17.86	43.9
	5.0	645.2	0.50	1.50	73	69	177				17.85	43.9
	5.0	647.5	0.50	1.50	72	69	177				17.85	43.9
	5.0	649.7	0.50	1.50	74	69	178				17.86	43.9
	5.0	651.8	0.50	1.50	74	69	178				17.86	43.9
	5.0	654.0	0.50	1.50	74	70	178				17.86	43.9
	5.0	656.3	0.50	1.50	73	70	177				17.85	43.9
	5.0	658.5	0.50	1.50	71	70	177				17.85	43.9
	5.0	660.7	0.50	1.50	70	69	177				17.85	43.9
	5.0	663.002	0.50	1.50	70	69	177				17.85	43.9

RESULTS	TT	VM	SQ RT PIT	PM	TM	TS	CO2	O2	STATIC	SDE	VEL
	60.0	26.754	0.707	1.500	71	177	12.4	7.7	-1.00	17.85	43.9
	net	net	avg	avg	avg	avg	avg	avg	avg	avg	ft/sec

P_s = 29.83 V_{m(std)} = 26.420 V_{w(std)} = 4.239 %M = 13.83
 B_{ws} = 0.138 M_d = 30.29 M_s = 28.59 %EA = 57.49

STACK GAS VELOCITY = 43.9 AFPS V_s
 STACK GAS VELOCITY = 2,634 AFPM
 STACK GAS VOLUME = 509,471 DSCFM Q_{std}
 STACK GAS VOLUME = 715,874 ACFM Q_a

EMISSIONS ** <0.2 detection limit Fd
 Weight (ug) Concentration (ug/dscm) Emission Rate (lb/mmBtu)
 SO3/H2SO4 0.2 ** 0.0001 0.000

Catalyst Air Management, Inc.
Method 8A Isokinetic Sample Sheet

Client: City of Lakeland
 Unit Tested: McIntosh 3
 Sampling Location: Stack

Run No: 9

Date: 12/3/09

Start Time: 10:25

End Time: 11:25

BAROMETRIC PRESSURE: 29.90 P_{bar}
 GAS METER Y-FACTOR: 0.99 Y

STACK DIAMETER = 223.25 in
 STACK AREA = 271.8 sq. ft.
 VOLUME OF MOISTURE: 66.0 V_{lc}
 PITOT COEFFICIENT: 0.84 C_p

POINT	TIME	GAS METER	VEL HEAD	PM ORIFICE	METER TEMP. IN	METER TEMP. OUT	COIL TEMP.	CO2%	O2%	STATIC PRESS.	SDE	VEL
		672.444										
B-1	5.0	674.9	0.50	1.40	67	67	170				17.75	43.3
	5.0	677.1	0.50	1.40	67	67	170	12.4	7.7	-1.00	17.75	43.3
	5.0	679.4	0.50	1.40	68	67	175				17.82	43.5
	5.0	681.6	0.50	1.40	69	68	175				17.82	43.5
	5.0	683.9	0.50	1.40	69	68	177				17.85	43.6
	5.0	686.1	0.50	1.40	69	68	177				17.85	43.6
	5.0	688.4	0.50	1.40	69	68	177				17.85	43.6
	5.0	690.7	0.50	1.40	69	69	177				17.85	43.6
	5.0	692.9	0.50	1.40	69	68	174				17.80	43.5
	5.0	695.2	0.50	1.40	70	69	173				17.79	43.4
	5.0	697.4	0.50	1.40	70	69	172				17.78	43.4
	5.0	699.702	0.50	1.40	69	69	172				17.78	43.4

RESULTS	TT	VM	SQ RT PIT	PM	TM	TS	CO2	O2	STATIC	SDE	VEL
	60.0	27.258	0.707	1.400	68	174	12.4	7.7	-1.00	17.81	43.5
	net	net	avg	avg	avg	avg	avg	avg	avg	avg	ft/sec

P_s = 29.83 V_{m(std)} = 27.028 V_{w(std)} = 3.109 %M = 10.32
 B_{ws} = 0.103 M_d = 30.29 M_s = 29.02 %EA = 57.49

STACK GAS VELOCITY = 43.5 AFPS V_s
 STACK GAS VELOCITY = 2,607 AFPM
 STACK GAS VOLUME = 527,619 DSCFM Q_{std}
 STACK GAS VOLUME = 708,716 ACFM Q_a

EMISSIONS ** <0.2 detection limit Fd
 Weight (ug) Concentration (ug/dscm) Emission Rate (lb/mmBtu)
 SO3/H2SO4 0.2 ** 0.0001 0.000

Catalyst Air Management, Inc.
Method 8A Isokinetic Sample Sheet

Client: City of Lakeland
 Unit Tested: McIntosh 3
 Sampling Location: Stack

Run No: 10

Date: 12/3/09

Start Time: 11:55
 End Time: 12:55

BAROMETRIC PRESSURE: 29.90
 GAS METER Y-FACTOR: 0.99

P_{bar}
 Y

STACK DIAMETER = 223.25 in
 STACK AREA = 271.8 sq. ft.
 VOLUME OF MOISTURE: 71.0 V_{lc}
 PITOT COEFFICIENT: 0.84 C_p

POINT	TIME	GAS METER	VEL HEAD	PM ORIFICE	METER IN	TEMP. OUT	COIL TEMP.	CO2%	O2%	STATIC PRESS.	SDE	VEL
		708.709										
B-1	5.0	711.0	0.50	1.40	68	66	177				17.85	43.6
	5.0	713.3	0.50	1.40	69	66	176	12.4	7.7	-1.00	17.83	43.6
	5.0	715.5	0.50	1.40	68	67	177				17.85	43.6
	5.0	717.8	0.50	1.40	68	67	177				17.85	43.6
	5.0	720.1	0.50	1.40	69	67	172				17.78	43.4
	5.0	722.3	0.50	1.40	69	68	177				17.85	43.6
	5.0	724.6	0.50	1.40	68	68	176				17.83	43.6
	5.0	727.3	0.50	1.40	68	67	176				17.83	43.6
	5.0	729.5	0.50	1.40	69	67	177				17.85	43.6
	5.0	731.8	0.50	1.40	69	68	177				17.85	43.6
	5.0	734.9	0.50	1.40	68	68	177				17.85	43.6
	5.0	736.106	0.50	1.40	69	68	178				17.86	43.7

RESULTS	TT	VM	SQ RT PIT	PM	TM	TS	CO2	O2	STATIC	SDE	VEL
	60.0	27.397	0.707	1.400	68	176	12.4	7.7	-1.00	17.84	43.6
	net	net	avg	avg	avg	avg	avg	avg	avg	avg	ft/sec

P_s = 29.83 V_{m(std)} = 27.194 V_{v(std)} = 3.344 %M = 10.95
 B_{ws} = 0.110 M_d = 30.29 M_s = 28.95 %EA = 57.49

STACK GAS VELOCITY = 43.6 AFPS V_s
 STACK GAS VELOCITY = 2,616 AFPM
 STACK GAS VOLUME = 523,624 DSCFM Q_{std}
 STACK GAS VOLUME = 710,978 ACFM Q_a

EMISSIONS ** <0.2 detection limit Fd
 Weight (ug) Concentration (ug/dscm) Emission Rate (lb/mmBtu)
 SO3/H2SO4 0.2 ** 0.0001 0.000

Catalyst Air Management, Inc.
Method 8A Isokinetic Sample Sheet

Client: City of Lakeland
 Unit Tested: McIntosh 3
 Sampling Location: Stack

Run No: 11

Date: 12/3/09

Start Time: 14:09

End Time: 15:09

STACK DIAMETER = 223.25 in
 STACK AREA = 271.8 sq. ft.
 VOLUME OF MOISTURE: 65.0 V_{lc}
 PITOT COEFFICIENT: 0.84 C_p

BAROMETRIC PRESSURE: 29.90 P_{bar}
 GAS METER Y-FACTOR: 0.99 Y

POINT	TIME	GAS METER	VEL HEAD	PM ORIFICE	METER TEMP. IN	METER TEMP. OUT	COIL TEMP.	CO2%	O2%	STATIC PRESS.	SDE	VEL
		745.234										
B-1	5.0	747.4	0.50	1.80	68	68	171				17.76	43.4
	5.0	749.5	0.50	1.80	68	67	175	12.4	7.7	-1.00	17.82	43.5
	5.0	751.7	0.50	1.80	69	67	176				17.83	43.5
	5.0	753.9	0.50	1.80	69	67	178				17.86	43.6
	5.0	756.2	0.50	1.80	68	68	177				17.85	43.6
	5.0	758.4	0.50	1.80	67	66	174				17.80	43.5
	5.0	760.7	0.50	1.80	68	66	175				17.82	43.5
	5.0	763.0	0.50	1.80	69	67	175				17.82	43.5
	5.0	765.2	0.50	1.80	69	68	177				17.85	43.6
	5.0	767.4	0.50	1.80	68	66	174				17.80	43.5
	5.0	764.6	0.50	1.80	68	67	173				17.79	43.4
	5.0	771.802	0.50	1.80	69	67	173				17.79	43.4

RESULTS	TT	VM	SQ RT PIT	PM	TM	TS	CO2	O2	STATIC	SDE	VEL
	60.0	26.568	0.707	1.800	68	175	12.4	7.7	-1.00	17.82	43.5
	net	net	avg	avg	avg	avg	avg	avg	avg	avg	ft/sec

P_s = 29.83 V_{m(std)} = 26.407 V_{w(std)} = 3.062 %M = 10.39
 B_{vis} = 0.104 M_d = 30.29 M_s = 29.01 %EA = 57.49

STACK GAS VELOCITY = 43.5 AFPS V_s
 STACK GAS VELOCITY = 2,609 AFPM
 STACK GAS VOLUME = 526,955 DSCFM Q_{std}
 STACK GAS VOLUME = 709,247 ACFM Q_a

EMISSIONS ** <0.2 detection limit Fd
 Weight (ug) Concentration (ug/dscm) Emission Rate (lb/mmBtu)
 SO3/H2SO4 0.2 ** 0.0001 0.000

Catalyst Air Management, Inc.
Method 8A Isokinetic Sample Sheet

Client: City of Lakeland
 Unit Tested: McIntosh 3
 Sampling Location: Stack

Run No: 12

Date: 12/3/09

Start Time: 15:40

End Time: 16:40

BAROMETRIC PRESSURE: 29.90 P_{bar}
 GAS METER Y-FACTOR: 0.99 Y

STACK DIAMETER = 223.25 in
 STACK AREA = 271.8 sq. ft.
 VOLUME OF MOISTURE: 64.0 V_{lc}
 PITOT COEFFICIENT: 0.84 C_p

POINT	TIME	GAS METER	VEL HEAD	PM ORIFICE	METER TEMP. IN	METER TEMP. OUT	COIL TEMP.	CO2%	O2%	STATIC PRESS.	SDE	VEL
		780.795										
B-1.	5.0	783.0	0.50	1.80	68	67	175				17.82	43.5
	5.0	785.2	0.50	1.80	69	67	174	12.4	7.7	-1.00	17.80	43.5
	5.0	787.4	0.50	1.80	70	69	176				17.83	43.5
	5.0	789.6	0.50	1.80	70	69	174				17.80	43.5
	5.0	791.8	0.50	1.80	71	69	175				17.82	43.5
	5.0	794.0	0.50	1.80	69	67	176				17.83	43.5
	5.0	796.3	0.50	1.80	69	67	177				17.85	43.6
	5.0	798.5	0.50	1.80	68	67	179				17.87	43.6
	5.0	800.7	0.50	1.80	68	66	180				17.89	43.7
	5.0	802.9	0.50	1.80	69	67	179				17.87	43.6
	5.0	805.1	0.50	1.80	69	68	176				17.83	43.5
	5.0	807.339	0.50	1.80	68	68	176				17.83	43.5

RESULTS	TT	VM	SQ RT PIT	PM	TM	TS	CO2	O2	STATIC	SDE	VEL
	60.0	26.544	0.707	1.800	68	176	12.4	7.7	-1.00	17.84	43.5
	net	net	avg	avg	avg	avg	avg	avg	avg	avg	ft/sec

P_s = 29.83 V_{m(std)} = 26.352 V_{w(std)} = 3.014 %M = 10.26
 B_{ws} = 0.103 M_d = 30.29 M_s = 29.03 %EA = 57.49

STACK GAS VELOCITY = 43.5 AFPS V_s
 STACK GAS VELOCITY = 2,612 AFPM
 STACK GAS VOLUME = 526,890 DSCFM Q_{std}
 STACK GAS VOLUME = 709,944 ACFM Q_a

EMISSIONS ** <0.2 detection limit Fd
 Weight (ug) Concentration (ug/dscm) Emission Rate (lb/mmBtu)
 SO3/H2SO4 0.2 ** 0.0001 0.000

APPENDIX 2
PLANT DATA

Heat Input

McIntosh Unit 3
Heat Input Data

Heating Value

Day 1 **12097** BTU/#
Day 2 **12200** BTU/#

<u>DATE</u>	<u>COAL KLB/H</u>		<u>Avg. HI MMBtu/hr</u>	<u>Load</u>
	<u>CEMS Time</u>	<u>Avg. Flow</u>		
12/2/2009	0630-0730	222.3	2688.80	279.9102
	0800-0900	221.9	2684.32	279.8777
	0930-1030	250.6	3031.51	314.6885
	1100-1200	254.6	3079.90	319.943
	1245-1345	290.4	3512.97	364.7964
	1415-1515	290.7	3516.60	364.9241
12/3/2009	0705-0805	253.2	3089.04	319.9954
	0835-0935	253.1	3087.82	320.0669
	1025-1125	218.1	2660.82	275.7393
	1155-1255	225.7	2753.54	285.1193
	1409-1509	286.0	3489.20	364.8944
	1540-1640	286.5	3495.30	364.9977

From EtaPro

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SO₂

SO₂ CEMS

Date/Time	MPP3 SO2#/MM	Date/Time	MPP3 SO2#/MM
12/03/2009 07:05	0	12/03/2009 08:35	0
12/03/2009 07:06	0	12/03/2009 08:36	0
12/03/2009 07:07	0	12/03/2009 08:37	0
12/03/2009 07:08	0	12/03/2009 08:38	0
12/03/2009 07:09	0	12/03/2009 08:39	0.56104777
12/03/2009 07:10	0	12/03/2009 08:40	0.586395
12/03/2009 07:11	0	12/03/2009 08:41	0.57178136
12/03/2009 07:12	0	12/03/2009 08:42	0.57094235
12/03/2009 07:13	0	12/03/2009 08:43	0.55160824
12/03/2009 07:14	0	12/03/2009 08:44	0.51792
12/03/2009 07:15	0	12/03/2009 08:45	0.50854588
12/03/2009 07:16	0	12/03/2009 08:46	0.48569647
12/03/2009 07:17	0	12/03/2009 08:47	0.45991765
12/03/2009 07:18	0	12/03/2009 08:48	0.47544353
12/03/2009 07:19	0	12/03/2009 08:49	0.50796
12/03/2009 07:20	0	12/03/2009 08:50	0
12/03/2009 07:21	0	12/03/2009 08:51	0
12/03/2009 07:22	0	12/03/2009 08:52	0
12/03/2009 07:23	0	12/03/2009 08:53	0
12/03/2009 07:24	0	12/03/2009 08:54	0.50561647
12/03/2009 07:25	0	12/03/2009 08:55	0.58215412
12/03/2009 07:26	0	12/03/2009 08:56	0.57152824
12/03/2009 07:27	0	12/03/2009 08:57	0.54399176
12/03/2009 07:28	0	12/03/2009 08:58	0.51001059
12/03/2009 07:29	0	12/03/2009 08:59	0.47456471
12/03/2009 07:30	0	12/03/2009 09:00	0.44966471
12/03/2009 07:31	0	12/03/2009 09:01	0.46841294
12/03/2009 07:32	0	12/03/2009 09:02	0.48979765
12/03/2009 07:33	0	12/03/2009 09:03	0.52866891
12/03/2009 07:34	0	12/03/2009 09:04	0.55677386
12/03/2009 07:35	0	12/03/2009 09:05	0
12/03/2009 07:36	0.66954408	12/03/2009 09:06	0
12/03/2009 07:37	0.63040941	12/03/2009 09:07	0
12/03/2009 07:38	0.58353882	12/03/2009 09:08	0
12/03/2009 07:39	0.54662824	12/03/2009 09:09	0.57178136
12/03/2009 07:40	0.53578941	12/03/2009 09:10	0.58251495
12/03/2009 07:41	0.54198178	12/03/2009 09:11	0.51704118
12/03/2009 07:42	0.50854588	12/03/2009 09:12	0.45640235
12/03/2009 07:43	0.50092941	12/03/2009 09:13	0.44644235
12/03/2009 07:44	0.52553647	12/03/2009 09:14	0.47573647
12/03/2009 07:45	0.55600235	12/03/2009 09:15	0.51565188
12/03/2009 07:46	0.59115529	12/03/2009 09:16	0.54671525
12/03/2009 07:47	0.59437765	12/03/2009 09:17	0.54671525
12/03/2009 07:48	0.57416471	12/03/2009 09:18	0.51949782
12/03/2009 07:49	0.58073703	12/03/2009 09:19	0.52097703
12/03/2009 07:50	0	12/03/2009 09:20	0
12/03/2009 07:51	0	12/03/2009 09:21	0
12/03/2009 07:52	0	12/03/2009 09:22	0
12/03/2009 07:53	0	12/03/2009 09:23	0
12/03/2009 07:54	0.43572583	12/03/2009 09:24	0.47982058
12/03/2009 07:55	0.47459884	12/03/2009 09:25	0.45394615
12/03/2009 07:56	0.51550252	12/03/2009 09:26	0.44791269
12/03/2009 07:57	0.55072941	12/03/2009 09:27	0.49026408
12/03/2009 07:58	0.57914471	12/03/2009 09:28	0.52670824
12/03/2009 07:59	0.57207146	12/03/2009 09:29	0.55043647
12/03/2009 08:00	0.54886369	12/03/2009 09:30	0.54985059
12/03/2009 08:01	0.56537647	12/03/2009 09:31	0.53517743
12/03/2009 08:02	0.58090235	12/03/2009 09:32	0.52955644
12/03/2009 08:03	0.60322099	12/03/2009 09:33	0.55884475
12/03/2009 08:04	0.57211412	12/03/2009 09:34	0.59027647
12/03/2009 08:05	0	12/03/2009 09:35	0

Average 0.557504

Average 0.519789

Average of two runs 0.538646

Invalid data: either a daily calibration check or a blowback period

Date/Time	MPP3 SO2#/MM
12/03/2009 10:25	0.46801837
12/03/2009 10:26	0.51073237
12/03/2009 10:27	0.5289068
12/03/2009 10:28	0.53753196
12/03/2009 10:29	0.5116565
12/03/2009 10:30	0.49070969
12/03/2009 10:31	0.48485691
12/03/2009 10:32	0.46082969
12/03/2009 10:33	0.4482
12/03/2009 10:34	0.45528495
12/03/2009 10:35	0
12/03/2009 10:36	0
12/03/2009 10:37	0
12/03/2009 10:38	0
12/03/2009 10:39	0.44088245
12/03/2009 10:40	0.49576408
12/03/2009 10:41	0.51527755
12/03/2009 10:42	0.4933249
12/03/2009 10:43	0.47442122
12/03/2009 10:44	0.49779464
12/03/2009 10:45	0.52198531
12/03/2009 10:46	0.51596907
12/03/2009 10:47	0.47715588
12/03/2009 10:48	0.4639101
12/03/2009 10:49	0.44881608
12/03/2009 10:50	0
12/03/2009 10:51	0
12/03/2009 10:52	0
12/03/2009 10:53	0
12/03/2009 10:54	0.46893306
12/03/2009 10:55	0.51750928
12/03/2009 10:56	0.48793732
12/03/2009 10:57	0.46606639
12/03/2009 10:58	0.4817765
12/03/2009 10:59	0.50857608
12/03/2009 11:00	0.52428619
12/03/2009 11:01	0.51504495
12/03/2009 11:02	0.47499959
12/03/2009 11:03	0.45312866
12/03/2009 11:04	0.41987625
12/03/2009 11:05	0
12/03/2009 11:06	0
12/03/2009 11:07	0
12/03/2009 11:08	0
12/03/2009 11:09	0.47992825
12/03/2009 11:10	0.51283837
12/03/2009 11:11	0.49027592
12/03/2009 11:12	0.48997102
12/03/2009 11:13	0.50704531
12/03/2009 11:14	0.53383546
12/03/2009 11:15	0.54153649
12/03/2009 11:16	0.50549567
12/03/2009 11:17	0.4392668
12/03/2009 11:18	0.40815464
12/03/2009 11:19	0.4235567
12/03/2009 11:20	0
12/03/2009 11:21	0
12/03/2009 11:22	0
12/03/2009 11:23	0
12/03/2009 11:24	0.42716204
12/03/2009 11:25	0.45368816

Average 0.483843

Average of two runs 0.478448

Date/Time	MPP3 SO2#/MM
12/03/2009 11:55	0.53174204
12/03/2009 11:56	0.54738928
12/03/2009 11:57	0.51076125
12/03/2009 11:58	0.484305
12/03/2009 11:59	0.48959625
12/03/2009 12:00	0.4650075
12/03/2009 12:01	0.43310598
12/03/2009 12:02	0.42232454
12/03/2009 12:03	0.439485
12/03/2009 12:04	0.46801516
12/03/2009 12:05	0
12/03/2009 12:06	0
12/03/2009 12:07	0
12/03/2009 12:08	0
12/03/2009 12:09	0.4731
12/03/2009 12:10	0.53068125
12/03/2009 12:11	0.52632375
12/03/2009 12:12	0.4824375
12/03/2009 12:13	0.48028168
12/03/2009 12:14	0.49663705
12/03/2009 12:15	0.50387116
12/03/2009 12:16	0.47053137
12/03/2009 12:17	0.46235368
12/03/2009 12:18	0.4413525
12/03/2009 12:19	0.40846268
12/03/2009 12:20	0
12/03/2009 12:21	0
12/03/2009 12:22	0
12/03/2009 12:23	0
12/03/2009 12:24	0.47099505
12/03/2009 12:25	0.47808
12/03/2009 12:26	0.46222531
12/03/2009 12:27	0.4922499
12/03/2009 12:28	0.52151381
12/03/2009 12:29	0.5571375
12/03/2009 12:30	0.55385814
12/03/2009 12:31	0.49841072
12/03/2009 12:32	0.41554763
12/03/2009 12:33	0.38227918
12/03/2009 12:34	0.38844
12/03/2009 12:35	0
12/03/2009 12:36	0
12/03/2009 12:37	0
12/03/2009 12:38	0
12/03/2009 12:39	0.44265526
12/03/2009 12:40	0.44423633
12/03/2009 12:41	0.4625302
12/03/2009 12:42	0.49119061
12/03/2009 12:43	0.52490227
12/03/2009 12:44	0.54215258
12/03/2009 12:45	0.52921485
12/03/2009 12:46	0.47161113
12/03/2009 12:47	0.40137773
12/03/2009 12:48	0.38874804
12/03/2009 12:49	0.40969485
12/03/2009 12:50	0
12/03/2009 12:51	0
12/03/2009 12:52	0
12/03/2009 12:53	0
12/03/2009 12:54	0.42594245
12/03/2009 12:55	0.46466449

Average 0.473054

Date/Time	MPP3 SO2#/MM
12/03/2009 14:09	0.47215784
12/03/2009 14:10	0.52330378
12/03/2009 14:11	0.52195784
12/03/2009 14:12	0.487044
12/03/2009 14:13	0.47888757
12/03/2009 14:14	0.51361297
12/03/2009 14:15	0.55183784
12/03/2009 14:16	0.58700618
12/03/2009 14:17	0.60493418
12/03/2009 14:18	0.60004473
12/03/2009 14:19	0.53756836
12/03/2009 14:20	0
12/03/2009 14:21	0
12/03/2009 14:22	0
12/03/2009 14:23	0
12/03/2009 14:24	0.51011351
12/03/2009 14:25	0.54450964
12/03/2009 14:26	0.52023214
12/03/2009 14:27	0.50446054
12/03/2009 14:28	0.5254573
12/03/2009 14:29	0.56422054
12/03/2009 14:30	0.59977309
12/03/2009 14:31	0.61335491
12/03/2009 14:32	0.57804218
12/03/2009 14:33	0.51040473
12/03/2009 14:34	0.45340844
12/03/2009 14:35	0
12/03/2009 14:36	0
12/03/2009 14:37	0
12/03/2009 14:38	0
12/03/2009 14:39	0.55006364
12/03/2009 14:40	0.56907818
12/03/2009 14:41	0.54327273
12/03/2009 14:42	0.53838826
12/03/2009 14:43	0.56223743
12/03/2009 14:44	0.57375083
12/03/2009 14:45	0.5455156
12/03/2009 14:46	0.52843333
12/03/2009 14:47	0.4838367
12/03/2009 14:48	0.4520378
12/03/2009 14:49	0.46492183
12/03/2009 14:50	0
12/03/2009 14:51	0
12/03/2009 14:52	0
12/03/2009 14:53	0
12/03/2009 14:54	0.52195784
12/03/2009 14:55	0.53621018
12/03/2009 14:56	0.55115018
12/03/2009 14:57	0.56038582
12/03/2009 14:58	0.52860436
12/03/2009 14:59	0.50247743
12/03/2009 15:00	0.49370532
12/03/2009 15:01	0.45532734
12/03/2009 15:02	0.44518459
12/03/2009 15:03	0.47369395
12/03/2009 15:04	0.50741174
12/03/2009 15:05	0
12/03/2009 15:06	0
12/03/2009 15:07	0
12/03/2009 15:08	0
12/03/2009 15:09	0.49492145

