Appendix A

Field Data Forms and CEMS Data

AECOM

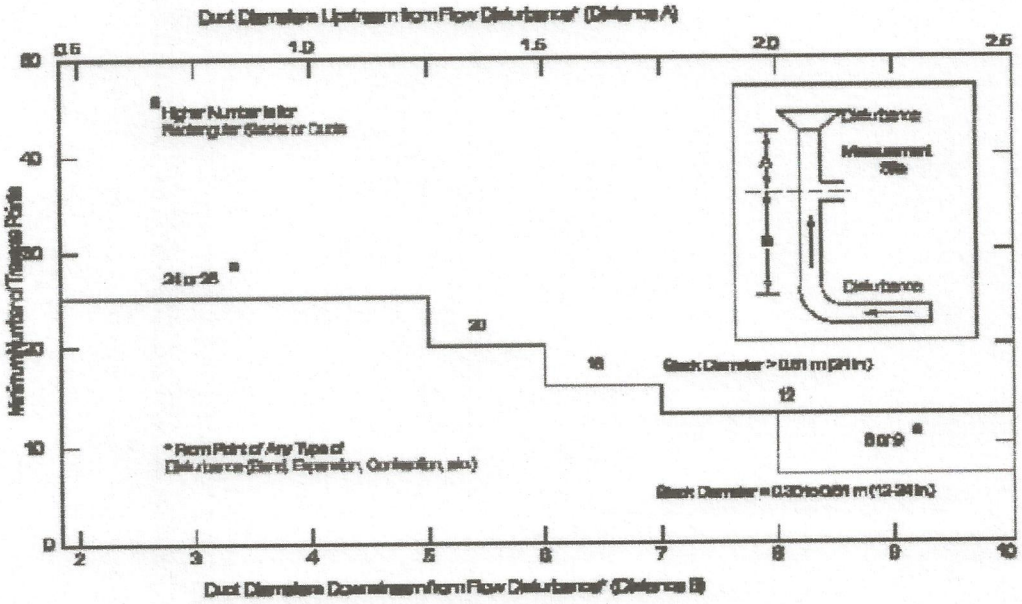
RM 1 - Minimum Number of Traverse Points

Client	Sumitomo Metal Mining Inc.	Stack Diameter (in)	30	
Location	Delta Junction, AK	Upstream Distance (in)	36	Diameters 1.2
Source	Incinerator	Downstream Distance (in)	144	Diameters 4.8
Operator	J. Rosburg	Port Depth (in)	4.0	
		Port Diameter (in)	4	

Location of Traverse Points in Circular Stacks

Traverse Point Number	Number of traverse points (% of stack diameter from inside wall)						
	6	8	10	12	16	20	24
1	4.4	3.2	2.6	2.1	1.6	1.3	1.1
2	14.5	10.5	8.2	6.7	4.9	2.9	3.2
3	29.6	19.4	14.6	11.8	8.5	6.7	5.5
4	70.4	32.3	22.6	17.7	12.5	9.7	7.9
5	85.4	67.7	34.2	25.0	16.9	12.9	10.5
6	95.6	80.6	66.8	35.6	22.0	16.5	12.2
7		89.5	77.4	64.4	28.3	20.4	16.1
8		96.8	85.4	75.0	37.5	25.0	19.4
9			91.8	82.3	62.5	30.6	23.0
10			97.4	88.2	71.7	38.8	27.2
11				93.3	78.0	61.2	32.3
12				97.9	83.1	69.4	39.8
13					87.5	75.0	60.2
14					91.5	79.6	67.7
15					95.1	83.5	72.8
16					98.4	87.1	77.0
17						90.3	80.6
18						93.3	83.9
19						96.1	86.8
20						98.7	88.6
21							92.1
22							94.5
23							96.8
24							99.9

Distance (in)	Distance with port (in)
1.0	5.0
2.0	6.0
3.5	7.5
5.3	9.3
7.5	11.5
10.7	14.7
19.3	23.3
22.5	26.5
24.7	28.7
26.5	30.5
28.0	32.0
29.0	33.0



* Plant time is 16 min behind

#2

AECOM

ISOKINETIC SAMPLE DATA FORM

Plant:	SMM1	Filter ID:	L12
Location:	Delta Junction, Pogo mine	Ambient Temp. (°F):	75
Source I.D.:	Incinerator	Baro. Press. (in. Hg):	28.6
Date:	6-28-13	Static Press. (in H_2O):	+ 0.04
Flow Traverse Time:	0839-0954	O_2 (%):	11.28
Run No.:	I5-1	CO_2 (%):	6.24
Operators:	DB, AW	Duct Dia. (in):	30"
Meter Box I.D.:	Hawkeye	B_{ws} (assumed):	11
Meter Y:	0.9698	Nozzle Dia. (in):	0.867, 0.867, 0.866 = Ave = 0.8667
Meter Delta H@:	1.8962	K Factor:	133.63 156.94
Probe I.D./ Impinger outlet I.D.:	403 / 70073	Leak Check:	
Probe Length/Type:	41 RMS	Pre:	0.000 acf 10 in. Hg Vac.
Pitot Coeff. (Cp):	0.84	Post:	0.078 acf 3 in. Hg Vac.

Moisture

Imp.	Initial	Final
1	727.5	830.0
2	578.0	628.7
3	732.3	736.0
4	718.4	720.3
5	888.8	901.3
	Net Gain	

Pitot:	Impact	Static	
Pre:	0	0	in. H_2O/15 sec.
Post:	0	0	in. H_2O/15 sec.

DGM Clock Time	Port/Point I.D.	Sample Time (min.)	DGM Reading (DACF)	ΔP (in. H_2O)	ΔH (in. H_2O)	Stack Temp. (F)	Probe Temp. (°F)	Filter Temp. (°F)	Imp. Outlet Temp. (°F)	DGM Temp. (°F)		Vacuum (in. Hg)
855			813.007									
847	1-1	0	812.422	0.01	1.57	1313	250	253	65	70	70	3
* 0839 Adjusted	2	3 2.5	815.27	0.01	1.57	1322	252	256	64	69	69	3
	3	6 5	817.49	0.01	1.57	1300	250	253	64	70	68	3
	4	9 7.5	819.65	0.01	1.57	1287	250	251	63	72	68	3
	5	12 10	821.89	0.01	1.57	1315	254	250	60	73	68	3
	6	15 12.5	824.12	0.01	1.57		248	251	60	73	68	3
	7	18 15	826.35	0.01	1.57	1345	241	247	57	75	68	3
	8	21 17.5	828.57	0.01	1.57	1302	259	248	55	77	69	3
	9	24 20	830.92	0.01	1.57		231	232	56	77	70	3
	10	27 22.5	833.10	0.01	1.57	1359	245	238	54	78	70	3
	11	30 25	835.31	0.01	1.57	1335	246	243	54	79	70	3
	12	33 27.5	837.56	0.01	1.57		244	248	53	80	70	3
	2-1	36 30	839.82	0.01	1.57		255	250	52	80	71	3
	2	39 32.5	841.05	0.01	1.57	1429	252	257	53	81	71	3
	3	42 35	844.28	0.01	1.57		254	251	52	81	71	3
	4	45 37.5	846.48	0.01	1.57	1299	252	252	53	81	71	3
	5	48 40	848.76	0.01	1.57	1320	249	251	53	82	72	3
	6	51 42.5	851.06	0.01	1.57		251	250	53	82	72	3
	7	54 45	853.36	0.01	1.57	1490	253	251	53	83	73	4
	8	57 47.5	855.67	0.01	1.57		253	250	53	83	73	4
	9	60 50	857.98	0.01	1.57	1357	250	250	53	83	73	4
	10	63 52.5	860.25	0.01	1.57		252	252	53	84	73	4
	11	66 55	862.51	0.01	1.57	1308	253	251	53	84	74	4
	12	69 57.5	864.76	0.01	1.57	1510	253	251	53	84	74	4
1010		72 60	867.017			1448						
0954 Adjusted												
		Total Time	Vol. (DACF)	Avg. √ΔP	Avg. ΔH	Avg. t_s				Average DGM Temp.		Max. Vac.

Plant time is 16 minute behind our time

ISOKINETIC SAMPLE DATA FORM

AECOM

T(°F)	K
1200	175.4
1250	170.3
1300	165.5
1350	160.9
1400	156.6

#2

Moisture		
Imp.	Initial	Final
1	727.2	853.4
2	597.3	629.0
3	729.4	734.6
4	717.8	720.4
5	901.3	911.3
	Net Gain	

Plant:	SMMI	Filter ID:	L13
Location:	Delta Junction - Pogo Mine	Ambient Temp. (°F):	76
Source I.D.:	Incinerator	Baro. Press. (in. Hg):	28.55
Date:	6-29-13	Static Press. (in H_2O):	0.04
Flow Traverse Time:		O_2 (%):	
Run No.:	I5-2	CO_2 (%):	
Operators:	DR, AW	Duct Dia. (in):	30
Meter Box I.D.:	Hawkeye	B_{ws} (assumed):	12
Meter Y:	0.9698	Nozzle Dia. (in):	0.8747
Meter Delta H@:	1.8962	K Factor:	
Probe I.D./ Impinger outlet I.D.:	403	Leak Check:	
Probe Length/Type:	4' RMS	Pre: 0.001 acf	10 in. Hg Vac.
Pitot Coeff. (Cp):	0.84	Post: 0.001 acf	6 in. Hg Vac.

Pitot:	Impact	Static	
Pre:	0	0	in. H_2O/15 sec.
Post:			in. H_2O/15 sec.

DGM Clock Time	Port/Point I.D.	Sample Time (min.)	DGM Reading (DACF)	ΔP (in. H_2O)	ΔH (in. H_2O)	Stack Temp. (F)	Probe Temp. (°F)	Filter Temp. (°F)	Imp. Outlet Temp. (°F)	DGM Temp. (°F)		Vacuum (in. Hg)
1305	1- 1	0	173.357	0.01	1.70	1246	256	252	63	77	79	3
	2	3	175.76	0.01	1.70	1263	259	268	56	78	79	3
	3	6	178.12	0.01	1.70	1260	256	268	53	79	79	3
	4	9	180.50	0.01	1.70	1264	253	263	53	80	79	3
	5	12	182.89	0.01	1.70	1262	251	261	53	82	79	3
	6	15	185.27	0.01	1.75	1220	250	264	54	83	79	3
	7	18	187.72	0.015	2.55	1232	250	266	55	84	80	3
	8	21	190.51	0.01	1.75	1251	251	273	55	85	80	3
	9	24	193.00	0.015	2.55	1221	246	274	56	86	80	5
	10	27	195.86	0.01	1.75	1217	250	272	55	87	80	4
	11	30	198.35	0.01	1.75	1228	253	273	55	87	80	4
	12	33	200.76	0.01	1.75	1223	251	267	55	87	80	4
1341/1343	2- 1	36	203.204	0.015	2.55	1272	247	240	56	86	81	4
	2	39	206.01	0.015	2.55	1276	251	257	54	89	81	4
	3	42	208.88	0.01	1.70	1226	254	271	53	90	81	5
	4	45	211.38	0.015	2.55	1223	252	273	55	90	82	5
	5	48	214.22	0.015	2.55	1251	253	270	54	91	83	5
	6	51	218.09	0.015	2.55	1228	259	268	54	93	83	5
	7	54	221.89	0.015	2.55	1262	256	265	54	93	83	5
	8	57	222.89	0.01	1.75	1264	263	268	54	94	85	5
	9	60	225.30	0.010	1.75	1194	258	276	55	94	85	5
	10	63	227.71	0.01	1.75	1199	251	270	55	95	86	5
	11	66	230.11	0.01	1.75	1261	250	267	56	95	87	5
	12	69	232.50	0.01	1.75	1253	248	267	55	95	87	5
1419		72	234.885									
		Total Time	Vol. (DACF)	Avg. √ΔP	Avg. ΔH	Avg. t_s				Average DGM Temp.		Max. Vac.

ISOKINETIC SAMPLE DATA FORM

#2 AECOM

T(°F)	K
1200	181.9
1250	176.6
1300	171.6
1350	166.9

Plant:	SMM	Filter ID:	L 16
Location:	Delta Junction, AK - Logo Mine	Ambient Temp. (°F):	90
Source I.D.:	Incinerator	Baro. Press. (in. Hg):	28.5
Date:	6-30-13	Static Press. (in H_2O):	+0.04
Flow Traverse Time:		O_2 (%):	
Run No.:	I 5-3	CO_2 (%):	
Operators:	DB, AW	Duct Dia. (in):	30
Meter Box I.D.:	Hawkeye	B_{ws} (assumed):	12
Meter Y:	0.9688	Nozzle Dia. (in):	0.8747
Meter Delta H@:	1.8962	K Factor:	
Probe I.D./ Impinger outlet I.D.:	403 I0033	Leak Check:	
Probe Length/Type:	4' RMS	Pre: 0.000 acf 10 in. Hg Vac.	
Pitot Coeff. (Cp):		Post: 0.000 acf 6 in. Hg Vac.	

Moisture

Imp.	Initial	Final
1	728.7	854.2
2	595.1	626.5
3	730.9	735.6
4	717.4	719.7
5	895.7	908.8
	Net Gain	

Pitot:	Impact	Static	
Pre:	6	0	in. H_20/15 sec.
Post:			in. H_20/15 sec.

DGM Clock Time	Port/Point I.D.	Sample Time (min.)	DGM Reading (DACF)	ΔP (in. H_2O)	ΔH (in. H_20)	Stack Temp. (F)	Probe Temp. (°F)	Filter Temp. (°F)	Imp. Outlet Temp. (°F)	DGM Temp. (°F)		Vacuum (in. Hg)
1349	1	0	542.972	0.015	2.73	1170	226	232	62	87	91	3
	2	3	545.99	0.015	2.73	1167	231	242	62	89	91	3
	3	6	548.93	0.01	1.82	1209	242	247	62	90	91	3
	4	9	551.47	0.01	1.82	1205	245	256	62	91	90	3
	5	12	553.97	0.01	1.82	1200	250	258	60	92	91	3
	6	15	556.34	0.01	1.82	1191	248	255	57	94	91	3
	7	18	558.71	0.01	1.76	1243	242	253	56	94	91	3
	8	21	561.04	0.01	1.82	1212	247	252	56	93	92	3
	9	24	563.51	0.01	1.82	1213	241	252	57	94	91	3
	10	27	566.80	0.015	2.73	1215	239	249	56	95	91	3
	11	30	568.78	0.01	1.82	1207	242	252	55	94	90	3
	12	33	571.35	0.01	1.82	1221	243	250	57	93	90	3
1425/1430	1	36	573.817	0.01	1.82	1206	241	246	57	92	90	3
	2	39	576.32	0.015	2.73	1209	242	251	58	93	91	4
	3	42	579.28	0.01	1.82	1206	246	254	58	93	90	4
	4	45	581.80	0.01	1.82	1223	250	253	60	95	91	4
	5	48	584.26	0.01	1.82	1231	248	251	60	95	91	4
	6	51	586.75	0.01	1.82	1231	243	251	60	96	92	4
	7	54	589.21	0.01	1.82	1204	239	250	60	96	91	4
	8	57	591.74	0.01	1.82	1198	241	251	61	96	92	4
	9	60	594.10	0.01	1.76	1235	246	249	61	96	92	4
	10	63	596.51	0.01	1.76	1245	247	249	61	96	92	4
	11	66	598.92	0.01	1.76	1226	250	248	61	96	91	4
	12	69	601.33	0.01	1.82	1208	245	250	61	96	91	4
		72	603.81	0.01	1.82	1214	243	251	62	97	92	4
1508		74	605.427									
		Total Time	Vol. (DACF)	Avg. √ΔP	Avg. ΔH	Avg. t_s				Average DGM Temp.		Max. Vac.

