Appendix 6a.
Performance statistics: BRAVO monitors

C024

	SO2	SO4	TES
Average Obs [ug/m3]:	0.687	2.473	1.194
Average Preds (paired) [ug/m3]:	1.842	2.021	1.686
Average Preds (all) [ug/m3]:	1.694	1.999	1.513
Ratio of Means (paired):	2.683	0.817	1.412
Std. Dev. Obs [ug/m3]:	0.769	1.756	0.873
Std. Dev. Preds (paired) [ug/m3]:	1.214	1.691	0.960
Std. Dev. Preds (all) [ug/m3]:	1.181	1.684	0.938
Coef of Variation Obs:	1.120	0.710	0.732
Coef of Variation Preds (paired):	0.659	0.836	0.569
Coef of Variation Preds (all):	0.697	0.842	0.620
R:	0.297	0.502	0.553
R^2:	0.088	0.252	0.305
Slope:	0.469	0.483	0.607
Intercept [ug/m3]:	1.520	0.826	0.961
RMS Error [ug/m3]:	1.686	1.779	1.000
RMSE / Avrg. Ob:	2.456	0.720	0.838
Normalized Gross Error [%]:	3.571	0.621	1.064
Fractional Gross Error:	0.987	0.595	0.572
Normalized Bias [%]:	3.516	0.009	0.911
Fractional Bias:	0.921	-0.276	0.379
Model Index:	0.418	0.693	0.695
Obs Data Complete [%]:	76.6%	98.2%	76.6%

C110

REMSAD stats: SEN.021 / C110

	SO2	SO4	TES
Average Obs [ug/m3]:	0.602	2.586	1.186
Average Preds (paired) [ug/m3]:	1.754	2.053	1.664
Average Preds (all) [ug/m3]:	1.694	1.999	1.513
Ratio of Means (paired):	2.913	0.794	1.403
Std. Dev. Obs [ug/m3]:	0.826	1.772	0.858
Std. Dev. Preds (paired) [ug/m3]:	1.199	1.722	0.975
Std. Dev. Preds (all) [ug/m3]:	1.181	1.684	0.938
Coef of Variation Obs:	1.371	0.685	0.723
Coef of Variation Preds (paired):	0.683	0.839	0.586
Coef of Variation Preds (all):	0.697	0.842	0.620
R:	0.350	0.517	0.582
R^2:	0.122	0.267	0.339
Slope:	0.508	0.502	0.661
Intercept [ug/m3]:	1.448	0.754	0.879
RMS Error [ug/m3]:	1.659	1.798	0.970
RMSE / Avrg. Ob:	2.755	0.695	0.817
Normalized Gross Error [%]:	4.127	0.586	1.029
Fractional Gross Error:	1.115	0.587	0.570
Normalized Bias [%]:	4.044	-0.054	0.862
Fractional Bias:	1.016	-0.319	0.353
Model Index:	0.467	0.701	0.719
Obs Data Complete [%]:	69.4%	92.8%	69.4%

C111

	SO2	SO4	TES
Average Obs [ug/m3]:	1.425	2.712	1.634
Average Preds (paired) [ug/m3]:	1.999	2.301	1.798
Average Preds (all) [ug/m3]:	1.952	2.242	1.723
Ratio of Means (paired):	1.403	0.849	1.100
Std. Dev. Obs [ug/m3]:	1.475	1.786	1.063
Std. Dev. Preds (paired) [ug/m3]:	1.186	1.830	0.982
Std. Dev. Preds (all) [ug/m3]:	1.133	1.798	0.950
Coef of Variation Obs:	1.036	0.659	0.651
Coef of Variation Preds (paired):	0.593	0.795	0.546
Coef of Variation Preds (all):	0.581	0.802	0.551
R:	0.384	0.499	0.536
R^2:	0.148	0.249	0.287
Slope:	0.309	0.512	0.495
Intercept [ug/m3]:	1.559	0.913	0.988
RMS Error [ug/m3]:	1.603	1.856	1.001
RMSE / Avrg. Ob:	1.125	0.684	0.613
Normalized Gross Error [%]:	1.996	0.560	0.617
Fractional Gross Error:	0.705	0.518	0.424
Normalized Bias [%]:	1.860	0.006	0.403
Fractional Bias:	0.529	-0.239	0.157
Model Index:	0.582	0.699	0.725
Obs Data Complete [%]:	87.4%	94.6%	87.4%

C112

REMSAD stats: SEN.021 / C112	SO2	SO4	TES
Average Obs [ug/m3]:	1.135	2.515	1.421
Average Preds (paired) [ug/m3]:	1.942	2.259	1.772
Average Preds (all) [ug/m3]:	1.881	2.234	1.685
Ratio of Means (paired):	1.711	0.898	1.247
Std. Dev. Obs [ug/m3]:	1.062	1.627	0.902
Std. Dev. Preds (paired) [ug/m3]:	1.080	1.803	0.960
Std. Dev. Preds (all) [ug/m3]:	1.030	1.795	0.927
Coef of Variation Obs:	0.935	0.647	0.634
Coef of Variation Preds (paired):	0.556	0.798	0.542
Coef of Variation Preds (all):	0.548	0.804	0.550
R:	0.439	0.483	0.580
R^2:	0.193	0.233	0.337
Slope:	0.447	0.535	0.618
Intercept [ug/m3]:	1.434	0.913	0.893
RMS Error [ug/m3]:	1.392	1.769	0.923
RMSE / Avrg. Ob:	1.226	0.703	0.650
Normalized Gross Error [%]:	1.734	0.614	0.721
Fractional Gross Error:	0.766	0.564	0.445
Normalized Bias [%]:	1.642	0.056	0.574
Fractional Bias:	0.649	-0.180	0.265
Model Index:	0.587	0.690	0.732
Obs Data Complete [%]:	86.5%	98.2%	86.5%

