Appendix A - Section 1
Emissions Summary

Unit 3 Inlet Test Results
Arizona Public Service Company
Joseph City, Arizona

	R1	R3	R4	
Date	11/02/1999	11/03/1999	11/03/1999	
Start Time	12:20	11:14	14:58	Average
End Time	15:50	13:37	17:23	
Test Elapsed time (min)	120	120	120	120.0
Barometric Pressure (in. Hg)	25.50	25.50	25.50	25.50
Orifice calibration Factor	1.695	1.695	1.695	1.6950
Dry Gas Meter Calibration Factor	1.028	1.028	1.028	1.0280
Average Meter Temperature (°F)	100.5	99.8	107.3	102.5
Volume Metered (ACF)	55.665	55.530	55.795	55.663
Volume Metered (DSCF)	45.997	45.948	45.555	45.833
Volume of Water Collected (grams)	104.3	102.8	98.5	101.9
Volume of Water Collected (SCF)	4.918	4.847	4.644	4.803
Average Delta H (in. H_2O)	0.58	0.56	0.57	0.57
Measured Moisture (%)	9.7%	9.5%	9.3%	9.48%
Oxygen Concentration (%)	3.8	3.9	3.7	3.80
Carbon Dioxide Concentration (%)	15.3	15.1	15.4	15.25
Nitrogen Concentration (%)	81.0	81.0	80.9	81.0
Dry Molecular Weight (lb/lbmole)	30.59	30.57	30.61	30.59
Wet Molecular Weight (lb/lbmole)	29.38	29.37	29.45	29.40
Pitot Coefficient	0.84	0.84	0.84	0.84
Stack Static Pressure (in. H_2O)	-4.20	-4.20	-4.10	-4.17
Stack Pressure (in. Hg)	25.19	25.19	25.20	25.19
AVG SQRT dP (in. H_2O) Traverse	0.5574	0.5504	0.5535	0.5538
Average Square Root of Delta P (in. H_2O) Full Traverse	0.2787	0.2752	0.2768	0.2769
Stack Temperature (°F) Traverse	683.2	676.6	675.3	678.4
Velocity (ft/sec) Traverse	49.75	48.99	49.17	49.30
Nozzle Diameter (in.)	0.255	0.255	0.255	0.255
% Isokinetics	103.1	103.9	102.1	103.0
Stack Diameter (in.)	324 x 114 (2)	324 x 114 (2)	324 x 114 (2)	324 x 114 (2)
Stack Area (ft^2)	513.00	513.00	513.00	513.00
Stack Flow Rate (ACFM) Traverse	1,531,295.8	1,507,928.1	1,513,389.6	1,517,537.8
Stack Flowrate Inlet Measured (DSCFM)	537,752.5	533,300.5	537,699.3	536,250.7
Stack Flowrate Outlet Corrected (DSCFM)	557,021.5	550,259.0	550,259.0	552,513.1
Collected Hg (Particle)[1]	0.59	0.62	0.55	0.59
Hg Particle Concentration (ug/dscf)	0.0127	0.0135	0.0121	0.0128
Hg Particle Concentration (ug/dscm)	0.4491	0.4765	0.4264	0.4507
Hg Particle Emissions (lb/hr)	9.37E-04	9.83E-04	8.79E-04	9.33E-04
Collected Hg (Total Oxidized)[1]	0.46	0.39	0.53	0.46
Hg Total Oxidized Concentration (ug/dscf)	0.0100	0.0085	0.0116	0.0100
Hg Total Oxidized Concentration (ug/dscm)	0.3532	0.2997	0.4109	0.3546
Hg Total Oxidized Emissions (lb/hr)	7.37E-04	6.18E-04	8.47E-04	7.34E-04
Collected Hg (Total Elemental)	2.40	0.57	0.76	1.24
Hg Total Elemental Concentration (ug/dscf)	0.0522	0.0124	0.0167	0.0271
Hg Total Elemental Concentration (ug/dscm)	1.8426	0.4381	0.5892	0.9566
Hg Total Elemental Emissions (lb/hr)	3.85E-03	9.03E-04	1.21E-03	1.99E-03
Collected Hg (Total)	3.45	1.58	1.84	2.29
Hg Total Concentration (ug/dscf)	0.0749	0.0344	0.0404	0.0499
Hg Total Concentration (ug/dscm)	2.6449	1.2143	1.4264	1.7619
Hg Total Emissions (lb/hr)	5.52E-03	2.50E-03	2.94E-03	3.66E-03
Hg Total Emissions (tons/yr)	2.42E-02	1.10E-02	1.29E-02	1.60E-02

[1] Run 1 sample void, using average of Runs 3 & 4

APS - Cholla
Joseph City, AZ Unit 3 Outlet

	Run 1	Run 3	Run 4	
Date	11/02/99	11/03/99	11/03/99	
Start Time	12:20	11:14	14:58	Average
End Time	15:47	13:37	17:23	
Test Elapsed time (min)	120	120	120	120
Barometric Pressure (in. Hg)	25.15	25.15	25.15	25.15
Orifice calibration Factor	1.644	1.644	1.644	1.644
Dry Gas Meter Calibration Factor	1.045	1.045	1.045	1.045
Average Meter Temperature (^{0}F)	86.6	84.9	94.8	88.8
Volume Metered (ACF)	78.216	76.615	77.821	77.551
Volume Metered (DSCF)	66.568	65.403	65.246	65.739
Volume of Water Collected (grams)	130.6	131.5	130.0	130.7
Volume of Water Collected (SCF))	6.158	6.200	6.129	6.163
Average Delta H (in. H2O)	1.19	1.14	1.14	1.16
Measured Moisture (%)	8.5%	8.7%	8.6%	8.6%
Oxygen Concentration (%)	6.2	5.5	5.7	5.8
Carbon Dioxide Concenration (%)	13.1	13.3	13.1	13.2
Nitrogen Concentration (%)	80.7	81.2	81.2	81.0
Dry Molecular Weight lb.lbmole	30.34	30.35	30.32	30.34
Wet Molecular Weight lb.lbmole	29.30	29.28	29.27	29.28
Pitot Coeficient	0.84	0.84	0.84	0.84
Stack Static Pressure (in.H_2O)	-1.70	-2.10	-2.10	-1.97
Stack Pressure (in. Hg)	25.03	25.00	25.00	25.01
Average Square Root of Delta P (in. H_2O)	1.1692	1.1499	1.1458	1.1550
Average Stack Temperature (^{0}F)	317.6	311.3	318.4	315.8
Velocity (ft/sec)	86.47	84.77	84.87	85.37
Nozzle Diameter (in.)	0.194	0.194	0.194	0.194
% Isokinetics	100.3	100.0	100.5	100.2
Stack Diameter (in.)	210.00	210.00	210.00	210.0
Stack Area (sq. ft.)	240.53	240.53	240.53	240.53
Stack Flowrate (ACFM)	1,247,932	1,223,346	1,224,884	1,232,054
Stack Flowrate (DSCFM)	648,441	638,815	634,268	640,508
Collected Hg (Particle)	0.027	0.020	0.024	0.024
Hg Particle Concentration (ug/dscf)	0.0004	0.0003	0.0004	0.0004
Hg Particle Concentration (ug/dscm)	0.0143	0.0108	0.0130	0.0127
Hg Particle Emissions (lb/hr)	3.48E-05	2.59E-05	3.09E-05	3.05E-05
Collected Hg (Total Oxidized)[1]	0.79	0.70	0.61	0.70
Hg Total Oxidized Concentration (ug/dscf)	0.0119	0.0106	0.0093	0.0106
Hg Total Oxidized Concentration (ug/dscm)	0.4191	0.3746	0.3302	0.3746
Hg Total Oxidized Emissions (lb/hr)	1.02E-03	8.97E-04	7.85E-04	9.00E-04
Collected Hg (Total Elemental)	2.90	1.60	2.00	2.17
Hg Total Elemental Concentration (ug/dscf)	0.0436	0.0245	0.0307	0.0329
Hg Total Elemental Concentration (ug/dscm)	1.5384	0.8639	1.0825	1.1616
Hg Total Elemental Emissions (lb/hr)	3.74E-03	2.07E-03	2.57E-03	2.79E-03
Collected Hg (Total)	3.72	2.32	2.63	2.89
Hg Total Concentration (ug/dscf)	0.0558	0.0355	0.0404	0.0439
Hg Total Concentration (ug/dscm)	1.9719	1.2527	1.4256	1.5501
Hg Total Emissions (lb/hr)	4.79E-03	3.00E-03	3.39E-03	3.73E-03
Hg Total Emissions (tons/yr)	2.10E-02	1.31E-02	1.48E-02	1.63E-02