Trap # T1744_007

#1 AECOM

ISOKINETIC SAMPLE DATA FORM

T(°F)	K		
1300	161.5	168.0	
1350	156.9	163.4	
1400	152.3	158.9	
1450	148.3	154.8	
1500	144.5	150.7	
1550	140.9	147.1	

Moisture		
Imp.	Initial	Final
1	727.5	830.0
2	598.0	628.7
3	732.3	736.0
4	718.1	720.3
5	888.8	901.3
Net Gain		

see page 2 of 2

Plant:	Smm1	Filter ID:	D/F-1
Location:	Delta Junction Pogo mine	Ambient Temp. (°F):	71
Source I.D.:	Incinerator	Baro. Press. (in. Hg):	28.60
Date:	6/28/13	Static Press. (in H_2O):	+0.04
Flow Traverse Time:		O_2 (%):	
Run No.:	I 23-1	CO_2 (%):	
Operators:	DB, ACW	Duct Dia. (in):	30
Meter Box I.D.:	Hawkeye	B_{ws} (assumed):	11
Meter Y:	0.9698	Nozzle Dia. (in):	~~0.867~~ 0.876, 0.875, 0.877 = 0.876
Meter Delta H@:	1.8962	K Factor:	
Probe I.D./ Impinger outlet I.D.:	403 70821	Leak Check:	
Probe Length/Type:	4' Rm5	Pre: 0.001 acf 10 in. Hg Vac.	
Pitot Coeff. (Cp):	0.84	Post: 0.000 acf 10 in. Hg Vac.	

Pitot:	Impact	Static	
Pre:	0	0	in. H_2O/15 sec.
Post:	0	0	in. H_2O/15 sec.

DGM Clock Time	Port/Point I.D.	Sample Time (min.)	DGM Reading (DACF)	ΔP (in. H_2O)	ΔH (in. H_2O)	Stack Temp. (F)	Probe Temp. (°F)	Filter Temp. (°F)	Imp. Outlet Temp. (°F)	DGM Temp. (°F)		Vacuum (in. Hg)
1411	1	0	958.517	0.01	1.68	1291	253	233	64	82	82	3
		4	961.58	0.01	1.68	1320	258	254	52	81	81	3
	2	8	964.47	0.01	1.68	1283	256	258	52	83	81	4
		12	967.22	0.01	1.68	1280	252	256	53	85	80	5
	3	16	970.29	0.01	1.68	1272	248	253	53	86	81	5
		20	973.37	0.01	1.68	1268	250	251	53	88	81	5
	4	24	976.50	0.01	1.68	1286	249	251	53	88	81	5
		28	979.62	0.01	1.68	1265	258	250	53	89	81	5
	5	32	982.75	0.01	1.68	1277	245	250	52	90	82	5
		36	985.85	0.01	1.68	1262	253	250	52	91	82	5
	6	40	988.97	0.01	1.68	1270	253	251	53	91	82	5
		44	992.10	0.01	1.68	1281	247	250	54	92	83	5
	7	48	995.20	0.01	1.68	1274	247	248	54	92	83	5
		52	998.34	0.01	1.68	1282	250	254	54	92	83	5
	8	56	1.46	0.01	1.68	1306	251	250	54	91	83	5
		60	4.60	0.01	1.68	1266	251	251	54	92	83	6
	9	64	7.68	0.01	1.68	1270	251	250	54	92	83	6
		68	10.72	0.01	1.68	1260	245	247	55	92	83	6
	10	72	13.76	0.01	1.68	1270	251	247	55	92	84	6
		76	16.89	0.01	1.68	1270	251	249	55	92	84	6
	11	80	20.02	0.01	1.68	1265	254	250	55	91	84	6
		84	23.14	0.01	1.68	1264	248	249	56	91	84	6
	12	88	26.19	0.01	1.68	1282	251	253	56	90	83	6
		92	29.30	0.01	1.68	1283	250	249	56	90	83	6
1547		96	32.421									
		Total Time	Vol. (DACF)	Avg. √ΔP	Avg. ΔH	Avg. t_s				Average DGM Temp.		Max. Vac.

* stop run @ 160 min, concern about smoke in meterbox Trap # T1744_007

AECOM

ISOKINETIC SAMPLE DATA FORM

#1

Plant:	SMM1	Filter ID:	D/F
Location:	Delta Junction, Pogo mine	Ambient Temp. (°F):	
Source I.D.:	Incinerator	Baro. Press. (in. Hg):	28.6
Date:	6/28/13	Static Press. (in H_2O):	+0.04
Flow Traverse Time:		O_2 (%):	11.19 10.65 Ave=10.92
Run No.:	I23-1	CO_2 (%):	6.53 7.27 Ave=6.90
Operators:	DB, AW	Duct Dia. (in):	30
Meter Box I.D.:	Hawkeye	B_{ws} (assumed):	.11
Meter Y:	0.9698	Nozzle Dia. (in):	0.876
Meter Delta H@:	1.8962	K Factor:	see page 1
Probe I.D./ Impinger outlet I.D.:	403 I0021	Leak Check:	
Probe Length/Type:	4' Rm5	Pre:	acf in. Hg Vac.
Pitot Coeff. (Cp):	0.84	Post:	acf in. Hg Vac.

Moisture

Imp.	Initial	Final
1	239.1	239.9
2	354.4	370.3
3	353.0	698.1
4	710.6	707.4
5	717.7	717.4
~~Net Gain~~	580.5	582.8
	903.2	926.0

Pitot:	Impact	Static	
Pre:			in. H_2O/15 sec.
Post:			in. H_2O/15 sec.

DGM Clock Time	Port/Point I.D.	Sample Time (min.)	DGM Reading (DACF)	ΔP (in. H_2O)	ΔH (in. H_2O)	Stack Temp. (F)	Probe Temp. (°F)	Filter Temp. (°F)	Imp. Outlet Temp. (°F)	DGM Temp. (°F)		Vacuum (in. Hg)
1552	1	96	32.421	0.01	1.68	1268	242	247	61	86	83	6
		100	35.56	0.01	1.68	1320	252	252	56	88	83	6
	2	104	38.63	0.01	1.68	1299	253	253	56	88	83	6
		108	41.63	0.01	1.68	1272	254	251	56	88	82	6
	3	112	44.72	0.01	1.68	1250	257	252	56	88	82	6
		116	47.77	0.01	1.68	1236	250	250	56	89	83	6
	4	120	50.76	0.01	1.68	1255	249	250	56	89	82	6
		124	53.88	0.01	1.68	1253	252	251	56	89	83	6
	5	128	56.96	0.01	1.68	1261	248	249	57	89	83	7
		132	60.09	0.01	1.68	1239	252	250	57	88	83	7
	6	136	63.18	0.01	1.68	1254	250	250	57	88	82	7
		140	66.07	0.01	1.68	1264	250	250	58	87	82	7
	7	144	68.79	0.01	1.68	1245	250	249	58	87	82	7
		148	71.51	0.01	1.68	1259	246	250	59	88	82	8
	8	152	74.32	0.01	1.68	1298	249	250	59	88	82	8
		156	77.91	0.01	1.68	1276	249	249	60	88	82	9
1656	9	160	80.686									
		164										
	10	168										
		172										
	11	176										
		180										
	12	184										
		188										
		192										
		Total Time	Vol. (DACF)	Avg. √ΔP	Avg. ΔH	Avg. t_s				Average DGM Temp.		Max. Vac.

Trap # T1744_008

AECOM

ISOKINETIC SAMPLE DATA FORM

#1

T (°F)	K
1250	173.46
1300	168.5
1350	163.9
1400	159.5
1450	155.3
1500	151.3

Moisture		
Imp.	Initial	Final
1	239.9	240.0
2	335.3	348.8
3	353.1	595.1
4	712.9	709.5
5	718.8	718.0
	Net Gain	
	582.7	585.1
	898.7	917.6

Plant:	SMMI	Filter ID:	D/F-2
Location:	Delta Junction Pogo Mine	Ambient Temp. (°F):	80
Source I.D.:	Incinerator	Baro. Press. (in. Hg):	28.55
Date:	6/29/13	Static Press. (in H_2O):	+ 0.04
Flow Traverse Time:		O_2 (%):	
Run No.:	I23-2	CO_2 (%):	
Operators:	DR, AW	Duct Dia. (in):	30
Meter Box I.D.:	Hawkeye	B_{ws} (assumed):	12
Meter Y:	0.9658	Nozzle Dia. (in):	0.875, 0.874, 0.875 =
Meter Delta H@:	1.8962	K Factor:	
Probe I.D./ Impinger outlet I.D.:	403 10821	Leak Check:	
Probe Length/Type:	4' Rm 5	Pre:	0.000 acf 10 in. Hg Vac.
Pitot Coeff. (Cp):	0.84	Post:	0.001 acf 10 in. Hg Vac.

Pitot:	Impact	Static	
Pre:	0	0	in. H_2O/15 sec.
Post:			in. H_2O/15 sec.

DGM Clock Time	Port/Point I.D.	Sample Time (min.)	DGM Reading (DACF)	ΔP (in. H_2O)	ΔH (in. H_2O)	Stack Temp. (F)	Probe Temp. (°F)	Filter Temp. (°F)	Imp. Outlet Temp. (°F)	DGM Temp. (°F)		Vacuum (in. Hg)
921	1	0	80.850	0.01	1.78	1219	252	262	67	75	74	3
		4	84.04	0.005	0.89	1209	257	274	55	76	75	3
	2	8	86.34	0.005	0.89	1171	253	255	57	78	77	3
		12	88.61	0.005	0.89	1247	249	250	56	79	76	3
	3	16	90.81	0.005	0.87	1255	254	249	56	79	76	3
		20	93.05	0.01	1.69	1275	254	248	56	79	76	3
	4	24	96.07	0.005	0.87	1246	251	252	54	80	76	4
		28	98.41	0.01	1.68	1299	249	247	55	80	76	6
	5	32	101.32	0.015	2.46	1350	251	253	53	81	76	6
		36	104.98	0.015	2.53	1314	253	256	54	81	76	6
	6	40	108.72	0.01	1.69	1312	248	265	54	81	76	6
		44	111.97	0.015	2.53	1307	250	264	55	80	75	7
		48	115.86	0.01	1.69	1299	248	263	55	80	75	7
	7	52	119.08	0.01	1.69	1280	251	267	56	79	75	7
		56	122.25	0.01	1.73	1242	240	257	56	80	76	7
	8	60	125.45	0.01	1.69	1270	247	255	56	80	75	7
		64	128.69	0.01	1.69	1335	253	252	54	80	75	7
	9	68	131.87	0.01	1.69	1257	252	251	54	80	75	7
		72	134.72	0.01	1.64	1348	253	248	54	80	75	7
	10	76	137.88	0.015	2.53	1302	253	238	54	80	75	7
		80	141.42	0.01	1.64	1366	252	253	54	81	75	7
	11	84	144.61	0.01	1.64	1330	242	252	55	80	75	7
		88	147.74	0.01	1.69	1298	250	250	55	80	75	8
	12	92	150.88	0.01	1.69	1296	252	250	55	81	76	8
1057		96	154.038									
		Total Time	Vol. (DACF)	Avg. √ΔP	Avg. ΔH	Avg. t_s				Average DGM Temp.		Max. Vac.

Trap # T1744_008 #p

AECOM

ISOKINETIC SAMPLE DATA FORM

Plant:	SMMI	Filter ID:	D/F - 2
Location:	Delta Junction - Pogo Mine	Ambient Temp. (°F):	76
Source I.D.:	Incinerator	Baro. Press. (in. Hg):	28.55
Date:	6-29-13	Static Press. (in H_2O):	+ 0.04
Flow Traverse Time:		O_2 (%):	
Run No.:	I23-2	CO_2 (%):	
Operators:	DB, AW	Duct Dia. (in):	30
Meter Box I.D.:	Hawkeye	B_{ws} (assumed):	12
Meter Y:	0.9698	Nozzle Dia. (in):	0.8747
Meter Delta H@:	1.8962	K Factor:	See page 1
Probe I.D./ Impinger outlet I.D.:	403 / I0021	Leak Check:	
Probe Length/Type:	41 / RM5	Pre: 0.000 acf 10 in. Hg Vac.	
Pitot Coeff. (Cp):	0.84	Post: 0.001 acf 10 in. Hg Vac.	

Moisture

Imp.	Initial	Final
1	239.9	240.0
2	335.3	348.8
3	353.1	595.1
4	712.9	709.5
5	718.8	718.0
	Net Gain	

~~See page 1~~

Pitot: Impact 582.7 ~~898.7~~ Static 585.1 917.6

Pre: 0 0 in. H_2O/15 sec.

Post: in. H_2O/15 sec.

DGM Clock Time	Port/Point I.D.	Sample Time (min.)	DGM Reading (DACF)	ΔP (in. H_2O)	ΔH (in. H_2O)	Stack Temp. (F)	Probe Temp. (°F)	Filter Temp. (°F)	Imp. Outlet Temp. (°F)	DGM Temp. (°F)		Vacuum (in. Hg)
1101	1	96	154.038	0.01	1.73	1214	246	241	57	79	76	8
		100	157.13	0.01	1.73	1202	245	256	53	80	76	8
	2	104	160.26	0.01	1.73	1199	251	253	53	81	76	8
		108	163.45	0.01	1.73	1243	250	253	53	81	77	8
	3	112	166.73	0.01	1.73	1216	252	250	53	82	77	9
		116	169.89	0.01	1.73	1229	255	250	53	82	77	9
1125	4	120	173.120									
		124										
	5	128										
		132										
	6	136										
		140										
	7	144										
		148										
	8	152										
		156										
	9	160										
		164										
	10	168										
		172										
	11	176										
		180										
	12	184										
		188										
		192										
		~~196~~										
		Total Time	Vol. (DACF)	Avg. √ΔP	Avg. ΔH	Avg. t_s				Average DGM Temp.		Max. Vac.

*Trap T1744_006

AECOM

ISOKINETIC SAMPLE DATA FORM

#1

T(°F)	K
1200	181.9
1250	176.62
1300	171.6
1350	166.9

Moisture		
Imp.	Initial	Final
1	241.6	240.4
2	342.7	356.6
3	353.7	605.6
4	715.6	712.7
5	719.9	720.0
	588.4 Net Gain	588.2
	904.9	924.0

Plant: SMMI
Location: Delta Junction, Pogo mine
Source I.D.: Incinerator
Date: 6/30/13
Flow Traverse Time:
Run No.: I23-3
Operators: DB AW
Meter Box I.D.: Hawkeye
Meter Y: 0.9688
Meter Delta H@: 1.8962
Probe I.D./ Impinger outlet I.D.: 403 / I0021
Probe Length/Type: 4' RM5
Pitot Coeff. (Cp): 0.84

Filter ID: D/F-3
Ambient Temp. (°F): 83
Baro. Press. (in. Hg): 28.50
Static Press. (in H_2O): +0.04
O_2 (%):
CO_2 (%):
Duct Dia. (in): 30
B_{ws} (assumed): 12
Nozzle Dia. (in): 0.8747
K Factor:
Leak Check:
Pre: 0.002 acf 10 in. Hg Vac.
Post: 0.001 acf 8 in. Hg Vac.

Pitot: Impact Static
Pre: 0 0 in. H_2O/15 sec.
Post: in. H_2O/15 sec.