C113

	SO2	SO4	TES
Average Obs [ug/m3]:	1.349	2.506	1.511
Average Preds (paired) [ug/m3]:	1.942	2.347	1.805
Average Preds (all) [ug/m3]:	1.878	2.347	1.721
Ratio of Means (paired):	1.440	0.937	1.194
Std. Dev. Obs [ug/m3]:	0.931	1.586	0.829
Std. Dev. Preds (paired) [ug/m3]:	0.959	1.898	0.987
Std. Dev. Preds (all) [ug/m3]:	0.921	1.898	0.949
Coef of Variation Obs:	0.690	0.633	0.548
Coef of Variation Preds (paired):	0.494	0.809	0.547
Coef of Variation Preds (all):	0.490	0.809	0.552
R:	0.424	0.512	0.615
R^2:	0.179	0.262	0.378
Slope:	0.437	0.613	0.732
Intercept [ug/m3]:	1.353	0.810	0.698
RMS Error [ug/m3]:	1.176	1.749	0.861
RMSE / Avrg. Ob:	0.872	0.698	0.570
Normalized Gross Error [%]:	1.448	0.613	0.570
Fractional Gross Error:	0.622	0.531	0.400
Normalized Bias [%]:	1.311	0.114	0.385
Fractional Bias:	0.450	-0.155	0.169
Model Index:	0.596	0.706	0.755
Obs Data Complete [%]:	86.5%	100.0%	86.5%

C114

REMSAD stats: SEN.021 / C114

	SO2	SO4	TES
Average Obs [ug/m3]:	5.189	2.959	3.639
Average Preds (paired) [ug/m3]:	5.298	2.663	3.613
Average Preds (all) [ug/m3]:	5.172	2.671	3.476
Ratio of Means (paired):	1.021	0.900	0.993
Std. Dev. Obs [ug/m3]:	8.106	1.895	4.376
Std. Dev. Preds (paired) [ug/m3]:	1.733	2.075	1.226
Std. Dev. Preds (all) [ug/m3]:	1.670	2.077	1.193
Coef of Variation Obs:	1.562	0.640	1.203
Coef of Variation Preds (paired):	0.327	0.779	0.339
Coef of Variation Preds (all):	0.323	0.778	0.343
R:	0.147	0.550	0.175
R^2:	0.022	0.302	0.031
Slope:	0.031	0.602	0.049
Intercept [ug/m3]:	5.135	0.881	3.434
RMS Error [ug/m3]:	8.037	1.913	4.333
RMSE / Avrg. Ob:	1.549	0.646	1.191
Normalized Gross Error [%]:	1.498	0.501	0.889
Fractional Gross Error:	0.786	0.474	0.603
Normalized Bias [%]:	1.280	0.006	0.663
Fractional Bias:	0.466	-0.188	0.277
Model Index:	0.202	0.727	0.275
Obs Data Complete [%]:	85.6%	98.2%	84.7%

C115

	SO2	SO4	TES
Average Obs [ug/m3]:		1.952	
Average Preds (paired) [ug/m3]:		1.994	
Average Preds (all) [ug/m3]:	1.175	1.816	1.193
Ratio of Means (paired):		1.022	
Std. Dev. Obs [ug/m3]:		0.910	
Std. Dev. Preds (paired) [ug/m3]:		1.185	
Std. Dev. Preds (all) [ug/m3]:	0.511	1.156	0.470
Coef of Variation Obs:		0.466	
Coef of Variation Preds (paired):		0.594	
Coef of Variation Preds (all):	0.435	0.637	0.394
R:		0.431	
R^2:		0.186	
Slope:		0.561	
Intercept [ug/m3]:		0.899	
RMS Error [ug/m3]:		1.142	
RMSE / Avrg. Ob:		0.585	
Normalized Gross Error [%]:		0.709	
Fractional Gross Error:		0.400	
Normalized Bias [%]:		0.379	
Fractional Bias:		-0.018	
Model Index:		0.640	
Obs Data Complete [%]:	0.0%	82.0%	0.0%

C116

	SO2	SO4	TES
Average Obs [ug/m3]:	0.815	2.112	1.119
Average Preds (paired) [ug/m3]:	1.358	2.111	1.426
Average Preds (all) [ug/m3]:	1.286	1.929	1.286
Ratio of Means (paired):	1.665	1.000	1.275
Std. Dev. Obs [ug/m3]:	0.904	1.184	0.675
Std. Dev. Preds (paired) [ug/m3]:	0.686	1.422	0.670
Std. Dev. Preds (all) [ug/m3]:	0.644	1.387	0.641
Coef of Variation Obs:	1.109	0.561	0.603
Coef of Variation Preds (paired):	0.506	0.674	0.470
Coef of Variation Preds (all):	0.500	0.719	0.498
R:	0.224	0.438	0.441
R^2:	0.050	0.192	0.195
Slope:	0.170	0.526	0.438
Intercept [ug/m3]:	1.219	0.999	0.936
RMS Error [ug/m3]:	1.142	1.396	0.774
RMSE / Avrg. Ob:	1.401	0.661	0.692
Normalized Gross Error [%]:	2.287	0.616	0.659
Fractional Gross Error:	0.791	0.486	0.446
Normalized Bias [%]:	2.176	0.220	0.521
Fractional Bias:	0.648	-0.037	0.277
Model Index:	0.459	0.652	0.615
Obs Data Complete [%]:	73.0%	84.7%	73.0%

C117

	SO2	SO4	TES
Average Obs [ug/m3]:	0.610	2.304	1.102
Average Preds (paired) [ug/m3]:	1.336	2.177	1.425
Average Preds (all) [ug/m3]:	1.250	1.951	1.275
Ratio of Means (paired):	2.189	0.945	1.293
Std. Dev. Obs [ug/m3]:	0.502	1.482	0.597
Std. Dev. Preds (paired) [ug/m3]:	0.707	1.536	0.686
Std. Dev. Preds (all) [ug/m3]:	0.692	1.519	0.688
Coef of Variation Obs:	0.822	0.643	0.542
Coef of Variation Preds (paired):	0.529	0.706	0.482
Coef of Variation Preds (all):	0.554	0.778	0.540
R:	0.373	0.447	0.576
R^2:	0.139	0.200	0.331
Slope:	0.526	0.463	0.662
Intercept [ug/m3]:	1.015	1.110	0.695
RMS Error [ug/m3]:	1.007	1.593	0.678
RMSE / Avrg. Ob:	1.650	0.692	0.615
Normalized Gross Error [%]:	2.426	0.614	0.680
Fractional Gross Error:	0.846	0.487	0.441
Normalized Bias [%]:	2.381	0.193	0.553
Fractional Bias:	0.796	-0.080	0.289
Model Index:	0.490	0.672	0.707
Obs Data Complete [%]:	76.6%	84.7%	76.6%