Average 0.526331

Average of two runs 0.521494

Date/Time	MPP3 SO2#/MM
12/03/2009 15:40	0.47672182
12/03/2009 15:41	0.47617855
12/03/2009 15:42	0.48514255
12/03/2009 15:43	0.51447927
12/03/2009 15:44	0.54880514
12/03/2009 15:45	0.56086679
12/03/2009 15:46	0.52769725
12/03/2009 15:47	0.52084404
12/03/2009 15:48	0.53921064
12/03/2009 15:49	0.55658291
12/03/2009 15:50	0
12/03/2009 15:51	0
12/03/2009 15:52	0
12/03/2009 15:53	0
12/03/2009 15:54	0.42918546
12/03/2009 15:55	0.48427135
12/03/2009 15:56	0.52833273
12/03/2009 15:57	0.55332327
12/03/2009 15:58	0.56637405
12/03/2009 15:59	0.55305164
12/03/2009 16:00	0.53921064
12/03/2009 16:01	0.54661211
12/03/2009 16:02	0.52166642
12/03/2009 16:03	0.49452771
12/03/2009 16:04	0.49535009
12/03/2009 16:05	0
12/03/2009 16:06	0
12/03/2009 16:07	0
12/03/2009 16:08	0
12/03/2009 16:09	0.47590691
12/03/2009 16:10	0.54789055
12/03/2009 16:11	0.58021527
12/03/2009 16:12	0.61158055
12/03/2009 16:13	0.58444184
12/03/2009 16:14	0.52221468
12/03/2009 16:15	0.47020255
12/03/2009 16:16	0.46875963
12/03/2009 16:17	0.4876745
12/03/2009 16:18	0.5098789
12/03/2009 16:19	0.49343119
12/03/2009 16:20	0
12/03/2009 16:21	0
12/03/2009 16:22	0
12/03/2009 16:23	0
12/03/2009 16:24	0.53703243
12/03/2009 16:25	0.59490811
12/03/2009 16:26	0.57505418
12/03/2009 16:27	0.51280541
12/03/2009 16:28	0.46748618
12/03/2009 16:29	0.45879382
12/03/2009 16:30	0.47183236
12/03/2009 16:31	0.501984
12/03/2009 16:32	0.50877491
12/03/2009 16:33	0.47400545
12/03/2009 16:34	0.47780587
12/03/2009 16:35	0
12/03/2009 16:36	0
12/03/2009 16:37	0
12/03/2009 16:38	0
12/03/2009 16:39	0.51257782
12/03/2009 16:40	0.48588649

Average 0.516657

NOx

Set 1 - Run 1	
Date/Time	MPP3 NOX#/MM Value

12/02/2009 06:30	0.05212953
12/02/2009 06:31	0.05112834
12/02/2009 06:32	0.05212953
12/02/2009 06:33	0.05327272
12/02/2009 06:34	0.05293819
12/02/2009 06:35	0.04747487
12/02/2009 06:36	0.021492
12/02/2009 06:37	0.08144337
12/02/2009 06:38	0.06346461
12/02/2009 06:39	0.06176122
12/02/2009 06:40	0.06289238
12/02/2009 06:41	0.06311861
12/02/2009 06:42	0.06289238
12/02/2009 06:43	0.06243992
12/02/2009 06:44	0.06153499
12/02/2009 06:45	0.06176122
12/02/2009 06:46	0.06176122
12/02/2009 06:47	0.06218962
12/02/2009 06:48	0.05927267
12/02/2009 06:49	0.05830277
12/02/2009 06:50	0.05004107
12/02/2009 06:51	0.021492
12/02/2009 06:52	0.08031221
12/02/2009 06:53	0.06118899
12/02/2009 06:54	0.05927267
12/02/2009 06:55	0.05927267
12/02/2009 06:56	0.05843138
12/02/2009 06:57	0.05904644
12/02/2009 06:58	0.05932688
12/02/2009 06:59	0.06108253
12/02/2009 07:00	0.06310417
12/02/2009 07:01	0.06221368
12/02/2009 07:02	0.06130876
12/02/2009 07:03	0.06104643
12/02/2009 07:04	0.06058915
12/02/2009 07:05	0.05422597
12/02/2009 07:06	0.021492
12/02/2009 07:07	0.0784458
12/02/2009 07:08	0.0609773
12/02/2009 07:09	0.05972514
12/02/2009 07:10	0.06063006
12/02/2009 07:11	0.06108253
12/02/2009 07:12	0.06243992
12/02/2009 07:13	0.06266615
12/02/2009 07:14	0.06221368
12/02/2009 07:15	0.06130876
12/02/2009 07:16	0.0601776
12/02/2009 07:17	0.05904644
12/02/2009 07:18	0.05746282
12/02/2009 07:19	0.05723659
12/02/2009 07:20	0.05257274
12/02/2009 07:21	0.021492
12/02/2009 07:22	0.0762966
12/02/2009 07:23	0.05947786
12/02/2009 07:24	0.05814152
12/02/2009 07:25	0.0582075
12/02/2009 07:26	0.05865525
12/02/2009 07:27	0.05887913
12/02/2009 07:28	0.06040383
12/02/2009 07:29	0.06153499
12/02/2009 07:30	0.06176122

Average 0.057995

Average of two runs 0.679502

Set 1 - Run 2	
Date/Time	MPP3 NOX#/MM Value

12/02/2009 08:00	0.07551243
12/02/2009 08:01	3.433347
12/02/2009 08:02	10.788984
12/02/2009 08:03	8.016516
12/02/2009 08:04	6.383124
12/02/2009 08:05	11.132856
12/02/2009 08:06	9.99378
12/02/2009 08:07	1.28952
12/02/2009 08:08	-0.601776
12/02/2009 08:09	0.10746
12/02/2009 08:10	0.623268
12/02/2009 08:11	-0.365364
12/02/2009 08:12	-0.037611
12/02/2009 08:13	0.80828609
12/02/2009 08:14	0.94807648
12/02/2009 08:15	1.00058541
12/02/2009 08:16	1.11166766
12/02/2009 08:17	1.11649733
12/02/2009 08:18	1.11422212
12/02/2009 08:19	1.11386192
12/02/2009 08:20	1.11554286
12/02/2009 08:21	0.89590937
12/02/2009 08:22	0.021492
12/02/2009 08:23	-0.279396
12/02/2009 08:24	-0.666252
12/02/2009 08:25	-0.730728
12/02/2009 08:26	-0.773712
12/02/2009 08:27	-0.795204
12/02/2009 08:28	-0.816696
12/02/2009 08:29	-0.838188
12/02/2009 08:30	-0.924156
12/02/2009 08:31	-0.988632
12/02/2009 08:32	0.039004
12/02/2009 08:33	0.05216036
12/02/2009 08:34	0.050148
12/02/2009 08:35	0.04992413
12/02/2009 08:36	0.050148
12/02/2009 08:37	0.04902863
12/02/2009 08:38	0.04790925
12/02/2009 08:39	0.04790925
12/02/2009 08:40	0.048357
12/02/2009 08:41	0.048357
12/02/2009 08:42	0.04977095
12/02/2009 08:43	0.04999718
12/02/2009 08:44	0.05022341
12/02/2009 08:45	0.05044964
12/02/2009 08:46	0.05112834
12/02/2009 08:47	0.05135457
12/02/2009 08:48	0.05067587
12/02/2009 08:49	0.04954472
12/02/2009 08:50	0.03991371
12/02/2009 08:51	-0.505062
12/02/2009 08:52	0.02637655
12/02/2009 08:53	0.050148
12/02/2009 08:54	0.050148
12/02/2009 08:55	0.05059575
12/02/2009 08:56	0.05037188
12/02/2009 08:57	0.05037188
12/02/2009 08:58	0.05037188
12/02/2009 08:59	0.05149125
12/02/2009 09:00	0.05203326

Average 1.301009

Set 1- Run 3	
Date/Time	MPP3 NOX#/MM Value

12/02/2009 09:30	0.05592093
12/02/2009 09:31	0.05612959
12/02/2009 09:32	0.05689059
12/02/2009 09:33	0.05815482
12/02/2009 09:34	0.05851782
12/02/2009 09:35	0.04819418
12/02/2009 09:36	-0.494316
12/02/2009 09:37	0.03363965
12/02/2009 09:38	0.05453884
12/02/2009 09:39	0.05394071
12/02/2009 09:40	0.05320835
12/02/2009 09:41	0.05320835
12/02/2009 09:42	0.05478353
12/02/2009 09:43	0.05745386
12/02/2009 09:44	0.05996268
12/02/2009 09:45	0.05974776
12/02/2009 09:46	0.05824332
12/02/2009 09:47	0.05609412
12/02/2009 09:48	0.05234685
12/02/2009 09:49	0.05085731
12/02/2009 09:50	0.04041779
12/02/2009 09:51	-0.505062
12/02/2009 09:52	0.02709861
12/02/2009 09:53	0.04945471
12/02/2009 09:54	0.05078012
12/02/2009 09:55	0.05162294
12/02/2009 09:56	0.05078012
12/02/2009 09:57	0.04972659
12/02/2009 09:58	0.04846235
12/02/2009 09:59	0.04740882
12/02/2009 10:00	0.046566
12/02/2009 10:01	0.04635529
12/02/2009 10:02	0.04740882
12/02/2009 10:03	0.04888376
12/02/2009 10:04	0.04951588
12/02/2009 10:05	0.04041779
12/02/2009 10:06	-0.505062
12/02/2009 10:07	0.03083635
12/02/2009 10:08	0.0507577
12/02/2009 10:09	0.05056941
12/02/2009 10:10	0.05028711
12/02/2009 10:11	0.04924381
12/02/2009 10:12	0.04778318
12/02/2009 10:13	0.04698741
12/02/2009 10:14	0.04635529
12/02/2009 10:15	0.04548792
12/02/2009 10:16	0.04653122
12/02/2009 10:17	0.0471572
12/02/2009 10:18	0.04846235
12/02/2009 10:19	0.04972659
12/02/2009 10:20	0.04138012
12/02/2009 10:21	-0.505062
12/02/2009 10:22	0.026865
12/02/2009 10:23	0.04915723
12/02/2009 10:24	0.04903515
12/02/2009 10:25	0.04856365
12/02/2009 10:26	0.048357
12/02/2009 10:27	0.04924381
12/02/2009 10:28	0.05028711
12/02/2009 10:29	0.05112175
12/02/2009 10:30	0.05120153

Average 0.04916

Average of two runs 0.048539

Set 1 - Run 4	
Date/Time	MPP3 NOX#/MM Value

12/02/2009 11:00	0.04673988
12/02/2009 11:01	0.04673988
12/02/2009 11:02	0.04846235
12/02/2009 11:03	0.04888376
12/02/2009 11:04	0.04951588
12/02/2009 11:05	0.04009701
12/02/2009 11:06	-0.505062
12/02/2009 11:07	0.0295515
12/02/2009 11:08	0.05007179
12/02/2009 11:09	0.05007845
12/02/2009 11:10	0.05021688
12/02/2009 11:11	0.05007845
12/02/2009 11:12	0.04986979
12/02/2009 11:13	0.05028711
12/02/2009 11:14	0.05078012
12/02/2009 11:15	0.05120153
12/02/2009 11:16	0.05120153
12/02/2009 11:17	0.050148
12/02/2009 11:18	0.04930518
12/02/2009 11:19	0.05056941
12/02/2009 11:20	0.04138012
12/02/2009 11:21	-0.505062
12/02/2009 11:22	0.028656
12/02/2009 11:23	0.05052906
12/02/2009 11:24	0.04986979
12/02/2009 11:25	0.048357
12/02/2009 11:26	0.04877031
12/02/2009 11:27	0.04986979
12/02/2009 11:28	0.05070443
12/02/2009 11:29	0.05162294
12/02/2009 11:30	0.05204435
12/02/2009 11:31	0.05099082
12/02/2009 11:32	0.04993729
12/02/2009 11:33	0.04804094
12/02/2009 11:34	0.04740882
12/02/2009 11:35	0.03849313
12/02/2009 11:36	-0.505062
12/02/2009 11:37	0.0277605
12/02/2009 11:38	0.05007179
12/02/2009 11:39	0.05007845
12/02/2009 11:40	0.05091309
12/02/2009 11:41	0.05049577
12/02/2009 11:42	0.05141224
12/02/2009 11:43	0.05141224
12/02/2009 11:44	0.05099082
12/02/2009 11:45	0.05078012
12/02/2009 11:46	0.050148
12/02/2009 11:47	0.05056941
12/02/2009 11:48	0.05056941
12/02/2009 11:49	0.050148
12/02/2009 11:50	0.03977624
12/02/2009 11:51	-0.505062
12/02/2009 11:52	0.0295515
12/02/2009 11:53	0.05052906
12/02/2009 11:54	0.05028711
12/02/2009 11:55	0.05049577
12/02/2009 11:56	0.05070443
12/02/2009 11:57	0.05141224
12/02/2009 11:58	0.05183365
12/02/2009 11:59	0.05120153
12/02/2009 12:00	0.04966113

Average 0.047917

Set 1 - Run 5

Date/Time	MPP3 NOX#/MM Value
12/02/2009 12:45	0.051541
12/02/2009 12:46	0.051541
12/02/2009 12:47	0.051939
12/02/2009 12:48	0.052138
12/02/2009 12:49	0.050148
12/02/2009 12:50	0.03991371
12/02/2009 12:51	-0.505062
12/02/2009 12:52	0.03352752
12/02/2009 12:53	0.07973532
12/02/2009 12:54	0.10509391
12/02/2009 12:55	0.10430521
12/02/2009 12:56	0.09129171
12/02/2009 12:57	0.082386
12/02/2009 12:58	0.080595
12/02/2009 12:59	0.081192
12/02/2009 13:00	0.082585
12/02/2009 13:01	0.082386
12/02/2009 13:02	0.05764677
12/02/2009 13:03	0.03615477
12/02/2009 13:04	0.02852209
12/02/2009 13:05	0.0186887
12/02/2009 13:06	-0.505062
12/02/2009 13:07	0.00085968
12/02/2009 13:08	0.02390437
12/02/2009 13:09	0.023283
12/02/2009 13:10	0.02405527
12/02/2009 13:11	0.025671
12/02/2009 13:12	0.032039
12/02/2009 13:13	0.05443301
12/02/2009 13:14	0.07592501
12/02/2009 13:15	0.09139122
12/02/2009 13:16	0.08757488
12/02/2009 13:17	0.07331383
12/02/2009 13:18	0.05583903
12/02/2009 13:19	0.0480055
12/02/2009 13:20	0.03768887
12/02/2009 13:21	-0.494316
12/02/2009 13:22	0.03696624
12/02/2009 13:23	0.05622655
12/02/2009 13:24	0.057113
12/02/2009 13:25	0.055919
12/02/2009 13:26	0.053332
12/02/2009 13:27	0.050546
12/02/2009 13:28	0.04921065
12/02/2009 13:29	0.048556
12/02/2009 13:30	0.047362
12/02/2009 13:31	0.04659948
12/02/2009 13:32	0.04820636
12/02/2009 13:33	0.048755
12/02/2009 13:34	0.05001409
12/02/2009 13:35	0.04179
12/02/2009 13:36	-0.505062
12/02/2009 13:37	0.028656
12/02/2009 13:38	0.05058218
12/02/2009 13:39	0.04921065
12/02/2009 13:40	0.048954
12/02/2009 13:41	0.047561
12/02/2009 13:42	0.047561
12/02/2009 13:43	0.047163
12/02/2009 13:44	0.04720206
12/02/2009 13:45	0.04720206

Average 0.052983

Set 1 - Run 6

Date/Time	MPP3 NOX#/MM Value
12/02/2009 14:15	0.047163
12/02/2009 14:16	0.0480055
12/02/2009 14:17	0.045969
12/02/2009 14:18	0.04577
12/02/2009 14:19	0.046168
12/02/2009 14:20	0.0373125
12/02/2009 14:21	-0.505062
12/02/2009 14:22	0.02407104
12/02/2009 14:23	0.04599288
12/02/2009 14:24	0.04574444
12/02/2009 14:25	0.04724368
12/02/2009 14:26	0.04591473
12/02/2009 14:27	0.04258228
12/02/2009 14:28	0.04579604
12/02/2009 14:29	0.046964
12/02/2009 14:30	0.04776
12/02/2009 14:31	0.047163
12/02/2009 14:32	0.045969
12/02/2009 14:33	0.044974
12/02/2009 14:34	0.04396987
12/02/2009 14:35	0.03592234
12/02/2009 14:36	-0.505062
12/02/2009 14:37	0.02810492
12/02/2009 14:38	0.04642272
12/02/2009 14:39	0.04653314
12/02/2009 14:40	0.046566
12/02/2009 14:41	0.04673031
12/02/2009 14:42	0.04613879
12/02/2009 14:43	0.04554727
12/02/2009 14:44	0.045173
12/02/2009 14:45	0.044775
12/02/2009 14:46	0.044775
12/02/2009 14:47	0.04559518
12/02/2009 14:48	0.04639862
12/02/2009 14:49	0.046367
12/02/2009 14:50	0.03800035
12/02/2009 14:51	-0.505062
12/02/2009 14:52	0.02727831
12/02/2009 14:53	0.04599288
12/02/2009 14:54	0.046566
12/02/2009 14:55	0.04554727
12/02/2009 14:56	0.045372
12/02/2009 14:57	0.045571
12/02/2009 14:58	0.04574444
12/02/2009 14:59	0.04539432
12/02/2009 15:00	0.04559518
12/02/2009 15:01	0.04519346
12/02/2009 15:02	0.044974
12/02/2009 15:03	0.0449926
12/02/2009 15:04	0.04479174
12/02/2009 15:05	0.03582
12/02/2009 15:06	-0.505062
12/02/2009 15:07	0.02562508
12/02/2009 15:08	0.04491828
12/02/2009 15:09	0.044576
12/02/2009 15:10	0.044178
12/02/2009 15:11	0.044178
12/02/2009 15:12	0.045173
12/02/2009 15:13	0.045173
12/02/2009 15:14	0.045173
12/02/2009 15:15	0.044775

Average 0.043687

Average of two runs 0.048335

Set 2 - Run 1	
Date/Time	MPP3 NOX#/MM Value
12/03/2009 07:05	0
12/03/2009 07:06	0
12/03/2009 07:07	0
12/03/2009 07:08	0
12/03/2009 07:09	0
12/03/2009 07:10	0
12/03/2009 07:11	0.91998591
12/03/2009 07:12	1.07060149
12/03/2009 07:13	1.11746119
12/03/2009 07:14	1.1158744
12/03/2009 07:15	1.11477539
12/03/2009 07:16	1.11893493
12/03/2009 07:17	1.1140427
12/03/2009 07:18	1.20098761
12/03/2009 07:19	1.101465
12/03/2009 07:20	1.10268613
12/03/2009 07:21	0.97942114
12/03/2009 07:22	0.458496
12/03/2009 07:23	0.32238
12/03/2009 07:24	0.5373
12/03/2009 07:25	0.451332
12/03/2009 07:26	0.408348
12/03/2009 07:27	0.365364
12/03/2009 07:28	0.32238
12/03/2009 07:29	0.300888
12/03/2009 07:30	0.193428
12/03/2009 07:31	0.05373
12/03/2009 07:32	0.069849
12/03/2009 07:33	0.0599985
12/03/2009 07:34	0.05863351
12/03/2009 07:35	0.05988548
12/03/2009 07:36	0.05988548
12/03/2009 07:37	0.060894
12/03/2009 07:38	0.06110471
12/03/2009 07:39	0.06131541
12/03/2009 07:40	0.06110471
12/03/2009 07:41	0.0617097
12/03/2009 07:42	0.06026188
12/03/2009 07:43	0.05878694
12/03/2009 07:44	0.05794412
12/03/2009 07:45	0.05773341
12/03/2009 07:46	0.05773341
12/03/2009 07:47	0.05710129
12/03/2009 07:48	0.05773341
12/03/2009 07:49	0.06000737
12/03/2009 07:50	0.05935886
12/03/2009 07:51	0.05373
12/03/2009 07:52	0.06778246
12/03/2009 07:53	0.05814152
12/03/2009 07:54	0.05800753
12/03/2009 07:55	0.05988548
12/03/2009 07:56	0.06113744
12/03/2009 07:57	0.06110471
12/03/2009 07:58	0.05941906
12/03/2009 07:59	0.05717289
12/03/2009 08:00	0.05612959
12/03/2009 08:01	0.05815482
12/03/2009 08:02	0.06068329
12/03/2009 08:03	0.06149691
12/03/2009 08:04	0.060894
12/03/2009 08:05	0.06106457

Average 0.316468

Set 2 - Run 2	
Date/Time	MPP3 NOX#/MM Value
12/03/2009 08:35	0.05687114
12/03/2009 08:36	0.042984
12/03/2009 08:37	0.06275664
12/03/2009 08:38	0.05542674
12/03/2009 08:39	0.05612959
12/03/2009 08:40	0.05703646
12/03/2009 08:41	0.05967682
12/03/2009 08:42	0.06215824
12/03/2009 08:43	0.06300106
12/03/2009 08:44	0.06300106
12/03/2009 08:45	0.06257965
12/03/2009 08:46	0.06236894
12/03/2009 08:47	0.06194753
12/03/2009 08:48	0.05962976
12/03/2009 08:49	0.05752271
12/03/2009 08:50	0.05554855
12/03/2009 08:51	0.042984
12/03/2009 08:52	0.0689535
12/03/2009 08:53	0.05990323
12/03/2009 08:54	0.05962976
12/03/2009 08:55	0.06110471
12/03/2009 08:56	0.06236894
12/03/2009 08:57	0.06194753
12/03/2009 08:58	0.06194753
12/03/2009 08:59	0.06152612
12/03/2009 09:00	0.06173682
12/03/2009 09:01	0.06194753
12/03/2009 09:02	0.060894
12/03/2009 09:03	0.05958178
12/03/2009 09:04	0.05873061
12/03/2009 09:05	0.05720178
12/03/2009 09:06	0.042984
12/03/2009 09:07	0.06619536
12/03/2009 09:08	0.05701036
12/03/2009 09:09	0.05800753
12/03/2009 09:10	0.06113744
12/03/2009 09:11	0.06468671
12/03/2009 09:12	0.06468671
12/03/2009 09:13	0.06342247
12/03/2009 09:14	0.06257965
12/03/2009 09:15	0.06341204
12/03/2009 09:16	0.06511438
12/03/2009 09:17	0.06468679
12/03/2009 09:18	0.06298646
12/03/2009 09:19	0.06085853
12/03/2009 09:20	0.05775975
12/03/2009 09:21	0.042984
12/03/2009 09:22	0.064476
12/03/2009 09:23	0.05655789
12/03/2009 09:24	0.05633825
12/03/2009 09:25	0.05579654
12/03/2009 09:26	0.0564165
12/03/2009 09:27	0.05800753
12/03/2009 09:28	0.06026188
12/03/2009 09:29	0.06257965
12/03/2009 09:30	0.06321176
12/03/2009 09:31	0.06383762
12/03/2009 09:32	0.06341204
12/03/2009 09:33	0.06107133
12/03/2009 09:34	0.05794412
12/03/2009 09:35	0.05438127

Average 0.059539

Average of two runs 0.188004

Set 2 - Run 3	
Date/Time	MPP3 NOX#/MM Value
12/03/2009 10:25	0.05789682
12/03/2009 10:26	0.05960153
12/03/2009 10:27	0.05982309
12/03/2009 10:28	0.05893682
12/03/2009 10:29	0.05782899
12/03/2009 10:30	0.05849369
12/03/2009 10:31	0.05849369
12/03/2009 10:32	0.05805056
12/03/2009 10:33	0.05672115
12/03/2009 10:34	0.05805645
12/03/2009 10:35	0.05442329
12/03/2009 10:36	0.042984
12/03/2009 10:37	0.066267
12/03/2009 10:38	0.0592224
12/03/2009 10:39	0.05943196
12/03/2009 10:40	0.05965127
12/03/2009 10:41	0.05877404
12/03/2009 10:42	0.05921265
12/03/2009 10:43	0.05943196
12/03/2009 10:44	0.06004466
12/03/2009 10:45	0.05921265
12/03/2009 10:46	0.06026623
12/03/2009 10:47	0.06004466
12/03/2009 10:48	0.05849369
12/03/2009 10:49	0.05782899
12/03/2009 10:50	0.05615652
12/03/2009 10:51	0.042984
12/03/2009 10:52	0.069849
12/03/2009 10:53	0.060894
12/03/2009 10:54	0.06030918
12/03/2009 10:55	0.06159563
12/03/2009 10:56	0.06203876
12/03/2009 10:57	0.06336816
12/03/2009 10:58	0.06292503
12/03/2009 10:59	0.0624819
12/03/2009 11:00	0.06159563
12/03/2009 11:01	0.06093093
12/03/2009 11:02	0.06004466
12/03/2009 11:03	0.05893682
12/03/2009 11:04	0.059103
12/03/2009 11:05	0.05672479
12/03/2009 11:06	0.042984
12/03/2009 11:07	0.066267
12/03/2009 11:08	0.0582672
12/03/2009 11:09	0.05827212
12/03/2009 11:10	0.05855473
12/03/2009 11:11	0.05987057
12/03/2009 11:12	0.06030918
12/03/2009 11:13	0.05943196
12/03/2009 11:14	0.05960153
12/03/2009 11:15	0.06070936
12/03/2009 11:16	0.06115249
12/03/2009 11:17	0.05937996
12/03/2009 11:18	0.05805056
12/03/2009 11:19	0.05738586
12/03/2009 11:20	0.05672479
12/03/2009 11:21	0.042984
12/03/2009 11:22	0.0653715
12/03/2009 11:23	0.057312
12/03/2009 11:24	0.05811612
12/03/2009 11:25	0.05877404