DGM Clock Time	Port/Point I.D.	Sample Time (min.)	DGM Reading (DACF)	ΔP (in. H_2O)	ΔH (in. H_2O)	Stack Temp. (F)	Probe Temp. (°F)	Filter Temp. (°F)	Imp. Outlet Temp. (°F)	DGM Temp. (°F)		Vacuum (in. Hg)
1037	1	0	436.628	0.015	2.63	1193	251	253	58	88	90	3
	2	5	441.48	0.01	1.77	1232	266	263	58	90	91	3
	3	10	445.48	0.01	1.77	1235	248	253	57	93	91	4
	4	15	449.45	0.01	1.77	1209	257	250	57	94	91	4
	5	20	453.46	0.01	1.77	1245	251	250	58	96	92	4
	6	25	457.50	0.015	2.63	1235	248	250	59	97	93	4
	7	30	462.39	0.015	2.73	1200	250	250	59	97	93	5
	8	35	467.43	0.015	2.73	1218	253	251	58	98	93	5
	9	40	472.51	0.015	2.73	1201	249	249	59	98	94	5
	10	45	477.58	0.015	2.73	1188	245	250	59	97	93	5
	11	50	482.59	0.01	1.72	1285	250	250	59	97	93	5
	12	55	486.70	0.015	2.73	1234	250	250	60	96	93	5
1137/1141	1	60	491.573	0.01	1.82	1212	253	252	60	96	93	5
	2	65	495.68	0.01	1.76	1232	251	251	60	94	93	5
	3	70	499.74	0.01	1.82	1220	259	258	58	95	94	5
	4	75	503.81	0.01	1.82	1206	249	251	58	97	95	6
	5	80	507.89	0.01	1.82	1210	252	251	57	98	94	6
	6	85	512.05	0.01	1.82	1197	254	251	57	98	95	6
	7	90	516.21	0.01	1.82	1209	242	247	57	96	95	6
	8	95	520.29	0.01	1.76	1260	252	250	58	97	94	6
	9	100	524.35	0.01	1.72	1278	251	249	59	96	94	7
	10	105	528.37	0.01	1.76	1233	254	252	59	96	93	7
	11	110	532.38	0.01	1.76	1236	248	251	58	94	93	7
	12	115	536.37	0.01	1.76	1231	254	250	57	95	93	7
1241		120	540.39	0.01	1.76	1214	250	251	57	98	94	7
1244		123	542.823									
		Total Time	Vol. (DACF)	Avg. √ΔP	Avg. ΔH	Avg. t_s				Average DGM Temp.		Max. Vac.
		123										

T(°F)	1<
1300	161.5
1350	156.94
1400	152.3
1450	148.3
1480	146.02
1500	144.53
1550	140.93

AECOM

ISOKINETIC SAMPLE DATA FORM

#3

Plant:	Smml	Filter ID:	L11		
Location:	Delta Junction, 2060	Ambient Temp. (°F):	78		
Source I.D.:	Incinerator	Baro. Press. (in. Hg):	28.6		
Date:	6-28-13	Static Press. (in H_2O):	+0.04		
Flow Traverse Time:		O_2 (%):	11.22		
Run No.:	I 29-1	CO_2 (%):	6.01		
Operators:	DB, AW	Duct Dia. (in):	30		
Meter Box I.D.:	Hawkeye	B_{ws} (assumed):	11		
Meter Y:	0.9698	Nozzle Dia. (in):	0.867	0.8667	
Meter Delta H@:	1.8962	K Factor:	156.94		
Probe I.D./ Impinger outlet I.D.:	403 E0831	Leak Check:			
Probe Length/Type:	4' Rm 5	Pre:	0.002 acf	10 in. Hg Vac.	
Pitot Coeff. (Cp):	0.84	Post:	0.001 acf	6 in. Hg Vac.	

Moisture

Imp.	Initial	Final
1	604.4	796.2
2	734.1	796.3
3	713.0	723.9
4	595.8	597.7
5	728.0	728.5
	735.3 ~~Net Gain~~	736.6
	929.8	944.8

Pitot:	Impact	Static	
Pre:	0	0	in. H_2O/15 sec.
Post:			in. H_2O/15 sec.

DGM Clock Time	Port/Point I.D.	Sample Time (min.)	DGM Reading (DACF) 550	ΔP (in. H_2O)	ΔH (in. H_2O)	Stack Temp. (F)	Probe Temp. (°F)	Filter Temp. (°F)	Imp. Outlet Temp. (°F)	DGM Temp. (°F)		Vacuum (in. Hg)
1107	1	0	867.442	0.01	1.57	1450	258	250	63	75	74	3
	2	5	871.36	0.01	1.57	1520	258	279	52	77	72	3
	3	10	875.07	0.01	1.57	1500	249	269	51	79	72	3
	4	15	878.78	0.01	1.57	1450	253	263	53	81	73	3
	5	20	882.47	0.01	1.48	1445	253	265	53	83	73	3
	6	25	886.17	0.01	1.48	1440	249	274	52	84	74	3
	7	30	889.83	0.01	1.48	1426	249	271	51	85	75	3
	8	35	893.55	0.01	1.52	1410	249	274	51	86	76	3
	9	40	897.38	0.01	1.52	1400	253	273	51	87	76	3
	10	45	901.18	0.01	1.57	1330	249	272	51	87	77	3
	11	50	904.89	0.01	1.57	1368	249	273	51	88	77	3
	12	55	908.72	0.01	1.57	1352	253	275	51	89	78	3
1207/1212	1	60	912.53	0.01	1.57	1335	247	273	51	89	79	3
	2	65	916.25	0.01	1.52	1382	250	271	51	89	80	3
	3	70	920.04	0.01	1.57	1355	250	273	50	90	80	3
	4	75	923.78	0.01	1.57	1350	248	270	49	90	81	3
	5	80	927.51	0.01	1.57	1345	252	267	50	90	81	3
	6	85	931.31	0.01	1.57	1340	254	271	49	91	81	3
	7	90	935.10	0.01	1.57	1331	250	270	50	91	82	3
	8	95	938.86	0.01	1.57	1343	250	268	50	91	83	3
	9	100	942.73	0.01	1.57	1328	253	274	50	92	83	4
	10	105	946.60	0.01	1.57	1303	250	273	50	92	83	4
	11	110	950.42	0.01	1.62	1290	252	273	50	92	84	5
	12	115	954.30	0.01	1.62	1290	248	271	52	93	84	5
1312		120	958.348									
		Total Time	Vol. (DACF)	Avg. √ΔP	Avg. ΔH	Avg. t_s				Average DGM Temp.		Max. Vac.

Moisture ↳ Initial 604.1 728.4 / 736.8 736.3 / 716.8 / 596.4 915.9

787.3 728.4 / 804.1 736.1 / 731.4 932.4 / 597.0

AECOM

ISOKINETIC SAMPLE DATA FORM

T(°F)	K
1200	175.4
1250	170.3
1300	165.5
1350	160.9

#3 see above

Moisture		
Imp.	Initial	Final
1	~~727.8~~	~~853.4~~
2	~~597.3~~	~~629.0~~
3	~~729.4~~	~~734.6~~
4	~~717.8~~	~~720.4~~
5	~~901.3~~	~~911.3~~
	Net Gain	

Plant:	Sumitomo Metals Mining Inc.	Filter ID:	L14
Location:	Delta Junction - Pogo Mine	Ambient Temp. (°F):	85
Source I.D.:	Incinerator	Baro. Press. (in. Hg):	28.55
Date:	6-29-13	Static Press. (in H_2O):	+0.04
Flow Traverse Time:		O_2 (%):	
Run No.:	I29-2	CO_2 (%):	
Operators:	DB, AW	Duct Dia. (in):	30
Meter Box I.D.:	Hawkeye	B_{ws} (assumed):	0.12
Meter Y:	.09698	Nozzle Dia. (in):	0.8747
Meter Delta H@:	1.8962	K Factor:	
Probe I.D./ Impinger outlet I.D.:	403 / I0033	Leak Check:	
Probe Length/Type:	4' RM5	Pre: 0.002 acf 10 in. Hg Vac.	
Pitot Coeff. (Cp):	0.84	Post: 0.000 acf 6 in. Hg Vac.	

Pitot:	Impact	Static	
Pre:	0	0	in. H_2O/15 sec.
Post:			in. H_2O/15 sec.

DGM Clock Time	Port/Point I.D.	Sample Time (min.)	DGM Reading (DACF)	ΔP (in. H_2O)	ΔH (in. H_2O)	Stack Temp. (F)	Probe Temp. (°F)	Filter Temp. (°F)	Imp. Outlet Temp. (°F)	DGM Temp. (°F)		Vacuum (in. Hg)
1536	1- 1	0	235.057	0.01	1.75	1181	252	257	62	90	90	3
	2	5	239.10	0.01	1.70	1232	251	275	54	90	90	3
	3	10	243.04	0.01	1.75	1207	247	271	53	90	90	3
	4	15	247.03	0.01	1.70	1228	245	272	53	90	89	3
	5	20	251.09	0.01	1.75	1212	252	271	53	92	89	3
	6	25	255.12	0.01	1.70	1228	258	275	52	93	89	3
	7	30	259.06	0.01	1.75	1185	251	273	52	95	89	3
	8	35	263.03	0.015	2.55	1207	246	272	53	97	90	4
	9	40	267.79	0.015	2.55	1205	250	275	52	99	91	4
	10	45	272.59	0.01	1.75	1199	256	269	53	97	91	4
	11	50	276.72	0.01	1.75	1204	255	270	54	97	91	4
	12	55	280.76	0.01	1.75	1185	250	260	54	98	92	4
1636/1640	2- 1	60	284.768	0.01	1.75	1226	246	248	55	93	91	4
	2	65	288.76	0.01	1.75	1219	249	268	51	96	91	4
	3	70	292.78	0.01	1.75	1207	246	276	51	96	92	4
	4	75	296.80	0.01	1.75	1205	253	276	52	96	92	4
	5	80	300.84	0.015	2.55	1247	246	279	52	97	92	4
	6	85	305.59	0.015	2.55	1194	243	273	50	100	93	5
	7	90	310.32	0.015	2.55	1181	238	271	52	100	94	5
	8	95	315.16	0.015	2.55	1217	241	273	53	99	94	5
	9	100	320.09	0.01	1.75	1218	242	272	53	98	94	5
	10	105	324.31	0.01	1.75	1223	239	267	53	98	93	5
	11	110	328.42	0.01	1.75	1214	236	264	54	98	93	5
	12	115	332.48	0.01	1.75	1221	231	267	55	98	93	5
1740		120	336.508									
		Total Time	Vol. (DACF)	Avg. √ΔP	Avg. ΔH	Avg. t_s				Average DGM Temp.		Max. Vac.

ISOKINETIC SAMPLE DATA FORM

AECOM

#3

T(°F)	K
1200	175.4
1250	170.3
1300	165.5
1350	160.9
1400	156.6

Moisture		
Imp.	Initial	Final
1	604.1	652.9
2	736.0	803.5
3	718.0	733.2
4	595.1	598.0
5	727.2	729.6
	36.1 Net Gain	737.3
	932.4	947.5

Plant:	SMMI	Filter ID:	L15
Location:	Delta Junction, AK - Pogo M.U.	Ambient Temp. (°F):	~~28.45~~ 78
Source I.D.:	Incinerator	Baro. Press. (in. Hg):	28.80
Date:	6/30/13	Static Press. (in H_2O):	+0.04
Flow Traverse Time:		O_2 (%):	
Run No.:	I29-3	CO_2 (%):	
Operators:	DB, AW	Duct Dia. (in):	30
Meter Box I.D.:	Hawkeye	B_{ws} (assumed):	
Meter Y:	0.9698	Nozzle Dia. (in):	0.8747
Meter Delta H@:	1.8962	K Factor:	
Probe I.D./ Impinger outlet I.D.:	403 / 10432	Leak Check:	
Probe Length/Type:	4' Rms	Pre: 0.001 acf	10 in. Hg Vac.
Pitot Coeff. (Cp):	0.84	Post: 0.000 acf	5 in. Hg Vac.

Pitot:	Impact	Static	
Pre:	0	0	in. H_2O/15 sec.
Post:			in. H_2O/15 sec.

DGM Clock Time	Port/Point I.D.	Sample Time (min.)	DGM Reading (DACF)	ΔP (in. H_2O)	ΔH (in. H_2O)	Stack Temp. (F)	Probe Temp. (°F)	Filter Temp. (°F)	Imp. Outlet Temp. (°F)	DGM Temp. (°F)		Vacuum (in. Hg)
722	1	0	336.711	0.01	1.75	1137	235	253	53	58	57	3
	2	5	340.85	0.01	1.75	1207	243	259	45	60	57	3
	3	10	344.88	0.01	1.75	1190	242	255	46	63	58	3
	4	15	348.92	0.01	1.75	1177	247	251	47	65	58	3
	5	20	352.93	0.01	1.75	1191	250	251	48	67	59	3
	6	25	356.95	0.01	1.75	1172	255	250	48	69	60	3
	7	30	361.00	0.01	1.75	1194	250	250	49	71	60	3
	8	35	365.08	0.01	1.75	1212	248	251	49	72	62	3
	9	40	369.09	0.01	1.75	1184	244	250	50	73	63	3
	10	45	372.89	0.01	1.75	1192	243	250	50	74	64	3
	11	50	376.87	0.01	1.75	1208	246	251	50	76	65	3
	12	55	380.94	0.01	1.75	1207	251	252	51	77	67	3
822/827	1	60	385.014	0.015	2.48	1281	253	247	54	77	70	3
	2	65	389.77	0.015	2.48	1288	246	253	48	81	71	4
	3	70	394.48	0.01	1.70	1235	259	249	49	83	73	4
	4	75	398.50	0.01	1.70	1230	259	251	50	84	75	4
	5	80	402.91	0.01	1.75	1218	257	248	50	85	76	4
	6	85	406.55	0.01	1.75	1178	257	249	51	85	78	4
	7	90	410.60	0.01	1.75	1198	255	253	51	86	78	4
	8	95	414.65	0.01	1.75	1184	256	251	51	87	80	4
	9	100	418.72	0.01	1.75	1196	256	251	52	88	81	4
	10	105	422.75	0.01	1.75	1192	254	256	52	88	82	4
	11	110	426.78	0.01	1.75	1214	254	250	53	89	83	4
	12	115	430.86	0.01	1.75	1198	254	258	52	90	84	4
		120	434.87	0.01	1.75	1206	253	251	52	90	84	4
929		122	436.477									
		Total Time	Vol. (DACF)	Avg. √ΔP	Avg. ΔH	Avg. t_s				Average DGM Temp.		Max. Vac.
		122										