[1] Run 3 sample void, using average of Runs 1 & 4

Unit 2 Inlet Test Results
Arizona Public Service Company
Joseph City, Arizona

	R1	R2	R3	
Date	11/04/1999	11/05/1999	11/05/1999	
Start Time	12:18	08:28	13:14	Average
End Time	18:59	12:29	15:40	
Test Elapsed time (min)	120	120	120	120.0
Barometric Pressure (in. Hg)	25.05	25.50	25.50	25.35
Orifice calibration Factor	1.685	1.685	1.685	1.6850
Dry Gas Meter Calibration Factor	1.028	1.028	1.028	1.0280
Average Meter Temperature (°F)	79.9	72.7	86.9	79.8
Volume Metered (ACF)	65.425	64.850	65.670	65.315
Volume Metered (DSCF)	55.188	56.428	55.649	55.755
Volume of Water Collected (grams)	112.4	121.1	112.4	115.3
Volume of Water Collected (SCF)	5.300	5.710	5.300	5.436
Average Delta H (in. H_2O)	0.86	0.82	0.77	0.82
Measured Moisture (%)	8.8%	9.2%	8.7%	8.9%
Oxygen Concentration (%)	4.7	3.8	3.8	4.10
Carbon Dioxide Concentration (%)	13.9	14.9	14.6	14.47
Nitrogen Concentration (%)	81.4	81.3	81.6	81.4
Dry Molecular Weight (lb/lbmole)	30.41	30.54	30.49	30.48
Wet Molecular Weight (lb/lbmole)	29.32	29.38	29.40	29.37
Pitot Coefficient	0.84	0.84	0.84	0.84
Stack Static Pressure (in. H_2O)	-14.96	-15.00	-17.68	-15.88
Stack Pressure (in. Hg)	23.95	24.40	24.20	24.18
AVG SQRT dP (in. H_2O) Traverse	0.5654	0.5639	0.5488	0.5594
Average Square Root of Delta P (in. H_2O) Full Traverse	0.2827	0.2819	0.2744	0.2797
Stack Temperature (°F) Traverse	276.0	278.0	279.0	277.7
Velocity (ft/sec) Traverse	41.57	41.08	40.16	40.94
Nozzle Diameter (in.)	0.255	0.255	0.255	0.255
% Isokinetics	99.3	101.6	102.9	101.3
Stack Diameter (in.)	88.5 x 451 (2)	88.5 x 451 (2)	88.5 x 451 (2)	88.5 x 451 (2)
Stack Area (ft^2)	554.35	554.35	554.35	554.35
Stack Flow Rate (ACFM) Traverse	1,382,537.4	1,366,488.0	1,335,937.7	1,361,654.4
Stack Flowrate Inlet Measured (DSCFM)	724,029.6	723,642.2	704,650.4	717,440.8
Stack Flowrate Outlet Corrected (DSCFM)	555,574.4	479,395.4	539,077.6	524,682.5
Collected Hg (Particle)	0.59	1.70	0.61	0.97
Hg Particle Concentration (ug/dscf)	0.0107	0.0301	0.0110	0.0173
Hg Particle Concentration (ug/dscm)	0.3775	1.0639	0.3871	0.6095
Hg Particle Emissions (lb/hr)	7.86E-04	1.91E-03	7.82E-04	1.16E-03
Collected Hg (Total Oxidized)[1]	1.38	2.24	3.10	2.24
Hg Total Oxidized Concentration (ug/dscf)	0.0250	0.0397	0.0557	0.0401
Hg Total Oxidized Concentration (ug/dscm)	0.8830	1.4018	1.9672	1.4174
Hg Total Oxidized Emissions (lb/hr)	1.84E-03	2.52E-03	3.97E-03	2.78E-03
Collected Hg (Total Elemental)	6.20	4.00	3.30	4.50
Hg Total Elemental Concentration (ug/dscf)	0.1123	0.0709	0.0593	0.0808
Hg Total Elemental Concentration (ug/dscm)	3.9673	2.5033	2.0941	2.8549
Hg Total Elemental Emissions (lb/hr)	8.26E-03	4.50E-03	4.23E-03	5.66E-03
Collected Hg (Total)	8.17	7.94	7.01	7.71
Hg Total Concentration (ug/dscf)	0.1480	0.1407	0.1260	0.1382
Hg Total Concentration (ug/dscm)	5.2279	4.9690	4.4484	4.8818
Hg Total Emissions (lb/hr)	1.09E-02	8.93E-03	8.99E-03	9.60E-03
Hg Total Emissions (tons/yr)	4.77E-02	3.91E-02	3.94E-02	4.20E-02

[1] Run 2 sample void, using average of Runs 1 & 3

APS - Cholla
Joseph City, AZ Unit 2 Outlet

	Run 1	Run 2	Run 3	Average
Date	11/04/99	11/05/99	11/05/99	
Start Time	12:18	08:28	13:14	
End Time	18:59	12:29	15:35	
Test Elapsed time (min)	120	120	120	120
Barometric Pressure (in. Hg)	24.95	25.10	25.10	25.05
Orifice calibration Factor	1.644	1.644	1.644	1.644
Dry Gas Meter Calibration Factor	1.045	1.045	1.045	1.045
Average Meter Temperature (^{0}F)	84.8	76.9	84.3	82.0
Volume Metered (ACF)	84.842	85.332	84.261	84.812
Volume Metered (DSCF)	71.919	73.847	71.911	72.559
Volume of Water Collected (grams)	235.2	244.4	239.8	239.8
Volume of Water Collected (SCF))	11.090	11.523	11.307	11.307
Average Delta H (in. H2O)	1.41	1.42	1.37	1.40
Measured Moisture (%)	13.4%	13.5%	13.6%	13.5%
Oxygen Concentration (%)	5.7	5.9	5.1	5.6
Carbon Dioxide Concenration (%)	13.3	12.4	13.5	13.1
Nitrogen Concentration (%)	81	81.7	81.4	81.4
Dry Molecular Weight lb.lbmole	30.36	30.22	30.36	30.31
Wet Molecular Weight lb.lbmole	28.71	28.57	28.68	28.65
Pitot Coeficient	0.84	0.84	0.84	0.84
Stack Static Pressure (in.H_2O)	-1.60	-1.60	-1.60	-1.60
Stack Pressure (in. Hg)	24.83	24.98	24.98	24.93
Average Square Root of Delta P (in. H_2O)	1.4293	1.4118	1.4330	1.4247
Average Stack Temperature (^{0}F)	188.8	188.0	187.9	188.2
Velocity (ft/sec)	97.92	96.60	97.85	97.46
Nozzle Diameter (in.)*	0.180	0.182	0.178	0.180
% Isokinetics	98.7	100.5	100.5	99.9
Stack Diameter (in.)	176.00	176.00	176.00	176.0
Stack Area (sq. ft.)	168.95	168.95	168.95	168.95
Stack Flowrate (ACFM)	992,653	979,211	991,858	987,907
Stack Flowrate (DSCFM)	580,638	576,048	583,002	579,896
Collected Hg (Particle)	0.27	0.33	0.19	0.26
Hg Particle Concentration (ug/dscf)	0.0038	0.0045	0.0026	0.0036
Hg Particle Concentration (ug/dscm)	0.1326	0.1578	0.0933	0.1279
Hg Particle Emissions (lb/hr)	2.88E-04	3.41E-04	2.04E-04	2.78E-04
Collected Hg (Total Oxidized)	0.36	0.26	0.25	0.29
Hg Total Oxidized Concentration (ug/dscf)	0.0050	0.0035	0.0035	0.0040
Hg Total Oxidized Concentration (ug/dscm)	0.1768	0.1243	0.1228	0.1413
Hg Total Oxidized Emissions (lb/hr)	3.84E-04	2.68E-04	2.68E-04	3.07E-04
Collected Hg (Total Elemental)	6.80	8.20	7.60	7.53
Hg Total Elemental Concentration (ug/dscf)	0.0946	0.1110	0.1057	0.1038
Hg Total Elemental Concentration (ug/dscm)	3.3390	3.9213	3.7322	3.6642
Hg Total Elemental Emissions (lb/hr)	7.26E-03	8.46E-03	8.15E-03	7.96E-03
Collected Hg (Total)	7.43	8.79	8.04	8.09
Hg Total Concentration (ug/dscf)	0.1033	0.1190	0.1118	0.1114
Hg Total Concentration (ug/dscm)	3.6483	4.2034	3.9483	3.9333
Hg Total Emissions (lb/hr)	7.93E-03	9.07E-03	8.62E-03	8.54E-03
Hg Total Emissions (tons/yr)	3.48E-02	3.97E-02	3.78E-02	3.74E-02

*The nozzle was broken and changed during the move from the third to fourth test port. The isokinetic rate calculation was made for each nozzle and then proportioned to represent the rate for the entire run.