C201

	SO2	SO4	TES
Average Obs [ug/m3]:	1.449	3.086	1.754
Average Preds (paired) [ug/m3]:	4.090	3.701	3.354
Average Preds (all) [ug/m3]:	3.925	3.689	3.192
Ratio of Means (paired):	2.822	1.199	1.913
Std. Dev. Obs [ug/m3]:	1.272	2.027	1.102
Std. Dev. Preds (paired) [ug/m3]:	2.610	2.954	2.080
Std. Dev. Preds (all) [ug/m3]:	2.471	2.905	1.985
Coef of Variation Obs:	0.878	0.657	0.628
Coef of Variation Preds (paired):	0.638	0.798	0.620
Coef of Variation Preds (all):	0.630	0.787	0.622
R:	0.630	0.584	0.725
R^2:	0.397	0.341	0.525
Slope:	1.293	0.852	1.368
Intercept [ug/m3]:	2.216	1.073	0.955
RMS Error [ug/m3]:	3.349	2.494	2.186
RMSE / Avrg. Ob:	2.311	0.808	1.246
Normalized Gross Error [%]:	3.209	0.630	1.194
Fractional Gross Error:	1.018	0.507	0.653
Normalized Bias [%]:	3.192	0.303	1.155
Fractional Bias:	0.997	0.054	0.605
Model Index:	0.488	0.714	0.606
Obs Data Complete [%]:	85.6%	96.4%	85.6%

C202

REMSAD stats: SEN.021 / C202

	SO2	SO4	TES
Average Obs [ug/m3]:	0.599	2.589	1.177
Average Preds (paired) [ug/m3]:	2.157	2.983	2.148
Average Preds (all) [ug/m3]:	2.041	2.996	2.019
Ratio of Means (paired):	3.603	1.152	1.826
Std. Dev. Obs [ug/m3]:	0.539	1.902	0.780
Std. Dev. Preds (paired) [ug/m3]:	1.843	2.549	1.597
Std. Dev. Preds (all) [ug/m3]:	1.792	2.541	1.567
Coef of Variation Obs:	0.901	0.735	0.663
Coef of Variation Preds (paired):	0.854	0.855	0.744
Coef of Variation Preds (all):	0.878	0.848	0.776
R:	0.591	0.611	0.764
R^2:	0.350	0.373	0.584
Slope:	2.021	0.819	1.564
Intercept [ug/m3]:	0.947	0.863	0.307
RMS Error [ug/m3]:	2.223	2.085	1.483
RMSE / Avrg. Ob:	3.712	0.805	1.260
Normalized Gross Error [%]:	3.556	0.647	1.029
Fractional Gross Error:	1.120	0.519	0.603
Normalized Bias [%]:	3.534	0.257	0.933
Fractional Bias:	1.096	-0.025	0.484
Model Index:	0.366	0.747	0.652
Obs Data Complete [%]:	87.4%	99.1%	87.4%

C203

	SO2	SO4	TES
Average Obs [ug/m3]:		2.800	
Average Preds (paired) [ug/m3]:		3.234	
Average Preds (all) [ug/m3]:	2.070	3.059	2.055
Ratio of Means (paired):		1.155	
Std. Dev. Obs [ug/m3]:		1.856	
Std. Dev. Preds (paired) [ug/m3]:		2.484	
Std. Dev. Preds (all) [ug/m3]:	1.543	2.427	1.354
Coef of Variation Obs:		0.663	
Coef of Variation Preds (paired):		0.768	
Coef of Variation Preds (all):	0.745	0.793	0.659
R:		0.583	
R^2:		0.340	
Slope:		0.780	
Intercept [ug/m3]:		1.050	
RMS Error [ug/m3]:		2.105	
RMSE / Avrg. Ob:		0.752	
Normalized Gross Error [%]:		0.574	
Fractional Gross Error:		0.448	
Normalized Bias [%]:		0.246	
Fractional Bias:		0.013	
Model Index:		0.731	
Obs Data Complete [%]:	0.0%	87.4%	0.0%

C204

	SO2	SO4	TES
Average Obs [ug/m3]:		3.054	
Average Preds (paired) [ug/m3]:		3.059	
Average Preds (all) [ug/m3]:	2.060	2.777	1.956
Ratio of Means (paired):		1.002	
Std. Dev. Obs [ug/m3]:		1.831	
Std. Dev. Preds (paired) [ug/m3]:		2.377	
Std. Dev. Preds (all) [ug/m3]:	1.424	2.332	1.273
Coef of Variation Obs:		0.599	
Coef of Variation Preds (paired):		0.777	
Coef of Variation Preds (all):	0.692	0.840	0.651
R:		0.477	
R^2:		0.228	
Slope:		0.620	
Intercept [ug/m3]:		1.166	
RMS Error [ug/m3]:		2.201	
RMSE / Avrg. Ob:		0.721	
Normalized Gross Error [%]:		0.632	
Fractional Gross Error:		0.552	
Normalized Bias [%]:		0.151	
Fractional Bias:		-0.101	
Model Index:		0.684	
Obs Data Complete [%]:	0.0%	86.5%	0.0%