Table 1
Continuous Emissions Measurements Results
Run 1
06/29/13

Time (1-min)	NOx (ppm)	NOx (ppm Cor.)	NOx (lb/hr)	CO (ppm)	CO (ppm Cor.)	CO (lb/hr)	SO2 (ppm)	SO2 (ppm Cor.)	SO2 (lb/hr)	O2 (%)	O2 (% Cor.)	CO2 (%)	CO2 (% Cor.)
845	58.8	61.6	0.34	0.3	3.6	0.01	15.1	16.4	0.13	11.15	11.11	6.86	6.97
846	58.5	61.2	0.34	0.2	3.5	0.01	16.9	18.2	0.14	10.49	10.43	7.12	7.23
847	58.0	60.7	0.33	-0.5	2.8	0.01	17.1	18.5	0.14	10.20	10.13	7.36	7.48
848	57.3	59.9	0.33	-0.4	2.9	0.01	17.0	18.4	0.14	10.27	10.21	7.29	7.40
849	55.3	57.8	0.32	-0.7	2.5	0.01	15.0	16.3	0.13	10.81	10.76	7.04	7.15
850	58.8	61.6	0.34	-0.6	2.7	0.01	20.0	21.5	0.17	10.95	10.90	7.03	7.14
851	67.5	71.1	0.39	-0.7	2.5	0.01	34.6	36.6	0.28	9.26	9.17	8.13	8.26
852	51.6	53.8	0.30	-0.6	2.6	0.01	23.9	25.6	0.20	9.22	9.13	8.14	8.27
853	43.5	44.9	0.25	-0.8	2.5	0.01	16.8	18.2	0.14	9.54	9.46	7.93	8.06
854	45.5	47.1	0.26	-0.7	2.6	0.01	14.5	15.8	0.12	10.58	10.52	7.30	7.42
855	46.8	48.5	0.27	-0.5	2.8	0.01	14.5	15.8	0.12	10.12	10.05	7.40	7.52
856	47.4	49.2	0.27	-0.7	2.6	0.01	13.1	14.4	0.11	9.85	9.77	7.63	7.75
857	46.8	48.6	0.27	-0.7	2.6	0.01	11.5	12.7	0.10	9.94	9.87	7.55	7.67
858	49.2	51.1	0.28	-0.7	2.5	0.01	9.6	10.7	0.08	10.76	10.71	7.10	7.21
859	51.3	53.4	0.29	-0.5	2.7	0.01	10.4	11.5	0.09	11.22	11.18	6.64	6.74
900	53.1	55.4	0.31	-0.7	2.5	0.01	10.2	11.4	0.09	10.56	10.50	7.05	7.16
901	55.0	57.4	0.32	-0.7	2.6	0.01	9.6	10.7	0.08	10.62	10.56	7.01	7.12
902	53.6	56.0	0.31	-0.7	2.5	0.01	8.6	9.7	0.07	10.83	10.78	6.87	6.98
903	57.9	60.7	0.33	-0.7	2.5	0.01	8.1	9.1	0.07	11.48	11.45	6.54	6.64
904	58.8	61.6	0.34	-0.7	2.5	0.01	8.3	9.4	0.07	11.72	11.69	6.23	6.32
905	60.5	63.4	0.35	-0.7	2.6	0.01	9.0	10.0	0.08	10.90	10.85	6.78	6.88
906	57.3	60.0	0.33	-0.8	2.5	0.01	9.9	11.1	0.08	10.64	10.59	7.07	7.18
907	73.3	77.4	0.43	-0.7	2.6	0.01	32.7	34.7	0.27	10.24	10.17	7.98	8.11
908	127.9	137.0	0.76	-0.7	2.5	0.01	55.9	58.8	0.45	9.41	9.32	8.36	8.50
909	117.5	125.6	0.69	-0.7	2.6	0.01	33.8	35.8	0.27	10.60	10.54	7.48	7.60
910	94.2	100.2	0.55	-0.7	2.6	0.01	28.0	29.8	0.23	9.70	9.62	7.98	8.11
911	79.5	84.2	0.46	-0.7	2.5	0.01	20.8	22.3	0.17	10.70	10.65	7.35	7.47
912	70.1	73.9	0.41	-0.7	2.6	0.01	22.0	23.6	0.18	9.53	9.45	7.94	8.07
913	56.0	58.6	0.32	-0.7	2.5	0.01	18.5	20.0	0.15	9.47	9.38	8.00	8.13
914	44.9	46.4	0.26	-0.7	2.6	0.01	14.4	15.7	0.12	9.67	9.59	7.89	8.02
915	42.6	43.9	0.24	-0.7	2.5	0.01	11.7	12.9	0.10	10.97	10.92	7.04	7.15
916	41.8	43.1	0.24	-0.7	2.5	0.01	12.4	13.6	0.10	10.03	9.96	7.52	7.64
917	41.8	43.1	0.24	-0.7	2.5	0.01	11.1	12.3	0.09	10.07	10.00	7.51	7.63
918	40.3	41.4	0.23	-0.7	2.6	0.01	8.9	9.9	0.08	10.29	10.23	7.39	7.51
919	43.2	44.6	0.25	-0.7	2.5	0.01	8.0	9.1	0.07	11.46	11.43	6.63	6.73
920	45.4	47.0	0.26	-0.7	2.5	0.01	8.4	9.5	0.07	10.57	10.51	7.06	7.17
921	45.7	47.3	0.26	-0.6	2.6	0.01	7.6	8.6	0.07	10.50	10.44	7.15	7.26
922	44.4	45.9	0.25	-0.7	2.5	0.01	7.0	8.0	0.06	10.52	10.46	7.20	7.31
923	94.9	101.0	0.56	-0.7	2.5	0.01	44.8	47.3	0.36	9.74	9.66	7.99	8.12
924	153.9	165.3	0.91	-0.6	2.6	0.01	52.1	54.9	0.42	10.56	10.50	7.38	7.50
925	107.5	114.7	0.63	0.0	3.3	0.01	34.0	36.0	0.28	10.28	10.22	7.53	7.65
926	88.3	93.8	0.52	-0.2	3.1	0.01	26.0	27.8	0.21	11.00	10.95	7.05	7.16
927	76.8	81.2	0.45	0.0	3.3	0.01	26.1	27.8	0.21	9.95	9.88	7.60	7.72
928	62.6	65.7	0.36	0.2	3.5	0.01	21.2	22.8	0.17	9.72	9.64	7.76	7.89
929	50.5	52.5	0.29	0.3	3.5	0.01	17.3	18.7	0.14	9.75	9.67	7.76	7.89
930	54.2	56.6	0.31	0.3	3.5	0.01	14.1	15.4	0.12	10.70	10.65	7.24	7.35
931	52.8	55.1	0.30	0.3	3.6	0.01	16.8	18.2	0.14	9.85	9.77	7.62	7.74
932	47.2	48.9	0.27	1.3	4.6	0.02	14.4	15.7	0.12	9.86	9.78	7.66	7.78
933	40.5	41.6	0.23	1.2	4.6	0.02	11.5	12.7	0.10	10.13	10.06	7.50	7.62
934	40.6	41.8	0.23	1.6	5.0	0.02	9.6	10.7	0.08	11.36	11.32	6.70	6.80
935	41.3	42.5	0.23	2.3	5.7	0.02	10.7	11.8	0.09	10.29	10.23	7.30	7.42
936	44.1	45.6	0.25	2.5	5.8	0.02	9.0	10.0	0.08	11.62	11.59	6.37	6.46
937	62.1	65.2	0.36	2.3	5.7	0.02	8.6	9.7	0.07	10.97	10.92	6.84	6.95
938	52.6	54.9	0.30	2.3	5.7	0.02	13.2	14.4	0.11	11.21	11.17	6.80	6.90
939	60.5	63.5	0.35	2.4	5.8	0.02	23.6	25.2	0.19	10.81	10.76	7.62	7.74
940	134.0	143.6	0.79	2.3	5.7	0.02	44.4	46.8	0.36	10.24	10.17	7.98	8.11
941	110.3	117.8	0.65	3.0	6.4	0.02	17.1	18.5	0.14	11.70	11.67	6.86	6.97
942	104.6	111.5	0.62	2.6	6.0	0.02	18.1	19.5	0.15	10.35	10.29	7.46	7.58
943	92.4	98.2	0.54	2.5	5.9	0.02	12.6	13.9	0.11	10.13	10.06	7.62	7.74
944	74.4	78.6	0.43	2.0	5.4	0.02	8.9	10.0	0.08	10.08	10.01	7.61	7.73
945	57.8	60.5	0.33	1.2	4.6	0.02	6.5	7.5	0.06	10.74	10.69	7.25	7.36
946	51.9	54.0	0.30	1.1	4.4	0.01	7.1	8.1	0.06	10.56	10.50	7.20	7.31
947	44.8	46.4	0.26	0.4	3.7	0.01	7.4	8.4	0.06	9.77	9.69	7.76	7.89
948	43.1	44.4	0.25	0.2	3.5	0.01	6.1	7.0	0.05	9.79	9.71	7.77	7.90
949	42.3	43.6	0.24	0.3	3.6	0.01	5.0	6.0	0.05	10.75	10.70	7.21	7.32
950	51.7	53.8	0.30	-0.3	3.0	0.01	5.4	6.3	0.05	12.16	12.14	6.12	6.21
951	53.4	55.7	0.31	-0.7	2.6	0.01	7.1	8.1	0.06	11.10	11.06	6.76	6.86
952	40.2	41.3	0.23	-0.7	2.6	0.01	4.6	5.5	0.04	10.75	10.70	7.03	7.14
953	41.4	42.6	0.24	-0.7	2.6	0.01	4.8	5.7	0.04	11.62	11.59	6.64	6.74
954	126.7	135.6	0.75	-0.5	2.8	0.01	78.1	81.9	0.63	7.85	7.72	9.46	9.62
955	246.3	266.1	1.47	-0.9	2.4	0.01	99.0	103.6	0.80	10.45	10.39	7.68	7.80
956	229.5	247.7	1.37	-0.1	3.2	0.01	72.8	76.4	0.59	11.64	11.61	6.85	6.96
957	174.0	187.2	1.03	2.3	5.7	0.02	42.1	44.5	0.34	12.82	12.82	5.95	6.04
958	135.1	144.8	0.80	6.9	10.5	0.04	33.0	35.0	0.27	12.62	12.62	6.05	6.14
959	122.0	130.5	0.72	3.1	6.5	0.02	32.7	34.7	0.27	12.24	12.23	6.21	6.30
1000	106.5	113.6	0.63	1.3	4.6	0.02	32.0	34.0	0.26	11.68	11.65	6.57	6.67
1001	96.8	103.0	0.57	-0.3	3.0	0.01	30.6	32.5	0.25	11.20	11.16	6.88	6.98
1002	86.2	91.5	0.50	-1.1	2.1	0.01	27.7	29.5	0.23	10.56	10.50	7.23	7.34
1003	75.4	79.7	0.44	-1.5	1.7	0.01	23.9	25.6	0.20	10.34	10.28	7.43	7.55
1004	55.4	57.9	0.32	-1.8	1.5	0.00	19.9	21.4	0.16	10.30	10.24	7.46	7.58
1005	49.6	51.6	0.28	-1.8	1.5	0.00	16.1	17.4	0.13	11.28	11.24	6.84	6.94

Table 1
Continuous Emissions Measurements Results
Run 1
06/29/13

Time (1-min)	NOx (ppm)	NOx (ppm Cor.)	NOx (lb/hr)	CO (ppm)	CO (ppm Cor.)	CO (lb/hr)	SO2 (ppm)	SO2 (ppm Cor.)	SO2 (lb/hr)	O2 (%)	O2 (% Cor.)	CO2 (%)	CO2 (% Cor.)
1006	55.7	58.2	0.32	-1.6	1.6	0.01	16.6	18.0	0.14	11.92	11.90	6.43	6.52
1007	57.2	59.8	0.33	-2.1	1.1	0.00	17.7	19.1	0.15	11.83	11.81	6.29	6.38
1008	48.7	50.6	0.28	-2.7	0.5	0.00	15.5	16.9	0.13	10.93	10.88	6.94	7.04
1009	51.2	53.3	0.29	-2.6	0.5	0.00	16.8	18.2	0.14	11.38	11.34	6.75	6.85
1010	51.6	53.8	0.30	-2.7	0.5	0.00	13.3	14.5	0.11	11.54	11.51	6.65	6.75
1011	49.5	51.5	0.28	-2.8	0.4	0.00	10.6	11.8	0.09	11.34	11.30	6.94	7.04
1012	48.2	50.0	0.28	-2.7	0.4	0.00	11.2	12.3	0.09	11.52	11.49	6.68	6.78
1013	49.0	51.0	0.28	-2.8	0.4	0.00	11.9	13.1	0.10	10.87	10.82	7.02	7.13
1014	51.5	53.6	0.30	-2.9	0.2	0.00	11.0	12.2	0.09	11.06	11.02	6.90	7.00
1015	51.2	53.3	0.29	-2.9	0.3	0.00	9.8	10.9	0.08	11.28	11.24	6.74	6.84
1016	53.2	55.5	0.31	-2.9	0.2	0.00	8.5	9.6	0.07	11.79	11.76	6.47	6.57
1017	54.3	56.7	0.31	-3.0	0.2	0.00	8.8	9.8	0.08	12.34	12.33	5.97	6.06
1018	54.6	57.0	0.31	-3.2	-0.1	0.00	9.5	10.6	0.08	11.43	11.40	6.57	6.67
1019	52.6	54.9	0.30	-3.2	-0.1	0.00	8.7	9.8	0.07	11.58	11.55	6.48	6.57
1020	50.5	52.6	0.29	-3.1	0.0	0.00	7.3	8.3	0.06	11.78	11.75	6.40	6.50
1021	50.0	52.1	0.29	-1.1	2.1	0.01	7.2	8.2	0.06	12.76	12.76	5.74	5.82
1022	51.3	53.4	0.29	-1.5	1.7	0.01	8.2	9.2	0.07	11.92	11.90	6.18	6.27
1023	50.4	52.5	0.29	-1.8	1.5	0.00	7.7	8.8	0.07	11.75	11.72	6.36	6.45
1024	48.5	50.4	0.28	-1.8	1.5	0.00	6.8	7.8	0.06	11.70	11.67	6.39	6.48
1025	56.8	59.4	0.33	-1.6	1.6	0.01	12.7	13.9	0.11	11.67	11.64	6.84	6.95
1026	127.2	136.2	0.75	-2.1	1.1	0.00	46.1	48.6	0.37	9.40	9.31	8.46	8.60
1027	125.2	134.0	0.74	-2.7	0.5	0.00	29.6	31.5	0.24	11.58	11.55	6.97	7.07
1028	115.3	123.2	0.68	-2.6	0.5	0.00	30.6	32.5	0.25	10.30	10.24	7.72	7.84
1029	96.9	103.1	0.57	-2.7	0.5	0.00	23.3	25.0	0.19	10.10	10.03	7.82	7.95
1030	83.3	88.3	0.49	-1.1	2.1	0.01	17.7	19.1	0.15	11.11	11.07	7.19	7.30
1031	71.1	75.0	0.41	-1.5	1.7	0.01	17.8	19.2	0.15	10.31	10.25	7.52	7.64
1032	64.3	67.6	0.37	-1.8	1.5	0.00	17.5	18.9	0.15	9.79	9.71	7.92	8.05
1033	53.5	55.8	0.31	-1.8	1.5	0.00	14.7	16.0	0.12	9.85	9.77	7.85	7.98
1034	46.6	48.2	0.27	-1.6	1.6	0.01	11.5	12.7	0.10	10.83	10.78	7.31	7.43
1035	45.1	46.7	0.26	-1.7	1.5	0.01	12.8	14.0	0.11	10.59	10.53	7.26	7.37
1036	44.9	46.4	0.26	-1.7	1.5	0.01	11.6	12.8	0.10	10.34	10.28	7.44	7.56
1037	44.8	46.3	0.26	-1.7	1.5	0.01	9.8	11.0	0.08	10.41	10.35	7.36	7.48
1038	47.1	48.8	0.27	-1.8	1.4	0.00	7.7	8.8	0.07	11.84	11.82	6.53	6.62
1039	50.2	52.2	0.29	-1.8	1.4	0.00	9.4	10.4	0.08	11.00	10.95	6.86	6.97
1040	51.7	53.9	0.30	-1.6	1.6	0.01	8.6	9.6	0.07	10.80	10.75	7.05	7.16
1041	55.4	57.9	0.32	-1.7	1.6	0.01	12.7	13.9	0.11	10.85	10.80	7.17	7.28
1042	93.1	99.0	0.55	-2.0	1.2	0.00	22.1	23.7	0.18	11.00	10.95	7.15	7.26
1043	129.5	138.7	0.77	-2.0	1.2	0.00	25.6	27.3	0.21	10.54	10.48	7.50	7.62
1044	112.2	119.8	0.66	-1.9	1.3	0.00	20.2	21.7	0.17	10.84	10.79	7.31	7.43
1045	101.0	107.6	0.59	-2.1	1.1	0.00	22.9	24.5	0.19	9.75	9.67	7.99	8.12
1046	84.8	90.0	0.50	-2.1	1.1	0.00	15.5	16.9	0.13	10.78	10.73	7.35	7.47
1047	69.5	73.3	0.40	-1.6	1.6	0.01	17.1	18.5	0.14	9.80	9.72	7.85	7.98
1048	51.0	53.1	0.29	-2.1	1.1	0.00	13.1	14.4	0.11	9.98	9.91	7.74	7.86
1049	44.5	46.0	0.25	-2.7	0.5	0.00	10.2	11.3	0.09	10.35	10.29	7.56	7.68
1050	42.8	44.1	0.24	-2.6	0.5	0.00	9.0	10.0	0.08	11.33	11.29	6.79	6.89
1051	44.0	45.4	0.25	-2.7	0.5	0.00	8.8	9.8	0.08	10.52	10.46	7.27	7.38
1052	43.7	45.2	0.25	-2.8	0.4	0.00	6.4	7.4	0.06	10.77	10.72	7.10	7.21
1053	46.9	48.6	0.27	-2.7	0.4	0.00	5.3	6.2	0.05	11.11	11.07	6.90	7.01
1054	48.6	50.5	0.28	-3.7	-0.5	0.00	4.5	5.4	0.04	12.18	12.16	6.22	6.31
1055	51.7	53.9	0.30	-3.8	-0.7	0.00	5.2	6.1	0.05	11.37	11.33	6.60	6.70
1056	53.1	55.4	0.31	-1.5	1.7	0.01	4.6	5.5	0.04	11.36	11.32	6.67	6.77
1057	54.9	57.3	0.32	-1.8	1.5	0.00	8.8	9.9	0.08	11.24	11.20	6.86	6.96
1058	81.0	85.8	0.47	-1.8	1.5	0.00	14.4	15.7	0.12	11.17	11.13	7.30	7.42
1059	123.8	132.5	0.73	-1.6	1.6	0.01	23.2	24.8	0.19	10.07	10.00	7.94	8.07
1100	100.3	106.9	0.59	-2.1	1.1	0.00	17.8	19.2	0.15	10.56	10.50	7.55	7.67
1101	80.4	85.2	0.47	-2.7	0.5	0.00	20.6	22.1	0.17	9.66	9.58	8.07	8.20
1102	66.7	70.2	0.39	-2.6	0.5	0.00	14.7	16.0	0.12	10.37	10.31	7.67	7.79
1103	60.6	63.6	0.35	-2.7	0.5	0.00	15.3	16.6	0.13	10.36	10.30	7.45	7.57
1104	51.3	53.4	0.29	-1.1	2.1	0.01	12.9	14.1	0.11	10.17	10.10	7.58	7.70
1105	45.1	46.6	0.26	-1.5	1.7	0.01	9.9	11.0	0.08	10.42	10.36	7.38	7.50
1106	43.8	45.3	0.25	-1.8	1.5	0.00	7.6	8.6	0.07	11.51	11.48	6.75	6.85
1107	45.0	46.5	0.26	-1.8	1.5	0.00	7.9	8.9	0.07	11.08	11.04	6.83	6.93
1108	44.8	46.4	0.26	-1.6	1.6	0.01	6.6	7.5	0.06	10.92	10.87	6.96	7.07
1109	44.9	46.4	0.26	-1.7	1.5	0.01	5.2	6.1	0.05	11.15	11.11	6.81	6.91
1110	45.6	47.2	0.26	-1.7	1.5	0.01	4.2	5.1	0.04	12.06	12.04	6.30	6.39
1111	48.7	50.6	0.28	-1.7	1.5	0.01	4.8	5.7	0.04	11.81	11.79	6.27	6.37
1112	49.6	51.6	0.28	-1.8	1.4	0.00	4.5	5.4	0.04	11.49	11.46	6.53	6.63
1113	50.4	52.4	0.29	-1.8	1.4	0.00	4.8	5.7	0.04	11.34	11.30	6.69	6.79
1114	51.9	54.1	0.30	-1.6	1.6	0.01	5.9	6.8	0.05	11.66	11.63	6.49	6.58
1115	51.8	54.0	0.30	-1.7	1.6	0.01	9.1	10.2	0.08	11.39	11.35	6.71	6.81
1116	55.2	57.6	0.32	-2.0	1.2	0.00	11.4	12.6	0.10	10.44	10.38	7.26	7.37
1117	44.6	46.2	0.25	-3.8	-0.6	0.00	8.3	9.4	0.07	10.89	10.84	6.95	7.06
1118	44.1	45.6	0.25	-3.9	-0.8	0.00	7.0	8.0	0.06	11.16	11.12	6.83	6.93
1119	45.5	47.1	0.26	-4.1	-1.0	0.00	6.6	7.6	0.06	12.21	12.20	6.13	6.21
1120	47.3	49.1	0.27	-3.8	-0.7	0.00	7.4	8.4	0.06	11.28	11.24	6.63	6.73
1121	46.7	48.5	0.27	-4.0	-0.9	0.00	6.6	7.6	0.06	11.36	11.32	6.63	6.73
1122	48.2	50.1	0.28	-3.9	-0.8	0.00	6.0	7.0	0.05	11.40	11.36	6.60	6.70
1123	48.8	50.7	0.28	-4.8	-1.7	-0.01	5.2	6.1	0.05	12.26	12.25	6.13	6.22
1124	52.2	54.4	0.30	-4.8	-1.7	-0.01	6.5	7.5	0.06	11.90	11.88	6.19	6.28
Ave	65.8	69.2	0.38	-1.1	2.1	0.01	16.2	17.5	0.13	10.81	10.76	7.12	7.23