Average 0.058634

Set 2 - Run 4	
Date/Time	MPP3 NOX#/MM Value
12/03/2009 11:55	0.06008988
12/03/2009 11:56	0.0618172
12/03/2009 11:57	0.06246113
12/03/2009 11:58	0.06246113
12/03/2009 11:59	0.06246113
12/03/2009 12:00	0.06134175
12/03/2009 12:01	0.05937996
12/03/2009 12:02	0.05871526
12/03/2009 12:03	0.05775975
12/03/2009 12:04	0.05746282
12/03/2009 12:05	0.0569538
12/03/2009 12:06	0.042984
12/03/2009 12:07	0.0672793
12/03/2009 12:08	0.06061227
12/03/2009 12:09	0.0617895
12/03/2009 12:10	0.062685
12/03/2009 12:11	0.06201338
12/03/2009 12:12	0.06134175
12/03/2009 12:13	0.06130876
12/03/2009 12:14	0.06085629
12/03/2009 12:15	0.06130876
12/03/2009 12:16	0.06153499
12/03/2009 12:17	0.06063006
12/03/2009 12:18	0.05932688
12/03/2009 12:19	0.05805056
12/03/2009 12:20	0.0556678
12/03/2009 12:21	0.042984
12/03/2009 12:22	0.06634487
12/03/2009 12:23	0.06056836
12/03/2009 12:24	0.05982309
12/03/2009 12:25	0.06070936
12/03/2009 12:26	0.06008988
12/03/2009 12:27	0.06093093
12/03/2009 12:28	0.05982309
12/03/2009 12:29	0.06044625
12/03/2009 12:30	0.06070936
12/03/2009 12:31	0.06093093
12/03/2009 12:32	0.06137406
12/03/2009 12:33	0.06004466
12/03/2009 12:34	0.05805056
12/03/2009 12:35	0.05672479
12/03/2009 12:36	0.042984
12/03/2009 12:37	0.066267
12/03/2009 12:38	0.0587448
12/03/2009 12:39	0.05937996
12/03/2009 12:40	0.06030918
12/03/2009 12:41	0.0607478
12/03/2009 12:42	0.06140571
12/03/2009 12:43	0.0624819
12/03/2009 12:44	0.06292503
12/03/2009 12:45	0.0631466
12/03/2009 12:46	0.06203876
12/03/2009 12:47	0.06093093
12/03/2009 12:48	0.05960153
12/03/2009 12:49	0.05871526
12/03/2009 12:50	0.05778177
12/03/2009 12:51	0.032238
12/03/2009 12:52	0.069849
12/03/2009 12:53	0.0601776
12/03/2009 12:54	0.05833543
12/03/2009 12:55	0.05921265

Average 0.059428

Average of two runs 0.059031

Set 2 - Run 5	
Date/Time	MPP3 NOX#/MM Value
12/03/2009 14:09	0.05324595
12/03/2009 14:10	0.05305232
12/03/2009 14:11	0.0528587
12/03/2009 14:12	0.05373
12/03/2009 14:13	0.05305232
12/03/2009 14:14	0.05266508
12/03/2009 14:15	0.05208422
12/03/2009 14:16	0.05197156
12/03/2009 14:17	0.05177618
12/03/2009 14:18	0.05197156
12/03/2009 14:19	0.05236233
12/03/2009 14:20	0.050148
12/03/2009 14:21	0.05373
12/03/2009 14:22	0.06151159
12/03/2009 14:23	0.05425165
12/03/2009 14:24	0.0546013
12/03/2009 14:25	0.05392189
12/03/2009 14:26	0.05392189
12/03/2009 14:27	0.05421405
12/03/2009 14:28	0.05440768
12/03/2009 14:29	0.05479492
12/03/2009 14:30	0.05470691
12/03/2009 14:31	0.05607458
12/03/2009 14:32	0.05685611
12/03/2009 14:33	0.05548844
12/03/2009 14:34	0.05442011
12/03/2009 14:35	0.05341394
12/03/2009 14:36	0.05373
12/03/2009 14:37	0.064476
12/03/2009 14:38	0.05710129
12/03/2009 14:39	0.05666073
12/03/2009 14:40	0.05705149
12/03/2009 14:41	0.05646535
12/03/2009 14:42	0.0567862
12/03/2009 14:43	0.05777207
12/03/2009 14:44	0.0583636
12/03/2009 14:45	0.05875795
12/03/2009 14:46	0.058705
12/03/2009 14:47	0.0583636
12/03/2009 14:48	0.05737772
12/03/2009 14:49	0.05658903
12/03/2009 14:50	0.05549427
12/03/2009 14:51	0.05373
12/03/2009 14:52	0.0637349
12/03/2009 14:53	0.05689059
12/03/2009 14:54	0.05615027
12/03/2009 14:55	0.05568382
12/03/2009 14:56	0.05548844
12/03/2009 14:57	0.05666073
12/03/2009 14:58	0.05646535
12/03/2009 14:59	0.05580033
12/03/2009 15:00	0.05501163
12/03/2009 15:01	0.05540598
12/03/2009 15:02	0.05619468
12/03/2009 15:03	0.05501163
12/03/2009 15:04	0.05501163
12/03/2009 15:05	0.05531029
12/03/2009 15:06	0.05373
12/03/2009 15:07	0.06524357
12/03/2009 15:08	0.05702828
12/03/2009 15:09	0.0558792

Average 0.055629

Set 2 - Run 6	
Date/Time	MPP3 NOX#/MM Value
12/03/2009 15:40	0.05607458
12/03/2009 15:41	0.05568382
12/03/2009 15:42	0.0558792
12/03/2009 15:43	0.05646535
12/03/2009 15:44	0.05718055
12/03/2009 15:45	0.05737772
12/03/2009 15:46	0.0567862
12/03/2009 15:47	0.05658903
12/03/2009 15:48	0.05660316
12/03/2009 15:49	0.05548844
12/03/2009 15:50	0.05467818
12/03/2009 15:51	0.05373
12/03/2009 15:52	0.064476
12/03/2009 15:53	0.05562635
12/03/2009 15:54	0.05451153
12/03/2009 15:55	0.05402043
12/03/2009 15:56	0.05509767
12/03/2009 15:57	0.05490229
12/03/2009 15:58	0.05343957
12/03/2009 15:59	0.05333924
12/03/2009 16:00	0.05461728
12/03/2009 16:01	0.05481446
12/03/2009 16:02	0.05639185
12/03/2009 16:03	0.0559975
12/03/2009 16:04	0.05560316
12/03/2009 16:05	0.05499424
12/03/2009 16:06	0.05373
12/03/2009 16:07	0.06370843
12/03/2009 16:08	0.05436212
12/03/2009 16:09	0.05392538
12/03/2009 16:10	0.05412076
12/03/2009 16:11	0.05431615
12/03/2009 16:12	0.05520881
12/03/2009 16:13	0.05481446
12/03/2009 16:14	0.05481446
12/03/2009 16:15	0.05509767
12/03/2009 16:16	0.05560316
12/03/2009 16:17	0.05442011
12/03/2009 16:18	0.05481446
12/03/2009 16:19	0.05363141
12/03/2009 16:20	0.05246576
12/03/2009 16:21	0.05373
12/03/2009 16:22	0.06370843
12/03/2009 16:23	0.05562635
12/03/2009 16:24	0.05440768
12/03/2009 16:25	0.0546013
12/03/2009 16:26	0.05412076
12/03/2009 16:27	0.05382681
12/03/2009 16:28	0.05412076
12/03/2009 16:29	0.05490229
12/03/2009 16:30	0.05470691
12/03/2009 16:31	0.05509767
12/03/2009 16:32	0.05431615
12/03/2009 16:33	0.05333924
12/03/2009 16:34	0.05225119
12/03/2009 16:35	0.05112491
12/03/2009 16:36	0.05373
12/03/2009 16:37	0.060894
12/03/2009 16:38	0.05457282
12/03/2009 16:39	0.05353462
12/03/2009 16:40	0.05402043

Average 0.055263

Average of two runs 0.055446

Fuel flow

Set 1 - Run 1	
Coal Flow 31	Coal Flow kpph

12/2/2009 6:30	53.53
12/2/2009 6:31	53.91
12/2/2009 6:32	53.73
12/2/2009 6:33	53.58
12/2/2009 6:34	53.66
12/2/2009 6:35	53.7
12/2/2009 6:36	53.48
12/2/2009 6:37	53.78
12/2/2009 6:38	53.6
12/2/2009 6:39	53.48
12/2/2009 6:40	53.78
12/2/2009 6:41	53.9
12/2/2009 6:42	53.97
12/2/2009 6:43	53.74
12/2/2009 6:44	53.79
12/2/2009 6:45	53.39
12/2/2009 6:46	53.11
12/2/2009 6:47	53.75
12/2/2009 6:48	53.75
12/2/2009 6:49	53.48
12/2/2009 6:50	53.59
12/2/2009 6:51	53.63
12/2/2009 6:52	53.28
12/2/2009 6:53	53.53
12/2/2009 6:54	53.23
12/2/2009 6:55	53.32
12/2/2009 6:56	53.38
12/2/2009 6:57	53.23
12/2/2009 6:58	53.67
12/2/2009 6:59	53.43
12/2/2009 7:00	53.22
12/2/2009 7:01	53.26
12/2/2009 7:02	53.48
12/2/2009 7:03	53.65
12/2/2009 7:04	53.49
12/2/2009 7:05	53.53
12/2/2009 7:06	53.6
12/2/2009 7:07	53.85
12/2/2009 7:08	53.81
12/2/2009 7:09	53.84
12/2/2009 7:10	54.31
12/2/2009 7:11	54
12/2/2009 7:12	54.02
12/2/2009 7:13	54.23
12/2/2009 7:14	53.97
12/2/2009 7:15	53.9
12/2/2009 7:16	53.68
12/2/2009 7:17	54.12
12/2/2009 7:18	53.89
12/2/2009 7:19	53.93
12/2/2009 7:20	53.38
12/2/2009 7:21	53.39
12/2/2009 7:22	53.43
12/2/2009 7:23	53.64
12/2/2009 7:24	53.83
12/2/2009 7:25	53.88
12/2/2009 7:26	53.91
12/2/2009 7:27	53.83
12/2/2009 7:28	53.74
12/2/2009 7:29	53.61
12/2/2009 7:30	53.23

Average 53.65655738

Set 1 - Run 2	
Coal Flow 31	Coal Flow kpph

12/2/2009 8:00	53.36
12/2/2009 8:01	53.14
12/2/2009 8:02	53.63
12/2/2009 8:03	53.49
12/2/2009 8:04	53.08
12/2/2009 8:05	53.37
12/2/2009 8:06	53.61
12/2/2009 8:07	53.49
12/2/2009 8:08	53.35
12/2/2009 8:09	53.16
12/2/2009 8:10	53.62
12/2/2009 8:11	53.59
12/2/2009 8:12	53.49
12/2/2009 8:13	53.01
12/2/2009 8:14	52.96
12/2/2009 8:15	53.51
12/2/2009 8:16	53.69
12/2/2009 8:17	53.84
12/2/2009 8:18	53.83
12/2/2009 8:19	54.12
12/2/2009 8:20	54.1
12/2/2009 8:21	54.07
12/2/2009 8:22	53.93
12/2/2009 8:23	53.83
12/2/2009 8:24	53.97
12/2/2009 8:25	54.11
12/2/2009 8:26	54.11
12/2/2009 8:27	53.42
12/2/2009 8:28	53.41
12/2/2009 8:29	53.45
12/2/2009 8:30	53.67
12/2/2009 8:31	53.49
12/2/2009 8:32	53.69
12/2/2009 8:33	53.47
12/2/2009 8:34	53.67
12/2/2009 8:35	53.54
12/2/2009 8:36	53.73
12/2/2009 8:37	53.62
12/2/2009 8:38	53.76
12/2/2009 8:39	53.71
12/2/2009 8:40	53.95
12/2/2009 8:41	53.91
12/2/2009 8:42	53.66
12/2/2009 8:43	53.42
12/2/2009 8:44	53.23
12/2/2009 8:45	53.34
12/2/2009 8:46	53.46
12/2/2009 8:47	53.46
12/2/2009 8:48	53
12/2/2009 8:49	53.25
12/2/2009 8:50	53.11
12/2/2009 8:51	53.62
12/2/2009 8:52	53.35
12/2/2009 8:53	53.58
12/2/2009 8:54	53.77
12/2/2009 8:55	53.75
12/2/2009 8:56	53.73
12/2/2009 8:57	53.74
12/2/2009 8:58	53.86
12/2/2009 8:59	53.67
12/2/2009 9:00	53.58

Average 53.58246

Set 1- Run 3	
Coal Flow 31	Coal Flow kpph

12/2/2009 9:30	63.79
12/2/2009 9:31	63.98
12/2/2009 9:32	63.48
12/2/2009 9:33	63.43
12/2/2009 9:34	63.05
12/2/2009 9:35	62.22
12/2/2009 9:36	61.96
12/2/2009 9:37	62.04
12/2/2009 9:38	61.77
12/2/2009 9:39	61.62
12/2/2009 9:40	61.82
12/2/2009 9:41	61.62
12/2/2009 9:42	61.68
12/2/2009 9:43	61.48
12/2/2009 9:44	61.38
12/2/2009 9:45	60.8
12/2/2009 9:46	60.45
12/2/2009 9:47	60.87
12/2/2009 9:48	60.56
12/2/2009 9:49	61.31
12/2/2009 9:50	61.61
12/2/2009 9:51	61.36
12/2/2009 9:52	61.36
12/2/2009 9:53	61.37
12/2/2009 9:54	61.26
12/2/2009 9:55	60.84
12/2/2009 9:56	61.06
12/2/2009 9:57	61.04
12/2/2009 9:58	61.11
12/2/2009 9:59	61.54
12/2/2009 10:00	61.77
12/2/2009 10:01	61.3
12/2/2009 10:02	61.4
12/2/2009 10:03	61.51
12/2/2009 10:04	61.54
12/2/2009 10:05	61.39
12/2/2009 10:06	61.59
12/2/2009 10:07	61.59
12/2/2009 10:08	61.54
12/2/2009 10:09	61.39
12/2/2009 10:10	61.7
12/2/2009 10:11	62.11
12/2/2009 10:12	61.85
12/2/2009 10:13	61.77
12/2/2009 10:14	62.27
12/2/2009 10:15	62.22
12/2/2009 10:16	62.14
12/2/2009 10:17	61.94
12/2/2009 10:18	61.98
12/2/2009 10:19	61.99
12/2/2009 10:20	61.85
12/2/2009 10:21	61.8
12/2/2009 10:22	62.05
12/2/2009 10:23	62.11
12/2/2009 10:24	62.27
12/2/2009 10:25	62.03
12/2/2009 10:26	49.52
12/2/2009 10:27	12.54
12/2/2009 10:28	61.97
12/2/2009 10:29	61.7
12/2/2009 10:30	61.68

Average 60.76016

Coal Flow 32	Coal Flow kpph	Coal Flow 32	Coal Flow kpph	Coal Flow 32	Coal Flow kpph
12/2/2009 6:30	56.1	12/2/2009 8:00	55.72	12/2/2009 9:30	66.15
12/2/2009 6:31	56.32	12/2/2009 8:01	55.71	12/2/2009 9:31	66.66
12/2/2009 6:32	56.23	12/2/2009 8:02	56.18	12/2/2009 9:32	66.26
12/2/2009 6:33	56.16	12/2/2009 8:03	56.16	12/2/2009 9:33	65.97
12/2/2009 6:34	56.3	12/2/2009 8:04	55.79	12/2/2009 9:34	65.59
12/2/2009 6:35	56.39	12/2/2009 8:05	56.01	12/2/2009 9:35	64.9
12/2/2009 6:36	56.14	12/2/2009 8:06	56.18	12/2/2009 9:36	64.64
12/2/2009 6:37	56.12	12/2/2009 8:07	55.97	12/2/2009 9:37	64.67
12/2/2009 6:38	56.07	12/2/2009 8:08	55.75	12/2/2009 9:38	64.36
12/2/2009 6:39	55.79	12/2/2009 8:09	55.64	12/2/2009 9:39	64.16
12/2/2009 6:40	56.2	12/2/2009 8:10	56.05	12/2/2009 9:40	64.37
12/2/2009 6:41	56.29	12/2/2009 8:11	55.86	12/2/2009 9:41	64.33
12/2/2009 6:42	56.35	12/2/2009 8:12	55.7	12/2/2009 9:42	64.13
12/2/2009 6:43	56.21	12/2/2009 8:13	55.72	12/2/2009 9:43	63.96
12/2/2009 6:44	56.4	12/2/2009 8:14	55.6	12/2/2009 9:44	63.83
12/2/2009 6:45	55.86	12/2/2009 8:15	56.11	12/2/2009 9:45	63.34
12/2/2009 6:46	55.48	12/2/2009 8:16	56.11	12/2/2009 9:46	62.82
12/2/2009 6:47	56.24	12/2/2009 8:17	56.42	12/2/2009 9:47	63.3
12/2/2009 6:48	56.18	12/2/2009 8:18	56.27	12/2/2009 9:48	63.12
12/2/2009 6:49	56.15	12/2/2009 8:19	56.59	12/2/2009 9:49	63.71
12/2/2009 6:50	56.35	12/2/2009 8:20	56.79	12/2/2009 9:50	64.11
12/2/2009 6:51	56.26	12/2/2009 8:21	56.42	12/2/2009 9:51	63.82
12/2/2009 6:52	56.16	12/2/2009 8:22	56.42	12/2/2009 9:52	64.05
12/2/2009 6:53	56.05	12/2/2009 8:23	56.42	12/2/2009 9:53	63.87
12/2/2009 6:54	55.83	12/2/2009 8:24	56.46	12/2/2009 9:54	63.68
12/2/2009 6:55	56.01	12/2/2009 8:25	56.7	12/2/2009 9:55	63.6
12/2/2009 6:56	55.84	12/2/2009 8:26	56.57	12/2/2009 9:56	63.85
12/2/2009 6:57	55.77	12/2/2009 8:27	55.97	12/2/2009 9:57	63.7
12/2/2009 6:58	56.28	12/2/2009 8:28	55.91	12/2/2009 9:58	63.69
12/2/2009 6:59	56.2	12/2/2009 8:29	55.94	12/2/2009 9:59	64.14
12/2/2009 7:00	55.6	12/2/2009 8:30	56.44	12/2/2009 10:00	64.09
12/2/2009 7:01	55.77	12/2/2009 8:31	56.44	12/2/2009 10:01	64.01
12/2/2009 7:02	55.93	12/2/2009 8:32	56.35	12/2/2009 10:02	63.82
12/2/2009 7:03	56.09	12/2/2009 8:33	55.94	12/2/2009 10:03	63.97
12/2/2009 7:04	56.25	12/2/2009 8:34	56.17	12/2/2009 10:04	64.03
12/2/2009 7:05	56.33	12/2/2009 8:35	56.21	12/2/2009 10:05	63.91
12/2/2009 7:06	56.41	12/2/2009 8:36	56.39	12/2/2009 10:06	64.36
12/2/2009 7:07	56.47	12/2/2009 8:37	56.2	12/2/2009 10:07	64.19
12/2/2009 7:08	56.39	12/2/2009 8:38	56.33	12/2/2009 10:08	64.03
12/2/2009 7:09	56.4	12/2/2009 8:39	56.46	12/2/2009 10:09	63.94
12/2/2009 7:10	56.92	12/2/2009 8:40	56.52	12/2/2009 10:10	64.21
12/2/2009 7:11	56.34	12/2/2009 8:41	56.24	12/2/2009 10:11	64.56
12/2/2009 7:12	56.54	12/2/2009 8:42	55.97	12/2/2009 10:12	64.36
12/2/2009 7:13	56.7	12/2/2009 8:43	55.73	12/2/2009 10:13	64.29
12/2/2009 7:14	56.57	12/2/2009 8:44	55.76	12/2/2009 10:14	64.64
12/2/2009 7:15	56.42	12/2/2009 8:45	55.94	12/2/2009 10:15	64.65
12/2/2009 7:16	56.18	12/2/2009 8:46	55.76	12/2/2009 10:16	64.67
12/2/2009 7:17	56.51	12/2/2009 8:47	55.93	12/2/2009 10:17	64.68
12/2/2009 7:18	56.15	12/2/2009 8:48	55.59	12/2/2009 10:18	64.5
12/2/2009 7:19	56.42	12/2/2009 8:49	56.12	12/2/2009 10:19	64.49
12/2/2009 7:20	55.96	12/2/2009 8:50	55.56	12/2/2009 10:20	64.44
12/2/2009 7:21	56.02	12/2/2009 8:51	55.91	12/2/2009 10:21	64.29
12/2/2009 7:22	56.07	12/2/2009 8:52	55.78	12/2/2009 10:22	64.45
12/2/2009 7:23	56.17	12/2/2009 8:53	56.03	12/2/2009 10:23	64.66
12/2/2009 7:24	56.57	12/2/2009 8:54	56.54	12/2/2009 10:24	64.89
12/2/2009 7:25	56.85	12/2/2009 8:55	56.49	12/2/2009 10:25	64.62
12/2/2009 7:26	56.46	12/2/2009 8:56	56.68	12/2/2009 10:26	51.76
12/2/2009 7:27	56.51	12/2/2009 8:57	56.25	12/2/2009 10:27	13.05
12/2/2009 7:28	56.39	12/2/2009 8:58	56.29	12/2/2009 10:28	64.54
12/2/2009 7:29	56.2	12/2/2009 8:59	55.96	12/2/2009 10:29	64.36
12/2/2009 7:30	55.65	12/2/2009 9:00	56.27	12/2/2009 10:30	64.21
Average	56.21262295	Average	56.12115	Average	63.26967

Coal Flow 33	Coal Flow kpph	Coal Flow 33	Coal Flow kpph	Coal Flow 33	Coal Flow kpph
12/2/2009 6:30	56.2	12/2/2009 8:00	55.77	12/2/2009 9:30	66.14
12/2/2009 6:31	56.25	12/2/2009 8:01	55.77	12/2/2009 9:31	66.32
12/2/2009 6:32	56.27	12/2/2009 8:02	56.09	12/2/2009 9:32	66.14
12/2/2009 6:33	56.14	12/2/2009 8:03	56.26	12/2/2009 9:33	65.96
12/2/2009 6:34	56.06	12/2/2009 8:04	55.76	12/2/2009 9:34	65.66
12/2/2009 6:35	56.29	12/2/2009 8:05	56.17	12/2/2009 9:35	64.91
12/2/2009 6:36	56.09	12/2/2009 8:06	56.06	12/2/2009 9:36	64.66
12/2/2009 6:37	56.47	12/2/2009 8:07	55.95	12/2/2009 9:37	64.69
12/2/2009 6:38	56.31	12/2/2009 8:08	55.84	12/2/2009 9:38	64.35
12/2/2009 6:39	55.75	12/2/2009 8:09	55.82	12/2/2009 9:39	64.12
12/2/2009 6:40	56.06	12/2/2009 8:10	56.18	12/2/2009 9:40	64.26
12/2/2009 6:41	56.34	12/2/2009 8:11	55.81	12/2/2009 9:41	63.94
12/2/2009 6:42	56.34	12/2/2009 8:12	55.78	12/2/2009 9:42	64.14
12/2/2009 6:43	56.2	12/2/2009 8:13	55.7	12/2/2009 9:43	63.99
12/2/2009 6:44	56.61	12/2/2009 8:14	55.49	12/2/2009 9:44	63.79
12/2/2009 6:45	55.83	12/2/2009 8:15	56.1	12/2/2009 9:45	63.34
12/2/2009 6:46	55.54	12/2/2009 8:16	56.06	12/2/2009 9:46	63.11
12/2/2009 6:47	56.35	12/2/2009 8:17	56.34	12/2/2009 9:47	63.54
12/2/2009 6:48	55.82	12/2/2009 8:18	56.27	12/2/2009 9:48	63.03
12/2/2009 6:49	56.27	12/2/2009 8:19	56.61	12/2/2009 9:49	63.64
12/2/2009 6:50	56.33	12/2/2009 8:20	56.56	12/2/2009 9:50	64.11
12/2/2009 6:51	56.35	12/2/2009 8:21	56.48	12/2/2009 9:51	64.01
12/2/2009 6:52	56.13	12/2/2009 8:22	56.23	12/2/2009 9:52	63.9
12/2/2009 6:53	55.91	12/2/2009 8:23	56.09	12/2/2009 9:53	63.79
12/2/2009 6:54	55.75	12/2/2009 8:24	56.48	12/2/2009 9:54	63.66
12/2/2009 6:55	55.97	12/2/2009 8:25	56.58	12/2/2009 9:55	63.51
12/2/2009 6:56	55.83	12/2/2009 8:26	56.35	12/2/2009 9:56	63.81
12/2/2009 6:57	55.79	12/2/2009 8:27	55.92	12/2/2009 9:57	63.87
12/2/2009 6:58	56.41	12/2/2009 8:28	55.93	12/2/2009 9:58	63.93
12/2/2009 6:59	56.1	12/2/2009 8:29	55.96	12/2/2009 9:59	64.02
12/2/2009 7:00	55.83	12/2/2009 8:30	56.14	12/2/2009 10:00	64.19
12/2/2009 7:01	55.87	12/2/2009 8:31	56.32	12/2/2009 10:01	63.94
12/2/2009 7:02	55.9	12/2/2009 8:32	56.38	12/2/2009 10:02	63.84
12/2/2009 7:03	55.94	12/2/2009 8:33	55.94	12/2/2009 10:03	64.2
12/2/2009 7:04	56.01	12/2/2009 8:34	56.15	12/2/2009 10:04	64
12/2/2009 7:05	56.32	12/2/2009 8:35	56.18	12/2/2009 10:05	63.86
12/2/2009 7:06	56.16	12/2/2009 8:36	56.44	12/2/2009 10:06	63.99
12/2/2009 7:07	56.37	12/2/2009 8:37	56.23	12/2/2009 10:07	64.13
12/2/2009 7:08	56.53	12/2/2009 8:38	56.31	12/2/2009 10:08	64.26
12/2/2009 7:09	56.33	12/2/2009 8:39	56.17	12/2/2009 10:09	64.34
12/2/2009 7:10	56.67	12/2/2009 8:40	56.3	12/2/2009 10:10	64.3
12/2/2009 7:11	56.49	12/2/2009 8:41	56.34	12/2/2009 10:11	64.76
12/2/2009 7:12	56.36	12/2/2009 8:42	55.97	12/2/2009 10:12	64.67
12/2/2009 7:13	56.58	12/2/2009 8:43	55.94	12/2/2009 10:13	64.43
12/2/2009 7:14	56.72	12/2/2009 8:44	55.93	12/2/2009 10:14	64.64
12/2/2009 7:15	56.26	12/2/2009 8:45	55.9	12/2/2009 10:15	64.68
12/2/2009 7:16	56.25	12/2/2009 8:46	55.63	12/2/2009 10:16	64.94
12/2/2009 7:17	56.75	12/2/2009 8:47	55.88	12/2/2009 10:17	64.84
12/2/2009 7:18	56.15	12/2/2009 8:48	55.49	12/2/2009 10:18	64.54
12/2/2009 7:19	56.34	12/2/2009 8:49	55.99	12/2/2009 10:19	64.43
12/2/2009 7:20	55.81	12/2/2009 8:50	55.67	12/2/2009 10:20	64.32
12/2/2009 7:21	55.81	12/2/2009 8:51	56.04	12/2/2009 10:21	64.32
12/2/2009 7:22	56.01	12/2/2009 8:52	55.92	12/2/2009 10:22	64.61
12/2/2009 7:23	56.21	12/2/2009 8:53	55.9	12/2/2009 10:23	64.38
12/2/2009 7:24	56.44	12/2/2009 8:54	56.31	12/2/2009 10:24	64.58
12/2/2009 7:25	56.6	12/2/2009 8:55	56.18	12/2/2009 10:25	64.77
12/2/2009 7:26	56.33	12/2/2009 8:56	56.51	12/2/2009 10:26	51.83
12/2/2009 7:27	56.41	12/2/2009 8:57	56.2	12/2/2009 10:27	13.07
12/2/2009 7:28	56.28	12/2/2009 8:58	56.29	12/2/2009 10:28	64.62
12/2/2009 7:29	56.11	12/2/2009 8:59	55.93	12/2/2009 10:29	64.39
12/2/2009 7:30	55.7	12/2/2009 9:00	56.14	12/2/2009 10:30	64.22
Average	56.1852459	Average	56.0841	Average	63.28574