C205

	SO2	SO4	TES
Average Obs [ug/m3]:	2.405	3.016	2.188
Average Preds (paired) [ug/m3]:	2.446	2.615	2.143
Average Preds (all) [ug/m3]:	2.382	2.601	2.058
Ratio of Means (paired):	1.017	0.867	0.979
Std. Dev. Obs [ug/m3]:	2.038	1.835	1.394
Std. Dev. Preds (paired) [ug/m3]:	1.423	2.166	1.222
Std. Dev. Preds (all) [ug/m3]:	1.354	2.152	1.174
Coef of Variation Obs:	0.848	0.608	0.637
Coef of Variation Preds (paired):	0.582	0.828	0.570
Coef of Variation Preds (all):	0.568	0.827	0.570
R:	0.458	0.387	0.497
R^2:	0.210	0.150	0.247
Slope:	0.320	0.456	0.436
Intercept [ug/m3]:	1.677	1.238	1.189
RMS Error [ug/m3]:	1.877	2.268	1.321
RMSE / Avrg. Ob:	0.780	0.752	0.603
Normalized Gross Error [%]:	1.009	0.823	0.527
Fractional Gross Error:	0.557	0.614	0.435
Normalized Bias [%]:	0.730	0.196	0.199
Fractional Bias:	0.175	-0.256	0.011
Model Index:	0.635	0.628	0.688
Obs Data Complete [%]:	87.4%	98.2%	87.4%

C206

	SO2	SO4	TES
Average Obs [ug/m3]:	3.402	3.470	2.868
Average Preds (paired) [ug/m3]:	2.969	3.039	2.574
Average Preds (all) [ug/m3]:	2.817	2.906	2.377
Ratio of Means (paired):	0.873	0.876	0.897
Std. Dev. Obs [ug/m3]:	3.475	2.182	2.086
Std. Dev. Preds (paired) [ug/m3]:	2.002	2.491	1.575
Std. Dev. Preds (all) [ug/m3]:	1.856	2.443	1.491
Coef of Variation Obs:	1.021	0.629	0.727
Coef of Variation Preds (paired):	0.674	0.820	0.612
Coef of Variation Preds (all):	0.659	0.841	0.627
R:	0.378	0.534	0.525
R^2:	0.143	0.286	0.276
Slope:	0.218	0.610	0.396
Intercept [ug/m3]:	2.229	0.922	1.438
RMS Error [ug/m3]:	3.319	2.311	1.863
RMSE / Avrg. Ob:	0.976	0.666	0.649
Normalized Gross Error [%]:	0.862	0.575	0.594
Fractional Gross Error:	0.606	0.573	0.457
Normalized Bias [%]:	0.475	-0.002	0.210
Fractional Bias:	0.082	-0.239	-0.049
Model Index:	0.547	0.718	0.691
Obs Data Complete [%]:	79.3%	91.0%	79.3%

C207

	SO2	SO4	TES
Average Obs [ug/m3]:	2.623	3.065	2.334
Average Preds (paired) [ug/m3]:	3.217	3.001	2.680
Average Preds (all) [ug/m3]:	3.023	2.986	2.507
Ratio of Means (paired):	1.226	0.979	1.148
Std. Dev. Obs [ug/m3]:	2.475	2.008	1.578
Std. Dev. Preds (paired) [ug/m3]:	2.248	2.609	1.725
Std. Dev. Preds (all) [ug/m3]:	2.158	2.591	1.671
Coef of Variation Obs:	0.943	0.655	0.676
Coef of Variation Preds (paired):	0.699	0.869	0.643
Coef of Variation Preds (all):	0.714	0.868	0.666
R:	0.489	0.599	0.671
R^2:	0.239	0.358	0.451
Slope:	0.444	0.778	0.733
Intercept [ug/m3]:	2.052	0.617	0.968
RMS Error [ug/m3]:	2.468	2.138	1.389
RMSE / Avrg. Ob:	0.941	0.698	0.595
Normalized Gross Error [%]:	1.672	0.601	0.612
Fractional Gross Error:	0.702	0.574	0.453
Normalized Bias [%]:	1.431	0.051	0.383
Fractional Bias:	0.379	-0.205	0.166
Model Index:	0.672	0.752	0.804
Obs Data Complete [%]:	86.5%	98.2%	86.5%

C208

	SO2	SO4	TES
Average Obs [ug/m3]:	0.769	3.031	1.374
Average Preds (paired) [ug/m3]:	1.999	3.063	2.120
Average Preds (all) [ug/m3]:	1.703	2.886	1.814
Ratio of Means (paired):	2.600	1.011	1.543
Std. Dev. Obs [ug/m3]:	1.173	2.088	0.959
Std. Dev. Preds (paired) [ug/m3]:	2.125	2.792	1.767
Std. Dev. Preds (all) [ug/m3]:	1.977	2.757	1.690
Coef of Variation Obs:	1.526	0.689	0.698
Coef of Variation Preds (paired):	1.063	0.911	0.833
Coef of Variation Preds (all):	1.161	0.955	0.932
R:	0.261	0.584	0.563
R^2:	0.068	0.341	0.317
Slope:	0.473	0.781	1.038
Intercept [ug/m3]:	1.635	0.697	0.694
RMS Error [ug/m3]:	2.470	2.312	1.640
RMSE / Avrg. Ob:	3.213	0.763	1.194
Normalized Gross Error [%]:	3.085	0.664	0.981
Fractional Gross Error:	1.024	0.658	0.638
Normalized Bias [%]:	2.905	0.085	0.686
Fractional Bias:	0.810	-0.225	0.213
Model Index:	0.364	0.737	0.613
Obs Data Complete [%]:	78.4%	91.9%	78.4%

C209

	SO2	SO4	TES
Average Obs [ug/m3]:	0.335	2.742	0.593
Average Preds (paired) [ug/m3]:	0.490	3.015	0.395
Average Preds (all) [ug/m3]:	1.743	2.853	1.823
Ratio of Means (paired):	1.463	1.099	0.667
Std. Dev. Obs [ug/m3]:	0.236	1.802	0.204
Std. Dev. Preds (paired) [ug/m3]:	0.207	2.895	0.173
Std. Dev. Preds (all) [ug/m3]:	2.028	2.836	1.713
Coef of Variation Obs:	0.706	0.657	0.344
Coef of Variation Preds (paired):	0.422	0.960	0.437
Coef of Variation Preds (all):	1.163	0.994	0.940
R:	0.248	0.519	0.207
R^2:	0.062	0.269	0.043
Slope:	0.217	0.834	0.176
Intercept [ug/m3]:	0.417	0.728	0.291
RMS Error [ug/m3]:	0.313	2.508	0.310
RMSE / Avrg. Ob:	0.936	0.914	0.522
Normalized Gross Error [%]:	1.168	0.957	0.394
Fractional Gross Error:	0.742	0.755	0.494
Normalized Bias [%]:	0.957	0.328	-0.284
Fractional Bias:	0.519	-0.205	-0.408
Model Index:	0.488	0.670	0.477
Obs Data Complete [%]:	13.5%	91.0%	13.5%