Table 2
Continuous Emissions Measurements Results
Run 2
06/29/13

Time (1-min)	NOx (ppm)	NOx (ppm Cor.)	NOx (lb/hr)	CO (ppm)	CO (ppm Cor.)	CO (lb/hr)	SO2 (ppm)	SO2 (ppm Cor.)	SO2 (lb/hr)	O2 (%)	O2 (% Cor.)	CO2 (%)	CO2 (% Cor.)
1359	74.5	72.2	0.44	3.2	2.0	0.01	6.9	6.1	0.05	10.57	10.54	7.55	7.49
1400	59.8	57.3	0.35	2.9	1.6	0.01	9.1	8.2	0.07	9.70	9.67	8.07	8.02
1401	56.8	54.2	0.33	3.2	2.0	0.01	9.1	8.2	0.07	9.77	9.74	7.99	7.94
1402	59.8	57.2	0.35	3.2	1.9	0.01	7.6	6.7	0.06	10.34	10.31	7.68	7.63
1403	64.9	62.4	0.38	3.2	1.9	0.01	7.3	6.5	0.06	11.51	11.48	6.79	6.73
1404	65.8	63.3	0.39	3.2	2.0	0.01	8.9	8.0	0.07	10.26	10.23	7.60	7.54
1405	65.6	63.1	0.39	3.2	1.9	0.01	7.8	6.9	0.06	10.52	10.49	7.42	7.36
1406	65.0	62.5	0.38	3.3	2.0	0.01	6.4	5.5	0.05	11.50	11.47	6.92	6.86
1407	67.4	65.0	0.40	3.2	2.0	0.01	8.2	7.3	0.06	11.07	11.04	6.98	6.92
1408	68.1	65.7	0.40	3.2	1.9	0.01	8.1	7.2	0.06	10.59	10.56	7.36	7.30
1409	66.9	64.4	0.39	3.2	1.9	0.01	6.1	5.2	0.04	11.22	11.19	7.04	6.98
1410	69.4	67.0	0.41	3.6	2.3	0.01	7.0	6.1	0.05	11.84	11.81	6.49	6.42
1411	71.2	68.8	0.42	3.3	2.0	0.01	8.1	7.3	0.06	10.85	10.82	7.15	7.09
1412	70.2	67.8	0.42	3.7	2.5	0.01	11.5	10.6	0.09	10.32	10.29	7.71	7.66
1413	108.4	106.6	0.65	3.4	2.2	0.01	38.7	37.3	0.32	9.66	9.63	8.56	8.51
1414	144.1	142.9	0.88	3.5	2.3	0.01	41.2	39.8	0.34	10.19	10.16	8.11	8.06
1415	106.0	104.2	0.64	4.3	3.0	0.01	29.5	28.2	0.24	10.38	10.35	8.00	7.95
1416	96.5	94.5	0.58	3.7	2.4	0.01	30.7	29.5	0.25	10.65	10.62	7.58	7.52
1417	86.8	84.7	0.52	3.7	2.5	0.01	33.1	31.8	0.27	9.63	9.60	8.28	8.23
1418	74.2	71.9	0.44	3.6	2.3	0.01	30.9	29.6	0.25	9.46	9.43	8.36	8.31
1419	61.4	58.8	0.36	4.1	2.8	0.01	24.9	23.8	0.20	9.91	9.88	8.17	8.12
1420	60.7	58.1	0.36	3.9	2.6	0.01	27.4	26.2	0.22	10.11	10.08	7.80	7.75
1421	58.0	55.3	0.34	3.9	2.6	0.01	30.7	29.5	0.25	9.03	9.00	8.59	8.54
1422	58.4	55.8	0.34	4.3	3.0	0.01	26.5	25.3	0.22	9.25	9.22	8.52	8.47
1423	56.5	53.9	0.33	4.2	2.9	0.01	25.3	24.1	0.21	10.37	10.34	7.65	7.59
1424	56.1	53.4	0.33	4.3	3.0	0.01	27.3	26.1	0.22	9.41	9.38	8.29	8.24
1425	54.8	52.1	0.32	4.2	3.0	0.01	23.5	22.4	0.19	9.60	9.57	8.19	8.14
1426	59.9	57.3	0.35	4.2	3.0	0.01	21.4	20.3	0.17	11.03	11.00	7.22	7.16
1427	62.5	60.0	0.37	4.2	2.9	0.01	25.9	24.8	0.21	9.81	9.78	7.98	7.93
1428	59.5	56.9	0.35	4.2	3.0	0.01	20.6	19.5	0.17	10.40	10.37	7.72	7.67
1429	65.1	62.5	0.38	4.2	2.9	0.01	22.0	20.8	0.18	11.19	11.16	7.03	6.97
1430	65.8	63.3	0.39	4.3	3.1	0.01	22.4	21.3	0.18	10.36	10.33	7.59	7.53
1431	65.3	62.8	0.38	4.2	2.9	0.01	19.2	18.1	0.15	10.76	10.73	7.43	7.37
1432	71.4	69.0	0.42	4.2	2.9	0.01	20.3	19.2	0.16	11.46	11.43	6.82	6.75
1433	87.6	85.5	0.52	4.3	3.0	0.01	21.0	19.9	0.17	10.61	10.58	7.39	7.33
1434	69.1	66.6	0.41	4.2	3.0	0.01	17.6	16.6	0.14	11.14	11.11	7.17	7.11
1435	70.8	68.4	0.42	4.2	3.0	0.01	19.3	18.2	0.16	11.51	11.48	6.76	6.70
1436	70.7	68.3	0.42	4.2	3.0	0.01	19.6	18.6	0.16	10.71	10.68	7.31	7.25
1437	68.8	66.3	0.41	4.1	2.9	0.01	17.6	16.6	0.14	10.83	10.80	7.23	7.17
1438	72.8	70.4	0.43	4.3	3.0	0.01	16.5	15.4	0.13	12.14	12.11	6.43	6.36
1439	74.9	72.6	0.44	3.5	2.3	0.01	19.7	18.6	0.16	10.86	10.83	7.16	7.10
1440	75.2	72.9	0.45	3.7	2.4	0.01	17.7	16.6	0.14	10.92	10.89	7.12	7.06
1441	74.1	71.8	0.44	3.8	2.5	0.01	14.9	13.9	0.12	12.25	12.22	6.38	6.32
1442	78.2	75.9	0.46	3.6	2.3	0.01	18.5	17.5	0.15	11.19	11.16	6.87	6.81
1443	76.8	74.5	0.46	3.5	2.3	0.01	17.3	16.2	0.14	11.17	11.14	6.94	6.88
1444	75.5	73.2	0.45	3.6	2.3	0.01	14.8	13.8	0.12	11.79	11.76	6.65	6.58
1445	77.6	75.3	0.46	3.4	2.1	0.01	16.2	15.2	0.13	12.14	12.11	6.25	6.18
1446	78.3	76.0	0.47	3.2	2.0	0.01	16.8	15.8	0.13	11.33	11.30	6.81	6.75
1447	75.5	73.2	0.45	3.2	1.9	0.01	15.9	14.9	0.13	11.39	11.36	6.79	6.72
1448	72.7	70.3	0.43	3.6	2.3	0.01	13.8	12.8	0.11	12.47	12.44	6.18	6.12
1449	74.5	72.2	0.44	3.3	2.1	0.01	16.4	15.4	0.13	11.84	11.81	6.39	6.32
1450	73.2	70.8	0.43	3.2	1.9	0.01	16.0	15.0	0.13	11.48	11.45	6.70	6.64
1451	69.8	67.4	0.41	3.5	2.3	0.01	14.1	13.1	0.11	11.62	11.59	6.66	6.60
1452	72.3	69.9	0.43	3.5	2.3	0.01	13.8	12.8	0.11	12.87	12.84	5.80	5.73
1453	73.0	70.6	0.43	3.2	1.9	0.01	15.7	14.7	0.12	11.62	11.59	6.60	6.54
1454	71.7	69.3	0.42	3.5	2.2	0.01	14.5	13.5	0.12	11.67	11.64	6.56	6.49
1455	68.6	66.1	0.40	3.6	2.4	0.01	12.8	11.9	0.10	12.35	12.32	6.22	6.16
1456	71.6	69.2	0.42	3.6	2.3	0.01	14.5	13.5	0.11	12.52	12.49	5.94	5.87
1457	71.9	69.5	0.43	3.4	2.1	0.01	14.5	13.5	0.11	11.86	11.83	6.43	6.36
1458	69.0	66.6	0.41	3.6	2.3	0.01	13.2	12.2	0.10	11.87	11.84	6.43	6.36
Ave	71.8	69.5	0.43	3.7	2.4	0.01	17.9	16.9	0.14	10.91	10.89	7.23	7.17