Appendix A – Section 2
Isokinetic Summary

APS - Cholla
Joseph City, AZ Unit 3 Outlet

	Run 1	Run 3	Run 4	Average
Date	11/02/99	11/03/99	11/03/99	
Start Time	12:20	11:14	14:58	
End Time	15:47	13:37	17:23	
Test Elapsed time (min)	120	120	120	120
Barometric Pressure (in. Hg)	25.15	25.15	25.15	25.15
Orifice calibration Factor	1.644	1.644	1.644	1.644
Dry Gas Meter Calibration Factor	1.045	1.045	1.045	1.045
Average Meter Temperature (^{0}F)	86.6	84.9	94.8	88.8
Volume Metered (ACF)	78.216	76.615	77.821	77.551
Volume Metered (DSCF)	66.568	65.403	65.246	65.739
Volume of Water Collected (grams)	130.6	131.5	130.0	130.7
Volume of Water Collected (SCF))	6.158	6.200	6.129	6.163
Average Delta H (in. H2O)	1.19	1.14	1.14	1.16
Measured Moisture (%)	8.5%	8.7%	8.6%	8.6%
Oxygen Concentration (%)	6.2	5.5	5.7	5.8
Carbon Dioxide Concenration (%)	13.1	13.3	13.1	13.2
Nitrogen Concentration (%)	80.7	81.2	81.2	81.0
Dry Molecular Weight lb.lbmole	30.34	30.35	30.32	30.34
Wet Molecular Weight lb.lbmole	29.30	29.28	29.27	29.28
Pitot Coeficient	0.84	0.84	0.84	0.84
Stack Static Pressure (in.H_2O)	-1.70	-2.10	-2.10	-1.97
Stack Pressure (in. Hg)	25.03	25.00	25.00	25.01
Average Square Root of Delta P (in. H_2O)	1.1692	1.1499	1.1458	1.1550
Average Stack Temperature (^{0}F)	317.6	311.3	318.4	315.8
Velocity (ft/sec)	86.47	84.77	84.87	85.37
Nozzle Diameter (in.)	0.194	0.194	0.194	0.194
% Isokinetics	100.3	100.0	100.5	100.2
				3.26E+01

[1] Run 3 sample void, using average of Runs 1 & 4

Unit 3 Inlet Test Results
Arizona Public Service Company
Joseph City, Arizona

	R1	R3	R4	
Date	11/02/1999	11/03/1999	11/03/1999	
Start Time	12:20	11:14	14:58	Average
End Time	15:50	13:37	17:23	
Test Elapsed time (min)	120	120	120	120.0
Barometric Pressure (in. Hg)	25.50	25.50	25.50	25.50
Orifice calibration Factor	1.695	1.695	1.695	1.6950
Dry Gas Meter Calibration Factor	1.028	1.028	1.028	1.0280
Average Meter Temperature (°F)	100.5	99.8	107.3	102.5
Volume Metered (ACF)	55.665	55.530	55.795	55.663
Volume Metered (DSCF)	45.997	45.948	45.555	45.833
Volume of Water Collected (grams)	104.3	102.8	98.5	101.9
Volume of Water Collected (SCF)	4.918	4.847	4.644	4.803
Average Delta H (in. H_2O)	0.58	0.56	0.57	0.57
Measured Moisture (%)	9.7%	9.5%	9.3%	9.48%
Oxygen Concentration (%)	3.8	3.9	3.7	3.80
Carbon Dioxide Concentration (%)	15.3	15.1	15.4	15.25
Nitrogen Concentration (%)	81.0	81.0	80.9	81.0
Dry Molecular Weight (lb/lbmole)	30.59	30.57	30.61	30.59
Wet Molecular Weight (lb/lbmole)	29.38	29.37	29.45	29.40
Pitot Coefficient	0.84	0.84	0.84	0.84
Stack Static Pressure (in. H_2O)	-4.20	-4.20	-4.10	-4.17
Stack Pressure (in. Hg)	25.19	25.19	25.20	25.19
AVG SQRT dP (in. H_2O) Traverse	0.5574	0.5504	0.5535	0.5538
Average Square Root of Delta P (in. H_2O) Full Traverse	0.2787	0.2752	0.2768	0.2769
Stack Temperature (°F) Traverse	683.2	676.6	675.3	678.4
Velocity (ft/sec) Traverse	49.75	48.99	49.17	49.30
Nozzle Diameter (in.)	0.255	0.255	0.255	0.255
% Isokinetics	103.1	103.9	102.1	103.0

[1] Run 1 sample void, using average of Runs 3 & 4

APS - Cholla
Joseph City, AZ Unit 2 Outlet

	Run 1	Run 2	Run 3	Average
Date	11/04/99	11/05/99	11/05/99	
Start Time	12:18	08:28	13:14	
End Time	18:59	12:29	15:35	
Test Elapsed time (min)	120	120	120	120
Barometric Pressure (in. Hg)	24.95	25.10	25.10	25.05
Orifice calibration Factor	1.644	1.644	1.644	1.644
Dry Gas Meter Calibration Factor	1.045	1.045	1.045	1.045
Average Meter Temperature (^{0}F)	84.8	76.9	84.3	82.0
Volume Metered (ACF)	84.842	85.332	84.261	84.812
Volume Metered (DSCF)	71.919	73.847	71.911	72.559
Volume of Water Collected (grams)	235.2	244.4	239.8	239.8
Volume of Water Collected (SCF))	11.090	11.523	11.307	11.307
Average Delta H (in. H2O)	1.41	1.42	1.37	1.40
Measured Moisture (%)	13.4%	13.5%	13.6%	13.5%
Oxygen Concentration (%)	5.7	5.9	5.1	5.6
Carbon Dioxide Concenration (%)	13.3	12.4	13.5	13.1
Nitrogen Concentration (%)	81	81.7	81.4	81.4
Dry Molecular Weight lb.lbmole	30.36	30.22	30.36	30.31
Wet Molecular Weight lb.lbmole	28.71	28.57	28.68	28.65
Pitot Coeficient	0.84	0.84	0.84	0.84
Stack Static Pressure (in.H_2O)	-1.60	-1.60	-1.60	-1.60
Stack Pressure (in. Hg)	24.83	24.98	24.98	24.93
Average Square Root of Delta P (in. H_2O)	1.4293	1.4118	1.4330	1.4247
Average Stack Temperature (^{0}F)	188.8	188.0	187.9	188.2
Velocity (ft/sec)	97.92	96.60	97.85	97.46
Nozzle Diameter (in.)*	0.180	0.182	0.178	0.180
% Isokinetics	98.7	100.5	100.5	99.9
				7.48E+01

*The nozzle was broken and changed during the move from the third to fourth test port. The isokinetic rate calculation was made for each nozzle and then proportioned to represent the rate for the entire run.

Unit 2 Inlet Test Results
Arizona Public Service Company
Joseph City, Arizona

	R1	R2	R3	
Date	11/04/1999	11/05/1999	11/05/1999	
Start Time	12:18	08:28	13:14	Average
End Time	18:59	12:29	15:40	
Test Elapsed time (min)	120	120	120	120.0
Barometric Pressure (in. Hg)	25.05	25.50	25.50	25.35
Orifice calibration Factor	1.685	1.685	1.685	1.6850
Dry Gas Meter Calibration Factor	1.028	1.028	1.028	1.0280
Average Meter Temperature (°F)	79.9	72.7	86.9	79.8
Volume Metered (ACF)	65.425	64.850	65.670	65.315
Volume Metered (DSCF)	55.188	56.428	55.649	55.755
Volume of Water Collected (grams)	112.4	121.1	112.4	115.3
Volume of Water Collected (SCF)	5.300	5.710	5.300	5.436
Average Delta H (in. H_2O)	0.86	0.82	0.77	0.82
Measured Moisture (%)	8.8%	9.2%	8.7%	8.9%
Oxygen Concentration (%)	4.7	3.8	3.8	4.10
Carbon Dioxide Concentration (%)	13.9	14.9	14.6	14.47
Nitrogen Concentration (%)	81.4	81.3	81.6	81.4
Dry Molecular Weight (lb/lbmole)	30.41	30.54	30.49	30.48
Wet Molecular Weight (lb/lbmole)	29.32	29.38	29.40	29.37
Pitot Coefficient	0.84	0.84	0.84	0.84
Stack Static Pressure (in. H_2O)	-14.96	-15.00	-17.68	-15.88
Stack Pressure (in. Hg)	23.95	24.40	24.20	24.18
AVG SQRT dP (in. H_2O) Traverse	0.5654	0.5639	0.5488	0.5594
Average Square Root of Delta P (in. H_2O) Full Traverse	0.2827	0.2819	0.2744	0.2797
Stack Temperature (°F) Traverse	276.0	278.0	279.0	277.7
Velocity (ft/sec) Traverse	41.57	41.08	40.16	40.94
Nozzle Diameter (in.)	0.255	0.255	0.255	0.255
% Isokinetics	99.3	101.6	102.9	101.3