C210

	SO2	SO4	TES
Average Obs [ug/m3]:	0.785	2.884	1.388
Average Preds (paired) [ug/m3]:	2.490	3.134	2.416
Average Preds (all) [ug/m3]:	2.159	3.068	2.102
Ratio of Means (paired):	3.171	1.087	1.741
Std. Dev. Obs [ug/m3]:	0.780	2.025	0.862
Std. Dev. Preds (paired) [ug/m3]:	2.481	3.119	2.062
Std. Dev. Preds (all) [ug/m3]:	2.339	3.087	1.974
Coef of Variation Obs:	0.993	0.702	0.621
Coef of Variation Preds (paired):	0.996	0.995	0.854
Coef of Variation Preds (all):	1.083	1.006	0.939
R:	0.738	0.591	0.697
R^2:	0.545	0.350	0.486
Slope:	2.347	0.911	1.667
Intercept [ug/m3]:	0.647	0.508	0.102
RMS Error [ug/m3]:	2.610	2.534	1.891
RMSE / Avrg. Ob:	3.323	0.879	1.362
Normalized Gross Error [%]:	2.801	0.774	1.098
Fractional Gross Error:	0.924	0.756	0.630
Normalized Bias [%]:	2.753	0.131	0.816
Fractional Bias:	0.865	-0.223	0.238
Model Index:	0.483	0.728	0.608
Obs Data Complete [%]:	81.1%	96.4%	80.2%

C211

	SO2	SO4	TES
Average Obs [ug/m3]:		3.040	
Average Preds (paired) [ug/m3]:		3.277	
Average Preds (all) [ug/m3]:	2.776	2.848	2.337
Ratio of Means (paired):		1.078	
Std. Dev. Obs [ug/m3]:		1.694	
Std. Dev. Preds (paired) [ug/m3]:		3.059	
Std. Dev. Preds (all) [ug/m3]:	1.534	2.992	1.528
Coef of Variation Obs:		0.557	
Coef of Variation Preds (paired):		0.933	
Coef of Variation Preds (all):	0.553	1.051	0.654
R:		0.576	
R^2:		0.332	
Slope:		1.041	
Intercept [ug/m3]:		0.114	
RMS Error [ug/m3]:		2.512	
RMSE / Avrg. Ob:		0.826	
Normalized Gross Error [%]:		0.760	
Fractional Gross Error:		0.720	
Normalized Bias [%]:		0.139	
Fractional Bias:		-0.249	
Model Index:		0.688	
Obs Data Complete [%]:	0.0%	84.7%	0.0%

C212

	SO2	SO4	TES
Average Obs [ug/m3]:	0.511	2.881	1.241
Average Preds (paired) [ug/m3]:	1.776	2.878	1.987
Average Preds (all) [ug/m3]:	1.549	2.792	1.705
Ratio of Means (paired):	3.474	0.999	1.601
Std. Dev. Obs [ug/m3]:	0.457	1.891	0.727
Std. Dev. Preds (paired) [ug/m3]:	1.554	3.243	1.691
Std. Dev. Preds (all) [ug/m3]:	1.446	3.217	1.604
Coef of Variation Obs:	0.894	0.656	0.586
Coef of Variation Preds (paired):	0.875	1.127	0.851
Coef of Variation Preds (all):	0.934	1.152	0.941
R:	0.694	0.597	0.689
R^2:	0.482	0.356	0.475
Slope:	2.361	1.024	1.603
Intercept [ug/m3]:	0.569	-0.071	-0.002
RMS Error [ug/m3]:	1.799	2.603	1.500
RMSE / Avrg. Ob:	3.520	0.903	1.208
Normalized Gross Error [%]:	2.812	0.700	0.824
Fractional Gross Error:	1.015	0.827	0.575
Normalized Bias [%]:	2.797	-0.066	0.515
Fractional Bias:	0.999	-0.461	0.153
Model Index:	0.408	0.701	0.618
Obs Data Complete [%]:	78.4%	96.4%	78.4%

C213

	SO2	SO4	TES
Average Obs [ug/m3]:		3.662	
Average Preds (paired) [ug/m3]:		4.194	
Average Preds (all) [ug/m3]:	2.799	3.284	2.494
Ratio of Means (paired):		1.145	
Std. Dev. Obs [ug/m3]:		2.366	
Std. Dev. Preds (paired) [ug/m3]:		3.292	
Std. Dev. Preds (all) [ug/m3]:	3.337	3.270	2.539
Coef of Variation Obs:		0.646	
Coef of Variation Preds (paired):		0.785	
Coef of Variation Preds (all):	1.192	0.996	1.018
R:		0.418	
R^2:		0.175	
Slope:		0.582	
Intercept [ug/m3]:		2.063	
RMS Error [ug/m3]:		3.195	
RMSE / Avrg. Ob:		0.872	
Normalized Gross Error [%]:		1.027	
Fractional Gross Error:		0.762	
Normalized Bias [%]:		0.500	
Fractional Bias:		-0.120	
Model Index:		0.629	
Obs Data Complete [%]:	0.0%	53.2%	0.0%

C214

	SO2	SO4	TES
Average Obs [ug/m3]:		3.125	
Average Preds (paired) [ug/m3]:		4.007	
Average Preds (all) [ug/m3]:	3.335	3.426	2.810
Ratio of Means (paired):		1.282	
Std. Dev. Obs [ug/m3]:		1.892	
Std. Dev. Preds (paired) [ug/m3]:		3.174	
Std. Dev. Preds (all) [ug/m3]:	2.637	3.164	2.211
Coef of Variation Obs:		0.605	
Coef of Variation Preds (paired):		0.792	
Coef of Variation Preds (all):	0.790	0.923	0.787
R:		0.651	
R^2:		0.424	
Slope:		1.092	
Intercept [ug/m3]:		0.596	
RMS Error [ug/m3]:		2.571	
RMSE / Avrg. Ob:		0.823	
Normalized Gross Error [%]:		1.148	
Fractional Gross Error:		0.597	
Normalized Bias [%]:		0.752	
Fractional Bias:		0.019	
Model Index:		0.728	
Obs Data Complete [%]:	0.0%	73.0%	0.0%