Table 3
Continuous Emissions Measurements Results
Run 3
06/29/13

Time (1-min)	NOx (ppm)	NOx (ppm Cor.)	NOx (lb/hr)	CO (ppm)	CO (ppm Cor.)	CO (lb/hr)	SO2 (ppm)	SO2 (ppm Cor.)	SO2 (lb/hr)	O2 (%)	O2 (% Cor.)	CO2 (%)	CO2 (% Cor.)
1516	101.6	100.8	0.61	3.3	1.5	0.01	44.0	42.8	0.36	9.69	9.61	8.30	8.27
1517	181.0	182.6	1.11	3.4	1.6	0.01	88.9	87.8	0.74	9.32	9.24	8.40	8.37
1518	127.9	127.9	0.78	6.2	4.4	0.02	36.7	35.6	0.30	12.54	12.45	6.30	6.25
1519	107.0	106.4	0.65	5.3	3.5	0.01	42.9	41.8	0.35	10.81	10.73	7.33	7.29
1520	80.5	79.1	0.48	4.7	2.9	0.01	38.7	37.6	0.32	10.45	10.37	7.56	7.53
1521	66.4	64.6	0.39	3.7	1.9	0.01	38.3	37.1	0.31	10.10	10.02	7.83	7.80
1522	58.3	56.1	0.34	3.4	1.6	0.01	33.7	32.6	0.28	10.12	10.04	7.90	7.87
1523	55.9	53.7	0.33	3.2	1.4	0.01	31.9	30.8	0.26	10.91	10.83	7.41	7.38
1524	57.3	55.1	0.33	3.1	1.3	0.00	37.2	36.1	0.30	9.83	9.75	7.96	7.93
1525	55.8	53.5	0.33	2.9	1.1	0.00	36.9	35.8	0.30	9.41	9.33	8.32	8.29
1526	51.1	48.7	0.30	3.3	1.5	0.01	31.9	30.8	0.26	9.52	9.44	8.28	8.25
1527	52.9	50.6	0.31	3.2	1.4	0.01	30.7	29.5	0.25	10.71	10.63	7.44	7.41
1528	53.0	50.7	0.31	2.9	1.1	0.00	33.0	31.9	0.27	9.68	9.60	8.09	8.06
1529	50.9	48.5	0.29	3.2	1.3	0.00	26.5	25.4	0.21	10.17	10.09	7.84	7.81
1530	54.2	52.0	0.32	3.1	1.3	0.00	27.3	26.2	0.22	11.06	10.98	7.11	7.07
1531	54.9	52.7	0.32	3.2	1.4	0.01	29.0	27.9	0.24	10.21	10.13	7.68	7.65
1532	53.7	51.5	0.31	3.2	1.4	0.01	25.0	23.9	0.20	10.45	10.37	7.52	7.49
1533	57.6	55.5	0.34	3.3	1.5	0.01	23.3	22.2	0.19	11.73	11.64	6.71	6.67
1534	59.9	57.8	0.35	3.2	1.4	0.01	26.4	25.3	0.21	10.70	10.62	7.29	7.25
1535	68.4	66.6	0.40	3.3	1.5	0.01	29.7	28.6	0.24	11.29	11.20	6.83	6.79
1536	63.2	61.3	0.37	3.2	1.4	0.01	22.8	21.7	0.18	12.39	12.30	6.26	6.21
1537	87.8	86.6	0.53	3.2	1.4	0.01	57.4	56.2	0.47	9.67	9.59	8.19	8.16
1538	108.1	107.5	0.65	3.2	1.4	0.01	50.1	49.0	0.41	10.46	10.38	7.71	7.68
1539	112.8	112.3	0.68	3.2	1.4	0.01	65.7	64.5	0.55	9.11	9.03	8.56	8.54
1540	97.6	96.7	0.59	3.3	1.5	0.01	49.7	48.6	0.41	10.14	10.06	7.88	7.85
1541	94.5	93.5	0.57	3.2	1.4	0.01	50.4	49.2	0.42	10.01	9.93	7.98	7.95
1542	92.1	91.0	0.55	3.2	1.4	0.01	57.2	56.1	0.47	9.15	9.07	8.47	8.45
1543	79.1	77.6	0.47	3.2	1.4	0.01	41.3	40.2	0.34	10.37	10.29	7.71	7.68
1544	71.0	69.3	0.42	3.2	1.4	0.01	43.6	42.5	0.36	9.60	9.52	8.17	8.14
1545	70.9	69.2	0.42	3.2	1.4	0.01	37.6	36.5	0.31	10.73	10.65	7.46	7.43
1546	66.0	64.1	0.39	3.3	1.5	0.01	40.0	38.9	0.33	9.91	9.83	7.94	7.91
1547	63.1	61.1	0.37	3.2	1.4	0.01	32.4	31.3	0.26	11.07	10.99	7.23	7.19
1548	63.2	61.2	0.37	2.7	0.9	0.00	39.0	37.8	0.32	10.10	10.02	7.79	7.76
1549	61.4	59.3	0.36	2.6	0.8	0.00	32.4	31.3	0.26	10.32	10.24	7.68	7.65
1550	66.8	65.0	0.39	2.6	0.8	0.00	33.5	32.4	0.27	11.46	11.37	6.83	6.79
1551	76.0	74.4	0.45	2.9	1.1	0.00	42.6	41.5	0.35	11.16	11.08	6.95	6.91
1552	70.4	68.6	0.42	3.0	1.2	0.00	42.9	41.7	0.35	10.95	10.87	7.41	7.38
1553	67.6	65.8	0.40	2.8	1.0	0.00	40.2	39.1	0.33	11.81	11.72	6.64	6.60
1554	69.7	67.9	0.41	2.2	0.4	0.00	40.1	39.0	0.33	10.28	10.20	7.60	7.57
1555	66.0	64.1	0.39	2.2	0.4	0.00	34.5	33.3	0.28	10.10	10.02	7.79	7.76
1556	63.5	61.5	0.37	2.2	0.4	0.00	29.6	28.5	0.24	10.46	10.38	7.65	7.62
1557	62.5	60.5	0.37	2.2	0.4	0.00	31.5	30.4	0.26	10.96	10.88	7.16	7.12
1558	61.5	59.5	0.36	2.3	0.5	0.00	36.6	35.5	0.30	9.78	9.70	7.96	7.93
1559	55.9	53.7	0.33	2.3	0.5	0.00	33.6	32.4	0.27	9.83	9.75	7.96	7.93
1600	57.0	54.9	0.33	2.2	0.4	0.00	31.5	30.4	0.26	11.09	11.01	7.16	7.12
1601	56.2	54.0	0.33	2.2	0.4	0.00	36.0	34.9	0.29	9.98	9.90	7.82	7.79
1602	54.9	52.6	0.32	2.3	0.5	0.00	33.3	32.2	0.27	10.10	10.02	7.73	7.70
1603	55.7	53.5	0.32	2.4	0.6	0.00	28.9	27.7	0.23	10.96	10.88	7.29	7.25
1604	58.6	56.5	0.34	2.2	0.4	0.00	32.7	31.6	0.27	10.69	10.61	7.27	7.23
1605	60.4	58.3	0.35	2.2	0.4	0.00	31.9	30.7	0.26	10.30	10.22	7.56	7.53
1606	60.4	58.3	0.35	2.3	0.5	0.00	26.8	25.7	0.22	10.78	10.70	7.33	7.29
1607	63.6	61.6	0.37	2.2	0.4	0.00	28.4	27.2	0.23	11.51	11.42	6.74	6.70
1608	65.9	64.0	0.39	2.3	0.5	0.00	43.2	42.0	0.36	10.73	10.65	7.42	7.39
1609	84.4	83.1	0.50	2.2	0.4	0.00	60.1	59.0	0.50	9.27	9.19	8.46	8.44
1610	82.4	81.0	0.49	2.2	0.4	0.00	45.8	44.6	0.38	10.36	10.28	7.74	7.71
1611	67.1	65.2	0.40	2.3	0.5	0.00	46.8	45.7	0.39	9.20	9.12	8.42	8.39
1612	53.9	51.7	0.31	2.2	0.4	0.00	35.8	34.6	0.29	9.56	9.48	8.12	8.09
1613	55.0	52.7	0.32	2.3	0.5	0.00	26.4	25.3	0.21	10.93	10.85	7.33	7.29
1614	58.1	55.9	0.34	2.3	0.5	0.00	30.4	29.2	0.25	10.38	10.30	7.47	7.44
1615	58.5	56.4	0.34	2.2	0.4	0.00	29.2	28.1	0.24	10.18	10.10	7.66	7.63
Ave	70.5	68.8	0.42	2.9	1.1	0.00	37.7	36.6	0.31	10.41	10.33	7.61	7.58

Table 4
Continuous Emissions Measurements Results
Run 4
06/29/13

Time (1-min)	NOx (ppm)	NOx (ppm Cor.)	NOx (lb/hr)	CO (ppm)	CO (ppm Cor.)	CO (lb/hr)	SO2 (ppm)	SO2 (ppm Cor.)	SO2 (lb/hr)	O2 (%)	O2 (% Cor.)	CO2 (%)	CO2 (% Cor.)
1630	75.4	72.0	0.44	2.2	2.0	0.01	9.6	9.0	0.08	11.25	11.15	6.75	6.76
1631	73.0	69.6	0.42	2.3	2.0	0.01	9.9	9.4	0.08	11.84	11.74	6.47	6.48
1632	75.7	72.3	0.44	2.2	1.9	0.01	11.5	11.0	0.09	12.40	12.30	5.94	5.94
1633	77.4	74.0	0.45	2.3	2.0	0.01	13.6	13.1	0.11	11.45	11.35	6.59	6.60
1634	76.4	73.0	0.44	2.3	2.0	0.01	13.6	13.1	0.11	11.57	11.47	6.53	6.54
1635	76.4	73.0	0.44	2.3	2.0	0.01	12.3	11.8	0.10	12.02	11.92	6.32	6.33
1636	78.0	74.6	0.45	2.2	1.9	0.01	13.6	13.1	0.11	12.72	12.62	5.75	5.75
1637	79.5	76.1	0.46	1.8	1.5	0.01	15.9	15.5	0.13	11.63	11.53	6.47	6.48
1638	79.4	76.0	0.46	1.6	1.3	0.00	16.0	15.6	0.13	11.49	11.39	6.57	6.59
1639	78.4	75.0	0.46	1.7	1.4	0.01	14.3	13.8	0.12	11.68	11.58	6.50	6.52
1640	79.8	76.4	0.46	1.4	1.1	0.00	16.6	16.2	0.14	12.76	12.66	5.93	5.93
1641	79.1	75.7	0.46	1.2	0.9	0.00	42.0	42.2	0.36	9.18	9.09	8.46	8.50
1642	61.4	57.9	0.35	1.3	1.0	0.00	32.1	32.1	0.27	9.74	9.65	7.99	8.02
1643	55.5	52.0	0.32	1.2	0.9	0.00	24.6	24.5	0.21	11.11	11.02	7.11	7.13
1644	59.6	56.1	0.34	1.3	1.0	0.00	26.2	26.1	0.22	10.04	9.95	7.64	7.67
1645	59.2	55.7	0.34	1.2	0.9	0.00	24.9	24.8	0.21	10.05	9.96	7.65	7.68
1646	58.0	54.5	0.33	1.2	0.9	0.00	23.4	23.2	0.20	10.12	10.03	7.61	7.64
1647	58.4	54.9	0.33	1.3	1.0	0.00	20.7	20.4	0.17	11.37	11.27	6.92	6.93
1648	60.3	56.8	0.35	1.2	0.9	0.00	22.9	22.7	0.19	10.64	10.55	7.16	7.18
1649	60.2	56.7	0.34	1.2	0.9	0.00	21.4	21.1	0.18	10.53	10.44	7.30	7.32
1650	58.7	55.2	0.34	1.2	0.9	0.00	19.3	19.0	0.16	10.64	10.55	7.23	7.25
1651	61.4	57.9	0.35	1.3	1.0	0.00	17.4	17.0	0.14	11.87	11.77	6.51	6.52
1652	64.1	60.7	0.37	1.2	0.9	0.00	19.6	19.3	0.16	11.06	10.97	6.81	6.83
1653	64.7	61.3	0.37	1.2	0.9	0.00	18.4	18.0	0.15	10.99	10.90	6.92	6.93
1654	64.3	60.8	0.37	1.1	0.8	0.00	16.5	16.1	0.14	11.11	11.02	6.83	6.85
1655	66.5	63.0	0.38	1.2	0.9	0.00	15.2	14.8	0.12	12.17	12.07	6.24	6.24
1656	70.7	67.3	0.41	1.0	0.7	0.00	19.0	18.7	0.16	11.47	11.37	6.58	6.59
1657	79.4	76.0	0.46	0.7	0.4	0.00	41.0	41.2	0.35	9.87	9.78	8.01	8.04
1658	97.5	94.2	0.57	1.2	0.9	0.00	46.6	47.0	0.40	10.72	10.63	7.56	7.59
1659	79.8	76.4	0.46	0.7	0.4	0.00	44.0	44.3	0.37	9.73	9.64	7.95	7.98
1700	59.8	56.3	0.34	0.8	0.5	0.00	36.8	36.9	0.31	9.57	9.48	8.00	8.03
1701	52.4	48.8	0.30	0.7	0.4	0.00	29.8	29.7	0.25	10.05	9.96	7.63	7.66
1702	53.6	50.1	0.30	1.1	0.8	0.00	24.4	24.3	0.20	11.31	11.21	6.89	6.91
1703	58.0	54.5	0.33	0.7	0.4	0.00	27.0	26.9	0.23	11.05	10.96	6.83	6.84
1704	59.3	55.8	0.34	0.7	0.4	0.00	25.3	25.1	0.21	10.74	10.65	7.06	7.08
1705	61.3	57.8	0.35	1.1	0.8	0.00	22.5	22.3	0.19	10.94	10.85	6.93	6.95
1706	63.3	59.8	0.36	1.2	0.9	0.00	20.9	20.7	0.17	12.15	12.05	6.25	6.25
1707	65.6	62.1	0.38	1.0	0.7	0.00	23.1	22.9	0.19	11.59	11.49	6.41	6.42
1708	66.9	63.4	0.38	1.0	0.7	0.00	21.9	21.6	0.18	11.25	11.15	6.70	6.71
1709	67.6	64.1	0.39	1.2	0.9	0.00	19.5	19.2	0.16	11.47	11.37	6.56	6.57
1710	69.7	66.2	0.40	1.2	0.9	0.00	17.3	16.9	0.14	12.36	12.26	6.09	6.09
1711	74.3	70.9	0.43	1.0	0.7	0.00	19.0	18.7	0.16	12.12	12.02	6.05	6.06
1712	74.4	71.0	0.43	1.0	0.7	0.00	22.1	21.9	0.18	11.21	11.11	6.76	6.78
1713	78.9	75.5	0.46	0.8	0.5	0.00	41.4	41.7	0.35	9.95	9.86	8.13	8.17
1714	112.1	108.9	0.66	0.6	0.3	0.00	54.3	54.9	0.46	10.35	10.26	7.99	8.02
1715	98.7	95.4	0.58	1.0	0.7	0.00	46.1	46.4	0.39	9.64	9.55	8.37	8.41
1716	73.5	70.1	0.43	0.7	0.4	0.00	34.0	34.1	0.29	10.65	10.56	7.55	7.58
1717	62.7	59.2	0.36	0.4	0.1	0.00	33.4	33.4	0.28	9.24	9.15	8.38	8.42
1718	54.1	50.5	0.31	0.2	-0.1	0.00	26.6	26.5	0.22	9.42	9.33	8.21	8.25
1719	57.4	53.9	0.33	0.4	0.1	0.00	21.0	20.7	0.18	10.20	10.11	7.76	7.79
1720	63.5	60.0	0.36	0.5	0.2	0.00	20.4	20.1	0.17	11.09	11.00	6.99	7.01
1721	69.1	65.6	0.40	0.2	-0.1	0.00	21.6	21.3	0.18	10.27	10.18	7.52	7.55
1722	67.9	64.5	0.39	0.4	0.1	0.00	18.4	18.1	0.15	10.42	10.33	7.40	7.42
1723	66.9	63.4	0.39	0.7	0.4	0.00	15.1	14.7	0.12	11.48	11.38	6.83	6.85
1724	65.8	62.3	0.38	0.7	0.4	0.00	17.2	16.9	0.14	11.19	11.09	6.79	6.81
1725	65.9	62.4	0.38	0.5	0.2	0.00	16.6	16.2	0.14	10.82	10.73	7.07	7.09
1726	65.2	61.7	0.37	0.9	0.6	0.00	14.5	14.0	0.12	11.13	11.04	6.91	6.93
1727	65.8	62.4	0.38	1.0	0.7	0.00	13.9	13.5	0.11	12.35	12.25	6.10	6.10
1728	67.7	64.3	0.39	0.7	0.4	0.00	18.4	18.1	0.15	10.65	10.56	7.22	7.24
1729	69.1	65.6	0.40	0.6	0.3	0.00	31.9	31.9	0.27	9.73	9.64	8.21	8.25
Ave	69.0	65.5	0.40	1.1	0.8	0.00	23.3	23.1	0.19	10.96	10.87	7.07	7.08