Coal Flow 34	Coal Flow kpph	Coal Flow 34	Coal Flow kpph	Coal Flow 34	Coal Flow kpph
12/2/2009 6:30	56.23	12/2/2009 8:00	55.94	12/2/2009 9:30	66.16
12/2/2009 6:31	56.23	12/2/2009 8:01	55.85	12/2/2009 9:31	66.02
12/2/2009 6:32	56.23	12/2/2009 8:02	56.14	12/2/2009 9:32	65.87
12/2/2009 6:33	56.23	12/2/2009 8:03	56.36	12/2/2009 9:33	65.72
12/2/2009 6:34	56.23	12/2/2009 8:04	56.17	12/2/2009 9:34	65.54
12/2/2009 6:35	56.23	12/2/2009 8:05	56.01	12/2/2009 9:35	65.23
12/2/2009 6:36	56.24	12/2/2009 8:06	55.99	12/2/2009 9:36	64.91
12/2/2009 6:37	56.24	12/2/2009 8:07	55.98	12/2/2009 9:37	64.6
12/2/2009 6:38	56.23	12/2/2009 8:08	55.97	12/2/2009 9:38	64.28
12/2/2009 6:39	56.19	12/2/2009 8:09	55.95	12/2/2009 9:39	64.05
12/2/2009 6:40	56.14	12/2/2009 8:10	55.94	12/2/2009 9:40	64.21
12/2/2009 6:41	56.09	12/2/2009 8:11	55.93	12/2/2009 9:41	64.31
12/2/2009 6:42	56.05	12/2/2009 8:12	55.92	12/2/2009 9:42	64.13
12/2/2009 6:43	56	12/2/2009 8:13	55.9	12/2/2009 9:43	63.95
12/2/2009 6:44	55.95	12/2/2009 8:14	55.89	12/2/2009 9:44	63.77
12/2/2009 6:45	55.88	12/2/2009 8:15	55.9	12/2/2009 9:45	63.47
12/2/2009 6:46	55.68	12/2/2009 8:16	56.06	12/2/2009 9:46	62.88
12/2/2009 6:47	56.36	12/2/2009 8:17	56.23	12/2/2009 9:47	63.47
12/2/2009 6:48	56.29	12/2/2009 8:18	56.39	12/2/2009 9:48	63.58
12/2/2009 6:49	56.22	12/2/2009 8:19	56.55	12/2/2009 9:49	63.67
12/2/2009 6:50	56.15	12/2/2009 8:20	56.68	12/2/2009 9:50	63.7
12/2/2009 6:51	56.09	12/2/2009 8:21	56.67	12/2/2009 9:51	63.74
12/2/2009 6:52	56.02	12/2/2009 8:22	56.66	12/2/2009 9:52	63.77
12/2/2009 6:53	55.95	12/2/2009 8:23	56.65	12/2/2009 9:53	63.8
12/2/2009 6:54	55.88	12/2/2009 8:24	56.64	12/2/2009 9:54	63.83
12/2/2009 6:55	55.82	12/2/2009 8:25	56.61	12/2/2009 9:55	63.86
12/2/2009 6:56	55.75	12/2/2009 8:26	56.45	12/2/2009 9:56	63.89
12/2/2009 6:57	55.71	12/2/2009 8:27	56.28	12/2/2009 9:57	63.92
12/2/2009 6:58	55.93	12/2/2009 8:28	56.11	12/2/2009 9:58	63.95
12/2/2009 6:59	56.12	12/2/2009 8:29	55.97	12/2/2009 9:59	63.97
12/2/2009 7:00	56.14	12/2/2009 8:30	55.99	12/2/2009 10:00	63.98
12/2/2009 7:01	56.16	12/2/2009 8:31	56.01	12/2/2009 10:01	64
12/2/2009 7:02	56.17	12/2/2009 8:32	56.03	12/2/2009 10:02	64.01
12/2/2009 7:03	56.19	12/2/2009 8:33	56.05	12/2/2009 10:03	64.02
12/2/2009 7:04	56.21	12/2/2009 8:34	56.06	12/2/2009 10:04	64.03
12/2/2009 7:05	56.22	12/2/2009 8:35	56.08	12/2/2009 10:05	64.04
12/2/2009 7:06	56.24	12/2/2009 8:36	56.1	12/2/2009 10:06	64.06
12/2/2009 7:07	56.26	12/2/2009 8:37	56.12	12/2/2009 10:07	64.07
12/2/2009 7:08	56.27	12/2/2009 8:38	56.13	12/2/2009 10:08	64.08
12/2/2009 7:09	56.36	12/2/2009 8:39	56.15	12/2/2009 10:09	64.09
12/2/2009 7:10	56.91	12/2/2009 8:40	56.17	12/2/2009 10:10	64.15
12/2/2009 7:11	56.67	12/2/2009 8:41	56.19	12/2/2009 10:11	64.4
12/2/2009 7:12	56.46	12/2/2009 8:42	56.19	12/2/2009 10:12	64.49
12/2/2009 7:13	56.48	12/2/2009 8:43	56.08	12/2/2009 10:13	64.11
12/2/2009 7:14	56.5	12/2/2009 8:44	55.97	12/2/2009 10:14	64.39
12/2/2009 7:15	56.51	12/2/2009 8:45	55.86	12/2/2009 10:15	64.62
12/2/2009 7:16	56.53	12/2/2009 8:46	55.75	12/2/2009 10:16	64.63
12/2/2009 7:17	56.55	12/2/2009 8:47	55.65	12/2/2009 10:17	64.63
12/2/2009 7:18	56.56	12/2/2009 8:48	55.65	12/2/2009 10:18	64.64
12/2/2009 7:19	56.56	12/2/2009 8:49	56.02	12/2/2009 10:19	64.65
12/2/2009 7:20	56.45	12/2/2009 8:50	55.56	12/2/2009 10:20	64.65
12/2/2009 7:21	56.33	12/2/2009 8:51	55.83	12/2/2009 10:21	64.66
12/2/2009 7:22	56.21	12/2/2009 8:52	56.07	12/2/2009 10:22	64.66
12/2/2009 7:23	56.11	12/2/2009 8:53	56.09	12/2/2009 10:23	64.67
12/2/2009 7:24	56.16	12/2/2009 8:54	56.12	12/2/2009 10:24	64.67
12/2/2009 7:25	56.21	12/2/2009 8:55	56.14	12/2/2009 10:25	64.68
12/2/2009 7:26	56.26	12/2/2009 8:56	56.17	12/2/2009 10:26	51.63
12/2/2009 7:27	56.31	12/2/2009 8:57	56.2	12/2/2009 10:27	13.03
12/2/2009 7:28	56.34	12/2/2009 8:58	56.22	12/2/2009 10:28	64.44
12/2/2009 7:29	56.22	12/2/2009 8:59	56.25	12/2/2009 10:29	64.42
12/2/2009 7:30	56.1	12/2/2009 9:00	56.28	12/2/2009 10:30	64.4
Average	56.21327869	Average	56.11426	Average	63.26639

Total SUM	222.2677049	Total SUM	221.902	Total SUM	250.582
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Set 1 - Run 4

Coal Flow 31 Coal Flow kpph

12/2/2009 11:00	62.45
12/2/2009 11:01	62.18
12/2/2009 11:02	61.9
12/2/2009 11:03	61.69
12/2/2009 11:04	61.75
12/2/2009 11:05	61.89
12/2/2009 11:06	61.69
12/2/2009 11:07	61.81
12/2/2009 11:08	61.92
12/2/2009 11:09	62.01
12/2/2009 11:10	62.02
12/2/2009 11:11	62.03
12/2/2009 11:12	61.99
12/2/2009 11:13	61.89
12/2/2009 11:14	62
12/2/2009 11:15	61.6
12/2/2009 11:16	61.6
12/2/2009 11:17	61.66
12/2/2009 11:18	61.8
12/2/2009 11:19	61.58
12/2/2009 11:20	61.54
12/2/2009 11:21	61.49
12/2/2009 11:22	61.47
12/2/2009 11:23	61.53
12/2/2009 11:24	61.66
12/2/2009 11:25	61.92
12/2/2009 11:26	61.87
12/2/2009 11:27	61.74
12/2/2009 11:28	61.92
12/2/2009 11:29	61.56
12/2/2009 11:30	61.13
12/2/2009 11:31	61.26
12/2/2009 11:32	61.37
12/2/2009 11:33	61.43
12/2/2009 11:34	61.53
12/2/2009 11:35	61.77
12/2/2009 11:36	61.9
12/2/2009 11:37	61.69
12/2/2009 11:38	61.7
12/2/2009 11:39	61.71
12/2/2009 11:40	61.76
12/2/2009 11:41	61.93
12/2/2009 11:42	61.99
12/2/2009 11:43	61.73
12/2/2009 11:44	61.58
12/2/2009 11:45	61.4
12/2/2009 11:46	61.32
12/2/2009 11:47	61.83
12/2/2009 11:48	62.04
12/2/2009 11:49	62.04
12/2/2009 11:50	61.92
12/2/2009 11:51	61.53
12/2/2009 11:52	61.53
12/2/2009 11:53	61.66
12/2/2009 11:54	62
12/2/2009 11:55	61.79
12/2/2009 11:56	61.62
12/2/2009 11:57	61.6
12/2/2009 11:58	61.58
12/2/2009 11:59	61.55
12/2/2009 12:00	61.59

Average 61.7318

Set 1 - Run 5

Coal Flow 31 Coal Flow kpph

12/2/2009 12:45	70.91
12/2/2009 12:46	70.47
12/2/2009 12:47	70.45
12/2/2009 12:48	70.38
12/2/2009 12:49	70.31
12/2/2009 12:50	70.26
12/2/2009 12:51	70.27
12/2/2009 12:52	70.33
12/2/2009 12:53	70.3
12/2/2009 12:54	70.17
12/2/2009 12:55	70.3
12/2/2009 12:56	70.18
12/2/2009 12:57	70.39
12/2/2009 12:58	70.39
12/2/2009 12:59	70.39
12/2/2009 13:00	70.39
12/2/2009 13:01	70.39
12/2/2009 13:02	70.39
12/2/2009 13:03	70.47
12/2/2009 13:04	70.69
12/2/2009 13:05	70.69
12/2/2009 13:06	70.69
12/2/2009 13:07	70.69
12/2/2009 13:08	70.69
12/2/2009 13:09	70.75
12/2/2009 13:10	70.8
12/2/2009 13:11	70.65
12/2/2009 13:12	70.93
12/2/2009 13:13	71.06
12/2/2009 13:14	70.81
12/2/2009 13:15	70.71
12/2/2009 13:16	70.89
12/2/2009 13:17	70.76
12/2/2009 13:18	70.88
12/2/2009 13:19	70.58
12/2/2009 13:20	70.46
12/2/2009 13:21	70.71
12/2/2009 13:22	70.76
12/2/2009 13:23	70.8
12/2/2009 13:24	70.84
12/2/2009 13:25	70.88
12/2/2009 13:26	70.93
12/2/2009 13:27	70.97
12/2/2009 13:28	71.08
12/2/2009 13:29	71.25
12/2/2009 13:30	71.1
12/2/2009 13:31	70.85
12/2/2009 13:32	70.74
12/2/2009 13:33	71.24
12/2/2009 13:34	70.74
12/2/2009 13:35	70.74
12/2/2009 13:36	70.74
12/2/2009 13:37	70.77
12/2/2009 13:38	70.89
12/2/2009 13:39	70.98
12/2/2009 13:40	70.98
12/2/2009 13:41	70.98
12/2/2009 13:42	70.65
12/2/2009 13:43	70.09
12/2/2009 13:44	70.75
12/2/2009 13:45	70.76

Average 70.67361

Set 1 - Run 6

Coal Flow 31 Coal Flow

12/2/2009 14:15	70.65
12/2/2009 14:16	70.93
12/2/2009 14:17	71.12
12/2/2009 14:18	71.05
12/2/2009 14:19	70.98
12/2/2009 14:20	70.92
12/2/2009 14:21	70.95
12/2/2009 14:22	71.04
12/2/2009 14:23	70.91
12/2/2009 14:24	71.05
12/2/2009 14:25	70.89
12/2/2009 14:26	70.87
12/2/2009 14:27	71.15
12/2/2009 14:28	71.35
12/2/2009 14:29	70.73
12/2/2009 14:30	69.11
12/2/2009 14:31	69.13
12/2/2009 14:32	70.08
12/2/2009 14:33	70.11
12/2/2009 14:34	70.54
12/2/2009 14:35	70.46
12/2/2009 14:36	71.13
12/2/2009 14:37	71.22
12/2/2009 14:38	71.24
12/2/2009 14:39	70.88
12/2/2009 14:40	71.02
12/2/2009 14:41	70.84
12/2/2009 14:42	70.67
12/2/2009 14:43	70.48
12/2/2009 14:44	70.48
12/2/2009 14:45	70.93
12/2/2009 14:46	71.1
12/2/2009 14:47	71.07
12/2/2009 14:48	71.05
12/2/2009 14:49	71.06
12/2/2009 14:50	71.07
12/2/2009 14:51	71.08
12/2/2009 14:52	71.1
12/2/2009 14:53	71.11
12/2/2009 14:54	71.12
12/2/2009 14:55	71.13
12/2/2009 14:56	71.27
12/2/2009 14:57	71.46
12/2/2009 14:58	71.16
12/2/2009 14:59	70.96
12/2/2009 15:00	70.97
12/2/2009 15:01	70.97
12/2/2009 15:02	70.6
12/2/2009 15:03	70.07
12/2/2009 15:04	70.66
12/2/2009 15:05	70.66
12/2/2009 15:06	70.55
12/2/2009 15:07	70.4
12/2/2009 15:08	70.52
12/2/2009 15:09	70.34
12/2/2009 15:10	70.46
12/2/2009 15:11	70.38
12/2/2009 15:12	69.86
12/2/2009 15:13	69.58
12/2/2009 15:14	69.79
12/2/2009 15:15	69.94

Average 70.72787

Coal Flow 32	Coal Flow kpph	Coal Flow 32	Coal Flow kpph	Coal Flow 32	Coal Flow
12/2/2009 11:00	64.76	12/2/2009 12:45	73.32	12/2/2009 14:15	73.53
12/2/2009 11:01	64.8	12/2/2009 12:46	72.87	12/2/2009 14:16	73.53
12/2/2009 11:02	64.55	12/2/2009 12:47	73.06	12/2/2009 14:17	73.87
12/2/2009 11:03	64.36	12/2/2009 12:48	72.98	12/2/2009 14:18	73.76
12/2/2009 11:04	64.42	12/2/2009 12:49	72.89	12/2/2009 14:19	73.45
12/2/2009 11:05	64.47	12/2/2009 12:50	72.86	12/2/2009 14:20	73.48
12/2/2009 11:06	64.43	12/2/2009 12:51	72.92	12/2/2009 14:21	73.61
12/2/2009 11:07	64.18	12/2/2009 12:52	72.85	12/2/2009 14:22	73.84
12/2/2009 11:08	64.41	12/2/2009 12:53	72.78	12/2/2009 14:23	73.82
12/2/2009 11:09	64.57	12/2/2009 12:54	72.72	12/2/2009 14:24	73.8
12/2/2009 11:10	64.45	12/2/2009 12:55	72.67	12/2/2009 14:25	73.64
12/2/2009 11:11	64.33	12/2/2009 12:56	72.73	12/2/2009 14:26	73.42
12/2/2009 11:12	64.26	12/2/2009 12:57	72.96	12/2/2009 14:27	73.78
12/2/2009 11:13	64.44	12/2/2009 12:58	72.85	12/2/2009 14:28	73.96
12/2/2009 11:14	64.59	12/2/2009 12:59	72.95	12/2/2009 14:29	73.46
12/2/2009 11:15	63.99	12/2/2009 13:00	72.84	12/2/2009 14:30	71.73
12/2/2009 11:16	64.17	12/2/2009 13:01	72.83	12/2/2009 14:31	71.63
12/2/2009 11:17	64.28	12/2/2009 13:02	73	12/2/2009 14:32	72.84
12/2/2009 11:18	64.15	12/2/2009 13:03	73	12/2/2009 14:33	72.67
12/2/2009 11:19	64.14	12/2/2009 13:04	73.22	12/2/2009 14:34	73.06
12/2/2009 11:20	64.35	12/2/2009 13:05	73.37	12/2/2009 14:35	73.31
12/2/2009 11:21	63.87	12/2/2009 13:06	73.29	12/2/2009 14:36	73.63
12/2/2009 11:22	63.85	12/2/2009 13:07	73.22	12/2/2009 14:37	73.64
12/2/2009 11:23	64.1	12/2/2009 13:08	73.2	12/2/2009 14:38	73.72
12/2/2009 11:24	64.44	12/2/2009 13:09	73.34	12/2/2009 14:39	73.57
12/2/2009 11:25	64.35	12/2/2009 13:10	73.42	12/2/2009 14:40	73.78
12/2/2009 11:26	64.25	12/2/2009 13:11	73.34	12/2/2009 14:41	73.59
12/2/2009 11:27	64.23	12/2/2009 13:12	73.38	12/2/2009 14:42	73.4
12/2/2009 11:28	64.3	12/2/2009 13:13	73.54	12/2/2009 14:43	73.15
12/2/2009 11:29	63.86	12/2/2009 13:14	73.18	12/2/2009 14:44	73.13
12/2/2009 11:30	63.74	12/2/2009 13:15	73.14	12/2/2009 14:45	73.66
12/2/2009 11:31	63.85	12/2/2009 13:16	73.3	12/2/2009 14:46	73.53
12/2/2009 11:32	63.96	12/2/2009 13:17	73.36	12/2/2009 14:47	73.54
12/2/2009 11:33	64.08	12/2/2009 13:18	73.53	12/2/2009 14:48	73.62
12/2/2009 11:34	64.23	12/2/2009 13:19	73.27	12/2/2009 14:49	73.66
12/2/2009 11:35	64.43	12/2/2009 13:20	73.09	12/2/2009 14:50	73.43
12/2/2009 11:36	64.53	12/2/2009 13:21	73.11	12/2/2009 14:51	73.5
12/2/2009 11:37	64.05	12/2/2009 13:22	73.16	12/2/2009 14:52	73.56
12/2/2009 11:38	64.2	12/2/2009 13:23	73.28	12/2/2009 14:53	73.63
12/2/2009 11:39	64.33	12/2/2009 13:24	73.36	12/2/2009 14:54	73.78
12/2/2009 11:40	64.39	12/2/2009 13:25	73.31	12/2/2009 14:55	73.99
12/2/2009 11:41	64.46	12/2/2009 13:26	73.35	12/2/2009 14:56	73.88
12/2/2009 11:42	64.45	12/2/2009 13:27	73.49	12/2/2009 14:57	73.77
12/2/2009 11:43	64.29	12/2/2009 13:28	73.46	12/2/2009 14:58	73.66
12/2/2009 11:44	64.23	12/2/2009 13:29	73.82	12/2/2009 14:59	73.65
12/2/2009 11:45	63.86	12/2/2009 13:30	73.82	12/2/2009 15:00	73.7
12/2/2009 11:46	63.92	12/2/2009 13:31	73.7	12/2/2009 15:01	73.49
12/2/2009 11:47	64.44	12/2/2009 13:32	73.42	12/2/2009 15:02	73.18
12/2/2009 11:48	64.56	12/2/2009 13:33	73.47	12/2/2009 15:03	72.93
12/2/2009 11:49	64.6	12/2/2009 13:34	73.24	12/2/2009 15:04	73.14
12/2/2009 11:50	64.42	12/2/2009 13:35	73.19	12/2/2009 15:05	73.13
12/2/2009 11:51	64.18	12/2/2009 13:36	73.4	12/2/2009 15:06	73.03
12/2/2009 11:52	63.96	12/2/2009 13:37	73.38	12/2/2009 15:07	72.99
12/2/2009 11:53	64.38	12/2/2009 13:38	73.61	12/2/2009 15:08	73.28
12/2/2009 11:54	64.67	12/2/2009 13:39	73.44	12/2/2009 15:09	73.09
12/2/2009 11:55	64.55	12/2/2009 13:40	73.52	12/2/2009 15:10	72.89
12/2/2009 11:56	64.42	12/2/2009 13:41	73.56	12/2/2009 15:11	72.7
12/2/2009 11:57	64.3	12/2/2009 13:42	73.18	12/2/2009 15:12	72.39
12/2/2009 11:58	64.17	12/2/2009 13:43	72.53	12/2/2009 15:13	72.11
12/2/2009 11:59	64.04	12/2/2009 13:44	73.21	12/2/2009 15:14	72.46
12/2/2009 12:00	64.04	12/2/2009 13:45	73.32	12/2/2009 15:15	72.69
Average	64.28	Average	73.20656	Average	73.33902

Coal Flow 33	Coal Flow kpph	Coal Flow 33	Coal Flow kpph	Coal Flow 33	Coal Flow
12/2/2009 11:00	64.74	12/2/2009 12:45	73.06	12/2/2009 14:15	73.38
12/2/2009 11:01	64.66	12/2/2009 12:46	72.93	12/2/2009 14:16	73.62
12/2/2009 11:02	64.58	12/2/2009 12:47	73.07	12/2/2009 14:17	73.77
12/2/2009 11:03	64.45	12/2/2009 12:48	72.97	12/2/2009 14:18	73.71
12/2/2009 11:04	64.21	12/2/2009 12:49	72.87	12/2/2009 14:19	73.65
12/2/2009 11:05	64.37	12/2/2009 12:50	72.82	12/2/2009 14:20	73.59
12/2/2009 11:06	64.46	12/2/2009 12:51	72.89	12/2/2009 14:21	73.64
12/2/2009 11:07	64.37	12/2/2009 12:52	72.97	12/2/2009 14:22	73.8
12/2/2009 11:08	64.59	12/2/2009 12:53	72.9	12/2/2009 14:23	73.72
12/2/2009 11:09	64.48	12/2/2009 12:54	72.58	12/2/2009 14:24	73.86
12/2/2009 11:10	64.42	12/2/2009 12:55	72.71	12/2/2009 14:25	73.61
12/2/2009 11:11	64.47	12/2/2009 12:56	72.83	12/2/2009 14:26	73.53
12/2/2009 11:12	64.36	12/2/2009 12:57	72.96	12/2/2009 14:27	73.75
12/2/2009 11:13	64.59	12/2/2009 12:58	72.99	12/2/2009 14:28	73.72
12/2/2009 11:14	64.63	12/2/2009 12:59	72.9	12/2/2009 14:29	73.14
12/2/2009 11:15	64.16	12/2/2009 13:00	73.13	12/2/2009 14:30	71.66
12/2/2009 11:16	64.23	12/2/2009 13:01	72.97	12/2/2009 14:31	71.79
12/2/2009 11:17	64.31	12/2/2009 13:02	72.72	12/2/2009 14:32	72.91
12/2/2009 11:18	64.39	12/2/2009 13:03	73.09	12/2/2009 14:33	72.65
12/2/2009 11:19	64.46	12/2/2009 13:04	73.23	12/2/2009 14:34	72.91
12/2/2009 11:20	64.44	12/2/2009 13:05	73.29	12/2/2009 14:35	73.06
12/2/2009 11:21	64.06	12/2/2009 13:06	73.21	12/2/2009 14:36	73.58
12/2/2009 11:22	63.8	12/2/2009 13:07	73.29	12/2/2009 14:37	73.81
12/2/2009 11:23	64.06	12/2/2009 13:08	73.29	12/2/2009 14:38	73.69
12/2/2009 11:24	64.48	12/2/2009 13:09	73.2	12/2/2009 14:39	73.2
12/2/2009 11:25	64.32	12/2/2009 13:10	73.42	12/2/2009 14:40	73.48
12/2/2009 11:26	64.53	12/2/2009 13:11	73.27	12/2/2009 14:41	73.37
12/2/2009 11:27	64.46	12/2/2009 13:12	73.35	12/2/2009 14:42	73.26
12/2/2009 11:28	64.39	12/2/2009 13:13	73.44	12/2/2009 14:43	73.03
12/2/2009 11:29	64.16	12/2/2009 13:14	73.4	12/2/2009 14:44	72.99
12/2/2009 11:30	63.71	12/2/2009 13:15	73.16	12/2/2009 14:45	73.63
12/2/2009 11:31	64.15	12/2/2009 13:16	73.21	12/2/2009 14:46	73.58
12/2/2009 11:32	64.03	12/2/2009 13:17	73.37	12/2/2009 14:47	73.74
12/2/2009 11:33	64.01	12/2/2009 13:18	73.57	12/2/2009 14:48	73.85
12/2/2009 11:34	64.27	12/2/2009 13:19	73.19	12/2/2009 14:49	73.75
12/2/2009 11:35	64.37	12/2/2009 13:20	73.17	12/2/2009 14:50	73.53
12/2/2009 11:36	64.51	12/2/2009 13:21	73.38	12/2/2009 14:51	73.59
12/2/2009 11:37	64.23	12/2/2009 13:22	73.36	12/2/2009 14:52	73.6
12/2/2009 11:38	64.22	12/2/2009 13:23	73.29	12/2/2009 14:53	73.49
12/2/2009 11:39	64.21	12/2/2009 13:24	73.23	12/2/2009 14:54	73.68
12/2/2009 11:40	64.26	12/2/2009 13:25	73.48	12/2/2009 14:55	74.19
12/2/2009 11:41	64.52	12/2/2009 13:26	73.58	12/2/2009 14:56	73.97
12/2/2009 11:42	64.63	12/2/2009 13:27	73.7	12/2/2009 14:57	73.86
12/2/2009 11:43	64.28	12/2/2009 13:28	73.59	12/2/2009 14:58	73.91
12/2/2009 11:44	64.04	12/2/2009 13:29	73.85	12/2/2009 14:59	73.77
12/2/2009 11:45	63.9	12/2/2009 13:30	73.47	12/2/2009 15:00	73.63
12/2/2009 11:46	64.13	12/2/2009 13:31	73.51	12/2/2009 15:01	73.54
12/2/2009 11:47	64.57	12/2/2009 13:32	73.26	12/2/2009 15:02	73.24
12/2/2009 11:48	64.58	12/2/2009 13:33	73.49	12/2/2009 15:03	72.67
12/2/2009 11:49	64.53	12/2/2009 13:34	73.23	12/2/2009 15:04	73
12/2/2009 11:50	64.27	12/2/2009 13:35	73.16	12/2/2009 15:05	73.26
12/2/2009 11:51	64.12	12/2/2009 13:36	73.49	12/2/2009 15:06	73.16
12/2/2009 11:52	64.26	12/2/2009 13:37	73.58	12/2/2009 15:07	72.89
12/2/2009 11:53	64.28	12/2/2009 13:38	73.56	12/2/2009 15:08	73.04
12/2/2009 11:54	64.54	12/2/2009 13:39	73.38	12/2/2009 15:09	72.85
12/2/2009 11:55	64.18	12/2/2009 13:40	73.59	12/2/2009 15:10	73.09
12/2/2009 11:56	64.19	12/2/2009 13:41	73.64	12/2/2009 15:11	72.95
12/2/2009 11:57	64.2	12/2/2009 13:42	73.12	12/2/2009 15:12	72.43
12/2/2009 11:58	64.15	12/2/2009 13:43	72.59	12/2/2009 15:13	72.25
12/2/2009 11:59	64.01	12/2/2009 13:44	73.2	12/2/2009 15:14	72.37
12/2/2009 12:00	64.1	12/2/2009 13:45	73.34	12/2/2009 15:15	72.59
Average	64.31279	Average	73.22115	Average	73.32754