[1] Run 2 sample void, using average of Runs 1 & 3

Appendix A – Section 3
Process Mercury Inflow Calculations

Summary Table of Emission Data

Method/ Component	Units	Unit 2 - Inlet				Unit 2 - Outlet Stack				Scrubber (I/O) Mercury Removal Efficiency, %				Process Samples				Process Feed (P_F/O) Mercury Removal Efficiency, %			
		Run 1	Run 2	Run 3	AVG	Run 1	Run 2	Run 3	AVG	Run 1	Run 2	Run 3	AVG	Run 1	Run 2	Run 3	AVG	Run 1	Run 2	Run 3	AVG
MERCURY																					
Particle Bound Mercury	ug/dscm	3.78E-01	1.06E+00	3.87E-01	6.10E-01	1.33E-01	1.58E-01	9.33E-02	1.28E-01												
	mg/dscm	3.78E-04	1.06E-03	3.87E-04	6.10E-04	1.33E-04	1.58E-04	9.33E-05	1.28E-04	64.88%	85.17%	75.90%	75.32%	-	-	-	-	-	-	-	-
	lb/hr	7.86E-04	1.91E-03	7.82E-04	1.16E-03	2.88E-04	3.41E-04	2.04E-04	2.78E-04	6.33E-01	8.22E-01	7.39E-01		-	-	-	-	-	-	-	-
	mg/hr	3.57E+02	8.67E+02	3.55E+02	5.26E+02	1.31E+02	1.54E+02	9.24E+01	1.26E+02	63.31%	82.18%	73.94%	73.15%	-	-	-	-	-	-	-	-
Oxidized Mercury	ug/dscm	8.83E-01	8.92E-01	1.97E+00	1.25E+00	1.77E-01	1.24E-01	1.23E-01	1.41E-01												
	mg/dscm	8.83E-04	8.92E-04	1.97E-03	1.25E-03	1.77E-04	1.24E-04	1.23E-04	1.41E-04	79.98%	86.06%	93.76%	86.60%	-	-	-	-	-	-	-	-
	lb/hr	1.84E-03	1.60E-03	3.97E-03	2.47E-03	3.84E-04	2.68E-04	2.68E-04	0.000	79.09%	83.25%	93.25%	85.20%	-	-	-	-	-	-	-	-
	mg/hr	8.34E+02	7.27E+02	1.80E+03	1.12E+03	1.74E+02	1.22E+02	1.22E+02	1.39E+02	79.09%	83.25%	93.25%	85.20%	-	-	-	-	-	-	-	-
Elemental Mercury	ug/dscm	4.24E+00	2.50E+00	2.86E+00	3.20E+00	3.34E+00	3.92E+00	3.73E+00	3.66E+00												
	mg/dscm	4.24E-03	2.50E-03	2.86E-03	3.20E-03	3.34E-03	3.92E-03	3.73E-03	0.004	21.30%	-56.64%	-30.70%	-22.02%	-	-	-	-	-	-	-	-
	lb/hr	8.83E-03	4.50E-03	5.77E-03	6.37E-03	7.26E-03	8.46E-03	8.15E-03	0.008	17.78%	-88.15%	-41.29%	-37.22%	-	-	-	-	-	-	-	-
	mg/hr	4.01E+03	2.04E+03	2.62E+03	2.89E+03	3.29E+03	3.84E+03	3.70E+03	3609.6132	17.78%	-88.15%	-41.29%	-37.22%	-	-	-	-	-	-	-	-
Total Mercury	ug/dscm	5.23E+00	3.57E+00	4.45E+00	4.41E+00	3.65E+00	4.20E+00	3.95E+00	3.93E+00												
	mg/dscm	5.23E-03	3.57E-03	4.45E-03	4.41E-03	3.65E-03	4.20E-03	3.95E-03	0.004	30.21%	-17.84%	11.24%	7.87%	-	-	-	-	-	-	-	-
	lb/hr	1.09E-02	8.01E-03	8.99E-03	9.29E-03	7.93E-03	9.07E-03	8.62E-03	0.009	27.10%	-13.23%	4.05%	5.97%	-	-	-	-	-	-	-	-
	mg/hr	4.94E+03	3.63E+03	4.08E+03	4.22E+03	3.60E+03	4.11E+03	3.91E+03	3874.7315	27.10%	-13.23%	4.05%	5.97%	-	-	-	-	-	-	-	-
COAL SAMPLE																					
Total Mercury Concentration	mg/G	-	-	-	-	-	-	-	-	-	-	-	-	4.50E-05	4.00E-05	3.50E-05	4.00E-05	-	-	-	-
Feed Rate, as Fired	Klb/hr	-	-	-	-	-	-	-	-	-	-	-	-	2.92E+02	2.92E+02	2.99E+02	2.94E+02	-	-	-	-
	KG/hr	-	-	-	-	-	-	-	-	-	-	-	-	1.33E+05	1.32E+05	1.35E+05	1.33E+05	-	-	-	-
Sulfur	WT%	-	-	-	-	-	-	-	-	-	-	-	-	0.495	0.51	0.525	0.51	-	-	-	-
Chlorine	mg/G	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<0.01	<0.01	#DIV/0!	-	-	-	-
HHV, dry basis	Btu/lb	-	-	-	-	-	-	-	-	-	-	-	-	11222.5	10955	11134.5	11104	-	-	-	-
Moisture	WT%	-	-	-	-	-	-	-	-	-	-	-	-	5.68	6.13	5.76	5.8566667	-	-	-	-
Hg Feed Rate	lb/hr	-	-	-	-	-	-	-	-	-	-	-	-	1.24E-02	1.09E-02	9.85E-03	1.11E-02	36.02%	17.17%	12.46%	22.81%
	mg/hr	-	-	-	-	-	-	-	-	-	-	-	-	5.63E+03	4.97E+03	4.47E+03	5.02E+03	36.02%	17.17%	12.46%	22.81%