Table 5
Continuous Emissions Measurements Results
Run 5
06/30/13

Time (1-min)	NOx (ppm)	NOx (ppm Cor.)	NOx (lb/hr)	CO (ppm)	CO (ppm Cor.)	CO (lb/hr)	SO2 (ppm)	SO2 (ppm Cor.)	SO2 (lb/hr)	O2 (%)	O2 (% Cor.)	CO2 (%)	CO2 (% Cor.)
812	61.2	59.0	0.35	5.3	6.7	0.02	4.4	4.2	0.03	9.67	9.67	8.24	8.22
813	64.4	62.4	0.37	1.8	3.2	0.01	9.5	9.4	0.08	9.22	9.21	8.64	8.62
814	87.8	86.2	0.51	1.4	2.7	0.01	17.0	17.0	0.14	8.96	8.95	8.72	8.70
815	73.2	71.3	0.42	1.3	2.6	0.01	23.4	23.6	0.19	8.56	8.55	8.97	8.96
816	53.8	51.5	0.31	1.3	2.7	0.01	20.1	20.2	0.17	9.09	9.08	8.47	8.45
817	53.8	51.6	0.31	1.3	2.6	0.01	16.7	16.8	0.14	9.61	9.61	8.09	8.07
818	54.6	52.3	0.31	1.1	2.5	0.01	16.0	16.1	0.13	9.85	9.85	7.88	7.85
819	57.7	55.5	0.33	1.3	2.7	0.01	14.4	14.4	0.12	10.25	10.25	7.57	7.54
820	62.0	59.8	0.35	1.2	2.5	0.01	13.8	13.8	0.11	10.46	10.46	7.38	7.35
821	64.3	62.2	0.37	1.3	2.7	0.01	12.7	12.7	0.10	10.82	10.83	7.13	7.09
822	66.2	64.2	0.38	1.3	2.7	0.01	11.4	11.4	0.09	11.22	11.23	6.88	6.84
823	68.5	66.5	0.39	1.1	2.4	0.01	10.8	10.8	0.09	11.54	11.55	6.66	6.62
824	70.9	69.0	0.41	1.3	2.6	0.01	10.4	10.4	0.09	11.73	11.75	6.50	6.46
825	72.2	70.3	0.42	1.2	2.6	0.01	10.1	10.0	0.08	11.86	11.88	6.42	6.37
826	73.2	71.3	0.42	1.2	2.5	0.01	10.3	10.3	0.09	11.39	11.40	6.72	6.68
827	61.1	59.0	0.35	1.2	2.6	0.01	16.9	17.0	0.14	10.55	10.56	7.39	7.36
828	120.4	119.5	0.71	0.4	1.7	0.01	72.0	73.0	0.60	7.10	7.07	10.36	10.36
829	189.1	189.5	1.12	0.8	2.1	0.01	72.9	73.9	0.61	10.36	10.36	8.05	8.02
830	193.4	193.9	1.15	1.2	2.5	0.01	71.4	72.4	0.60	11.19	11.20	7.42	7.39
831	183.0	183.3	1.09	1.6	2.9	0.01	65.5	66.4	0.55	11.62	11.64	7.04	7.00
832	163.6	163.5	0.97	1.4	2.8	0.01	78.9	80.0	0.66	10.96	10.97	7.35	7.32
833	141.3	140.8	0.83	2.3	3.7	0.01	64.1	64.9	0.54	11.00	11.01	7.24	7.21
834	122.5	121.6	0.72	2.2	3.6	0.01	59.0	59.8	0.49	10.63	10.64	7.40	7.37
835	98.5	97.1	0.58	1.2	2.5	0.01	56.8	57.5	0.47	9.89	9.89	7.84	7.81
836	74.7	72.8	0.43	0.8	2.1	0.01	46.9	47.5	0.39	9.39	9.38	8.17	8.15
837	55.2	52.9	0.31	0.5	1.9	0.01	34.4	34.7	0.29	9.32	9.31	8.24	8.22
838	48.4	46.0	0.27	0.2	1.6	0.01	28.5	28.7	0.24	9.26	9.25	8.29	8.27
839	46.6	44.2	0.26	0.4	1.7	0.01	23.1	23.3	0.19	9.68	9.68	8.06	8.03
840	48.6	46.2	0.27	0.3	1.7	0.01	20.4	20.6	0.17	10.00	10.00	7.78	7.75
841	49.6	47.2	0.28	0.3	1.6	0.01	18.1	18.2	0.15	10.41	10.41	7.49	7.46
842	51.5	49.2	0.29	0.2	1.5	0.01	17.2	17.2	0.14	10.36	10.36	7.47	7.44
843	55.5	53.3	0.32	0.1	1.5	0.01	21.2	21.3	0.18	10.20	10.20	7.60	7.57
844	54.2	51.9	0.31	0.5	1.8	0.01	23.6	23.8	0.20	9.61	9.61	8.16	8.14
845	46.3	43.8	0.26	0.2	1.5	0.01	22.8	23.0	0.19	9.41	9.40	8.28	8.26
846	47.2	44.8	0.27	0.1	1.5	0.01	21.0	21.2	0.17	9.72	9.72	8.01	7.98
847	48.8	46.4	0.28	0.3	1.6	0.01	20.3	20.5	0.17	9.95	9.95	7.81	7.78
848	49.7	47.3	0.28	0.2	1.5	0.01	20.6	20.8	0.17	10.03	10.03	7.72	7.69
849	50.6	48.2	0.29	0.1	1.5	0.01	20.0	20.2	0.17	10.15	10.15	7.64	7.61
850	51.5	49.1	0.29	0.2	1.5	0.01	19.5	19.6	0.16	10.23	10.23	7.59	7.56
851	54.0	51.7	0.31	0.1	1.5	0.01	18.9	19.0	0.16	10.74	10.75	7.25	7.22
852	55.4	53.2	0.32	0.2	1.5	0.01	19.4	19.5	0.16	10.58	10.59	7.30	7.27
853	56.3	54.0	0.32	0.1	1.5	0.01	20.1	20.3	0.17	10.58	10.59	7.25	7.22
854	56.2	53.9	0.32	0.2	1.5	0.01	21.1	21.2	0.17	10.29	10.29	7.39	7.36
855	56.8	54.6	0.32	0.1	1.5	0.01	21.7	21.9	0.18	10.07	10.07	7.58	7.55
856	58.2	56.0	0.33	0.1	1.4	0.01	21.6	21.7	0.18	10.13	10.13	7.52	7.49
857	57.6	55.4	0.33	0.0	1.3	0.00	20.8	21.0	0.17	10.19	10.19	7.48	7.45
858	58.8	56.7	0.34	0.1	1.5	0.01	20.7	20.9	0.17	10.21	10.21	7.46	7.43
859	59.0	56.9	0.34	0.4	1.7	0.01	21.4	21.5	0.18	11.22	11.23	6.88	6.84
900	57.7	55.5	0.33	0.2	1.5	0.01	25.9	26.1	0.22	10.25	10.25	7.73	7.70
901	51.3	49.0	0.29	-0.3	1.0	0.00	28.5	28.8	0.24	9.86	9.86	7.89	7.86
902	51.3	49.0	0.29	-0.4	1.0	0.00	27.5	27.8	0.23	9.80	9.80	7.93	7.90
903	51.7	49.4	0.29	-0.4	1.0	0.00	26.2	26.4	0.22	10.13	10.13	7.68	7.65
904	55.1	52.9	0.31	-0.3	1.0	0.00	26.0	26.2	0.22	10.31	10.31	7.53	7.50
905	57.4	55.2	0.33	-0.3	1.0	0.00	26.0	26.2	0.22	10.12	10.12	7.59	7.56
906	58.7	56.5	0.33	-0.5	0.9	0.00	26.0	26.2	0.22	10.14	10.14	7.60	7.57
907	60.7	58.5	0.35	-0.5	0.8	0.00	26.6	26.8	0.22	10.18	10.18	7.53	7.50
908	61.9	59.7	0.35	-0.8	0.5	0.00	25.2	25.4	0.21	10.49	10.49	7.31	7.28
909	64.5	62.4	0.37	-0.7	0.6	0.00	24.9	25.1	0.21	10.63	10.64	7.21	7.18
910	65.1	63.0	0.37	-0.8	0.5	0.00	24.7	24.9	0.21	10.72	10.73	7.14	7.10
911	66.5	64.5	0.38	-0.8	0.5	0.00	23.6	23.8	0.20	11.06	11.07	6.97	6.94
912	67.2	65.2	0.39	-0.8	0.5	0.00	23.3	23.4	0.19	11.42	11.43	6.68	6.64
913	66.8	64.8	0.38	-0.8	0.5	0.00	23.4	23.6	0.19	11.55	11.57	6.57	6.53
914	67.8	65.8	0.39	-0.7	0.6	0.00	24.0	24.2	0.20	11.34	11.35	6.62	6.58
915	67.3	65.3	0.39	-0.8	0.5	0.00	25.7	25.9	0.21	10.95	10.96	7.01	6.97
916	63.2	61.1	0.36	-0.5	0.8	0.00	29.5	29.8	0.25	10.23	10.23	7.66	7.63
917	50.4	48.0	0.28	-0.8	0.5	0.00	32.8	33.2	0.27	9.10	9.09	8.51	8.49
918	50.8	48.4	0.29	-1.0	0.3	0.00	29.0	29.3	0.24	9.67	9.67	7.98	7.95
919	59.8	57.7	0.34	-0.8	0.5	0.00	26.2	26.5	0.22	10.16	10.16	7.58	7.55
920	64.5	62.4	0.37	-0.8	0.5	0.00	23.8	24.0	0.20	10.64	10.65	7.27	7.24
921	68.8	66.8	0.40	-0.8	0.5	0.00	22.1	22.2	0.18	11.36	11.37	6.76	6.72
922	71.1	69.2	0.41	-0.8	0.5	0.00	21.4	21.5	0.18	11.52	11.53	6.61	6.57
923	73.4	71.5	0.42	-1.1	0.3	0.00	20.7	20.9	0.17	11.56	11.58	6.50	6.46
924	73.3	71.4	0.42	-1.1	0.2	0.00	19.7	19.8	0.16	11.33	11.34	6.69	6.65
925	74.7	72.8	0.43	-0.8	0.5	0.00	19.4	19.5	0.16	11.26	11.27	6.82	6.78
926	56.5	54.3	0.32	-1.1	0.2	0.00	24.5	24.7	0.20	9.77	9.77	7.73	7.70
927	50.2	47.9	0.28	-1.3	0.0	0.00	25.6	25.8	0.21	9.67	9.67	7.77	7.74
928	50.6	48.2	0.29	-1.1	0.2	0.00	24.6	24.8	0.20	9.80	9.80	7.65	7.62
929	62.8	60.7	0.36	-1.3	0.0	0.00	20.5	20.6	0.17	11.14	11.15	6.77	6.73
930	72.0	70.1	0.42	-1.2	0.1	0.00	19.5	19.6	0.16	11.66	11.68	6.46	6.41
931	73.2	71.3	0.42	-1.5	-0.2	0.00	18.7	18.8	0.15	11.76	11.78	6.40	6.35
Ave	69.2	67.2	0.40	0.2	1.5	0.01	26.1	26.3	0.22	10.36	10.36	7.51	7.48