C215

	SO2	SO4	TES
Average Obs [ug/m3]:	1.598	3.191	1.850
Average Preds (paired) [ug/m3]:	5.959	3.737	4.326
Average Preds (all) [ug/m3]:	5.487	3.632	3.954
Ratio of Means (paired):	3.729	1.171	2.339
Std. Dev. Obs [ug/m3]:	1.175	2.266	1.032
Std. Dev. Preds (paired) [ug/m3]:	3.570	3.291	2.657
Std. Dev. Preds (all) [ug/m3]:	3.435	3.173	2.531
Coef of Variation Obs:	0.735	0.710	0.558
Coef of Variation Preds (paired):	0.599	0.881	0.614
Coef of Variation Preds (all):	0.626	0.874	0.640
R:	0.448	0.668	0.630
R^2:	0.201	0.446	0.397
Slope:	1.363	0.970	1.623
Intercept [ug/m3]:	3.781	0.642	1.325
RMS Error [ug/m3]:	5.421	2.511	3.287
RMSE / Avrg. Ob:	3.392	0.787	1.777
Normalized Gross Error [%]:	4.698	0.688	1.622
Fractional Gross Error:	1.133	0.610	0.727
Normalized Bias [%]:	4.692	0.206	1.608
Fractional Bias:	1.127	-0.099	0.711
Model Index:	0.298	0.770	0.443
Obs Data Complete [%]:	75.7%	90.1%	75.7%

C216

	SO2	SO4	TES
Average Obs [ug/m3]:		3.421	
Average Preds (paired) [ug/m3]:		4.231	
Average Preds (all) [ug/m3]:	3.668	3.646	3.050
Ratio of Means (paired):		1.237	
Std. Dev. Obs [ug/m3]:		2.455	
Std. Dev. Preds (paired) [ug/m3]:		3.375	
Std. Dev. Preds (all) [ug/m3]:	3.468	3.233	2.622
Coef of Variation Obs:		0.718	
Coef of Variation Preds (paired):		0.798	
Coef of Variation Preds (all):	0.946	0.887	0.860
R:		0.482	
R^2:		0.232	
Slope:		0.663	
Intercept [ug/m3]:		1.964	
RMS Error [ug/m3]:		3.176	
RMSE / Avrg. Ob:		0.928	
Normalized Gross Error [%]:		0.772	
Fractional Gross Error:		0.685	
Normalized Bias [%]:		0.324	
Fractional Bias:		0.041	
Model Index:		0.658	
Obs Data Complete [%]:	0.0%	78.4%	0.0%

C301

REMSAD stats: SEN.021 / C301

	SO2	SO4	TES
Average Obs [ug/m3]:		4.073	
Average Preds (paired) [ug/m3]:		4.588	
Average Preds (all) [ug/m3]:	5.904	4.446	4.434
Ratio of Means (paired):		1.126	
Std. Dev. Obs [ug/m3]:		2.808	
Std. Dev. Preds (paired) [ug/m3]:		3.262	
Std. Dev. Preds (all) [ug/m3]:	3.060	3.121	2.330
Coef of Variation Obs:		0.689	
Coef of Variation Preds (paired):		0.711	
Coef of Variation Preds (all):	0.518	0.702	0.525
R:		0.657	
R^2:		0.432	
Slope:		0.764	
Intercept [ug/m3]:		1.478	
RMS Error [ug/m3]:		2.598	
RMSE / Avrg. Ob:		0.638	
Normalized Gross Error [%]:		0.442	
Fractional Gross Error:		0.354	
Normalized Bias [%]:		0.227	
Fractional Bias:		0.088	
Model Index:		0.788	
Obs Data Complete [%]:	0.0%	83.8%	0.0%

C302

	SO2	SO4	TES
Average Obs [ug/m3]:	4.182	4.236	3.532
Average Preds (paired) [ug/m3]:	8.418	4.778	5.871
Average Preds (all) [ug/m3]:	8.102	4.799	5.651
Ratio of Means (paired):	2.013	1.128	1.662
Std. Dev. Obs [ug/m3]:	3.049	2.607	1.981
Std. Dev. Preds (paired) [ug/m3]:	2.990	3.467	2.300
Std. Dev. Preds (all) [ug/m3]:	3.163	3.373	2.393
Coef of Variation Obs:	0.729	0.615	0.561
Coef of Variation Preds (paired):	0.355	0.726	0.392
Coef of Variation Preds (all):	0.390	0.703	0.424
R:	0.331	0.644	0.483
R^2:	0.109	0.414	0.234
Slope:	0.324	0.856	0.561
Intercept [ug/m3]:	7.061	1.150	3.888
RMS Error [ug/m3]:	5.490	2.734	3.206
RMSE / Avrg. Ob:	1.313	0.645	0.908
Normalized Gross Error [%]:	2.664	0.473	1.427
Fractional Gross Error:	0.817	0.425	0.602
Normalized Bias [%]:	2.626	0.175	1.381
Fractional Bias:	0.776	0.046	0.550
Model Index:	0.472	0.764	0.542
Obs Data Complete [%]:	71.2%	81.1%	71.2%