Coal Flow 34	Coal Flow kpph	Coal Flow 34	Coal Flow kpph	Coal Flow 34	Coal Flow
12/2/2009 11:00	64.81	12/2/2009 12:45	73.28	12/2/2009 14:15	73.41
12/2/2009 11:01	65	12/2/2009 12:46	73.16	12/2/2009 14:16	73.42
12/2/2009 11:02	64.71	12/2/2009 12:47	73.03	12/2/2009 14:17	73.51
12/2/2009 11:03	64.42	12/2/2009 12:48	72.91	12/2/2009 14:18	73.61
12/2/2009 11:04	64.21	12/2/2009 12:49	72.78	12/2/2009 14:19	73.7
12/2/2009 11:05	64.28	12/2/2009 12:50	72.7	12/2/2009 14:20	73.79
12/2/2009 11:06	64.34	12/2/2009 12:51	72.75	12/2/2009 14:21	73.88
12/2/2009 11:07	64.41	12/2/2009 12:52	72.81	12/2/2009 14:22	73.9
12/2/2009 11:08	64.48	12/2/2009 12:53	72.85	12/2/2009 14:23	73.73
12/2/2009 11:09	64.55	12/2/2009 12:54	72.88	12/2/2009 14:24	73.57
12/2/2009 11:10	64.61	12/2/2009 12:55	72.9	12/2/2009 14:25	73.4
12/2/2009 11:11	64.68	12/2/2009 12:56	72.93	12/2/2009 14:26	73.35
12/2/2009 11:12	64.75	12/2/2009 12:57	72.96	12/2/2009 14:27	73.57
12/2/2009 11:13	64.81	12/2/2009 12:58	72.98	12/2/2009 14:28	73.79
12/2/2009 11:14	64.66	12/2/2009 12:59	73.01	12/2/2009 14:29	73.49
12/2/2009 11:15	63.93	12/2/2009 13:00	73.04	12/2/2009 14:30	72.01
12/2/2009 11:16	63.94	12/2/2009 13:01	73.06	12/2/2009 14:31	71.58
12/2/2009 11:17	63.94	12/2/2009 13:02	73.09	12/2/2009 14:32	73.01
12/2/2009 11:18	63.95	12/2/2009 13:03	73.12	12/2/2009 14:33	73.18
12/2/2009 11:19	63.95	12/2/2009 13:04	73.14	12/2/2009 14:34	73.35
12/2/2009 11:20	63.96	12/2/2009 13:05	73.17	12/2/2009 14:35	73.52
12/2/2009 11:21	63.97	12/2/2009 13:06	73.19	12/2/2009 14:36	73.69
12/2/2009 11:22	63.97	12/2/2009 13:07	73.22	12/2/2009 14:37	73.87
12/2/2009 11:23	63.98	12/2/2009 13:08	73.25	12/2/2009 14:38	73.69
12/2/2009 11:24	63.98	12/2/2009 13:09	73.27	12/2/2009 14:39	73.05
12/2/2009 11:25	63.99	12/2/2009 13:10	73.3	12/2/2009 14:40	73.09
12/2/2009 11:26	64	12/2/2009 13:11	73.33	12/2/2009 14:41	73.13
12/2/2009 11:27	64	12/2/2009 13:12	73.35	12/2/2009 14:42	73.17
12/2/2009 11:28	64.01	12/2/2009 13:13	73.38	12/2/2009 14:43	73.23
12/2/2009 11:29	64.02	12/2/2009 13:14	73.4	12/2/2009 14:44	73.32
12/2/2009 11:30	64.06	12/2/2009 13:15	73.41	12/2/2009 14:45	73.41
12/2/2009 11:31	64.11	12/2/2009 13:16	73.41	12/2/2009 14:46	73.5
12/2/2009 11:32	64.15	12/2/2009 13:17	73.41	12/2/2009 14:47	73.6
12/2/2009 11:33	64.19	12/2/2009 13:18	73.42	12/2/2009 14:48	73.66
12/2/2009 11:34	64.23	12/2/2009 13:19	73.42	12/2/2009 14:49	73.68
12/2/2009 11:35	64.27	12/2/2009 13:20	73.43	12/2/2009 14:50	73.7
12/2/2009 11:36	64.32	12/2/2009 13:21	73.43	12/2/2009 14:51	73.72
12/2/2009 11:37	64.36	12/2/2009 13:22	73.44	12/2/2009 14:52	73.74
12/2/2009 11:38	64.42	12/2/2009 13:23	73.44	12/2/2009 14:53	73.76
12/2/2009 11:39	64.47	12/2/2009 13:24	73.44	12/2/2009 14:54	73.78
12/2/2009 11:40	64.53	12/2/2009 13:25	73.48	12/2/2009 14:55	73.8
12/2/2009 11:41	64.58	12/2/2009 13:26	73.59	12/2/2009 14:56	73.82
12/2/2009 11:42	64.58	12/2/2009 13:27	73.71	12/2/2009 14:57	73.84
12/2/2009 11:43	64.39	12/2/2009 13:28	73.82	12/2/2009 14:58	73.82
12/2/2009 11:44	64.2	12/2/2009 13:29	73.84	12/2/2009 14:59	73.74
12/2/2009 11:45	64.01	12/2/2009 13:30	73.62	12/2/2009 15:00	73.65
12/2/2009 11:46	63.88	12/2/2009 13:31	73.4	12/2/2009 15:01	73.57
12/2/2009 11:47	63.96	12/2/2009 13:32	73.44	12/2/2009 15:02	73.21
12/2/2009 11:48	64.04	12/2/2009 13:33	73.9	12/2/2009 15:03	72.64
12/2/2009 11:49	64.12	12/2/2009 13:34	73.65	12/2/2009 15:04	72.89
12/2/2009 11:50	64.2	12/2/2009 13:35	73.4	12/2/2009 15:05	73.14
12/2/2009 11:51	64.26	12/2/2009 13:36	73.23	12/2/2009 15:06	73.27
12/2/2009 11:52	64.26	12/2/2009 13:37	73.28	12/2/2009 15:07	73.16
12/2/2009 11:53	64.26	12/2/2009 13:38	73.33	12/2/2009 15:08	73.05
12/2/2009 11:54	64.26	12/2/2009 13:39	73.38	12/2/2009 15:09	72.94
12/2/2009 11:55	64.26	12/2/2009 13:40	73.43	12/2/2009 15:10	72.82
12/2/2009 11:56	64.26	12/2/2009 13:41	73.48	12/2/2009 15:11	72.71
12/2/2009 11:57	64.25	12/2/2009 13:42	73.2	12/2/2009 15:12	72.6
12/2/2009 11:58	64.25	12/2/2009 13:43	72.51	12/2/2009 15:13	72.49
12/2/2009 11:59	64.25	12/2/2009 13:44	72.88	12/2/2009 15:14	72.44
12/2/2009 12:00	64.25	12/2/2009 13:45	73.25	12/2/2009 15:15	72.53
Average	64.26131	Average	73.25098	Average	73.33918
Total SUM	254.5859	Total SUM	290.3523	Total SUM	290.7336

Set 2 - Run 1

Coal Flow 31	Coal Flow kpph
12/3/2009 7:05	60.84
12/3/2009 7:06	60.81
12/3/2009 7:07	60.56
12/3/2009 7:08	60.32
12/3/2009 7:09	60.46
12/3/2009 7:10	60.76
12/3/2009 7:11	60.46
12/3/2009 7:12	60.11
12/3/2009 7:13	60.03
12/3/2009 7:14	60.03
12/3/2009 7:15	60.22
12/3/2009 7:16	60.29
12/3/2009 7:17	60.52
12/3/2009 7:18	60.58
12/3/2009 7:19	60.56
12/3/2009 7:20	60.53
12/3/2009 7:21	60.5
12/3/2009 7:22	60.33
12/3/2009 7:23	60.1
12/3/2009 7:24	60.27
12/3/2009 7:25	60.59
12/3/2009 7:26	60.67
12/3/2009 7:27	60.43
12/3/2009 7:28	60.39
12/3/2009 7:29	60.21
12/3/2009 7:30	60.19
12/3/2009 7:31	60.25
12/3/2009 7:32	60.31
12/3/2009 7:33	60.55
12/3/2009 7:34	60.41
12/3/2009 7:35	60.29
12/3/2009 7:36	60.25
12/3/2009 7:37	60.22
12/3/2009 7:38	60.18
12/3/2009 7:39	60.14
12/3/2009 7:40	60.38
12/3/2009 7:41	60.26
12/3/2009 7:42	60.33
12/3/2009 7:43	60.53
12/3/2009 7:44	60.72
12/3/2009 7:45	60.76
12/3/2009 7:46	60.73
12/3/2009 7:47	60.7
12/3/2009 7:48	60.52
12/3/2009 7:49	60.66
12/3/2009 7:50	60.34
12/3/2009 7:51	60.25
12/3/2009 7:52	60.3
12/3/2009 7:53	60.36
12/3/2009 7:54	60.56
12/3/2009 7:55	60.61
12/3/2009 7:56	60.59
12/3/2009 7:57	60.4
12/3/2009 7:58	60.54
12/3/2009 7:59	60.59
12/3/2009 8:00	60.55
12/3/2009 8:01	60.52
12/3/2009 8:02	60.48
12/3/2009 8:03	60.2
12/3/2009 8:04	60.12
12/3/2009 8:05	60.12

Average 60.4177

Set 2 - Run 2

Coal Flow 31	Coal Flow kpph
12/3/2009 8:35	60.26
12/3/2009 8:36	60.51
12/3/2009 8:37	60.82
12/3/2009 8:38	60.9
12/3/2009 8:39	60.72
12/3/2009 8:40	60.48
12/3/2009 8:41	60.65
12/3/2009 8:42	60.53
12/3/2009 8:43	60.27
12/3/2009 8:44	60.18
12/3/2009 8:45	60.15
12/3/2009 8:46	60.21
12/3/2009 8:47	60.29
12/3/2009 8:48	60.27
12/3/2009 8:49	60.48
12/3/2009 8:50	60.44
12/3/2009 8:51	60.28
12/3/2009 8:52	60.5
12/3/2009 8:53	60.62
12/3/2009 8:54	60.33
12/3/2009 8:55	60.45
12/3/2009 8:56	60.51
12/3/2009 8:57	60.33
12/3/2009 8:58	60.09
12/3/2009 8:59	60.15
12/3/2009 9:00	60.32
12/3/2009 9:01	60.35
12/3/2009 9:02	60.12
12/3/2009 9:03	60.26
12/3/2009 9:04	60.54
12/3/2009 9:05	60.5
12/3/2009 9:06	60.35
12/3/2009 9:07	60.58
12/3/2009 9:08	60.66
12/3/2009 9:09	60.66
12/3/2009 9:10	60.66
12/3/2009 9:11	60.32
12/3/2009 9:12	60.23
12/3/2009 9:13	59.82
12/3/2009 9:14	59.97
12/3/2009 9:15	60.32
12/3/2009 9:16	60.15
12/3/2009 9:17	60.22
12/3/2009 9:18	60.06
12/3/2009 9:19	60.3
12/3/2009 9:20	60.42
12/3/2009 9:21	60.48
12/3/2009 9:22	60.97
12/3/2009 9:23	60.92
12/3/2009 9:24	60.67
12/3/2009 9:25	60.64
12/3/2009 9:26	60.39
12/3/2009 9:27	60.47
12/3/2009 9:28	60.66
12/3/2009 9:29	60.68
12/3/2009 9:30	60.48
12/3/2009 9:31	60.24
12/3/2009 9:32	60.4
12/3/2009 9:33	60.47
12/3/2009 9:34	60.26
12/3/2009 9:35	60.42

Average 60.41607

Set 2 - Run 3

Coal Flow 31	Coal Flow kpph
12/3/2009 10:25	11.03
12/3/2009 10:26	0
12/3/2009 10:27	44.94
12/3/2009 10:28	56.23
12/3/2009 10:29	56.04
12/3/2009 10:30	56.06
12/3/2009 10:31	55.89
12/3/2009 10:32	55.65
12/3/2009 10:33	55.41
12/3/2009 10:34	55.71
12/3/2009 10:35	55.88
12/3/2009 10:36	55.26
12/3/2009 10:37	55.13
12/3/2009 10:38	55.39
12/3/2009 10:39	55.17
12/3/2009 10:40	54.81
12/3/2009 10:41	54.66
12/3/2009 10:42	54.95
12/3/2009 10:43	54.77
12/3/2009 10:44	55.23
12/3/2009 10:45	55.17
12/3/2009 10:46	55.37
12/3/2009 10:47	55.34
12/3/2009 10:48	55.24
12/3/2009 10:49	55.44
12/3/2009 10:50	55.71
12/3/2009 10:51	55.61
12/3/2009 10:52	55.64
12/3/2009 10:53	55.72
12/3/2009 10:54	55.67
12/3/2009 10:55	55.6
12/3/2009 10:56	55.13
12/3/2009 10:57	55.14
12/3/2009 10:58	55.8
12/3/2009 10:59	55.93
12/3/2009 11:00	55.91
12/3/2009 11:01	55.89
12/3/2009 11:02	55.45
12/3/2009 11:03	55.81
12/3/2009 11:04	55.95
12/3/2009 11:05	55.98
12/3/2009 11:06	55.05
12/3/2009 11:07	55.64
12/3/2009 11:08	55.7
12/3/2009 11:09	55.76
12/3/2009 11:10	55.86
12/3/2009 11:11	55.14
12/3/2009 11:12	55.23
12/3/2009 11:13	55.32
12/3/2009 11:14	55.57
12/3/2009 11:15	55.63
12/3/2009 11:16	55.35
12/3/2009 11:17	55.37
12/3/2009 11:18	55.14
12/3/2009 11:19	55.12
12/3/2009 11:20	55.17
12/3/2009 11:21	55.21
12/3/2009 11:22	54.66
12/3/2009 11:23	55.23
12/3/2009 11:24	54.88
12/3/2009 11:25	54.96

Average 53.63443

Coal Flow 32	Coal Flow kpph	Coal Flow 32	Coal Flow kpph	Coal Flow 32	Coal Flow kpph
12/3/2009 7:05	64.64	12/3/2009 8:35	64.27	12/3/2009 10:25	11.34
12/3/2009 7:06	64.71	12/3/2009 8:36	64.48	12/3/2009 10:26	0
12/3/2009 7:07	64.28	12/3/2009 8:37	64.57	12/3/2009 10:27	45.95
12/3/2009 7:08	64.12	12/3/2009 8:38	64.61	12/3/2009 10:28	57.46
12/3/2009 7:09	64.53	12/3/2009 8:39	64.34	12/3/2009 10:29	57.28
12/3/2009 7:10	64.7	12/3/2009 8:40	64.35	12/3/2009 10:30	57.26
12/3/2009 7:11	64.28	12/3/2009 8:41	64.38	12/3/2009 10:31	57.3
12/3/2009 7:12	63.96	12/3/2009 8:42	64.37	12/3/2009 10:32	56.87
12/3/2009 7:13	63.76	12/3/2009 8:43	63.94	12/3/2009 10:33	56.8
12/3/2009 7:14	63.92	12/3/2009 8:44	63.92	12/3/2009 10:34	56.83
12/3/2009 7:15	64.06	12/3/2009 8:45	64.06	12/3/2009 10:35	57.16
12/3/2009 7:16	64.12	12/3/2009 8:46	64.19	12/3/2009 10:36	56.7
12/3/2009 7:17	64.43	12/3/2009 8:47	64.43	12/3/2009 10:37	56.69
12/3/2009 7:18	64.58	12/3/2009 8:48	64.37	12/3/2009 10:38	56.84
12/3/2009 7:19	64.44	12/3/2009 8:49	64.2	12/3/2009 10:39	56.34
12/3/2009 7:20	64.21	12/3/2009 8:50	64.33	12/3/2009 10:40	56.02
12/3/2009 7:21	63.98	12/3/2009 8:51	64.15	12/3/2009 10:41	55.78
12/3/2009 7:22	64.01	12/3/2009 8:52	64.32	12/3/2009 10:42	56.36
12/3/2009 7:23	64.14	12/3/2009 8:53	64.36	12/3/2009 10:43	56.25
12/3/2009 7:24	64.27	12/3/2009 8:54	64.3	12/3/2009 10:44	56.51
12/3/2009 7:25	64.4	12/3/2009 8:55	64.22	12/3/2009 10:45	56.58
12/3/2009 7:26	64.52	12/3/2009 8:56	64.13	12/3/2009 10:46	56.58
12/3/2009 7:27	64.33	12/3/2009 8:57	64.03	12/3/2009 10:47	56.18
12/3/2009 7:28	64.36	12/3/2009 8:58	63.94	12/3/2009 10:48	56.4
12/3/2009 7:29	64.24	12/3/2009 8:59	63.97	12/3/2009 10:49	56.78
12/3/2009 7:30	64.28	12/3/2009 9:00	64.05	12/3/2009 10:50	56.84
12/3/2009 7:31	64.22	12/3/2009 9:01	64.26	12/3/2009 10:51	56.82
12/3/2009 7:32	64.25	12/3/2009 9:02	63.9	12/3/2009 10:52	56.81
12/3/2009 7:33	64.34	12/3/2009 9:03	63.94	12/3/2009 10:53	56.8
12/3/2009 7:34	64.25	12/3/2009 9:04	64.15	12/3/2009 10:54	56.78
12/3/2009 7:35	64.1	12/3/2009 9:05	64.37	12/3/2009 10:55	56.9
12/3/2009 7:36	64.06	12/3/2009 9:06	64.24	12/3/2009 10:56	56.33
12/3/2009 7:37	64.05	12/3/2009 9:07	64.52	12/3/2009 10:57	56.34
12/3/2009 7:38	64.2	12/3/2009 9:08	64.56	12/3/2009 10:58	56.96
12/3/2009 7:39	64.24	12/3/2009 9:09	64.49	12/3/2009 10:59	57.21
12/3/2009 7:40	64.23	12/3/2009 9:10	64.42	12/3/2009 11:00	57.04
12/3/2009 7:41	64.21	12/3/2009 9:11	64.08	12/3/2009 11:01	57.22
12/3/2009 7:42	64.32	12/3/2009 9:12	64.06	12/3/2009 11:02	56.66
12/3/2009 7:43	64.48	12/3/2009 9:13	63.73	12/3/2009 11:03	56.95
12/3/2009 7:44	64.64	12/3/2009 9:14	63.97	12/3/2009 11:04	56.88
12/3/2009 7:45	64.57	12/3/2009 9:15	64.1	12/3/2009 11:05	57.02
12/3/2009 7:46	64.4	12/3/2009 9:16	64.14	12/3/2009 11:06	56.2
12/3/2009 7:47	64.24	12/3/2009 9:17	63.92	12/3/2009 11:07	57.09
12/3/2009 7:48	64.39	12/3/2009 9:18	63.63	12/3/2009 11:08	57.19
12/3/2009 7:49	64.4	12/3/2009 9:19	64.22	12/3/2009 11:09	57.01
12/3/2009 7:50	64.02	12/3/2009 9:20	64.29	12/3/2009 11:10	57.05
12/3/2009 7:51	64.03	12/3/2009 9:21	64.47	12/3/2009 11:11	56.46
12/3/2009 7:52	64.23	12/3/2009 9:22	64.75	12/3/2009 11:12	56.59
12/3/2009 7:53	64.14	12/3/2009 9:23	64.67	12/3/2009 11:13	56.65
12/3/2009 7:54	64.45	12/3/2009 9:24	64.47	12/3/2009 11:14	56.65
12/3/2009 7:55	64.44	12/3/2009 9:25	64.43	12/3/2009 11:15	56.84
12/3/2009 7:56	64.45	12/3/2009 9:26	64.09	12/3/2009 11:16	56.64
12/3/2009 7:57	64.11	12/3/2009 9:27	64.3	12/3/2009 11:17	56.36
12/3/2009 7:58	64.06	12/3/2009 9:28	64.33	12/3/2009 11:18	56.14
12/3/2009 7:59	64.16	12/3/2009 9:29	64.25	12/3/2009 11:19	56.4
12/3/2009 8:00	64.47	12/3/2009 9:30	64.08	12/3/2009 11:20	56.38
12/3/2009 8:01	64.44	12/3/2009 9:31	63.89	12/3/2009 11:21	56.28
12/3/2009 8:02	64.27	12/3/2009 9:32	64.17	12/3/2009 11:22	55.92
12/3/2009 8:03	64.1	12/3/2009 9:33	64.18	12/3/2009 11:23	56.49
12/3/2009 8:04	63.76	12/3/2009 9:34	64.08	12/3/2009 11:24	56
12/3/2009 8:05	63.8	12/3/2009 9:35	64.35	12/3/2009 11:25	56.03
Average	64.25885	Average	64.2259	Average	54.82279