Summary Table of Emission Data

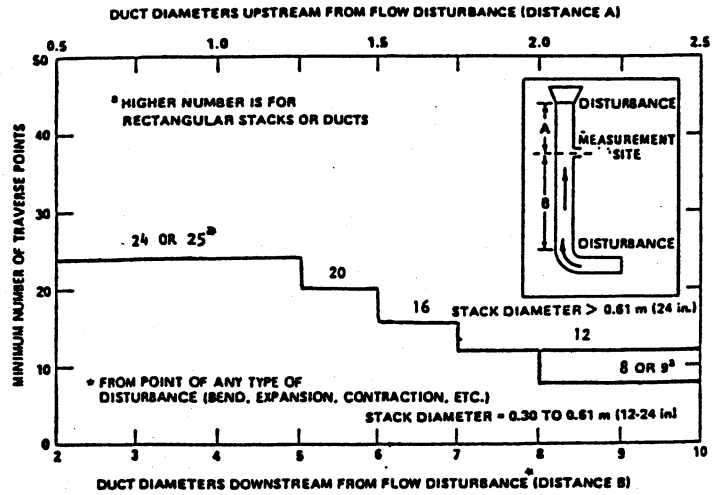
Method/ Component	Units	Unit 3 - Inlet				Unit 3 - Outlet Stack				Scrubber (I/O) Mercury Removal Efficiency, %				Process Samples				Process Feed (P_F/O) Mercury Removal Efficiency, %			
		Run 1	Run 3	Run 4	AVG	Run 1	Run 3	Run 4	AVG	Run 1	Run 3	Run 4	AVG	Run 1	Run 3	Run 4	AVG	Run 1	Run 3	Run 4	AVG
MERCURY																					
Particle Bound Mercury	ug/dscm	6.53E-02	4.77E-01	4.26E-01	3.23E-01	1.43E-02	1.08E-02	1.30E-02	1.27E-02												
	mg/dscm	6.53E-05	4.77E-04	4.26E-04	3.23E-04	1.43E-05	1.08E-05	1.30E-05	1.27E-05	78.05%	97.73%	96.95%	90.91%	-	-	-	-	-	-	-	-
	lb/hr	9.37E-04	9.83E-04	8.79E-04	9.33E-04	3.48E-05	2.59E-05	3.09E-05	3.05E-05	9.63E-01	9.74E-01	9.65E-01	96.71%	-	-	-	-	-	-	-	-
	mg/hr	4.25E+02	4.46E+02	3.99E+02	4.23E+02	1.58E+01	1.17E+01	1.40E+01	1.38E+01	96.29%	97.37%	96.49%	96.71%	-	-	-	-	-	-	-	-
Oxidized Mercury	ug/dscm	3.53E-01	3.00E-01	4.11E-01	3.55E-01	4.19E-01	1.06E-02	3.30E-01	2.53E-01												
	mg/dscm	3.53E-04	3.00E-04	4.11E-04	3.55E-04	4.19E-04	1.06E-05	3.30E-04	2.53E-04	-18.67%	96.46%	19.64%	32.48%	-	-	-	-	-	-	-	-
	lb/hr	7.37E-04	6.18E-04	8.47E-04	7.34E-04	1.02E-03	8.97E-04	7.85E-04	0.001	-38.14%	-45.10%	7.37%	-25.29%	-	-	-	-	-	-	-	-
	mg/hr	3.34E+02	2.80E+02	3.84E+02	3.33E+02	4.62E+02	4.07E+02	3.56E+02	4.08E+02	-38.14%	-45.10%	7.37%	-25.29%	-	-	-	-	-	-	-	-
Elemental Mercury	ug/dscm	1.84E+00	4.38E-01	5.89E-01	9.57E-01	1.54E+00	8.64E-01	1.08E+00	1.16E+00												
	mg/dscm	1.84E-03	4.38E-04	5.89E-04	9.57E-04	1.54E-03	8.64E-04	1.08E-03	0.001	16.51%	-97.20%	-83.74%	-54.81%	-	-	-	-	-	-	-	-
	lb/hr	3.85E-03	9.03E-04	1.21E-03	1.99E-03	3.74E-03	2.07E-03	2.57E-03	0.003	2.80%	-128.94%	-111.79%	-79.31%	-	-	-	-	-	-	-	-
	mg/hr	1.74E+03	4.10E+02	5.51E+02	9.02E+02	1.70E+03	9.38E+02	1.17E+03	1.27E+03	2.73%	-128.94%	-111.79%	-79.33%	-	-	-	-	-	-	-	-
Total Mercury	ug/dscm	1.91E+00	1.21E+00	1.43E+00	1.52E+00	1.97E+00	8.75E-01	1.43E+00	1.42E+00												
	mg/dscm	1.91E-03	1.21E-03	1.43E-03	1.52E-03	1.97E-03	8.75E-04	1.43E-03	0.001	-3.35%	27.97%	0.05%	8.22%	-	-	-	-	-	-	-	-
	lb/hr	5.52E-03	2.50E-03	2.94E-03	3.66E-03	4.79E-03	2.09E-03	3.39E-03	0.003	13.21%	16.38%	-15.21%	4.79%	-	-	-	-	-	-	-	-
	mg/hr	2.50E+03	1.14E+03	1.33E+03	1.66E+03	2.17E+03	9.50E+02	1.54E+03	1.55E+03	13.21%	16.38%	-15.21%	4.79%	-	-	-	-	-	-	-	-
COAL SAMPLE																					
Total Mercury Concentration	mg/G	-	-	-	-	-	-	-	-	-	-	-	-	4.00E-05	4.00E-05	3.00E-05	3.67E-05	-	-	-	-
Feed Rate, as Fired	Klb/hr	-	-	-	-	-	-	-	-	-	-	-	-	277.7	288.6	289.0	285.1	-	-	-	-
	KG/hr	-	-	-	-	-	-	-	-	-	-	-	-	1.26E+05	1.31E+05	1.31E+05	1.29E+05	-	-	-	-
Sulfur	WT%	-	-	-	-	-	-	-	-	-	-	-	-	0.43	0.42	0.42	0.42	-	-	-	-
Chlorine	mg/G	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	-	-	-	-
HHV, dry basis	Btu/lb	-	-	-	-	-	-	-	-	-	-	-	-	11863	12172	12135	12056.667	-	-	-	-
Moisture	WT%	-	-	-	-	-	-	-	-	-	-	-	-	7.49	7.74	7.45	7.56	-	-	-	-
Hg Feed Rate	lb/hr	-	-	-	-	-	-	-	-	-	-	-	-	1.03E-02	1.07E-02	8.02E-03	9.65E-03	53.38%	80.34%	57.77%	64.51%
	mg/hr	-	-	-	-	-	-	-	-	-	-	-	-	4.66E+03	4.83E+03	3.64E+03	4.38E+03	53.38%	80.34%	57.77%	64.51%

Appendix B
Raw Field and Calibration Data Sheets

Appendix B – Section 1
Raw Field Data Sheets
UNIT 2

EPA REFERENCE METHOD 1
FIELD DATA SHEET

Firm Name:	APS Cholla Plant	Stack Diameter	88.5"
Plant Location:	Joseph, AZ	Sample Port Diameter	4"
Sampling Location:	Unit 2 Inlet	Sample Port Depth	18.5"
TRC Project No.:	25938	Distance Upstream	470"
Date:	11/4/99	Distance Downstream	77"
Technician:	BMS		



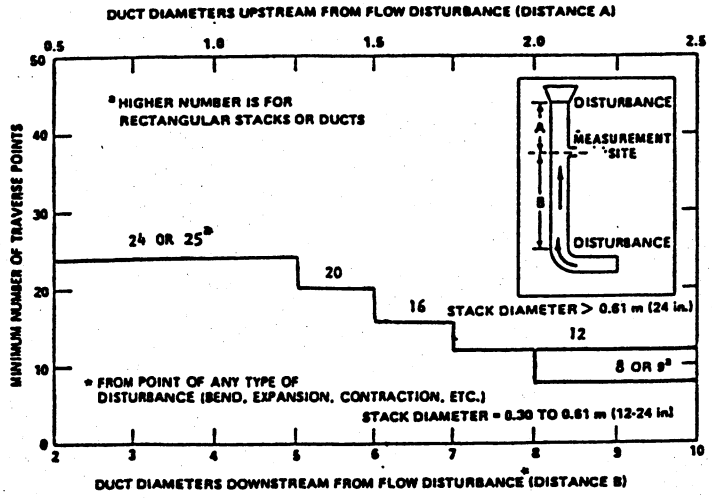
Traverse Point Number	Number Traverse Points On A Diameter											
	2	4	6	8	10	12	14	16	18	20	22	24
1	14.6	6.7	4.4	3.2	2.6	2.1	1.8	1.6	1.4	1.3	1.1	1.1
2	85.4	25.0	14.6	10.5	8.2	6.7	5.7	4.9	4.4	3.9	3.5	3.2
3		75.0	29.6	19.4	14.6	11.8	9.9	8.5	7.5	6.7	6.0	5.5
4		93.3	70.4	32.3	22.6	17.7	14.6	12.5	10.9	9.7	8.7	7.9
5			85.4	67.7	34.2	25.0	20.1	16.9	14.6	12.9	11.6	10.5
6			95.6	80.6	65.8	35.6	26.9	22.0	18.8	16.5	14.6	13.2
7				89.5	77.4	64.4	36.6	28.3	23.6	20.4	18.0	16.1
8				96.8	85.4	75.0	63.4	37.5	29.6	25.0	21.8	19.4
9					91.8	82.3	73.1	62.5	38.2	30.6	26.2	23.0
10					97.4	88.2	79.9	71.7	61.8	38.8	31.5	27.2
11						93.3	85.4	78.0	70.4	61.2	39.3	32.3
12						97.9	90.1	83.1	76.4	69.4	60.7	39.8
13							94.3	87.5	81.2	75.0	68.5	60.2
14							98.2	91.5	85.4	79.6	73.8	67.7
15								95.1	89.1	83.5	78.2	72.8
16								98.4	92.5	87.1	82.0	77.0
17									95.6	90.3	85.4	80.6
18									98.6	93.3	88.4	83.9
19										96.1	91.3	86.8
20										98.7	94.0	89.5
21											96.5	92.1
22											98.9	94.5
23												96.8
24												98.9

Traverse Points	
No.	Distance From Wall
1	25.88
2	40.63
3	55.38
4	70.13
5	84.88
6	99.63
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	

TRC

EPA REFERENCE METHOD 1
FIELD DATA SHEET

Firm Name:	APS - CHOLLA	Stack Diameter	176"
Plant Location:	JOSEPH CITY, AZ	Sample Port Diameter	4"
Sampling Location:	UNIT 2 - OUTLET	Sample Port Depth	6"
TRC Project No.:	25938	Distance Upstream	4164"
Date:	11-4-99	Distance Downstream	1707"
Technician:	R. SZKODA		