C303

	SO2	SO4	TES
Average Obs [ug/m3]:		3.547	
Average Preds (paired) [ug/m3]:		4.024	
Average Preds (all) [ug/m3]:	3.947	3.704	3.208
Ratio of Means (paired):		1.135	
Std. Dev. Obs [ug/m3]:		2.490	
Std. Dev. Preds (paired) [ug/m3]:		2.900	
Std. Dev. Preds (all) [ug/m3]:	2.812	2.774	2.108
Coef of Variation Obs:		0.702	
Coef of Variation Preds (paired):		0.721	
Coef of Variation Preds (all):	0.712	0.749	0.657
R:		0.543	
R^2:		0.295	
Slope:		0.633	
Intercept [ug/m3]:		1.779	
RMS Error [ug/m3]:		2.644	
RMSE / Avrg. Ob:		0.745	
Normalized Gross Error [%]:		0.573	
Fractional Gross Error:		0.428	
Normalized Bias [%]:		0.289	
Fractional Bias:		0.064	
Model Index:		0.715	
Obs Data Complete [%]:	0.0%	82.0%	0.0%

C304

REMSAD stats: SEN.021 / C304

	SO2	SO4	TES
Average Obs [ug/m3]:	2.264	3.548	2.352
Average Preds (paired) [ug/m3]:	6.151	4.101	4.535
Average Preds (all) [ug/m3]:	5.764	4.075	4.240
Ratio of Means (paired):	2.716	1.156	1.928
Std. Dev. Obs [ug/m3]:	1.793	2.422	1.438
Std. Dev. Preds (paired) [ug/m3]:	3.510	3.085	2.556
Std. Dev. Preds (all) [ug/m3]:	3.512	3.084	2.563
Coef of Variation Obs:	0.792	0.683	0.612
Coef of Variation Preds (paired):	0.571	0.752	0.564
Coef of Variation Preds (all):	0.609	0.757	0.604
R:	0.664	0.601	0.676
R^2:	0.441	0.361	0.456
Slope:	1.301	0.765	1.201
Intercept [ug/m3]:	3.206	1.387	1.711
RMS Error [ug/m3]:	4.720	2.591	2.899
RMSE / Avrg. Ob:	2.084	0.730	1.233
Normalized Gross Error [%]:	3.393	0.624	1.309
Fractional Gross Error:	0.991	0.477	0.682
Normalized Bias [%]:	3.371	0.307	1.258
Fractional Bias:	0.967	0.054	0.621
Model Index:	0.498	0.745	0.583
Obs Data Complete [%]:	88.3%	99.1%	88.3%

C305

	SO2	SO4	TES
Average Obs [ug/m3]:	2.271	3.603	2.376
Average Preds (paired) [ug/m3]:	5.870	4.403	4.508
Average Preds (all) [ug/m3]:	5.369	4.205	4.086
Ratio of Means (paired):	2.585	1.222	1.897
Std. Dev. Obs [ug/m3]:	1.751	2.206	1.205
Std. Dev. Preds (paired) [ug/m3]:	3.354	3.103	2.367
Std. Dev. Preds (all) [ug/m3]:	3.305	3.063	2.365
Coef of Variation Obs:	0.771	0.612	0.507
Coef of Variation Preds (paired):	0.571	0.705	0.525
Coef of Variation Preds (all):	0.616	0.729	0.579
R:	0.441	0.643	0.534
R^2:	0.194	0.413	0.285
Slope:	0.844	0.904	1.049
Intercept [ug/m3]:	3.952	1.146	2.017
RMS Error [ug/m3]:	4.700	2.517	2.925
RMSE / Avrg. Ob:	2.069	0.698	1.231
Normalized Gross Error [%]:	2.683	0.578	1.135
Fractional Gross Error:	0.941	0.476	0.636
Normalized Bias [%]:	2.656	0.299	1.090
Fractional Bias:	0.911	0.086	0.583
Model Index:	0.413	0.748	0.474
Obs Data Complete [%]:	78.4%	90.1%	78.4%

C306

	SO2	SO4	TES
Average Obs [ug/m3]:		3.657	
Average Preds (paired) [ug/m3]:		4.204	
Average Preds (all) [ug/m3]:	2.463	3.598	2.431
Ratio of Means (paired):		1.150	
Std. Dev. Obs [ug/m3]:		2.321	
Std. Dev. Preds (paired) [ug/m3]:		3.520	
Std. Dev. Preds (all) [ug/m3]:	2.941	3.504	2.419
Coef of Variation Obs:		0.635	
Coef of Variation Preds (paired):		0.837	
Coef of Variation Preds (all):	1.194	0.974	0.995
R:		0.676	
R^2:		0.457	
Slope:		1.025	
Intercept [ug/m3]:		0.455	
RMS Error [ug/m3]:		2.652	
RMSE / Avrg. Ob:		0.725	
Normalized Gross Error [%]:		0.616	
Fractional Gross Error:		0.638	
Normalized Bias [%]:		0.112	
Fractional Bias:		-0.174	
Model Index:		0.766	
Obs Data Complete [%]:	0.0%	77.5%	0.0%

C307

	SO2	SO4	TES
Average Obs [ug/m3]:		3.937	
Average Preds (paired) [ug/m3]:		4.453	
Average Preds (all) [ug/m3]:	4.412	4.080	3.566
Ratio of Means (paired):		1.131	
Std. Dev. Obs [ug/m3]:		2.522	
Std. Dev. Preds (paired) [ug/m3]:		3.707	
Std. Dev. Preds (all) [ug/m3]:	4.774	3.687	3.354
Coef of Variation Obs:		0.641	
Coef of Variation Preds (paired):		0.832	
Coef of Variation Preds (all):	1.082	0.904	0.941
R:		0.715	
R^2:		0.511	
Slope:		1.051	
Intercept [ug/m3]:		0.317	
RMS Error [ug/m3]:		2.646	
RMSE / Avrg. Ob:		0.672	
Normalized Gross Error [%]:		0.515	
Fractional Gross Error:		0.525	
Normalized Bias [%]:		0.084	
Fractional Bias:		-0.116	
Model Index:		0.799	
Obs Data Complete [%]:	0.0%	87.4%	0.0%