Coal Flow 33	Coal Flow kpph	Coal Flow 33	Coal Flow kpph	Coal Flow 33	Coal Flow kpph
12/3/2009 7:05	64.8	12/3/2009 8:35	64.12	12/3/2009 10:25	11.32
12/3/2009 7:06	64.69	12/3/2009 8:36	64.31	12/3/2009 10:26	0
12/3/2009 7:07	64.44	12/3/2009 8:37	64.91	12/3/2009 10:27	45.82
12/3/2009 7:08	64.48	12/3/2009 8:38	64.66	12/3/2009 10:28	57.44
12/3/2009 7:09	64.59	12/3/2009 8:39	64.47	12/3/2009 10:29	57.1
12/3/2009 7:10	64.7	12/3/2009 8:40	64.4	12/3/2009 10:30	57.29
12/3/2009 7:11	64.42	12/3/2009 8:41	64.33	12/3/2009 10:31	57.15
12/3/2009 7:12	64.15	12/3/2009 8:42	64.39	12/3/2009 10:32	56.88
12/3/2009 7:13	63.93	12/3/2009 8:43	64.17	12/3/2009 10:33	56.85
12/3/2009 7:14	63.91	12/3/2009 8:44	64.17	12/3/2009 10:34	56.88
12/3/2009 7:15	63.97	12/3/2009 8:45	64.29	12/3/2009 10:35	57.13
12/3/2009 7:16	64.04	12/3/2009 8:46	64.13	12/3/2009 10:36	56.82
12/3/2009 7:17	64.46	12/3/2009 8:47	64.36	12/3/2009 10:37	56.73
12/3/2009 7:18	64.53	12/3/2009 8:48	64.38	12/3/2009 10:38	56.72
12/3/2009 7:19	64.4	12/3/2009 8:49	64.28	12/3/2009 10:39	56.44
12/3/2009 7:20	64.27	12/3/2009 8:50	64.36	12/3/2009 10:40	56.1
12/3/2009 7:21	64.15	12/3/2009 8:51	64.12	12/3/2009 10:41	56.04
12/3/2009 7:22	64	12/3/2009 8:52	64.45	12/3/2009 10:42	56.37
12/3/2009 7:23	64.22	12/3/2009 8:53	64.38	12/3/2009 10:43	56.19
12/3/2009 7:24	64.37	12/3/2009 8:54	64.11	12/3/2009 10:44	56.29
12/3/2009 7:25	64.46	12/3/2009 8:55	64.18	12/3/2009 10:45	56.49
12/3/2009 7:26	64.54	12/3/2009 8:56	64.13	12/3/2009 10:46	56.39
12/3/2009 7:27	64.5	12/3/2009 8:57	64.01	12/3/2009 10:47	56.21
12/3/2009 7:28	64.41	12/3/2009 8:58	63.88	12/3/2009 10:48	56.42
12/3/2009 7:29	63.86	12/3/2009 8:59	64.21	12/3/2009 10:49	56.71
12/3/2009 7:30	64.03	12/3/2009 9:00	64.27	12/3/2009 10:50	57
12/3/2009 7:31	64.28	12/3/2009 9:01	64.21	12/3/2009 10:51	57.02
12/3/2009 7:32	64.17	12/3/2009 9:02	63.91	12/3/2009 10:52	56.98
12/3/2009 7:33	64.18	12/3/2009 9:03	64.17	12/3/2009 10:53	56.84
12/3/2009 7:34	64.28	12/3/2009 9:04	64.19	12/3/2009 10:54	56.67
12/3/2009 7:35	64.37	12/3/2009 9:05	64.23	12/3/2009 10:55	57.13
12/3/2009 7:36	64.28	12/3/2009 9:06	64.31	12/3/2009 10:56	56.45
12/3/2009 7:37	64.13	12/3/2009 9:07	64.4	12/3/2009 10:57	56.32
12/3/2009 7:38	64.28	12/3/2009 9:08	64.67	12/3/2009 10:58	56.78
12/3/2009 7:39	63.95	12/3/2009 9:09	64.61	12/3/2009 10:59	56.99
12/3/2009 7:40	63.93	12/3/2009 9:10	64.43	12/3/2009 11:00	57.12
12/3/2009 7:41	64.11	12/3/2009 9:11	63.96	12/3/2009 11:01	56.99
12/3/2009 7:42	64.43	12/3/2009 9:12	64.19	12/3/2009 11:02	56.79
12/3/2009 7:43	64.55	12/3/2009 9:13	63.8	12/3/2009 11:03	57.1
12/3/2009 7:44	64.57	12/3/2009 9:14	64.27	12/3/2009 11:04	57.24
12/3/2009 7:45	64.34	12/3/2009 9:15	64.36	12/3/2009 11:05	57.01
12/3/2009 7:46	64.3	12/3/2009 9:16	63.99	12/3/2009 11:06	56.1
12/3/2009 7:47	64.35	12/3/2009 9:17	63.95	12/3/2009 11:07	57.07
12/3/2009 7:48	64.4	12/3/2009 9:18	63.64	12/3/2009 11:08	57.17
12/3/2009 7:49	64.45	12/3/2009 9:19	64.21	12/3/2009 11:09	56.98
12/3/2009 7:50	64.14	12/3/2009 9:20	64.41	12/3/2009 11:10	57.19
12/3/2009 7:51	64.14	12/3/2009 9:21	64.41	12/3/2009 11:11	56.54
12/3/2009 7:52	64.07	12/3/2009 9:22	64.71	12/3/2009 11:12	56.54
12/3/2009 7:53	64.16	12/3/2009 9:23	64.78	12/3/2009 11:13	56.73
12/3/2009 7:54	64.55	12/3/2009 9:24	64.56	12/3/2009 11:14	56.73
12/3/2009 7:55	64.43	12/3/2009 9:25	64.29	12/3/2009 11:15	56.69
12/3/2009 7:56	64.1	12/3/2009 9:26	64.17	12/3/2009 11:16	56.51
12/3/2009 7:57	64.1	12/3/2009 9:27	64.27	12/3/2009 11:17	56.3
12/3/2009 7:58	64.2	12/3/2009 9:28	64.41	12/3/2009 11:18	56.09
12/3/2009 7:59	64.1	12/3/2009 9:29	64.36	12/3/2009 11:19	56.23
12/3/2009 8:00	64.15	12/3/2009 9:30	64.25	12/3/2009 11:20	56.45
12/3/2009 8:01	64.52	12/3/2009 9:31	64.14	12/3/2009 11:21	56.66
12/3/2009 8:02	64.35	12/3/2009 9:32	64.18	12/3/2009 11:22	56.12
12/3/2009 8:03	63.97	12/3/2009 9:33	64.28	12/3/2009 11:23	56.6
12/3/2009 8:04	63.94	12/3/2009 9:34	64.21	12/3/2009 11:24	56.11
12/3/2009 8:05	64.03	12/3/2009 9:35	64.57	12/3/2009 11:25	56.09
Average	64.27246	Average	64.2782	Average	54.83787

Coal Flow 34	Coal Flow kpph	Coal Flow 34	Coal Flow kpph	Coal Flow 34	Coal Flow kpph
12/3/2009 7:05	64.96	12/3/2009 8:35	64.2	12/3/2009 10:25	11.31
12/3/2009 7:06	64.92	12/3/2009 8:36	64.25	12/3/2009 10:26	0
12/3/2009 7:07	64.77	12/3/2009 8:37	64.31	12/3/2009 10:27	45.9
12/3/2009 7:08	64.63	12/3/2009 8:38	64.37	12/3/2009 10:28	57.16
12/3/2009 7:09	64.48	12/3/2009 8:39	64.44	12/3/2009 10:29	57.11
12/3/2009 7:10	64.39	12/3/2009 8:40	64.4	12/3/2009 10:30	57.06
12/3/2009 7:11	64.31	12/3/2009 8:41	64.33	12/3/2009 10:31	57.02
12/3/2009 7:12	64.24	12/3/2009 8:42	64.26	12/3/2009 10:32	56.97
12/3/2009 7:13	64.16	12/3/2009 8:43	64.2	12/3/2009 10:33	56.92
12/3/2009 7:14	64.09	12/3/2009 8:44	64.13	12/3/2009 10:34	56.87
12/3/2009 7:15	64.02	12/3/2009 8:45	64.06	12/3/2009 10:35	57.23
12/3/2009 7:16	63.94	12/3/2009 8:46	63.99	12/3/2009 10:36	56.62
12/3/2009 7:17	64.13	12/3/2009 8:47	63.98	12/3/2009 10:37	56.4
12/3/2009 7:18	64.41	12/3/2009 8:48	63.98	12/3/2009 10:38	56.34
12/3/2009 7:19	64.45	12/3/2009 8:49	63.99	12/3/2009 10:39	56.27
12/3/2009 7:20	64.4	12/3/2009 8:50	63.99	12/3/2009 10:40	56.05
12/3/2009 7:21	64.35	12/3/2009 8:51	64	12/3/2009 10:41	55.79
12/3/2009 7:22	64.3	12/3/2009 8:52	64	12/3/2009 10:42	56.39
12/3/2009 7:23	64.25	12/3/2009 8:53	64.01	12/3/2009 10:43	56.04
12/3/2009 7:24	64.2	12/3/2009 8:54	64.01	12/3/2009 10:44	56.15
12/3/2009 7:25	64.17	12/3/2009 8:55	64.02	12/3/2009 10:45	56.44
12/3/2009 7:26	64.15	12/3/2009 8:56	64.02	12/3/2009 10:46	56.54
12/3/2009 7:27	64.14	12/3/2009 8:57	64.03	12/3/2009 10:47	56.59
12/3/2009 7:28	64.12	12/3/2009 8:58	64.03	12/3/2009 10:48	56.65
12/3/2009 7:29	64.1	12/3/2009 8:59	64.04	12/3/2009 10:49	56.7
12/3/2009 7:30	64.09	12/3/2009 9:00	64.04	12/3/2009 10:50	56.76
12/3/2009 7:31	64.07	12/3/2009 9:01	64.05	12/3/2009 10:51	56.81
12/3/2009 7:32	64.05	12/3/2009 9:02	64.08	12/3/2009 10:52	56.86
12/3/2009 7:33	64.04	12/3/2009 9:03	64.11	12/3/2009 10:53	56.92
12/3/2009 7:34	64.02	12/3/2009 9:04	64.14	12/3/2009 10:54	56.97
12/3/2009 7:35	64	12/3/2009 9:05	64.18	12/3/2009 10:55	57.03
12/3/2009 7:36	63.99	12/3/2009 9:06	64.21	12/3/2009 10:56	56.8
12/3/2009 7:37	63.97	12/3/2009 9:07	64.24	12/3/2009 10:57	56.51
12/3/2009 7:38	63.96	12/3/2009 9:08	64.28	12/3/2009 10:58	56.6
12/3/2009 7:39	63.94	12/3/2009 9:09	64.31	12/3/2009 10:59	56.78
12/3/2009 7:40	63.92	12/3/2009 9:10	64.34	12/3/2009 11:00	56.95
12/3/2009 7:41	63.91	12/3/2009 9:11	64.16	12/3/2009 11:01	57.13
12/3/2009 7:42	64.13	12/3/2009 9:12	63.92	12/3/2009 11:02	57.15
12/3/2009 7:43	64.43	12/3/2009 9:13	63.67	12/3/2009 11:03	57.14
12/3/2009 7:44	64.74	12/3/2009 9:14	63.69	12/3/2009 11:04	57.12
12/3/2009 7:45	64.71	12/3/2009 9:15	63.78	12/3/2009 11:05	57.11
12/3/2009 7:46	64.55	12/3/2009 9:16	63.87	12/3/2009 11:06	56.24
12/3/2009 7:47	64.39	12/3/2009 9:17	63.96	12/3/2009 11:07	57.15
12/3/2009 7:48	64.33	12/3/2009 9:18	64.05	12/3/2009 11:08	57.34
12/3/2009 7:49	64.31	12/3/2009 9:19	64.14	12/3/2009 11:09	57.26
12/3/2009 7:50	64.28	12/3/2009 9:20	64.24	12/3/2009 11:10	57.19
12/3/2009 7:51	64.26	12/3/2009 9:21	64.33	12/3/2009 11:11	56.41
12/3/2009 7:52	64.24	12/3/2009 9:22	64.35	12/3/2009 11:12	56.29
12/3/2009 7:53	64.21	12/3/2009 9:23	64.36	12/3/2009 11:13	56.34
12/3/2009 7:54	64.21	12/3/2009 9:24	64.37	12/3/2009 11:14	56.4
12/3/2009 7:55	64.22	12/3/2009 9:25	64.38	12/3/2009 11:15	56.45
12/3/2009 7:56	64.23	12/3/2009 9:26	64.39	12/3/2009 11:16	56.51
12/3/2009 7:57	64.24	12/3/2009 9:27	64.39	12/3/2009 11:17	56.56
12/3/2009 7:58	64.25	12/3/2009 9:28	64.4	12/3/2009 11:18	56.56
12/3/2009 7:59	64.26	12/3/2009 9:29	64.41	12/3/2009 11:19	56.54
12/3/2009 8:00	64.27	12/3/2009 9:30	64.42	12/3/2009 11:20	56.52
12/3/2009 8:01	64.28	12/3/2009 9:31	64.43	12/3/2009 11:21	56.5
12/3/2009 8:02	64.29	12/3/2009 9:32	64.43	12/3/2009 11:22	55.95
12/3/2009 8:03	64.28	12/3/2009 9:33	64.44	12/3/2009 11:23	56.41
12/3/2009 8:04	64.26	12/3/2009 9:34	64.45	12/3/2009 11:24	56.39
12/3/2009 8:05	64.25	12/3/2009 9:35	64.46	12/3/2009 11:25	56.22

Average	64.25672	Average	64.1723	Average	54.82607
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Total SUM	253.2057	Total SUM	253.0925	Total SUM	218.1211
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Set 2 - Run 4

Coal Flow 31 Coal Flow kpph

12/3/2009 11:55	55.81
12/3/2009 11:56	55.6
12/3/2009 11:57	55.62
12/3/2009 11:58	55.69
12/3/2009 11:59	55.19
12/3/2009 12:00	55.32
12/3/2009 12:01	55.59
12/3/2009 12:02	55.86
12/3/2009 12:03	55.21
12/3/2009 12:04	55.01
12/3/2009 12:05	55.22
12/3/2009 12:06	55.5
12/3/2009 12:07	55.94
12/3/2009 12:08	55.64
12/3/2009 12:09	55.52
12/3/2009 12:10	55.46
12/3/2009 12:11	55.19
12/3/2009 12:12	55.6
12/3/2009 12:13	55.74
12/3/2009 12:14	55.66
12/3/2009 12:15	55.55
12/3/2009 12:16	55.59
12/3/2009 12:17	55.64
12/3/2009 12:18	55.15
12/3/2009 12:19	55.59
12/3/2009 12:20	55.48
12/3/2009 12:21	55.24
12/3/2009 12:22	55.26
12/3/2009 12:23	55.32
12/3/2009 12:24	55.03
12/3/2009 12:25	55.26
12/3/2009 12:26	55.58
12/3/2009 12:27	55.17
12/3/2009 12:28	55.6
12/3/2009 12:29	55.18
12/3/2009 12:30	55.12
12/3/2009 12:31	55.15
12/3/2009 12:32	55.17
12/3/2009 12:33	55.2
12/3/2009 12:34	54.44
12/3/2009 12:35	55.1
12/3/2009 12:36	55.28
12/3/2009 12:37	55.34
12/3/2009 12:38	55.4
12/3/2009 12:39	55.66
12/3/2009 12:40	55.43
12/3/2009 12:41	55.43
12/3/2009 12:42	55.48
12/3/2009 12:43	55.36
12/3/2009 12:44	55.59
12/3/2009 12:45	55.58
12/3/2009 12:46	55.53
12/3/2009 12:47	55.9
12/3/2009 12:48	55.96
12/3/2009 12:49	55.8
12/3/2009 12:50	55.61
12/3/2009 12:51	55.42
12/3/2009 12:52	55.5
12/3/2009 12:53	55.61
12/3/2009 12:54	55.87
12/3/2009 12:55	55.26

Average 55.4459

Set 2 - Run 5

Coal Flow 31 Coal Flow kpph

12/3/2009 14:09	65.85
12/3/2009 14:10	65.57
12/3/2009 14:11	65.82
12/3/2009 14:12	65.62
12/3/2009 14:13	65.61
12/3/2009 14:14	65.92
12/3/2009 14:15	65.71
12/3/2009 14:16	66.47
12/3/2009 14:17	66.3
12/3/2009 14:18	66
12/3/2009 14:19	65.95
12/3/2009 14:20	65.93
12/3/2009 14:21	65.9
12/3/2009 14:22	66.39
12/3/2009 14:23	66.21
12/3/2009 14:24	66.18
12/3/2009 14:25	66.17
12/3/2009 14:26	66.17
12/3/2009 14:27	66.44
12/3/2009 14:28	66.75
12/3/2009 14:29	66.78
12/3/2009 14:30	66.5
12/3/2009 14:31	66.47
12/3/2009 14:32	66.46
12/3/2009 14:33	66.46
12/3/2009 14:34	66.59
12/3/2009 14:35	66.73
12/3/2009 14:36	66.74
12/3/2009 14:37	66.74
12/3/2009 14:38	66.99
12/3/2009 14:39	67.26
12/3/2009 14:40	67.53
12/3/2009 14:41	67.56
12/3/2009 14:42	67.28
12/3/2009 14:43	67.31
12/3/2009 14:44	67.02
12/3/2009 14:45	67.24
12/3/2009 14:46	67.25
12/3/2009 14:47	67.23
12/3/2009 14:48	67.54
12/3/2009 14:49	67.46
12/3/2009 14:50	67.35
12/3/2009 14:51	67.05
12/3/2009 14:52	67.27
12/3/2009 14:53	67.06
12/3/2009 14:54	67.29
12/3/2009 14:55	67.31
12/3/2009 14:56	67.3
12/3/2009 14:57	67.12
12/3/2009 14:58	66.93
12/3/2009 14:59	66.74
12/3/2009 15:00	66.98
12/3/2009 15:01	67
12/3/2009 15:02	66.77
12/3/2009 15:03	67
12/3/2009 15:04	67.02
12/3/2009 15:05	67.02
12/3/2009 15:06	67.02
12/3/2009 15:07	67.02
12/3/2009 15:08	66.51
12/3/2009 15:09	66.47

Average 66.69393

Set 2 - Run 6

Coal Flow 31 Coal Flow kpph

12/3/2009 15:40	66.7
12/3/2009 15:41	66.73
12/3/2009 15:42	66.77
12/3/2009 15:43	67.02
12/3/2009 15:44	66.57
12/3/2009 15:45	66.55
12/3/2009 15:46	66.56
12/3/2009 15:47	66.69
12/3/2009 15:48	66.83
12/3/2009 15:49	66.83
12/3/2009 15:50	66.83
12/3/2009 15:51	66.59
12/3/2009 15:52	66.62
12/3/2009 15:53	66.67
12/3/2009 15:54	66.72
12/3/2009 15:55	66.47
12/3/2009 15:56	66.44
12/3/2009 15:57	66.43
12/3/2009 15:58	66.72
12/3/2009 15:59	66.77
12/3/2009 16:00	66.8
12/3/2009 16:01	66.82
12/3/2009 16:02	66.3
12/3/2009 16:03	66.43
12/3/2009 16:04	66.61
12/3/2009 16:05	66.79
12/3/2009 16:06	66.97
12/3/2009 16:07	67.15
12/3/2009 16:08	66.91
12/3/2009 16:09	67.22
12/3/2009 16:10	67.11
12/3/2009 16:11	66.99
12/3/2009 16:12	66.86
12/3/2009 16:13	66.73
12/3/2009 16:14	66.84
12/3/2009 16:15	66.96
12/3/2009 16:16	66.93
12/3/2009 16:17	66.89
12/3/2009 16:18	66.85
12/3/2009 16:19	67.12
12/3/2009 16:20	66.9
12/3/2009 16:21	67.16
12/3/2009 16:22	66.92
12/3/2009 16:23	67.27
12/3/2009 16:24	66.8
12/3/2009 16:25	66.9
12/3/2009 16:26	67.03
12/3/2009 16:27	66.79
12/3/2009 16:28	66.8
12/3/2009 16:29	66.52
12/3/2009 16:30	66.74
12/3/2009 16:31	66.49
12/3/2009 16:32	66.65
12/3/2009 16:33	66.41
12/3/2009 16:34	66.63
12/3/2009 16:35	66.64
12/3/2009 16:36	66.63
12/3/2009 16:37	66.63
12/3/2009 16:38	66.63
12/3/2009 16:39	66.62
12/3/2009 16:40	66.62

Average 66.76344

Coal Flow 32	Coal Flow kpph	Coal Flow 32	Coal Flow kpph	Coal Flow 32	Coal Flow kpph
12/3/2009 11:55	57.14	12/3/2009 14:09	72.04	12/3/2009 15:40	73.46
12/3/2009 11:56	56.9	12/3/2009 14:10	72.33	12/3/2009 15:41	73.05
12/3/2009 11:57	56.97	12/3/2009 14:11	72.26	12/3/2009 15:42	73.2
12/3/2009 11:58	57.11	12/3/2009 14:12	72.14	12/3/2009 15:43	73.39
12/3/2009 11:59	56.26	12/3/2009 14:13	72.19	12/3/2009 15:44	73.16
12/3/2009 12:00	56.86	12/3/2009 14:14	72.26	12/3/2009 15:45	72.89
12/3/2009 12:01	57.16	12/3/2009 14:15	72.34	12/3/2009 15:46	72.63
12/3/2009 12:02	57.34	12/3/2009 14:16	72.63	12/3/2009 15:47	73.22
12/3/2009 12:03	56.56	12/3/2009 14:17	72.52	12/3/2009 15:48	73.31
12/3/2009 12:04	56.55	12/3/2009 14:18	72.36	12/3/2009 15:49	73.35
12/3/2009 12:05	56.72	12/3/2009 14:19	72.19	12/3/2009 15:50	72.88
12/3/2009 12:06	56.49	12/3/2009 14:20	72.27	12/3/2009 15:51	73.09
12/3/2009 12:07	56.92	12/3/2009 14:21	72.65	12/3/2009 15:52	73.34
12/3/2009 12:08	56.95	12/3/2009 14:22	72.7	12/3/2009 15:53	72.95
12/3/2009 12:09	56.9	12/3/2009 14:23	72.71	12/3/2009 15:54	73.06
12/3/2009 12:10	56.97	12/3/2009 14:24	72.54	12/3/2009 15:55	73.02
12/3/2009 12:11	56.47	12/3/2009 14:25	72.35	12/3/2009 15:56	72.96
12/3/2009 12:12	57.16	12/3/2009 14:26	72.63	12/3/2009 15:57	72.91
12/3/2009 12:13	57.29	12/3/2009 14:27	72.97	12/3/2009 15:58	72.97
12/3/2009 12:14	57.27	12/3/2009 14:28	73.3	12/3/2009 15:59	73.03
12/3/2009 12:15	56.85	12/3/2009 14:29	73.05	12/3/2009 16:00	73.09
12/3/2009 12:16	56.82	12/3/2009 14:30	72.73	12/3/2009 16:01	73.42
12/3/2009 12:17	56.87	12/3/2009 14:31	73.07	12/3/2009 16:02	72.76
12/3/2009 12:18	56.38	12/3/2009 14:32	72.84	12/3/2009 16:03	72.87
12/3/2009 12:19	57.12	12/3/2009 14:33	72.99	12/3/2009 16:04	73.04
12/3/2009 12:20	56.88	12/3/2009 14:34	73.19	12/3/2009 16:05	73.58
12/3/2009 12:21	56.66	12/3/2009 14:35	73.39	12/3/2009 16:06	73.26
12/3/2009 12:22	56.9	12/3/2009 14:36	73.07	12/3/2009 16:07	73.2
12/3/2009 12:23	56.56	12/3/2009 14:37	73.04	12/3/2009 16:08	73.44
12/3/2009 12:24	56.35	12/3/2009 14:38	73.44	12/3/2009 16:09	73.71
12/3/2009 12:25	56.38	12/3/2009 14:39	73.68	12/3/2009 16:10	73.76
12/3/2009 12:26	56.74	12/3/2009 14:40	73.9	12/3/2009 16:11	73.43
12/3/2009 12:27	56.3	12/3/2009 14:41	73.76	12/3/2009 16:12	73.08
12/3/2009 12:28	56.97	12/3/2009 14:42	73.58	12/3/2009 16:13	73.19
12/3/2009 12:29	56.61	12/3/2009 14:43	73.62	12/3/2009 16:14	73.33
12/3/2009 12:30	56.44	12/3/2009 14:44	73.68	12/3/2009 16:15	73.17
12/3/2009 12:31	56.35	12/3/2009 14:45	73.41	12/3/2009 16:16	73.46
12/3/2009 12:32	56.58	12/3/2009 14:46	73.64	12/3/2009 16:17	73.39
12/3/2009 12:33	56.47	12/3/2009 14:47	73.92	12/3/2009 16:18	73.8
12/3/2009 12:34	55.75	12/3/2009 14:48	73.81	12/3/2009 16:19	73.42
12/3/2009 12:35	56.58	12/3/2009 14:49	73.96	12/3/2009 16:20	73.33
12/3/2009 12:36	56.52	12/3/2009 14:50	73.77	12/3/2009 16:21	73.55
12/3/2009 12:37	56.5	12/3/2009 14:51	73.54	12/3/2009 16:22	73.31
12/3/2009 12:38	56.87	12/3/2009 14:52	73.8	12/3/2009 16:23	73.82
12/3/2009 12:39	56.97	12/3/2009 14:53	73.58	12/3/2009 16:24	73.35
12/3/2009 12:40	56.79	12/3/2009 14:54	73.31	12/3/2009 16:25	73.71
12/3/2009 12:41	56.33	12/3/2009 14:55	73.74	12/3/2009 16:26	73.58
12/3/2009 12:42	56.73	12/3/2009 14:56	73.63	12/3/2009 16:27	73.44
12/3/2009 12:43	56.67	12/3/2009 14:57	73.45	12/3/2009 16:28	73.5
12/3/2009 12:44	56.74	12/3/2009 14:58	73.28	12/3/2009 16:29	73.09
12/3/2009 12:45	56.57	12/3/2009 14:59	73.25	12/3/2009 16:30	72.99
12/3/2009 12:46	56.86	12/3/2009 15:00	73.23	12/3/2009 16:31	72.9
12/3/2009 12:47	57.22	12/3/2009 15:01	73.21	12/3/2009 16:32	73.26
12/3/2009 12:48	56.89	12/3/2009 15:02	73.19	12/3/2009 16:33	73.22
12/3/2009 12:49	56.88	12/3/2009 15:03	73.17	12/3/2009 16:34	73.17
12/3/2009 12:50	56.95	12/3/2009 15:04	73.15	12/3/2009 16:35	72.88
12/3/2009 12:51	56.9	12/3/2009 15:05	73.44	12/3/2009 16:36	73.23
12/3/2009 12:52	56.83	12/3/2009 15:06	73.41	12/3/2009 16:37	72.9
12/3/2009 12:53	56.94	12/3/2009 15:07	73.36	12/3/2009 16:38	72.99
12/3/2009 12:54	57.3	12/3/2009 15:08	73.01	12/3/2009 16:39	72.77
12/3/2009 12:55	56.36	12/3/2009 15:09	72.94	12/3/2009 16:40	73.14
Average	56.76016	Average	73.09197	Average	73.21967