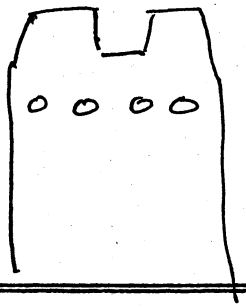
Traverse Point Number	Number Traverse Points On A Diameter											
	2	4	6	8	10	12	14	16	18	20	22	24
1	14.6	6.7	4.4	3.2	2.6	2.1	1.8	1.6	1.4	1.3	1.1	1.1
2	85.4	25.0	14.6	10.5	8.2	6.7	5.7	4.9	4.4	3.9	3.5	3.2
3		75.0	29.6	19.4	14.6	11.8	9.9	8.5	7.5	6.7	6.0	5.5
4		93.3	70.4	32.3	22.6	17.7	14.6	12.5	10.9	9.7	8.7	7.9
5			85.4	67.7	34.2	25.0	20.1	16.9	14.6	12.9	11.6	10.5
6			95.6	80.6	65.8	35.6	26.9	22.0	18.8	16.5	14.6	13.2
7				89.5	77.4	64.4	36.6	28.3	23.6	20.4	18.0	16.1
8				96.8	85.4	75.0	63.4	37.5	29.6	25.0	21.8	19.4
9					91.8	82.3	73.1	62.5	38.2	30.6	26.2	23.0
10					97.4	88.2	79.9	71.7	61.8	38.8	31.5	27.2
11						93.3	85.4	78.0	70.4	61.2	39.3	32.3
12						97.9	90.1	83.1	76.4	69.4	60.7	39.8
13							94.3	87.5	81.2	75.0	68.5	60.2
14							98.2	91.5	85.4	79.6	73.8	67.7
15								95.1	89.1	83.5	78.2	72.8
16								98.4	92.5	87.1	82.0	77.0
17									95.6	90.3	85.4	80.6
18									98.6	93.3	88.4	83.9
19										96.1	91.3	86.8
20										98.7	94.0	89.5
21											96.5	92.1
22											98.9	94.5
23												96.8
24												98.9

Traverse Points	
No.	Distance From Wall
1	13.75
2	31.68
3	58.13
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	

TRC

VELOCITY TRAVERSE

Plant: APS Cholla	Date: 11/4/99
Unit Number: Unit 2 inlet	Stack Diameter (in.): 88.5
Load Condition: Normal	Stack Gauge Pressure ("H_2O): -12.0
Run No.: 1	Operators: BDS & DC
Project No.: 25938	Start 9:52
Barometric Pressure at Ground Level ("Hg):	Stop 10:20
Pitot Tube ID:	
Pitot Tube Coefficient: 0.84	Port Change Pitot Leak Check — Pass / Fail
Estimated Stack CO_2%:___ O_2%:___ H_2O%:___	Port #1 ___ ___
Platform Elevation (feet):	Port #2 ___ ___
Schematic of Stack Cross Section:	Port #3 ___ ___
	Port #4 ___ ___



Traverse Point Number	Velocity Head (In H_2O)	Stack Temp. (F)
1-1	0.42	269
1-2	0.32	265
1-3	0.42	274
1-4	0.38	277
1-5	0.31	270
1-6	0.20	239
2-1	0.20	249
2-2	0.26	260
2-3	0.30	264
2-4	0.29	268
2-5	0.18	251
2-6	0.16	177
Average:		

Traverse Point Number	Velocity Head (In H_2O)	Stack Temp. (F)
3-1	0.20	233
3-2	0.28	252
3-3	0.32	256
3-4	0.31	260
3-5	0.26	258
3-6	0.14	~~223~~ 215 BDS 11/4/99
11/4/99 BDS 4-1	0.22	285
4-2	0.20	237
4-3	0.30	242
4-4	0.28	244
4-5	0.22	245
4-6	0.18	221
Average:		

Reference: 40 CFR 60, Appendix A, Method 2

TRC

EPA REFERENCE METHOD 1
Preliminary Traverse and Cyclonic Flow Check

Firm Name: APS
Plant Location: Cholla Power Plant
Technician:
Circular or Rectangular: C
Stack Diameter (in.): 176

Nipple Length (in.) 6

Stack Area (Ft^2)

9:23 –

Date: 11/04/99
Unit No.: Unit 2 Outlet
TRC Project No.: 25938

Diameters Upstream: 23.7
Diameters Downstream: 9.7
Flow or Particulate Test (F/P): P
Number of Test Ports: 4
Min. No. of Traverse Points Needed: 12
Number of Traverse Points To Use:

Port	Traverse Point	Delta P	Degrees To Null Pos.	Sqrt dP	T_s (°F)
EAST	1	2.9	02°		188
EAST	2	2.9	02°		188
EAST	3	2.1	12°		188
SOUTH	1	2.4	04°		188
SOUTH	2	2.8	07°		187
SOUTH	3	1.75	13°		188
WEST	1	2.5	03°		188
WEST	2	2.7	0°		188
WEST	3	2.7	12°		188
NORTH	1	2.35	7°		187
NORTH	2	2.2	2°		188
NORTH	3	2.1	16°		188
	Average				
	STATIC	-1.6			

EPA REFERENCE METHOD 3

Client	APS - CHOLLA
Plant Location	JOSEPH CITY, AZ
Job No	25938
Date	11-4-99

Orsat No	3008 - 008	
Leak Check initial	0	ml @ 0 minutes
final	0	ml @ 5 minutes
Pre-Test Ambient O2	20.8	

Run Number	Sample Location	IGS ID	Test No	Percent CO2	Percent CO2+O2	Percent O2	% Fo	% AE	Analyst
1	UNIT 2 OUTLET		1	13.2	19	5.8			Ramon Salinas
Sample Type	INTERGRATED		2	13.2	18.8	5.6			
Sample Time			3	13.4	19	5.6			
Analysis Time	20:13 - 20:25		Avg	13.27	18.93	5.7			

Run Number	Sample Location	IGS ID	Test No	Percent CO2	Percent CO2+O2	Percent O2	% Fo	% AE	Analyst
3	UNIT 2 - OUTLET		1	12.8	18.4	5.6			Ramon Salinas
Sample Type	INTERGRATED		2	12.2	18.4	6.2			
Sample Time			3	12.2	18.2	6.0			
Analysis Time	18:03 - 18:26		Avg	12.4	18.33	5.93			

Run Number	Sample Location	IGS ID	Test No	Percent CO2	Percent CO2+O2	Percent O2	% Fo	% AE	Analyst
2	UNIT 2 - OUTLET		1	13.4	18.6	5.2			Ramon Salinas
Sample Type	INTERGRATED		2	13.6	18.6	5.0			
Sample Time			3	13.6	18.8	5.2			
Analysis Time	14:32 - 14:43		Avg	13.53	18.67	5.13			

$Fo = (20.9 - \%O2)/\%CO2$

Fuel Type		Fo Range
Coal	Anthracite and Lignite	1.016–1.130
	Bituminous	1.083–1.230
Gas	Natural	1.600–1.836
	Propane	1.434–1.586
	Butane	1.405–1.553
Oil	Distillate	1.260–1.413
	Residual	1.210–1.370

Percent Excess Air

$$\%EA = \frac{\%O2 - 0.5\%CO}{0.264\%N2 - (\%O2 - 0.5\%CO)}$$

TRC

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EPA REFERENCE METHOD 3

Client	APS - CHOLLA
Plant Location	JOSEPH CITY, AZ
Job No	25938
Date	11-4-99

Orsat No	3008-008	
Leak Check initial	0.0	ml @ 0 minutes
final	0	ml @ 5 minutes
Pre-Test Ambient O2	20.8	

Run Number	Sample Location	IGS ID	Test No	Percent CO2	Percent CO2+O2	Percent O2	% Fo	% AE	Analyst
1	UNIT 2 - INLET		1	14	18.8	4.8			Roman Schuda
Sample Type	INTERGRATED		2	14	18.8	4.8			
Sample Time	12:18 - 18:59		3	13.8	18.4	4.6			
Analysis Time	20:00 - 20:12		Avg	13.93	18.67	4.73			

Run Number	Sample Location	IGS ID	Test No	Percent CO2	Percent CO2+O2	Percent O2	% Fo	% AE	Analyst
2	UNIT 2 - INLET		1	14.8	18.4	3.6			Roman Schuda
Sample Type	INTERGRATED		2	15.0	18.8	3.8			
Sample Time			3	14.8	18.8	4.0			
Analysis Time	14:47 - 15:30		Avg	14.87	18.67	3.8			

Run Number	Sample Location	IGS ID	Test No	Percent CO2	Percent CO2+O2	Percent O2	% Fo	% AE	Analyst
3	UNIT 2 - INLET		1	14.8	18.8	4.0			Roman Schuda
Sample Type	INTERGRATED		2	14.6	18.4	3.8			
Sample Time			3	14.4	18.6	4.2			
Analysis Time	~~17:40 - 19:25~~ 17:40 - 17:57		Avg	14.6	18.6	4.0			

Fo = (20.9−%O2)/%CO2

Fuel Type		Fo Range
Coal	Anthracite and Lignite	1.016–1.130
	Bituminous	1.083–1.230
Gas	Natural	1.600–1.836
	Propane	1.434–1.586
	Butane	1.405–1.553
Oil	Distillate	1.260–1.413
	Residual	1.210–1.370

Percent Excess Air

$$\%EA = \frac{\%O2 - 0.5\%CO}{0.264\%N2 - (\%O2 - 0.5\%CO)}$$

TRC

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Un it 2 Inlet Test Results Run 1 Field Data