C308

	SO2	SO4	TES
Average Obs [ug/m3]:	1.005	4.182	1.914
Average Preds (paired) [ug/m3]:	7.091	5.086	5.315
Average Preds (all) [ug/m3]:	6.275	4.682	4.698
Ratio of Means (paired):	7.057	1.216	2.777
Std. Dev. Obs [ug/m3]:	0.807	2.489	1.068
Std. Dev. Preds (paired) [ug/m3]:	4.006	3.602	2.822
Std. Dev. Preds (all) [ug/m3]:	3.997	3.685	2.922
Coef of Variation Obs:	0.803	0.595	0.558
Coef of Variation Preds (paired):	0.565	0.708	0.531
Coef of Variation Preds (all):	0.637	0.787	0.622
R:	0.547	0.705	0.623
R^2:	0.299	0.497	0.388
Slope:	2.717	1.020	1.647
Intercept [ug/m3]:	4.361	0.821	2.162
RMS Error [ug/m3]:	7.085	2.710	4.113
RMSE / Avrg. Ob:	7.052	0.648	2.149
Normalized Gross Error [%]:	9.066	0.538	2.201
Fractional Gross Error:	1.474	0.436	0.920
Normalized Bias [%]:	9.066	0.266	2.181
Fractional Bias:	1.474	0.077	0.897
Model Index:	0.197	0.785	0.379
Obs Data Complete [%]:	69.4%	79.3%	69.4%

C309

	SO2	SO4	TES
Average Obs [ug/m3]:		3.999	
Average Preds (paired) [ug/m3]:		5.267	
Average Preds (all) [ug/m3]:	6.721	4.957	5.013
Ratio of Means (paired):		1.317	
Std. Dev. Obs [ug/m3]:		2.490	
Std. Dev. Preds (paired) [ug/m3]:		3.586	
Std. Dev. Preds (all) [ug/m3]:	3.500	3.485	2.582
Coef of Variation Obs:		0.623	
Coef of Variation Preds (paired):		0.681	
Coef of Variation Preds (all):	0.521	0.703	0.515
R:		0.657	
R^2:		0.431	
Slope:		0.946	
Intercept [ug/m3]:		1.485	
RMS Error [ug/m3]:		2.990	
RMSE / Avrg. Ob:		0.748	
Normalized Gross Error [%]:		0.636	
Fractional Gross Error:		0.483	
Normalized Bias [%]:		0.404	
Fractional Bias:		0.183	
Model Index:		0.735	
Obs Data Complete [%]:	0.0%	86.5%	0.0%

C310

	SO2	SO4	TES
Average Obs [ug/m3]:		4.389	
Average Preds (paired) [ug/m3]:		5.859	
Average Preds (all) [ug/m3]:	9.659	5.767	6.752
Ratio of Means (paired):		1.335	
Std. Dev. Obs [ug/m3]:		2.882	
Std. Dev. Preds (paired) [ug/m3]:		3.924	
Std. Dev. Preds (all) [ug/m3]:	3.955	3.875	2.846
Coef of Variation Obs:		0.657	
Coef of Variation Preds (paired):		0.670	
Coef of Variation Preds (all):	0.409	0.672	0.422
R:		0.551	
R^2:		0.304	
Slope:		0.751	
Intercept [ug/m3]:		2.565	
RMS Error [ug/m3]:		3.660	
RMSE / Avrg. Ob:		0.834	
Normalized Gross Error [%]:		0.723	
Fractional Gross Error:		0.467	
Normalized Bias [%]:		0.565	
Fractional Bias:		0.272	
Model Index:		0.671	
Obs Data Complete [%]:	0.0%	85.6%	0.0%

C401

	SO2	SO4	TES
Average Obs [ug/m3]:	0.734	2.017	1.025
Average Preds (paired) [ug/m3]:	1.477	2.078	1.433
Average Preds (all) [ug/m3]:	1.429	1.991	1.378
Ratio of Means (paired):	2.013	1.030	1.398
Std. Dev. Obs [ug/m3]:	0.507	1.161	0.523
Std. Dev. Preds (paired) [ug/m3]:	0.624	1.393	0.620
Std. Dev. Preds (all) [ug/m3]:	0.596	1.292	0.574
Coef of Variation Obs:	0.690	0.576	0.511
Coef of Variation Preds (paired):	0.423	0.670	0.433
Coef of Variation Preds (all):	0.417	0.649	0.416
R:	0.360	0.471	0.526
R^2:	0.130	0.222	0.277
Slope:	0.444	0.565	0.623
Intercept [ug/m3]:	1.151	0.937	0.794
RMS Error [ug/m3]:	0.985	1.329	0.695
RMSE / Avrg. Ob:	1.343	0.659	0.678
Normalized Gross Error [%]:	1.580	0.557	0.668
Fractional Gross Error:	0.802	0.452	0.442
Normalized Bias [%]:	1.515	0.203	0.583
Fractional Bias:	0.719	-0.002	0.343
Model Index:	0.473	0.669	0.648
Obs Data Complete [%]:	59.5%	60.4%	59.5%

C402

	SO2	SO4	TES
Average Obs [ug/m3]:	1.077	3.213	1.667
Average Preds (paired) [ug/m3]:	3.568	3.820	3.092
Average Preds (all) [ug/m3]:	3.267	3.722	2.874
Ratio of Means (paired):	3.312	1.189	1.854
Std. Dev. Obs [ug/m3]:	0.827	2.490	1.226
Std. Dev. Preds (paired) [ug/m3]:	2.169	2.098	1.699
Std. Dev. Preds (all) [ug/m3]:	2.147	2.817	1.762
Coef of Variation Obs:	0.768	0.775	0.735
Coef of Variation Preds (paired):	0.608	0.549	0.549
Coef of Variation Preds (all):	0.657	0.757	0.613
R:	0.735	0.781	0.858
R^2:	0.540	0.609	0.736
Slope:	1.927	0.658	1.189
Intercept [ug/m3]:	1.491	1.707	1.110
RMS Error [ug/m3]:	2.993	1.678	1.687
RMSE / Avrg. Ob:	2.778	0.522	1.012
Normalized Gross Error [%]:	3.827	0.585	1.232
Fractional Gross Error:	1.110	0.407	0.669
Normalized Bias [%]:	3.827	0.438	1.230
Fractional Bias:	1.110	0.236	0.667
Model Index:	0.433	0.858	0.732
Obs Data Complete [%]:	51.4%	32.4%	32.4%