Coal Flow 33	Coal Flow kpph	Coal Flow 33	Coal Flow kpph	Coal Flow 33	Coal Flow kpph
12/3/2009 11:55	57.05	12/3/2009 14:09	72.11	12/3/2009 15:40	73.26
12/3/2009 11:56	57.02	12/3/2009 14:10	72.1	12/3/2009 15:41	73.05
12/3/2009 11:57	57.05	12/3/2009 14:11	72.14	12/3/2009 15:42	73.23
12/3/2009 11:58	57.09	12/3/2009 14:12	72.18	12/3/2009 15:43	73.43
12/3/2009 11:59	56.52	12/3/2009 14:13	72.22	12/3/2009 15:44	73.22
12/3/2009 12:00	56.65	12/3/2009 14:14	72.54	12/3/2009 15:45	72.97
12/3/2009 12:01	57.15	12/3/2009 14:15	72.13	12/3/2009 15:46	72.92
12/3/2009 12:02	57.45	12/3/2009 14:16	72.78	12/3/2009 15:47	72.87
12/3/2009 12:03	56.72	12/3/2009 14:17	72.57	12/3/2009 15:48	73.36
12/3/2009 12:04	56.51	12/3/2009 14:18	72.25	12/3/2009 15:49	73.3
12/3/2009 12:05	56.74	12/3/2009 14:19	72.14	12/3/2009 15:50	72.82
12/3/2009 12:06	56.54	12/3/2009 14:20	72.05	12/3/2009 15:51	73.26
12/3/2009 12:07	57.02	12/3/2009 14:21	72.44	12/3/2009 15:52	73.17
12/3/2009 12:08	56.72	12/3/2009 14:22	72.88	12/3/2009 15:53	73.04
12/3/2009 12:09	56.76	12/3/2009 14:23	72.88	12/3/2009 15:54	73.31
12/3/2009 12:10	56.89	12/3/2009 14:24	72.82	12/3/2009 15:55	73
12/3/2009 12:11	56.7	12/3/2009 14:25	72.21	12/3/2009 15:56	73.09
12/3/2009 12:12	57.05	12/3/2009 14:26	72.47	12/3/2009 15:57	73.2
12/3/2009 12:13	57.1	12/3/2009 14:27	72.82	12/3/2009 15:58	73.09
12/3/2009 12:14	57.07	12/3/2009 14:28	73.18	12/3/2009 15:59	72.97
12/3/2009 12:15	57.04	12/3/2009 14:29	73.14	12/3/2009 16:00	73.05
12/3/2009 12:16	56.75	12/3/2009 14:30	73.06	12/3/2009 16:01	73.14
12/3/2009 12:17	56.95	12/3/2009 14:31	72.99	12/3/2009 16:02	72.84
12/3/2009 12:18	56.43	12/3/2009 14:32	72.91	12/3/2009 16:03	73.13
12/3/2009 12:19	57.08	12/3/2009 14:33	72.96	12/3/2009 16:04	73.11
12/3/2009 12:20	56.95	12/3/2009 14:34	73.02	12/3/2009 16:05	73.39
12/3/2009 12:21	56.65	12/3/2009 14:35	73.3	12/3/2009 16:06	73.15
12/3/2009 12:22	56.6	12/3/2009 14:36	73.11	12/3/2009 16:07	73.41
12/3/2009 12:23	56.59	12/3/2009 14:37	72.88	12/3/2009 16:08	73.69
12/3/2009 12:24	56.25	12/3/2009 14:38	73.59	12/3/2009 16:09	73.63
12/3/2009 12:25	56.44	12/3/2009 14:39	73.53	12/3/2009 16:10	73.54
12/3/2009 12:26	56.73	12/3/2009 14:40	73.96	12/3/2009 16:11	73.45
12/3/2009 12:27	56.17	12/3/2009 14:41	73.74	12/3/2009 16:12	73.16
12/3/2009 12:28	56.97	12/3/2009 14:42	73.74	12/3/2009 16:13	73.22
12/3/2009 12:29	56.39	12/3/2009 14:43	73.61	12/3/2009 16:14	73.55
12/3/2009 12:30	56.48	12/3/2009 14:44	73.46	12/3/2009 16:15	73.19
12/3/2009 12:31	56.42	12/3/2009 14:45	73.71	12/3/2009 16:16	73.46
12/3/2009 12:32	56.58	12/3/2009 14:46	73.6	12/3/2009 16:17	73.54
12/3/2009 12:33	56.37	12/3/2009 14:47	73.88	12/3/2009 16:18	73.6
12/3/2009 12:34	55.86	12/3/2009 14:48	74.2	12/3/2009 16:19	73.66
12/3/2009 12:35	56.52	12/3/2009 14:49	73.66	12/3/2009 16:20	73.52
12/3/2009 12:36	56.62	12/3/2009 14:50	73.65	12/3/2009 16:21	73.79
12/3/2009 12:37	56.59	12/3/2009 14:51	73.7	12/3/2009 16:22	73.39
12/3/2009 12:38	56.82	12/3/2009 14:52	73.53	12/3/2009 16:23	73.8
12/3/2009 12:39	56.75	12/3/2009 14:53	73.67	12/3/2009 16:24	73.52
12/3/2009 12:40	56.61	12/3/2009 14:54	73.85	12/3/2009 16:25	73.75
12/3/2009 12:41	56.48	12/3/2009 14:55	74.02	12/3/2009 16:26	73.54
12/3/2009 12:42	56.73	12/3/2009 14:56	73.83	12/3/2009 16:27	73.32
12/3/2009 12:43	56.83	12/3/2009 14:57	73.6	12/3/2009 16:28	73.57
12/3/2009 12:44	56.9	12/3/2009 14:58	73.17	12/3/2009 16:29	72.97
12/3/2009 12:45	56.51	12/3/2009 14:59	73.1	12/3/2009 16:30	73.43
12/3/2009 12:46	56.8	12/3/2009 15:00	73.41	12/3/2009 16:31	72.92
12/3/2009 12:47	57.22	12/3/2009 15:01	73.44	12/3/2009 16:32	73.19
12/3/2009 12:48	57.1	12/3/2009 15:02	73.45	12/3/2009 16:33	73.03
12/3/2009 12:49	56.89	12/3/2009 15:03	73.45	12/3/2009 16:34	73.07
12/3/2009 12:50	57.09	12/3/2009 15:04	73.29	12/3/2009 16:35	73.13
12/3/2009 12:51	56.73	12/3/2009 15:05	73.49	12/3/2009 16:36	72.95
12/3/2009 12:52	56.78	12/3/2009 15:06	73.35	12/3/2009 16:37	73.32
12/3/2009 12:53	56.91	12/3/2009 15:07	73.18	12/3/2009 16:38	72.84
12/3/2009 12:54	57.04	12/3/2009 15:08	73.01	12/3/2009 16:39	72.89
12/3/2009 12:55	56.43	12/3/2009 15:09	72.84	12/3/2009 16:40	73.29
Average	56.75164	Average	73.11459	Average	73.25738

Coal Flow 34	Coal Flow kpph	Coal Flow 34	Coal Flow kpph	Coal Flow 34	Coal Flow kpph
12/3/2009 11:55	56.99	12/3/2009 14:09	72.18	12/3/2009 15:40	73.35
12/3/2009 11:56	57.06	12/3/2009 14:10	72.18	12/3/2009 15:41	73.26
12/3/2009 11:57	57.1	12/3/2009 14:11	72.2	12/3/2009 15:42	73.17
12/3/2009 11:58	57.14	12/3/2009 14:12	72.21	12/3/2009 15:43	73.18
12/3/2009 11:59	56.46	12/3/2009 14:13	72.22	12/3/2009 15:44	73.18
12/3/2009 12:00	56.66	12/3/2009 14:14	72.24	12/3/2009 15:45	73.19
12/3/2009 12:01	57.05	12/3/2009 14:15	72.25	12/3/2009 15:46	73.2
12/3/2009 12:02	57.44	12/3/2009 14:16	72.89	12/3/2009 15:47	73.21
12/3/2009 12:03	57.04	12/3/2009 14:17	72.81	12/3/2009 15:48	73.21
12/3/2009 12:04	56.5	12/3/2009 14:18	72.65	12/3/2009 15:49	73.22
12/3/2009 12:05	56.49	12/3/2009 14:19	72.48	12/3/2009 15:50	73.23
12/3/2009 12:06	56.57	12/3/2009 14:20	72.32	12/3/2009 15:51	73.24
12/3/2009 12:07	56.66	12/3/2009 14:21	72.36	12/3/2009 15:52	73.24
12/3/2009 12:08	56.75	12/3/2009 14:22	72.43	12/3/2009 15:53	73.25
12/3/2009 12:09	56.84	12/3/2009 14:23	72.5	12/3/2009 15:54	73.26
12/3/2009 12:10	56.93	12/3/2009 14:24	72.57	12/3/2009 15:55	73.09
12/3/2009 12:11	56.45	12/3/2009 14:25	72.64	12/3/2009 15:56	72.91
12/3/2009 12:12	56.57	12/3/2009 14:26	72.71	12/3/2009 15:57	72.73
12/3/2009 12:13	56.82	12/3/2009 14:27	72.78	12/3/2009 15:58	72.92
12/3/2009 12:14	57.08	12/3/2009 14:28	72.84	12/3/2009 15:59	73.12
12/3/2009 12:15	56.9	12/3/2009 14:29	72.91	12/3/2009 16:00	73.33
12/3/2009 12:16	56.65	12/3/2009 14:30	72.98	12/3/2009 16:01	73.53
12/3/2009 12:17	56.4	12/3/2009 14:31	73.05	12/3/2009 16:02	72.72
12/3/2009 12:18	56.15	12/3/2009 14:32	73.1	12/3/2009 16:03	72.73
12/3/2009 12:19	57.03	12/3/2009 14:33	73.14	12/3/2009 16:04	72.81
12/3/2009 12:20	57.11	12/3/2009 14:34	73.18	12/3/2009 16:05	72.88
12/3/2009 12:21	57.02	12/3/2009 14:35	73.22	12/3/2009 16:06	72.95
12/3/2009 12:22	56.92	12/3/2009 14:36	73.27	12/3/2009 16:07	73.02
12/3/2009 12:23	56.83	12/3/2009 14:37	73.31	12/3/2009 16:08	73.09
12/3/2009 12:24	56.73	12/3/2009 14:38	73.35	12/3/2009 16:09	73.16
12/3/2009 12:25	56.64	12/3/2009 14:39	73.38	12/3/2009 16:10	73.23
12/3/2009 12:26	56.94	12/3/2009 14:40	73.41	12/3/2009 16:11	73.3
12/3/2009 12:27	56.32	12/3/2009 14:41	73.44	12/3/2009 16:12	73.37
12/3/2009 12:28	56.95	12/3/2009 14:42	73.46	12/3/2009 16:13	73.38
12/3/2009 12:29	56.83	12/3/2009 14:43	73.49	12/3/2009 16:14	73.38
12/3/2009 12:30	56.54	12/3/2009 14:44	73.52	12/3/2009 16:15	73.38
12/3/2009 12:31	56.46	12/3/2009 14:45	73.55	12/3/2009 16:16	73.38
12/3/2009 12:32	56.41	12/3/2009 14:46	73.57	12/3/2009 16:17	73.39
12/3/2009 12:33	56.36	12/3/2009 14:47	73.6	12/3/2009 16:18	73.39
12/3/2009 12:34	55.75	12/3/2009 14:48	73.63	12/3/2009 16:19	73.39
12/3/2009 12:35	56.48	12/3/2009 14:49	73.66	12/3/2009 16:20	73.39
12/3/2009 12:36	56.64	12/3/2009 14:50	73.66	12/3/2009 16:21	73.4
12/3/2009 12:37	56.65	12/3/2009 14:51	73.66	12/3/2009 16:22	73.4
12/3/2009 12:38	56.67	12/3/2009 14:52	73.66	12/3/2009 16:23	73.4
12/3/2009 12:39	56.68	12/3/2009 14:53	73.66	12/3/2009 16:24	73.4
12/3/2009 12:40	56.7	12/3/2009 14:54	73.66	12/3/2009 16:25	73.4
12/3/2009 12:41	56.71	12/3/2009 14:55	73.66	12/3/2009 16:26	73.41
12/3/2009 12:42	56.73	12/3/2009 14:56	73.66	12/3/2009 16:27	73.41
12/3/2009 12:43	56.75	12/3/2009 14:57	73.66	12/3/2009 16:28	73.41
12/3/2009 12:44	56.76	12/3/2009 14:58	73.63	12/3/2009 16:29	73.4
12/3/2009 12:45	56.78	12/3/2009 14:59	73.6	12/3/2009 16:30	73.39
12/3/2009 12:46	56.79	12/3/2009 15:00	73.57	12/3/2009 16:31	73.38
12/3/2009 12:47	56.83	12/3/2009 15:01	73.54	12/3/2009 16:32	73.37
12/3/2009 12:48	56.87	12/3/2009 15:02	73.52	12/3/2009 16:33	73.36
12/3/2009 12:49	56.91	12/3/2009 15:03	73.49	12/3/2009 16:34	73.35
12/3/2009 12:50	56.95	12/3/2009 15:04	73.46	12/3/2009 16:35	73.34
12/3/2009 12:51	57	12/3/2009 15:05	73.3	12/3/2009 16:36	73.33
12/3/2009 12:52	57.04	12/3/2009 15:06	73.12	12/3/2009 16:37	73.32
12/3/2009 12:53	57.08	12/3/2009 15:07	72.95	12/3/2009 16:38	73.31
12/3/2009 12:54	57.12	12/3/2009 15:08	72.78	12/3/2009 16:39	73.3
12/3/2009 12:55	56.45	12/3/2009 15:09	72.61	12/3/2009 16:40	73.29

Average	56.75623	Average	73.09066	Average	73.24148
---------	----------	---------	----------	---------	----------

Total SUM	225,7139	Total SUM	285,9911	Total SUM	286,482
-----------	----------	-----------	----------	-----------	---------

Ammonia Feed

Sorbent Injection

Opacity

OPACITY - UNIT 3

Set 1 - Run 1	
Date/Time	MPP3 OPACITY Value
12/02/2009 06:30	3.20343494
12/02/2009 06:36	2.99183423
12/02/2009 06:42	3.09823538
12/02/2009 06:48	3.00324629
12/02/2009 06:54	3.44882761
12/02/2009 07:00	3.09197214
12/02/2009 07:06	3.13293161
12/02/2009 07:12	2.90927034
12/02/2009 07:18	3.11282662
12/02/2009 07:24	3.25524744
12/02/2009 07:30	3.09158753

Set 1 - Run 2	
Date/Time	MPP3 OPACITY Value
12/02/2009 08:00	3.02250508
12/02/2009 08:06	3.07714564
12/02/2009 08:12	2.94804071
12/02/2009 08:18	2.96007814
12/02/2009 08:24	3.13319754
12/02/2009 08:30	2.97922871
12/02/2009 08:36	3.12266228
12/02/2009 08:42	2.91903015
12/02/2009 08:48	3.05087072
12/02/2009 08:54	2.75191211
12/02/2009 09:00	3.15060262

Set 1- Run 3	
Date/Time	MPP3 OPACITY Value
12/02/2009 09:30	3.18465031
12/02/2009 09:36	3.12085161
12/02/2009 09:42	3.2669135
12/02/2009 09:48	3.44128669
12/02/2009 09:54	3.13435265
12/02/2009 10:00	3.30387128
12/02/2009 10:06	3.43591101
12/02/2009 10:12	3.38125031
12/02/2009 10:18	3.19307859
12/02/2009 10:24	3.23433373
12/02/2009 10:30	3.22699477

Set 1 - Run 4	
Date/Time	MPP3 OPACITY Value

12/02/2009 11:00	3.23495229
12/02/2009 11:06	3.11398851
12/02/2009 11:12	3.02733344
12/02/2009 11:18	3.1253441
12/02/2009 11:24	3.06424192
12/02/2009 11:30	3.18041164
12/02/2009 11:36	2.95430478
12/02/2009 11:42	3.04274214
12/02/2009 11:48	2.88725537
12/02/2009 11:54	2.88396752
12/02/2009 12:00	3.07134264

Set 1 - Run 5	
Date/Time	MPP3 OPACITY Value

12/02/2009 12:42	3.53719713
12/02/2009 12:48	3.55405725
12/02/2009 12:54	3.65338962
12/02/2009 13:00	3.6693967
12/02/2009 13:06	3.64670563
12/02/2009 13:12	3.4535527
12/02/2009 13:18	3.79464327
12/02/2009 13:24	3.71037199
12/02/2009 13:30	3.69654549
12/02/2009 13:36	3.54056265
12/02/2009 13:42	3.58809779
12/02/2009 13:48	3.5934762

Set 1 - Run 6	
Date/Time	MPP3 OPACITY Value

12/02/2009 14:12	3.54962111
12/02/2009 14:18	3.6870413
12/02/2009 14:24	3.41484727
12/02/2009 14:30	3.22137337
12/02/2009 14:36	3.42494105
12/02/2009 14:42	3.51674773
12/02/2009 14:48	3.47101537
12/02/2009 14:54	3.4254038
12/02/2009 15:00	3.57110742
12/02/2009 15:06	3.43399672
12/02/2009 15:12	3.3995105
12/02/2009 15:18	3.42424753

Set 2 - Run 1	
Date/Time	MPP3 OPACITY Value

12/03/2009 07:00	3.20153639
12/03/2009 07:06	3.33561144
12/03/2009 07:12	3.27343808
12/03/2009 07:18	3.06183308
12/03/2009 07:24	3.20088476
12/03/2009 07:30	3.1458027
12/03/2009 07:36	3.18098367
12/03/2009 07:42	3.13570853
12/03/2009 07:48	3.21660117
12/03/2009 07:54	3.15401909
12/03/2009 08:00	3.03126389
12/03/2009 08:06	3.14209194

Set 2 - Run 2	
Date/Time	MPP3 OPACITY Value

12/03/2009 08:30	3.12067246
12/03/2009 08:36	3.14361517
12/03/2009 08:42	3.0234163
12/03/2009 08:48	2.89424624
12/03/2009 08:54	3.03259278
12/03/2009 09:00	3.00590908
12/03/2009 09:06	2.88613684
12/03/2009 09:12	3.1866919
12/03/2009 09:18	2.8866165
12/03/2009 09:24	3.31450697
12/03/2009 09:30	3.02656279
12/03/2009 09:36	2.91963206

Set 2 - Run 3	
Date/Time	MPP3 OPACITY Value

12/03/2009 10:24	2.46783583
12/03/2009 10:30	2.4031804
12/03/2009 10:36	2.6963241
12/03/2009 10:42	2.54499499
12/03/2009 10:48	2.46689364
12/03/2009 10:54	2.52298971
12/03/2009 11:00	2.62218424
12/03/2009 11:06	2.67723058
12/03/2009 11:12	2.33552272
12/03/2009 11:18	2.35228105
12/03/2009 11:24	2.713766
12/03/2009 11:30	2.57471701

Set 2 - Run 4	
Date/Time	MPP3 OPACITY Value
12/03/2009 11:54	2.55958651
12/03/2009 12:00	2.45665596
12/03/2009 12:06	2.63025597
12/03/2009 12:12	2.36839111
12/03/2009 12:18	2.43637544
12/03/2009 12:24	2.49877961
12/03/2009 12:30	2.48810057
12/03/2009 12:36	2.45878573
12/03/2009 12:42	2.38768098
12/03/2009 12:48	2.33418195
12/03/2009 12:54	2.27602393
12/03/2009 13:00	2.2587572

Set 2 - Run 5	
Date/Time	MPP3 OPACITY Value
12/03/2009 14:06	2.15325916
12/03/2009 14:12	2.49422663
12/03/2009 14:18	2.53759317
12/03/2009 14:24	2.05333357
12/03/2009 14:30	2.52003947
12/03/2009 14:36	2.47072679
12/03/2009 14:42	2.4095114
12/03/2009 14:48	2.33566953
12/03/2009 14:54	2.64171975
12/03/2009 15:00	2.21188837
12/03/2009 15:06	2.32175544
12/03/2009 15:12	2.45864705

Set 2 - Run 6	
Date/Time	MPP3 OPACITY Value
12/03/2009 15:36	2.42226361
12/03/2009 15:42	2.80230585
12/03/2009 15:48	2.30335606
12/03/2009 15:54	2.60888722
12/03/2009 16:00	2.30338086
12/03/2009 16:06	2.45310146
12/03/2009 16:12	2.22832103
12/03/2009 16:18	2.73396762
12/03/2009 16:24	2.45604535
12/03/2009 16:30	2.28433508
12/03/2009 16:36	2.47490409
12/03/2009 16:42	2.485001

APPENDIX 3
LABORATORY ANALYSIS

Acid Mist

Your Project #: LAKELAND ELECTRIC
Site: MCLUTOSH 3
Your C.O.C. #: 1011

Attention: Mike Taylor
Catalyst Air Management
2505 Byington-Solway Rd
Knoxville, TN
USA 37931

Report Date: 2010/01/04

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A9H0913
Received: 2009/12/17, 20:11

Sample Matrix: Stack Sampling Train
Samples Received: 12

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Sulphuric Acid Mist by Titration (M8A)	12	2009/12/23	2009/12/23	BRL SOP-00116	EPA CFR PTM 8
Final Volume of Impinger	12	N/A	2010/01/04		

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key



Mike Challis
05 Jan 2010 07:38:02 -05:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

MIKE CHALLIS, CET, B.Sc, C.Chem, Customer Service Manager, US Air Toxics
Email: Mike.Challis@MaxxamAnalytics.com
Phone# (905) 817-5790

=====
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Maxxam Job #: A9H0913
Report Date: 2010/01/04

Catalyst Air Management
Client Project #: LAKELAND ELECTRIC
Project name: MCLUTOSH 3

RESULTS OF ANALYSES OF STACK SAMPLING TRAIN

Maxxam ID		ER4902	ER4903	ER4903	ER4904	ER4905		
Sampling Date		2009/12/02	2009/12/02	2009/12/02	2009/12/02	2009/12/02		
COC Number		1011	1011	1011	1011	1011		
	Units	RUN 1-COIL RINSE-C-1	RUN 2-COIL RINSE-C-1	RUN 2-COIL RINSE-C-1 Lab-Dup	RUN 3-COIL RINSE-C-1	RUN 4-COIL RINSE-C-1	RDL	QC Batch

Volume	ml	34	22	N/A	22	19	1	2045208
Sulphuric Acid Mist	mg	<0.2	1.2	1.2	1.4	1.7	0.2	2044446

N/A = Not Applicable
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		ER4906	ER4907	ER4908	ER4909	ER4910		
Sampling Date		2009/12/02	2009/12/02	2009/12/03	2009/12/03	2009/12/03		
COC Number		1011	1011	1011	1011	1011		
	Units	RUN 5-COIL RINSE-C-1	RUN 6-COIL RINSE-C-1	RUN 7-COIL RINSE-C-1	RUN 8-COIL RINSE-C-1	RUN 9-COIL RINSE-C-1	RDL	QC Batch

Volume	ml	12	24	22	17	18	1	2045208
Sulphuric Acid Mist	mg	2.6	3.1	<0.2	<0.2	<0.2	0.2	2044446

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		ER4911	ER4912	ER4913		
Sampling Date		2009/12/03	2009/12/03	2009/12/03		
COC Number		1011	1011	1011		
	Units	RUN 10-COIL RINSE-C-1	RUN 11-COIL RINSE-C-1	RUN 12-COIL RINSE-C-1	RDL	QC Batch

Volume	ml	14	18	24	1	2045208
Sulphuric Acid Mist	mg	<0.2	<0.2	<0.2	0.2	2044446

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: A9H0913
Report Date: 2010/01/04

Catalyst Air Management
Client Project #: LAKELAND ELECTRIC
Project name: MCLUTOSH 3

Test Summary

Maxxam ID ER4902
Sample ID RUN 1-COIL RINSE-C-1
Matrix Stack Sampling Train
Collected 2009/12/02
Shipped
Received 2009/12/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Sulphuric Acid Mist by Titration (M8A)		2044446	2009/12/23	2009/12/23	LLE
Final Volume of Impinger		2045208	N/A	2010/01/04	LLE

Maxxam ID ER4903
Sample ID RUN 2-COIL RINSE-C-1
Matrix Stack Sampling Train
Collected 2009/12/02
Shipped
Received 2009/12/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Sulphuric Acid Mist by Titration (M8A)		2044446	2009/12/23	2009/12/23	LLE
Final Volume of Impinger		2045208	N/A	2010/01/04	LLE

Maxxam ID ER4903 Dup
Sample ID RUN 2-COIL RINSE-C-1
Matrix Stack Sampling Train
Collected 2009/12/02
Shipped
Received 2009/12/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Sulphuric Acid Mist by Titration (M8A)		2044446	2010/01/04	2009/12/23	LLE

Maxxam ID ER4904
Sample ID RUN 3-COIL RINSE-C-1
Matrix Stack Sampling Train
Collected 2009/12/02
Shipped
Received 2009/12/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Sulphuric Acid Mist by Titration (M8A)		2044446	2009/12/23	2009/12/23	LLE
Final Volume of Impinger		2045208	N/A	2010/01/04	LLE

Maxxam ID ER4905
Sample ID RUN 4-COIL RINSE-C-1
Matrix Stack Sampling Train
Collected 2009/12/02
Shipped
Received 2009/12/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Sulphuric Acid Mist by Titration (M8A)		2044446	2009/12/23	2009/12/23	LLE
Final Volume of Impinger		2045208	N/A	2010/01/04	LLE

Maxxam ID ER4906
Sample ID RUN 5-COIL RINSE-C-1
Matrix Stack Sampling Train
Collected 2009/12/02
Shipped
Received 2009/12/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Sulphuric Acid Mist by Titration (M8A)		2044446	2009/12/23	2009/12/23	LLE
Final Volume of Impinger		2045208	N/A	2010/01/04	LLE

Maxxam Job #: A9H0913
Report Date: 2010/01/04

Catalyst Air Management
Client Project #: LAKELAND ELECTRIC
Project name: MCLUTOSH 3

Test Summary

Maxxam ID ER4907
Sample ID RUN 6-COIL RINSE-C-1
Matrix Stack Sampling Train
Collected 2009/12/02
Shipped
Received 2009/12/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Sulphuric Acid Mist by Titration (M8A)		2044446	2009/12/23	2009/12/23	LLE
Final Volume of Impinger		2045208	N/A	2010/01/04	LLE

Maxxam ID ER4908
Sample ID RUN 7-COIL RINSE-C-1
Matrix Stack Sampling Train
Collected 2009/12/03
Shipped
Received 2009/12/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Sulphuric Acid Mist by Titration (M8A)		2044446	2009/12/23	2009/12/23	LLE
Final Volume of Impinger		2045208	N/A	2010/01/04	LLE

Maxxam ID ER4909
Sample ID RUN 8-COIL RINSE-C-1
Matrix Stack Sampling Train
Collected 2009/12/03
Shipped
Received 2009/12/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Sulphuric Acid Mist by Titration (M8A)		2044446	2009/12/23	2009/12/23	LLE
Final Volume of Impinger		2045208	N/A	2010/01/04	LLE

Maxxam ID ER4910
Sample ID RUN 9-COIL RINSE-C-1
Matrix Stack Sampling Train
Collected 2009/12/03
Shipped
Received 2009/12/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Sulphuric Acid Mist by Titration (M8A)		2044446	2009/12/23	2009/12/23	LLE
Final Volume of Impinger		2045208	N/A	2010/01/04	LLE

Maxxam ID ER4911
Sample ID RUN 10-COIL RINSE-C-1
Matrix Stack Sampling Train
Collected 2009/12/03
Shipped
Received 2009/12/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Sulphuric Acid Mist by Titration (M8A)		2044446	2009/12/23	2009/12/23	LLE
Final Volume of Impinger		2045208	N/A	2010/01/04	LLE

Maxxam ID ER4912
Sample ID RUN 11-COIL RINSE-C-1
Matrix Stack Sampling Train
Collected 2009/12/03
Shipped
Received 2009/12/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Sulphuric Acid Mist by Titration (M8A)		2044446	2009/12/23	2009/12/23	LLE
Final Volume of Impinger		2045208	N/A	2010/01/04	LLE

Maxxam Job #: A9H0913
Report Date: 2010/01/04

Catalyst Air Management
Client Project #: LAKELAND ELECTRIC
Project name: MCLUTOSH 3

Test Summary

Maxxam ID ER4913
Sample ID RUN 12-COIL RINSE-C-1
Matrix Stack Sampling Train

Collected 2009/12/03
Shipped
Received 2009/12/17

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Sulphuric Acid Mist by Titration (M8A)		2044446	2009/12/23	2009/12/23	LLE
Final Volume of Impinger		2045208	N/A	2010/01/04	LLE

Maxxam Job #: A9H0913
Report Date: 2010/01/04

Catalyst Air Management
Client Project #: LAKELAND ELECTRIC
Project name: MCLUTOSH 3

GENERAL COMMENTS

Results relate only to the items tested.