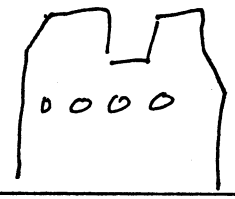
Isokinetic Data

Traverse Point Number	Pressure Head dP	dP-½	Meter Setting dH	Dry Gas Meter (ft³)	Stack Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F
A 1	0.360	0.6000	0.92	273.41	254	74	73
2	0.290	0.5385	0.81		262	94	72
3	0.420	0.6481	1.18		263	95	72
4	0.390	0.6245	1.09		264	79	72
5	0.330	0.5745	0.93		264	82	74
6	0.300	0.5477	0.84	290.45	264	83	75
B 1	0.320	0.5657	0.90	290.74	264	84	75
2	0.360	0.6000	1.01		273	87	80
3	0.410	0.6403	1.15		275	87	80
4	0.410	0.6403	1.15		278	86	81
5	0.370	0.6083	1.03		279	86	81
6	0.150	0.3873	0.44	307.29	244	87	82
C 1	0.250	0.5000	0.70	307.92	275	86	83
2	0.280	0.5292	0.77		290	87	83
3	0.300	0.5477	0.83		291	89	84
4	0.250	0.5000	0.69	317.3	293	89	84
5	0.280	0.5292	0.78	317.82	288	73	73
6	0.130	0.3606	0.35	323.2	273	75	72
D 1	0.440	0.6633	1.19	324.25	285	76	72
2	0.380	0.6164	1.02		289	78	72
3	0.480	0.6928	1.29		291	79	72
4	0.420	0.6481	0.13		292	80	73
5	0.340	0.5831	0.92		293	81	75
6	0.180	0.4243	0.49		281	81	76
				341.325			
Average	0.327	0.5654	0.86	65.425	276.0		79.9

Impingers	Initial	Final	Net
1	706.2	781.7	75.5
2	622.7	640.5	17.8
3	688.9	692.6	3.7
4	735.8	737.7	1.9
5	630.2	630.2	0.0
6	704.7	759.3	54.6
7	693.9	637.6	-56.3
8	778.5	793.7	15.2
	5560.9	5673.3	112.4

EPA REFERENCE METHOD 5

Pitot leak check Initial PASS
Final PASS

Client	APS Cholla Plant	Test Location Schematic	Sample Train No. #1 Filter No. N/A Run No. 1
Location	Joseph city, AZ		Leak Check Initial 0.002 cfm @ 15.5 "Hg
Job No.	25938		Final 0.004 cfm @ 11.5 "Hg
Date	11/4/99		Impinger: Initial / Final
Technician(s)	BOS		1: See Recovery sheet
Test Location	Unit 2 Inlet		2
		Stack Diam. 88.5" Stack Area 42.22	3
Meter Box No.	90394 Yd 1.028 dH@ 1.695	Port Size 4" Port Length 18.5"	4
Probe/Pitot No.	901 Cp 0.84	Barometric 25.05 Static Pressure -14.96"	Net Impinger Gain Vlc (g) 112.4
Nozzle No.	N/A Nozzle Diam 0.255	K-factor	Start Time 12:18 End Time 18:59 Theta 120

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
1-1	0	0.36	0.92	273.41 ~~273.015~~	254	252	248	59	74	73	3.5
1-2	5	0.29	0.81	276.21	262	254	251	58	74	72	3.0
1-3	10	0.42	1.18	277.82	263	254	255	56	75	72	4.5
1-4	15	0.39	1.09	282.01	264	252	254	55	79	72	5.5
1-5	20	0.33	0.93	284.92	264	252	252	55	82	74	6.0
1-6	25	0.30	0.84	287.75	264	254	253	55	83	75	6.5
2-1	30	0.32	0.90	290.45	264	251	256	56	84	75	4.5
2-2	35	0.36	1.01	293.61	273	254	251	55	87	80	5.0
2-3	40	0.41	1.15	296.62	275	253	254	54	87	80	5.5
2-4	45	0.41	1.15	299.05	278	252	252	57	86	81	6.5
2-5	50	0.37	1.03	302.17	279	267	261	57	86	81	7.0
2-6	55	0.15	0.44	305.16	244	273	273	58	87	82	5.0
	60			307.29							
Average											

All unuse port are sealed and the port in use is sealed around the probe.

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EPA REFERENCE METHOD 5

Client: APS Cholla Plant		Sample Train No. #1 Filter No. N/A Run No. 1
Location: Joseph City, AZ		
Job No. 25938		
Date 11/4/99		
Technician(s) BDS		
Test Location Unit 2 Inlet		

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
3-1	60	0.25	0.70	307.92	275	274	273	62	84	83	7.0
3-2	65	0.28	0.77	310.52	290	275	275	58	87	83	7.5
3-3	70	0.30	0.83	313.11	291	297	288	57	89	84	8.5
3-4	75	0.25	0.69	315.87	293	296	287	57	89	84	8.0
3-5	80	0.28	0.78	stop 317.30 / start 317.82	289	296	288	65	73	73	4.5
3-6	85	0.13	0.35	321.35	273	290	288	58	75	72	4.0
BDS 4-1	90	0.44	1.19	323.20 / 324.25	285	289	288	55	76	72	7.5
4-2	95	0.38	1.02	327.04	289	289	289	54	78	72	8.5
4-3	100	0.48	1.29	330.02	291	289	289	52	79	72	10.0
4-4	105	0.42	1.13 BDS 11/4/99	333.23	292	290	285	52	80	73	10.5
4-5	110	0.34	0.92	336.28	293	294	288	51	81	75	10.5
4-6	115	0.18	0.49	339.12	281	288	290	52	81	76	9.0
	120			341.325							
Average											

Unit 2 Outlet Field Data Run 1							
Traverse Point Number	Pressure Head dP	dP-½	Meter Setting dH	Dry Gas Meter (ft³)	Stack Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F
E-1	2.30	1.5166	1.56	982.84	188	76	75
E-1	2.30	1.5166	1.56		187	77	75
E-2	2.30	1.5166	1.56		188	78	76
E-2	2.30	1.5166	1.58		188	81	77
E-3	2.10	1.4491	1.44		189	82	78
E-3	2.10	1.4491	1.44		188	84	79
S-1	2.20	1.4832	1.51		189	83	81
S-1	2.20	1.4832	1.51		189	84	80
S-2	2.00	1.4142	1.38		189	86	81
S-2	2.00	1.4142	1.38		190	87	82
S-3	1.85	1.3601	1.28		189	87	82
S-3	1.85	1.3601	1.28		189	88	84
W-1	2.00	1.4142	1.38		188	87	85
W-1	2.00	1.4142	1.38		188	89	85
W-2	1.70	1.3038	1.19		187	90	86
W-2	1.70	1.3038	1.19		188	90	86
W-3	2.00	1.4142	1.38		191	87	87
W-3	2.00	1.4142	1.38		191	89	88
N-1	2.20	1.4832	1.52		189	90	88
N-1	2.20	1.4832	1.53		191	91	88
N-2	2.10	1.4491	1.46		190	93	89
N-2	2.10	1.4491	1.46		189	95	90
N-3	1.60	1.2649	1.12		188	95	91
N-3	1.70	1.3038	1.19	1067.68	188	95	91
Average	2.0478	1.4293	1.412	84.842	188.83		84.8

Impingers	Initial	Final	Net
1	696.5	866.9	170.4
2	699.7	737.6	37.9
3	604.8	611	6.2
4	703.6	705.2	1.6
5	716.4	716.1	-0.3
6	710.1	708.9	-1.2
7	696.3	698.2	1.9
8	782.7	801.4	18.7
	5610.1	5845.3	235.2

EPA REFERENCE METHOD 5

Client APS - Cholla	Test Location Schematic	Sample Train No. 4 Filter No. N/A Run No. 1	
Location ~~West~~ Joseph, City AZ	N, E, W, S; control Box	Leak Check Initial 0.016 cfm @ 15 "Hg	
Job No.		Final 0.009 cfm @ 10 "Hg	
Date 11-4-99		Impinger	Initial / Final
Technician(s) GP		1	See Recovery Sheet
Test Location Unit #2 stack		2	
	Stack Diam. 176 Stack Area	3	
Meter Box No. 3 Yd 1.045 dH@ 1.644	Port Size 4" Port Length 6"	4	
Probe/Pitot No. 601 Cp 0.84	Barometric 25.15 Static Pressure -1.6	Net Impinger Gain Vlc (g) 235.2	
Nozzle No. 61 - ~~unit #2~~ out Nozzle Diam. ~~0.0~~ 0.180	K-factor	Start Time 1218 End Time 1859 Theta 120	