Table 6
Continuous Emissions Measurements Results
Run 6
06/30/13

Time (1-min)	NOx (ppm)	NOx (ppm Cor.)	NOx (lb/hr)	CO (ppm)	CO (ppm Cor.)	CO (lb/hr)	SO2 (ppm)	SO2 (ppm Cor.)	SO2 (lb/hr)	O2 (%)	O2 (% Cor.)	CO2 (%)	CO2 (% Cor.)
1000	59.3	55.9	0.34	-2.8	3.0	0.01	10.8	11.0	0.09	10.73	10.78	7.11	7.06
1001	61.7	58.3	0.36	-2.8	3.1	0.01	10.8	11.0	0.09	10.98	11.04	6.98	6.93
1002	64.2	60.7	0.37	-2.8	3.1	0.01	10.2	10.4	0.09	11.32	11.38	6.72	6.67
1003	66.2	62.7	0.38	-2.8	3.1	0.01	10.2	10.4	0.09	11.58	11.64	6.50	6.44
1004	68.8	65.3	0.40	-2.8	3.1	0.01	11.8	12.0	0.10	10.96	11.02	6.88	6.83
1005	73.1	69.5	0.43	-2.9	3.0	0.01	12.9	13.1	0.11	10.43	10.48	7.42	7.37
1006	67.9	64.3	0.39	-2.9	2.9	0.01	27.9	28.1	0.24	8.32	8.34	9.00	8.97
1007	105.1	100.9	0.62	-2.8	3.1	0.01	28.1	28.2	0.24	9.53	9.57	8.15	8.11
1008	109.0	104.7	0.64	-3.0	2.9	0.01	25.2	25.4	0.22	9.47	9.51	8.21	8.17
1009	110.6	106.3	0.65	-3.5	2.4	0.01	25.3	25.5	0.22	9.06	9.09	8.46	8.42
1010	90.9	86.9	0.53	-3.4	2.4	0.01	28.8	28.9	0.25	8.61	8.64	8.73	8.69
1011	66.6	63.1	0.39	-3.3	2.5	0.01	22.9	23.1	0.20	8.67	8.70	8.70	8.66
1012	57.3	54.0	0.33	-3.5	2.4	0.01	19.6	19.8	0.17	9.90	9.94	7.89	7.85
1013	52.1	48.8	0.30	-3.7	2.2	0.01	21.4	21.6	0.18	9.19	9.22	8.20	8.16
1014	49.8	46.6	0.29	-3.6	2.2	0.01	18.7	18.9	0.16	9.34	9.38	8.13	8.09
1015	49.4	46.2	0.28	-3.7	2.1	0.01	16.7	16.9	0.14	9.46	9.50	8.04	8.00
1016	47.4	44.2	0.27	-3.8	2.0	0.01	14.9	15.1	0.13	9.51	9.55	8.00	7.96
1017	49.1	46.0	0.28	-3.7	2.2	0.01	12.9	13.1	0.11	10.22	10.27	7.62	7.57
1018	50.1	46.9	0.29	-3.8	2.0	0.01	13.1	13.3	0.11	10.57	10.62	7.25	7.20
1019	51.5	48.3	0.30	-3.8	2.1	0.01	13.3	13.5	0.11	10.03	10.07	7.55	7.50
1020	51.0	47.8	0.29	-3.8	2.1	0.01	12.5	12.7	0.11	10.02	10.06	7.61	7.56
1021	59.2	55.9	0.34	-3.8	2.1	0.01	12.3	12.5	0.11	11.18	11.24	6.83	6.78
1022	56.9	53.6	0.33	-4.2	1.7	0.01	19.2	19.4	0.16	9.24	9.27	8.34	8.30
1023	52.8	49.6	0.30	-4.3	1.5	0.01	24.6	24.8	0.21	9.00	9.03	8.51	8.47
1024	50.1	46.9	0.29	-4.4	1.5	0.01	24.1	24.3	0.21	9.31	9.34	8.31	8.27
1025	52.5	49.3	0.30	-4.6	1.2	0.00	22.4	22.6	0.19	9.81	9.85	8.00	7.96
1026	54.2	50.9	0.31	-4.8	1.1	0.00	21.1	21.3	0.18	10.56	10.61	7.45	7.40
1027	55.7	52.4	0.32	-4.8	1.0	0.00	22.8	23.0	0.20	10.45	10.50	7.38	7.33
1028	58.9	55.6	0.34	-4.7	1.1	0.00	21.9	22.0	0.19	10.18	10.23	7.57	7.52
1029	60.4	57.0	0.35	-4.8	1.0	0.00	18.5	18.7	0.16	10.36	10.41	7.41	7.36
1030	62.0	58.6	0.36	-4.7	1.1	0.00	17.0	17.2	0.15	10.58	10.63	7.25	7.20
1031	60.6	57.2	0.35	-5.0	0.8	0.00	15.0	15.2	0.13	10.76	10.81	7.11	7.06
1032	62.8	59.4	0.36	-5.0	0.8	0.00	13.4	13.6	0.12	11.31	11.37	6.82	6.77
1033	64.5	61.0	0.37	-5.1	0.7	0.00	12.7	12.9	0.11	11.69	11.75	6.48	6.42
1034	67.1	63.6	0.39	-5.8	0.0	0.00	13.2	13.4	0.11	11.61	11.67	6.44	6.38
1035	68.3	64.8	0.40	-5.7	0.1	0.00	12.9	13.1	0.11	11.17	11.23	6.77	6.72
1036	69.5	65.9	0.40	-5.8	0.0	0.00	11.8	12.1	0.10	11.34	11.40	6.68	6.63
1037	76.1	72.4	0.44	-5.7	0.1	0.00	22.1	22.3	0.19	10.25	10.30	7.90	7.86
1038	114.4	110.0	0.67	-5.8	0.0	0.00	39.1	39.2	0.33	9.65	9.69	8.51	8.47
1039	101.5	97.4	0.60	-5.7	0.1	0.00	38.9	39.1	0.33	9.03	9.06	8.79	8.75
1040	91.4	87.4	0.54	-5.8	0.0	0.00	31.0	31.1	0.27	9.82	9.86	8.31	8.27
1041	73.1	69.5	0.43	-5.8	0.0	0.00	34.3	34.4	0.29	9.13	9.16	8.53	8.49
1042	59.4	56.1	0.34	-5.7	0.1	0.00	29.6	29.8	0.25	9.04	9.07	8.61	8.57
1043	50.4	47.2	0.29	-5.7	0.1	0.00	23.9	24.0	0.20	9.23	9.26	8.45	8.41
1044	44.9	41.8	0.26	-6.0	-0.2	0.00	19.7	19.9	0.17	9.35	9.39	8.33	8.29
1045	47.5	44.4	0.27	-5.9	-0.1	0.00	16.8	17.0	0.14	10.02	10.06	7.95	7.91
1046	47.2	44.1	0.27	-5.8	0.0	0.00	16.0	16.2	0.14	10.32	10.37	7.61	7.56
1047	49.6	46.4	0.28	-6.0	-0.2	0.00	15.5	15.7	0.13	10.25	10.30	7.54	7.49
1048	52.2	49.0	0.30	-6.3	-0.5	0.00	16.4	16.6	0.14	10.11	10.15	7.66	7.62
1049	54.7	51.4	0.31	-6.1	-0.3	0.00	13.0	13.2	0.11	10.37	10.42	7.45	7.40
1050	58.7	55.4	0.34	-6.4	-0.6	0.00	11.0	11.3	0.10	10.48	10.53	7.34	7.29
1051	60.2	56.8	0.35	-6.5	-0.7	0.00	10.0	10.2	0.09	10.64	10.69	7.21	7.16
1052	63.6	60.2	0.37	-6.8	-1.0	0.00	8.5	8.7	0.07	10.98	11.04	7.05	7.00
1053	65.4	61.9	0.38	-6.8	-1.0	0.00	9.4	9.6	0.08	11.51	11.57	6.71	6.65
1054	70.3	66.7	0.41	-6.5	-0.7	0.00	12.8	13.0	0.11	11.06	11.12	7.17	7.12
1055	115.8	111.4	0.68	-6.6	-0.8	0.00	37.3	37.5	0.32	8.72	8.75	8.81	8.77
1056	90.9	86.9	0.53	-6.1	-0.3	0.00	22.5	22.7	0.19	9.59	9.63	8.29	8.25
1057	63.9	60.5	0.37	-6.8	-1.0	0.00	20.5	20.7	0.18	10.19	10.24	7.83	7.79
1058	53.5	50.2	0.31	-6.8	-1.0	0.00	17.9	18.1	0.15	10.17	10.22	7.73	7.69
1059	57.0	53.7	0.33	-6.8	-1.0	0.00	16.0	16.2	0.14	10.22	10.27	7.56	7.51
1100	62.7	59.3	0.36	-6.8	-1.0	0.00	15.7	15.9	0.14	10.35	10.40	7.48	7.43
1101	66.1	62.6	0.38	-6.8	-1.0	0.00	12.8	13.0	0.11	10.57	10.62	7.30	7.25
1102	70.8	67.2	0.41	-6.8	-1.0	0.00	11.4	11.6	0.10	10.71	10.76	7.18	7.13
1103	75.2	71.5	0.44	-6.8	-1.0	0.00	10.3	10.5	0.09	10.76	10.81	7.11	7.06
1104	74.3	70.7	0.43	-6.8	-1.0	0.00	9.1	9.3	0.08	11.01	11.07	6.99	6.93
1105	79.5	75.8	0.46	-6.8	-1.0	0.00	8.1	8.3	0.07	11.65	11.71	6.57	6.52
1106	78.5	74.8	0.46	-6.8	-1.0	0.00	9.5	9.7	0.08	11.65	11.71	6.48	6.42
1107	79.5	75.8	0.46	-6.8	-1.0	0.00	8.0	8.2	0.07	11.40	11.46	6.58	6.52
1108	79.2	75.5	0.46	-6.9	-1.2	0.00	7.6	7.8	0.07	11.34	11.40	6.67	6.62
1109	80.0	76.3	0.47	-7.0	-1.2	0.00	8.5	8.7	0.07	11.35	11.41	6.69	6.64
1110	76.1	72.4	0.44	-6.8	-1.0	0.00	10.2	10.4	0.09	11.25	11.31	6.85	6.79
1111	60.1	56.7	0.35	-7.6	-1.8	-0.01	12.8	13.0	0.11	9.90	9.94	8.04	8.00
1112	52.6	49.4	0.30	-7.5	-1.7	-0.01	16.3	16.5	0.14	9.69	9.73	8.15	8.11
1113	58.1	54.8	0.34	-7.4	-1.7	-0.01	12.8	13.0	0.11	10.13	10.17	7.72	7.68
1114	71.9	68.3	0.42	-7.5	-1.7	-0.01	11.1	11.3	0.10	10.82	10.87	7.23	7.18
1115	75.6	71.9	0.44	-7.6	-1.8	-0.01	9.8	10.0	0.09	11.27	11.33	6.86	6.81
1116	78.1	74.4	0.46	-7.5	-1.7	-0.01	9.3	9.5	0.08	11.30	11.36	6.79	6.73
1117	78.4	74.7	0.46	-7.8	-2.0	-0.01	9.0	9.2	0.08	11.08	11.14	6.84	6.79
1118	78.8	75.1	0.46	-7.8	-2.0	-0.01	8.8	9.0	0.08	11.01	11.07	6.92	6.87
1119	79.7	76.0	0.47	-7.8	-2.1	-0.01	8.1	8.3	0.07	11.03	11.09	6.91	6.86
1120	78.3	74.6	0.46	-7.8	-2.0	-0.01	8.1	8.4	0.07	11.08	11.14	6.89	6.84
1121	75.4	71.7	0.44	-7.8	-2.0	-0.01	7.6	7.8	0.07	11.09	11.15	6.87	6.82
1122	79.9	76.2	0.47	-7.8	-2.1	-0.01	6.1	6.4	0.05	11.49	11.55	6.68	6.63
1123	80.1	76.3	0.47	-7.6	-1.9	-0.01	5.5	5.7	0.05	12.05	12.12	6.24	6.18
1124	82.0	78.2	0.48	-7.6	-1.8	-0.01	5.9	6.1	0.05	11.87	11.94	6.27	6.21
1125	82.1	78.3	0.48	-7.8	-2.1	-0.01	5.7	5.9	0.05	11.57	11.63	6.48	6.43
1126	74.9	71.2	0.44	-7.8	-2.0	-0.01	9.6	9.8	0.08	11.19	11.25	6.89	6.83
1127	97.0	92.9	0.57	-7.8	-2.1	-0.01	23.0	23.2	0.20	8.29	8.31	8.90	8.86
1128	169.1	163.7	1.00	-7.8	-2.0	-0.01	43.6	43.8	0.37	9.10	9.13	8.29	8.25
1129	160.6	155.3	0.95	-7.8	-2.1	-0.01	39.4	39.5	0.34	10.62	10.67	7.33	7.28
Ave	70.6	67.0	0.41	-5.7	0.1	0.00	16.6	16.8	0.14	10.37	10.42	7.49	7.44

Table 7
Continuous Emissions Measurements Results
Run 7
06/30/13

Time (1-min)	NOx (ppm)	NOx (ppm Cor.)	NOx (lb/hr)	CO (ppm)	CO (ppm Cor.)	CO (lb/hr)	SO2 (ppm)	SO2 (ppm Cor.)	SO2 (lb/hr)	O2 (%)	O2 (% Cor.)	CO2 (%)	CO2 (% Cor.)
1158	65.3	64.7	0.40	18.1	20.0	0.07	1.6	1.3	0.01	11.03	11.12	6.79	6.78
1159	70.9	70.3	0.43	1.1	2.9	0.01	2.2	2.0	0.02	11.08	11.17	6.99	6.97
1200	57.5	56.8	0.35	1.0	2.8	0.01	3.3	3.1	0.03	10.54	10.62	7.26	7.25
1201	57.4	56.7	0.35	0.4	2.2	0.01	3.7	3.5	0.03	11.03	11.12	6.89	6.88
1202	63.1	62.4	0.38	0.1	1.9	0.01	4.6	4.4	0.04	11.11	11.20	6.80	6.79
1203	61.4	60.8	0.37	0.2	2.0	0.01	5.6	5.4	0.05	10.92	11.01	6.89	6.87
1204	59.6	58.9	0.36	0.1	1.9	0.01	6.9	6.7	0.06	10.91	10.99	6.94	6.92
1205	61.0	60.3	0.37	0.2	2.0	0.01	7.9	7.7	0.07	11.02	11.11	6.88	6.86
1206	63.9	63.3	0.39	0.2	2.0	0.01	9.6	9.4	0.08	11.03	11.12	6.85	6.84
1207	64.2	63.6	0.39	0.1	1.9	0.01	11.1	10.9	0.09	11.08	11.17	6.82	6.80
1208	62.8	62.2	0.38	0.1	1.9	0.01	12.2	12.0	0.10	11.16	11.25	6.80	6.79
1209	65.2	64.5	0.40	0.1	1.9	0.01	11.8	11.6	0.10	11.74	11.84	6.43	6.41
1210	62.7	62.1	0.38	0.0	1.8	0.01	12.4	12.2	0.10	11.85	11.95	6.26	6.24
1211	65.1	64.4	0.39	-0.4	1.4	0.01	14.1	14.0	0.12	11.14	11.23	6.70	6.68
1212	65.7	65.1	0.40	-0.6	1.2	0.00	13.0	12.9	0.11	11.23	11.32	6.69	6.67
1213	67.8	67.2	0.41	-0.5	1.3	0.00	12.9	12.8	0.11	11.30	11.39	6.64	6.62
1214	66.7	66.1	0.40	-0.6	1.2	0.00	13.1	12.9	0.11	11.38	11.47	6.59	6.58
1215	68.5	67.9	0.42	-0.3	1.5	0.01	16.9	16.8	0.14	11.06	11.15	7.00	6.99
1216	79.2	78.7	0.48	-0.5	1.3	0.01	22.4	22.3	0.19	10.17	10.25	7.86	7.85
1217	168.2	168.5	1.03	-0.8	1.0	0.00	55.8	56.0	0.48	8.15	8.20	9.31	9.31
1218	208.4	209.1	1.28	-0.8	1.0	0.00	76.8	77.2	0.66	8.74	8.80	8.79	8.79
1219	184.3	184.7	1.13	0.1	1.9	0.01	48.5	48.6	0.41	10.41	10.49	7.67	7.66
1220	165.8	166.1	1.02	0.5	2.3	0.01	32.1	32.1	0.27	10.45	10.53	7.66	7.65
1221	191.6	192.1	1.18	0.0	1.8	0.01	47.1	47.3	0.40	9.35	9.42	8.34	8.33
1222	167.6	167.9	1.03	-0.7	1.1	0.00	39.9	40.0	0.34	9.36	9.43	8.34	8.33
1223	155.3	155.5	0.95	-0.8	1.0	0.00	31.6	31.6	0.27	10.16	10.24	7.81	7.80
1224	135.5	135.5	0.83	-1.7	0.1	0.00	33.0	33.1	0.28	9.18	9.24	8.42	8.41
1225	89.8	89.4	0.55	-1.6	0.2	0.00	28.1	28.1	0.24	8.75	8.81	8.67	8.66
1226	73.2	72.6	0.44	-1.7	0.1	0.00	23.2	23.2	0.20	8.86	8.92	8.57	8.56
1227	62.7	62.0	0.38	-1.8	0.0	0.00	18.1	18.0	0.15	9.38	9.45	8.33	8.32
1228	62.4	61.7	0.38	-1.8	0.0	0.00	20.8	20.7	0.18	9.26	9.32	8.18	8.17
1229	65.7	65.1	0.40	-1.8	0.0	0.00	20.4	20.3	0.17	8.85	8.91	8.53	8.52
1230	58.2	57.5	0.35	-1.8	0.0	0.00	16.9	16.8	0.14	9.01	9.07	8.44	8.43
1231	73.8	73.3	0.45	-1.7	0.1	0.00	16.3	16.2	0.14	10.87	10.95	7.24	7.23
1232	64.1	63.4	0.39	-1.8	0.0	0.00	18.4	18.3	0.16	9.35	9.42	8.20	8.19
1233	83.7	83.2	0.51	-1.8	0.0	0.00	20.7	20.6	0.18	8.72	8.78	8.72	8.71
1234	96.0	95.7	0.59	-1.8	0.0	0.00	17.4	17.3	0.15	9.15	9.21	8.54	8.53
1235	86.9	86.5	0.53	-1.8	0.0	0.00	20.1	20.1	0.17	9.43	9.50	8.11	8.10
1236	78.3	77.8	0.48	-1.8	0.0	0.00	20.4	20.3	0.17	8.87	8.93	8.55	8.54
1237	67.4	66.7	0.41	-1.9	-0.1	0.00	16.6	16.5	0.14	9.10	9.16	8.38	8.37
1238	61.6	60.9	0.37	-1.8	0.0	0.00	14.8	14.7	0.13	10.29	10.37	7.63	7.62
1239	58.2	57.5	0.35	-1.8	0.0	0.00	17.8	17.7	0.15	9.71	9.78	7.86	7.85
1240	55.7	54.9	0.34	-1.8	0.0	0.00	15.9	15.8	0.13	9.69	9.76	7.91	7.90
1241	55.8	55.1	0.34	-1.8	0.0	0.00	14.0	13.8	0.12	9.85	9.92	7.79	7.78
1242	55.4	54.7	0.33	-1.8	0.0	0.00	12.7	12.6	0.11	10.00	10.07	7.69	7.68
1243	57.3	56.6	0.35	-1.8	0.0	0.00	10.9	10.8	0.09	10.97	11.06	7.10	7.09
1244	57.9	57.2	0.35	-1.8	0.0	0.00	12.0	11.8	0.10	10.37	10.45	7.34	7.33
1245	56.6	55.8	0.34	-1.8	0.0	0.00	11.5	11.4	0.10	10.26	10.34	7.44	7.43
1246	57.9	57.2	0.35	-1.8	0.0	0.00	10.4	10.3	0.09	10.38	10.46	7.38	7.37
1247	67.5	66.9	0.41	-1.5	0.3	0.00	11.3	11.1	0.09	10.95	11.04	7.06	7.05
1248	62.6	61.9	0.38	-1.8	0.0	0.00	11.6	11.4	0.10	10.35	10.43	7.66	7.65
1249	60.7	60.0	0.37	-1.8	0.0	0.00	13.0	12.8	0.11	10.34	10.42	7.53	7.52
1250	59.2	58.5	0.36	-1.7	0.1	0.00	12.1	12.0	0.10	9.96	10.03	7.70	7.69
1251	59.0	58.3	0.36	-1.8	0.0	0.00	10.9	10.7	0.09	10.15	10.23	7.56	7.55
1252	61.4	60.7	0.37	-1.8	0.0	0.00	10.3	10.1	0.09	10.32	10.40	7.40	7.39
Ave	81.0	80.5	0.49	-0.6	1.2	0.00	18.1	18.0	0.15	10.18	10.25	7.60	7.59