Catalyst Air Management
 Attention: Mike Taylor
 Client Project #: LAKELAND ELECTRIC
 P.O. #:
 Project name: MCLUTOSH 3

Quality Assurance Report
 Maxxam Job Number: GA9H0913

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2044446 LLE	Matrix Spike (ER4903)	Sulphuric Acid Mist	2009/12/23		97	%	80 - 120
	Spiked Blank	Sulphuric Acid Mist	2009/12/23		98	%	90 - 110
	Method Blank	Sulphuric Acid Mist	2009/12/23	<0.2		mg	
	RPD - Sample/Sample Dup	Sulphuric Acid Mist	2009/12/23	0		%	20

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

CHAIN OF CUSTODY



5555 North Service Road
Burlington, ON L7L 5H7
www.maxxamanalytics.com

Toll Free: 1-800-668-0639
Tel: (905) 332-8788
Fax: (905) 332-9169

ANALYSIS REQUESTED

CLIENT INFORMATION

Company Name: Catalyst Air Management
Project Manager: J. Nicey
Address: 2525 Byington - Selwyn Road
Knoxville TN 37931
Phone #: 665 531-0075 Fax #: 665 531-0750
Sampled by: H. Love / J. Nicey

Method BA-503

Level of contamination
(low, high, unknown)

Field Sample ID	# Bottles	Matrix	Date	Time
Run 1 Coil Rinse C-1	1	DI	12/6/09	
Run 2 Coil Rinse C-1	1			
Run 3 Coil Rinse C-1	1			
Run 4 Coil Rinse C-1	1			
Run 5 Coil Rinse C-1	1			
Run 6 Coil Rinse C-1	1			
Run 7 Coil Rinse C-1	1		12/8/09	
Run 8 Coil Rinse C-1	1			
Run 9 Coil Rinse C-1	1			
Run 10 Coil Rinse C-1	1			

73

TAT (Turnaround Time)
RUSH TAT MUST HAVE PRIOR APPROVAL
*sorry exceptions apply please contact Lab
STD 10 Business Days
RUSH 5 Business Days
RUSH 2 Business Days
RUSH 1 Business Day
Other Business Days

PROJECT INFORMATION
Project #: Lakeland Electric
Site: Melrose 3
PO #: _____
MAXXAM Quote #: _____
MAXXAM Project #: _____
MAXXAM Contact: _____

SPECIAL DETECTION LIMITS
MISA
SPECIAL REQUIREMENTS / REGULATIONS

RESERVED

Client Signature: _____
Affiliation: Catalyst
Date/Time: 12/16/09

Received By: _____
Affiliation: _____
Date/Time: 12/16/09 9:45 AM

CHAIN OF CUSTODY

Dec 17 2009 11:19AM HP LASERJET F 610-346-9573 P.3



5555 North Service Road
Burlington, ON L7L 5H7
www.maxxamanalytics.com

Toll Free: 1-800-668-0639
Tel: (905) 332-8788
Fax: (905) 332-9169

Page 2 of 2

ANALYSIS REQUESTED

CLIENT INFORMATION

Company Name: Catalyst Air Management
Project Manager: _____
Address: Same as 1
Phone #: _____ Fax #: _____
Sampled by: _____

Method BA SO₃

Level of contamination (low, high, unknown)

Field Sample ID	# Bottles	Matrix	Date	Time															
<u>Run 11 Coil Rinse C-1</u>	<u>1</u>	<u>DI</u>	<u>12/13/09</u>																
<u>Run 12 Coil Rinse C-2</u>	<u>1</u>		<u>1</u>																

TAT (Turnaround Time)
RUSH TAT MUST HAVE PRIOR APPROVAL
*some exceptions apply please contact Lab
STD 10 Business Days
RUSH 5 Business Days
RUSH 2 Business Days
RUSH 1 Business Day
Other Business Days _____

PROJECT INFORMATION
Project #: Lakehead Electric
Site: McIntosh 3
PO #: _____
MAXXAM Quote #: _____
MAXXAM Project #: _____
MAXXAM Contact: _____

SPECIAL DETECTION LIMITS
MISA
SPECIAL REQUIREMENTS / REGULATIONS

REMARKS
[Handwritten notes and signatures in a grid area]

Client Signature: [Signature]
Affiliation: Catalyst
Date/Time: 12/14/09

Received By: [Signature]
Affiliation: _____
Date/Time: 12/17/09 9:45

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APPENDIX 4
REFERENCE METHOD QUALITY ASSURANCE

Isokinetic Sampling Equipment

Catalyst Air Management, Inc.
POST-TEST METER BOX CALIBRATION
METER BOX NUMBER:

DATE: 020
 03/04/09
CALIBRATED BY: Kelly

BENCH METER CALIBRATION FACTOR: 1.0000

Orifice	Standard		Dry		Standard	Dry Gas Meter								
Manometer	Test		Gas		Test				Barometric					
Setting	Meter		Meter		Meter	Inlet	Outlet	Average	Pressure	Time				
(Δ H)	Start:	(V _w)	Start:	(V _d)	(T _w)	(T _{di})	(T _{do})	(T _d)	(P _b)	(Time)				
In. H ₂ O	End:	ft ³	End:	ft ³	°F	°F	°F	°F	in. of Hg	min.	Y _i	ΔH@i	Q _m	K _m
0.50	682.320	5.023	494.121	5.137	59.0	59.0	58.0	58.5	30.46	11.50	0.98	1.36	0.446	0.824
	687.343		499.258											
1.00	676.717	5.201	488.400	5.311	57.0	56.5	57.0	56.8	30.46	8.50	0.98	1.38	0.625	0.817
	681.918		493.711											
2.00	688.235	5.215	500.165	5.287	61.0	61.0	59.0	60.0	30.46	6.16	0.98	1.48	0.857	0.790
	693.450		505.452											
3.00	693.950	5.158	505.962	5.198	62.0	63.0	61.0	62.0	30.46	5.00	0.99	1.52	1.038	0.780
	699.108		511.160											
4.00	699.835	5.345	511.886	5.374	62.0	64.0	61.0	62.5	30.46	4.50	0.99	1.54	1.191	0.775
	705.180		517.260											

Average: 0.98 1.46

FORMULAS

$$Y_i = \frac{(V_w)(P_b)(T_d + 460)}{(V_d)\left(P_b + \frac{H}{13.6}\right)(T_w + 460)}$$

$$K_m = Q_m \sqrt{\frac{(P_b)(29)}{(T_{do} + 460)(\Delta H)}}$$

$$\Delta H@i = \frac{0.9244}{K_m^2}$$

$$Q_m = \frac{(V_d)(T_{do} + 460)}{(\text{Time})(T_{do} + 460)}$$

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Catalyst Air Management, Inc.

POST-TEST METER BOX CALIBRATION

METER BOX NUMBER: 020
 DATE: 12/04/09
 CALIBRATED BY: Kendrick
 BENCH METER CALIBRATION FACTOR: 1.000
 PRETEST Y_i : 0.98
 POST-TEST Y_i : 0.96
 DIFFERENCE, %: -1.83

Orifice	Standard		Dry		Standard	Dry Gas Meter			Barometric					
Manometer	Test		Gas		Test	Inlet	Outlet	Average	Pressure	Time				
(ΔH)	Setting	Meter	Meter		Meter	(T_{di})	(T_{do})	(T_d)	(P_b)	(Time)				
In. H ₂ O	Start:	(V_w)	Start:	(V_d)	(T_w)	(T_{di})	(T_{do})	(T_d)	in. of Hg	min.	Y_i	$\Delta H@i$	Q_m	K_m
0.50	463.227	4.384	811.084	4.497	59.0	54.2	52.7	53.5	30.10	10.00	0.96	1.35	0.449	0.829
	467.611		815.581											
0.50	467.611	4.364	815.581	4.485	60.7	57.2	54.8	56.0	30.10	10.00	0.96	1.36	0.447	0.824
	471.975		820.066											
0.50	471.975	4.374	820.066	4.509	62.7	60.3	57.2	58.8	30.10	10.00	0.96	1.36	0.450	0.826
	476.349		824.575											

Average: 0.96 1.35

FORMULAS

$$Y_i = \frac{(V_w)(P_b)(T_d + 460)}{(V_d)\left(P_b + \frac{H}{13.6}\right)(T_w + 460)}$$

$$K_m = Q_m \sqrt{\frac{(P_b)(29)}{(T_{do} + 460)(\Delta H)}}$$

$$\Delta H@i = \frac{0.9244}{K_m^2}$$

$$Q_m = \frac{(V_d)(T_{do} + 460)}{(Time)(T_{do} + 460)}$$

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CATALYST AIR MANAGEMENT, INC

Pre Test Barometer Calibration Check

DATE: 11 / 30 / 09

CALIBRATED BY: J. Nicely

<u>Id # - Princo - 1</u>	Hg in glass Barometer (in Hg)	30.10
<u>Id # - Cam - 03</u>	Field Barometer (in Hg)	30.12
<hr/>		
	Difference	0.02

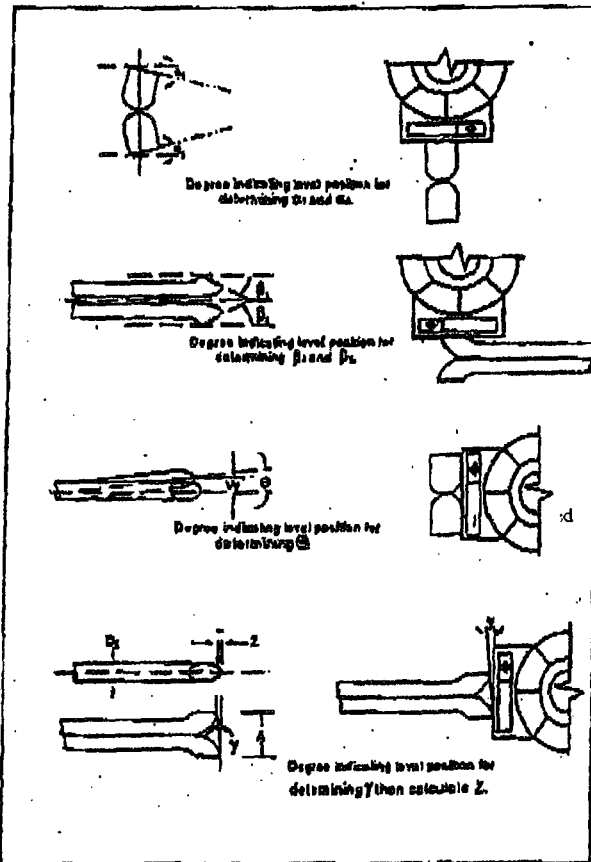
Post Test Barometer Calibration Check

DATE: 12 / 4 / 09

CALIBRATED BY: J.N icely

<u>Id # - Princo - 1</u>	Hg in glass Barometer (in Hg)	30.10
<u>Id # - Cam - 03</u>	Field Barometer (in Hg)	30.10
<hr/>		
	Difference	0

"S" TYPE PITOT TUBE CALIBRATION - INSPECTION



ATTRIBUTE

Level and Perpendicular?	YES
Obstructed?	No
Damaged?	NO
$\alpha_1 (-10^\circ \leq \alpha_1 \leq +10^\circ)$	2
$\alpha_2 (-10^\circ \leq \alpha_2 \leq +10^\circ)$	3
$\beta_1 (-5^\circ \leq \beta_1 \leq +5^\circ)$	2
$\beta_2 (-5^\circ \leq \beta_2 \leq +5^\circ)$	2
γ	1
θ	1
$Z = A \tan \gamma (\leq 0.125)$.0151
$W = A \tan \theta (\leq 0.03125)$.0151
$D_1 (3/16" \leq D_1 \leq 3/8")$.371
A	.868
$A/2D_1 (1.05 \leq P_A/D_1 \leq 1.5)$	1.1698

QA/QC Check
 Completeness Legibility Accuracy Specifications Reasonableness

Certification:
 I certify that the Type "S" pitot tube / probe, ID# CAM-117 meets or exceeds all specifications criteria and or applicable design features and is hereby assigned a pitot tube calibration factor of C_p of 0.84

Certified By: [Signature] 11/30/09 Team Leader [Signature]
 Personnel (Signature / Date) Team Leader (Signature / Date)

THERMOCOUPLE CALIBRATION Jul 09

In Shop THERM. #

x

CAM-17

AMBIENT		
standard	observed	%difference
63	64	
523	524	0.19

YES YES

MID RANGE		
standard	observed	%difference
150	156	
610	616	0.97

YES YES

HIGH RANGE		
standard	observed	%difference
319	324	
779	784	0.64

YES YES

p:

APPENDIX 5
SAMPLE CALCULATIONS

SAMPLE EQUATIONS FOR ISOKINETIC SAMPLING

CALCULATIONS FOR FLUE GAS VOLUME AND ISOKINETIC RATIO

Time	Dry Gas	Pitot	Orifice	Dry Gas		Flue Gas	Stack
	Meter Ft ³	ΔP In. H ₂ O	ΔH In. H ₂ O	Temp. °F In	Out	Static Pressure In. H ₂ O	
T	V _m	Δp	ΔH	TMI	TMO	P _g	t _s

1. D_n = Nozzle Diameter (inches)

1a. A_n = Area of Nozzle (ft²)

2. P_{bar} = Barometric Pressure (in. Hg)

3. TT = Net Sampling Time (minutes)

4. V_m = V_m Final - V_m Initial = Sample Gas Volume (Ft³)

5. T_m = Average Dry Gas Temperature at Meter (°F)

$$T_m = \frac{\text{Avg. TMI} + \text{Avg. TMO}}{2}$$

6. Δp = Velocity head of stack gas (in. H₂O)

7. ΔH = Average Orifice Pressure Drop (in. H₂O)

8. Volume of dry gas sampled at standard conditions^a (DSCF)

$$V_{m(std)} = \frac{(17.64)(V_m)(Y) \left(P_{bar} + \frac{\Delta H}{13.6} \right)}{(T_m + 460)}$$

9. V_{lc} = Total Water Collected = gm H₂O Silica gel + ml Imp. H₂O = ml

10. Volume of water vapor at standard conditions^b (SCF)

$$V_{w(std)} = 0.0471(V_{lc}) = SCF$$

11. Percent moisture in flue gas

$$\%M = \frac{100(V_{w(std)})}{V_{m(std)} + V_{w(std)}}$$

12. Mole fraction of water vapor in flue gas

$$B_{ws} = \frac{\%M}{100}$$

13. Molecular Weight of dry flue gas

$$M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%N_2 + \%CO)$$

- 13a. %EA = % Excess Air =

$$\frac{[(\%O_2) - 0.5(\%CO)]}{[0.264(\%N_2)] - [(\%O_2) - 0.5(\%CO)]} \times 100$$

14. Molecular weight of wet flue gas

$$M_s = M_d(1 - B_{ws}) + 18(B_{ws})$$

15. A = Cross-sectional area of stack (Ft²)

$$\frac{\pi r^2}{144}$$

16. P_s = Flue gas pressure (in, Hg)

$$P_s = P_{bar} + P_g$$

NOTE:
$$P_g(Hg) = \frac{P_g(in.H_2O)}{13.6}$$

17. T_s = Absolute stack temperature (°R)

$$T_s = 460 + t_s$$

18. Flue velocity at stack conditions (FT/SEC)

$$V_s = (K_p)(C_p) \left[(\sqrt{\Delta p})_{avg} \right] \sqrt{\frac{T_s(avg)}{P_s * M_s}}$$

C_p = pitot tube coefficient

K_p = pitot tube constant = 85.49ft/sec

19. Flue gas volumetric flow rate at standard conditions^b (SCFM)

$$Q_s = (V_s)(A) \left(\frac{528}{T_s(avg.)} \right) \left(\frac{P_s}{29.92} \right) (60)$$

20. Flue gas volumetric flow rate at standard conditions^c (DSCFM)

$$Q_{sd} = (1 - B_{ws})(V_s)(A) \left(\frac{528}{T_s(avg.)} \right) \left(\frac{P_s}{29.92} \right) (60)$$

21. Flue gas volumetric flow rate at stack conditions (ACFM)

$$Q_a = (V_s)(A)(60)$$

22. Percent Isokinetic

$$\%I = \frac{K_4(T_s)(V_{m(std)})}{P_s V_s A_n \Theta (1 - B_{ws})}$$

$K_4 = 0.09450$

$\Theta = \text{time}(\text{min})$

NOTES:

^aDry standard cubic feet at 68°F, 29.92 in. Hg

^bStandard conditions at 68°F, 29.92 in. Hg

^cDry standard cubic feet per minute at 68°F, 29.92 in. Hg

II. Calculations for emission rates (acid mist)

23. H₂SO₄ (lb/DSCF)

$$lb / DSCF = K2(N(Vt - Vtb) \left(\frac{Vsol}{Va} \right) / Vmstd)$$

$$K2 = 1.081 \times 10^{-4}$$

24. SO₂ (lb/DSCF)

$$lb / DSCF = K2(N(Vt - Vtb) \left(\frac{Vsol}{Va} \right) / Vmstd)$$

$$K2 = 7.061 \times 10^{-5}$$

25. Acid Mist (lbs/hr), concentration method

$$lbs / hr = (lb / DSCF)(Qstd)(60)$$

CALCULATION QUALITY ASSURANCE CHECK

$$V_{mStd} = \frac{\text{Run 2} (17.64)(27.020)(0.99)(29.70 + \frac{1.2}{13.6})}{68 + 460} = 26.61$$

$$V_{wStd} = 0.041 (58) = 2.73$$

$$q_0 M = 100(2.73) / (2.73 + 26.61) = 9.3$$

$$B_{ws} = 9.3 / 100 = 0.093$$

$$M_d = 0.44(12.4) + 0.32(7.7) + 0.28(100 - 12.4 - 7.7) = 30.29$$

$$M_s = 30.29(1 - 0.093) + 18(0.093) = 29.15$$

$$P_s = 29.70 + \left(\frac{-0.55}{13.6}\right) = 29.66$$

$$T_s = 460 + 181 = 641$$

$$g_c/d_{sef} = 0.01543 \left(\frac{1.2}{26.61}\right) = 0.0007$$

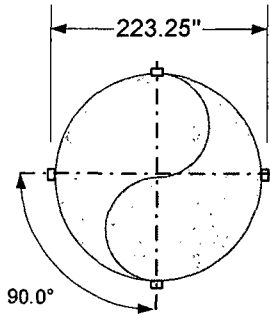
$$16/mmBtu = \left(\frac{(0.007)(9780)}{7000}\right) \times \left(\frac{20.9}{20.9 - 7.7}\right) = 0.802$$

APPENDIX 6
FIGURES

Unit 3 Stack Height = 275'-0"

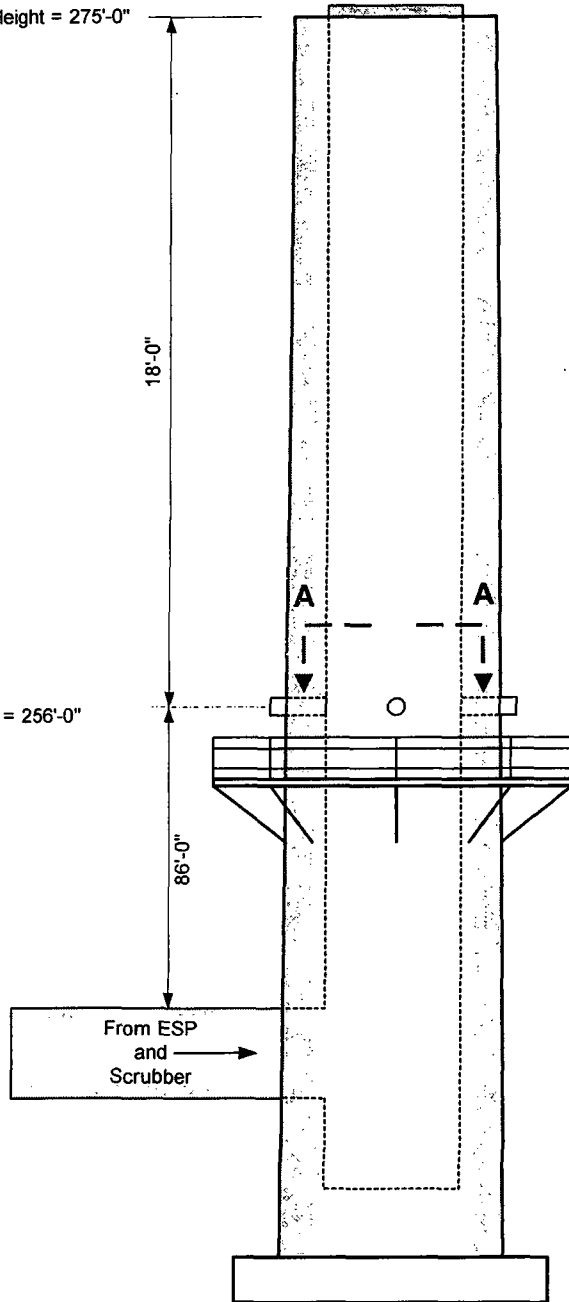
TRAVERSE POINTS (Typ 4 Ports)
(Inches) from inside of stack.

1. $4.69" + 48" = 52.69"$
2. $14.96" + 48" = 62.96"$
3. $26.34" + 48" = 74.34"$
4. $39.52" + 48" = 87.52"$
5. $55.81" + 48" = 103.81"$
6. $79.48" + 48" = 127.48"$

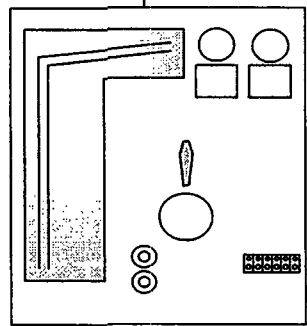
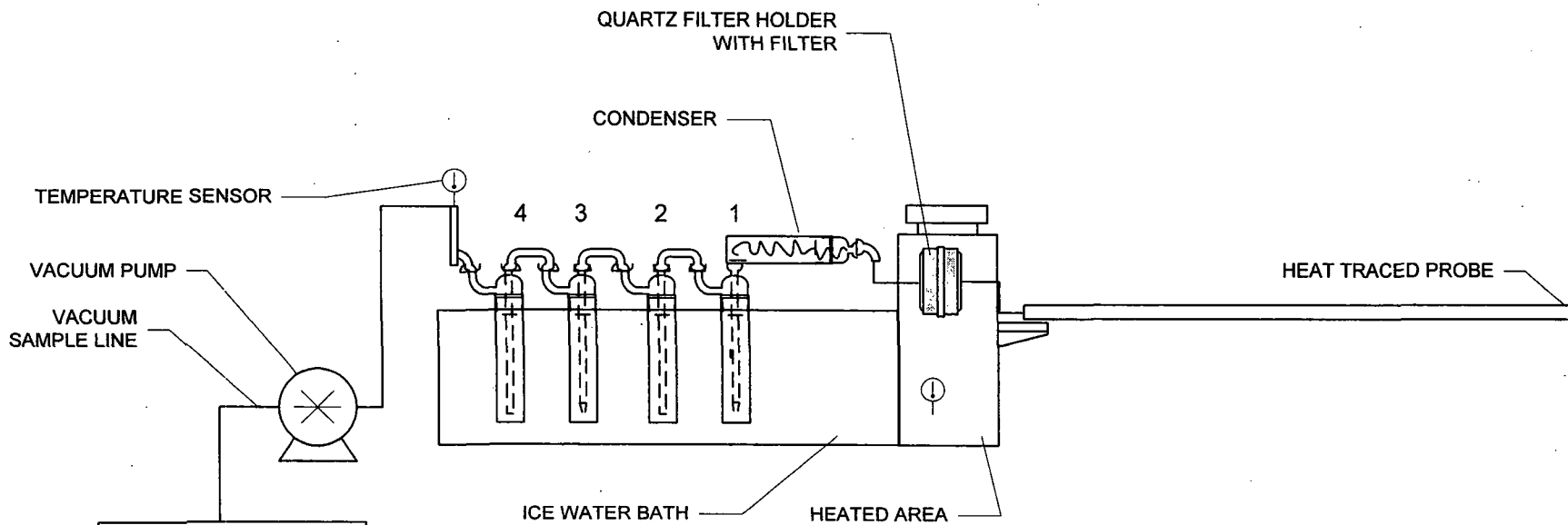


SECTION A - A

Port Height = 256'-0"



TITLE		
LAKELAND ELECTRIC - C.D. McINTOSH POWER PLANT		
DESCRIPTION		DATE
UNIT NO. 3 STACK TEST PORT CONFIGURATION		1/2/99
SCALE	DRAWN BY	REVISED
NONE	MJ TAYLOR	7/11/05



GAS SAMPLING METER BOX

NOTE:

- METER BOX CONTAINS:**
1. VACUUM GAUGE
 2. MAIN VALVE
 3. PUMP BY-PASS VALVE
 4. DRY GAS METER
 5. ORIFICE & FLOW MANOMETERS
 6. GAS INLET & OUTLET TEMPERATURE SENSORS AND INDICATORS

***IMPINGER CONTENTS**

- Condenser Coil**
- 1 3% H₂O₂ - 100ml
 - 2 3% H₂O₂ - 100ml
 - 3 DI Water - 100ml
 - 4 Silical Gel

TITLE		
EPA METHOD 8A SAMPLE TRAIN		
DESCRIPTION		DATE
ACID MIST SO ₃ SAMPLING TRAIN		6-10-06
SCALE	DRAWN BY	REVISED
NONE	MJ Taylor	

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