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
E 1	0	2.3	1.56	982.840	188	249	257	65	76	75	4.0
1	5	2.3	1.56	986.78	187	249	254	66	77	75	4.0
2	10	2.3	1.56	990.5	188	248	255	64	78	76	4.0
	15	2.3	1.58	994.0	188	249	254	65	81	77	4.0
3	20	2.1	1.44	998.0	189	248	252	65	82	78	4.0
	25	2.1	1.44	1001.48	188	249	254	62	84	79	4.0
S 1	30	2.2	1.51	1005.013	189	251	254	63	83	81	4.0
	35	2.2	1.51	1008.5	189	252	251	55	84	80	4.0
2	40	2.0	1.38	1012.2	189	250	253	56	86	81	4.0
	45	2.0	1.38	1015.7	190	250	253	55	87	82	4.0
3	50	1.85	1.28	1019.15	189	251	254	54	87	82	4.0
	55	1.85	1.28	1022.55	189	250	253	56	88	81	4.0
	60			1025.944							
Average											

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EPA REFERENCE METHOD 5

Client	APS - Cholla
Location	Joseph City, AZ
Job No.	25938
Date	11-4-99
Technician(s)	SP
Test Location	Unit #2 Stack

Sample Train No. 4 Filter No. N/A Run No. 1

Port change — 1248 to 1252

Port change — 1302 to 1326

Test stop - Lost coal feed — 1341 to 1812

Port change — 1824 to 1830

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
W 1	60	2.0	1.38	1025.944	188	250	253	61	87	85	4.0
	65	2.0	1.38	1029	188	251	251	60	89	85	4.0
2	70	1.7	1.19	1032.69	187	252	251	60	90	86	3.5
	75	1.7	1.19	1036.478	188	249	252	61	90	86	3.5
3	80	2.0	1.38	1039.71	191	248	252	66	87	87	4.5
	85	2.0	1.38	1043.22	191	251	253	63	89	88	4.5
N 1	90	2.2	1.52	1046.728	189	250	251	67	90	88	5.0
	95	2.2	1.53	1050.34	191	245	251	64	91	88	5.0
2	100	2.1	1.46	1054.0	190	249	250	63	93	89	5.0
	105	2.1	1.46	1057	189	252	252	63	95	90	5.0
3	110	1.6	1.12	1061.1	188	251	251	63	95	91	4.0
	115	1.7	1.19	1064.4	188	250	253	62	95	91	4.0
	120			1067.682							
Average											

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Un it 2 Inlet Test Results Run 2 Field Data

Isokinetic Data

Traverse Point Number	Pressure Head dP	dP-½	Meter Setting dH	Dry Gas Meter (ft³)	Stack Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F
A 1	0.470	0.6856	1.23	344.25	274	48	45
2	0.380	0.6164	0.99		279	50	45
3	0.480	0.6928	1.23		284	54	46
4	0.450	0.6708	1.05		285	57	47
5	0.350	0.5916	0.82		288	60	49
6	0.250	0.5000	0.59	360.81	283	61	51
B 1	0.280	0.5292	0.68	361.61	275	63	57
2	0.350	0.5916	0.85		281	69	60
3	0.370	0.6083	0.90		281	68	61
4	0.350	0.5916	0.85		279	67	63
5	0.260	0.5099	0.63		278	68	63
6	0.100	0.3162	0.25	376.59	272	69	64
C 1	0.300	0.5477	0.75	383.61	272	83	81
2	0.330	0.5745	0.83		276	86	81
3	0.340	0.5831	0.86		275	90	83
4	0.330	0.5745	0.84	397.96	275	93	85
5	0.260	0.5099	0.67	398.21	273	95	87
6	0.150	0.3873	0.61	400.4	272	95	90
D 1	0.290	0.5385	0.74	401.06	271	88	90
2	0.310	0.5568	0.79		268	87	89
3	0.440	0.6633	1.12		277	89	87
4	0.360	0.6000	0.90		285	89	87
5	0.340	0.5831	0.85		287	89	86
6	0.260	0.5099	0.65		282	88	86
				417.420			
Average	0.325	0.5639	0.82	64.850	278.0		72.7

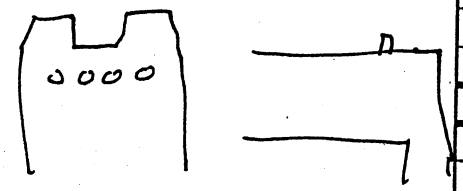
Impingers	Initial	Final	Net
1	697.7	729	31.3
2	705.4	764.5	59.1
3	693.3	704.8	11.5
4	710.6	713	2.4
5	717.3	717.9	0.6
6	712	711.4	-0.6
7	701.4	701.7	0.3
8	854.2	870.7	16.5
	5791.9	5913.0	121.1

EPA REFERENCE METHOD 5

pitot leak check initial PASS
Final PASS

Client	APS Cholla Plant
Location	Joseph City, AZ
Job No.	25938
Date	11/5/99
Technician(s)	BDS
Test Location	Unit 2 Inlet
Meter Box No.	9039F Yd 1.028 dH@ 1.695
Probe/Pitot No.	901 Cp 0.84
Nozzle No.	N/A Nozzle Diam. 0.255

Test Location Schematic



Stack Diam.	88.5"	Stack Area	
Port Size	4"	Port Length	18.5"
Barometric	25.2	Static Pressure	-14.96"
K-factor			1.1 vacuum

Sample Train No.	#2	Filter No.	Run No. 2
Leak Check Initial	0.014 cfm @	15.5 "Hg	
Final	0.006 cfm @	9.0 "Hg	

Impinger	Initial	Final
1	See Recovery Sheet	
2		
3		
4		

Net Impinger Gain	Vlc (g) 121.1		
Start Time 8:28	End Time 12:29	Theta 120	

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
1-1	0	0.47	1.23	344.25	274	278	290	46	48	45	4.0
1-2	5	0.38	0.99	347.00	279	283	283	45	50	45	4.0
1-3	10	0.48	1.23	349.88	284	286	277	43	54	46	5.0
1-4	15	0.45	1.05	352.97	285	285	284	44	57	47	5.5
1-5	20	0.35	0.82	355.92	288	286	291	44	60	49	5.0
1-6	25	0.25	0.59	358.51	283	286	284	44	61	51	4.5
2-1	30	0.28	0.68	360.81/361.61	275	288	291	46	63	57	5.5
2-2	35	0.35	0.85	364.25	281	290	290	45	69	60	7.0
2-3	40	0.37	0.90	366.99	281	287	288	45	68	61	7.5
2-4	45	0.35	0.85	369.79	279	290	290	46	67	63	9.0
2-5	50	0.26	0.63	372.54	278	290	287	46	68	63	8.0
2-6	55	0.10	0.25	375.00	272	288	289	47	69	64	5.5
	60			376.59							
Average											

EPA REFERENCE METHOD 5

Client APS Cholla Plant		Sample Train No. #2 Filter No. w/4 Run No. 2
Location Joseph City, AZ		
Job No. 25938		
Date 11/4/99		
Technician(s) BDS		
Test Location unit 2 Inlet		

during port change a u-tube on the train was moved by the rope. fix u-tube and did a leak check PASSed. The nozzle was broken and replaced nozzle and leak check also replaced filter. 0.0060@15"Hg

stopped leak check 0.016@10"Hg

11:12 Restart

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
3-1	60	0.30	~~0.93~~ 0.75	383.61 ~~387.64~~ 11/5/99	272	296	284	59	83	81	3.0
3-2	65	0.33	0.83	387.25	276	292	288	54	86	81	3.0
3-3	70	0.34	0.86	389.99	275	293	285	54	90	83	3.0
3-4	75	0.33	0.84	392.76	275	291	287	53	93	85	4.0
3-5	80	0.26	0.67	395.51	273	294	288	53	95	87	4.0
3-6	85	0.15	0.61	397.96/398.21	272	278	276	63	95	90	3.5
4-1	90	0.29	0.74	400.40/401.06	271	278	277	63	88	90	4.0
4-2	95	0.31	0.79	403.62	269	274	276	57	87	89	4.0
4-3	100	0.44	1.12	406.36	277	276	275	54	89	87	6.0
4-4	105	0.36	0.90	409.37	285	275	275	53	89	87	7.0
4-5	110	0.34	0.85	412.21	287	276	278	54	89	86	8.5
4-6	115	0.26	0.65	414.98	282	277	277	55	88	86	8.5
	120			417.42							
Average				64.85							

11:41 stop - Restart 11:50

TRC

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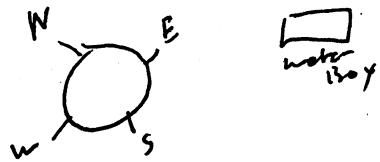
Unit 2 Outlet Field Data Run 2							
Traverse Point Number	Pressure Head dP	dP-½	Meter Setting dH	Dry Gas Meter (ft³)	Stack Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F
N-1	2.30	1.5166	1.56	68.000	188	74	73
N-1	2.30	1.5166	1.56		188	76	74
N-2	2.20	1.4832	1.50		189	78	74
N-2	2.20	1.4832	1.50		189	80	76
N-3	1.80	1.3416	1.23		188	80	76
N-3	1.80	1.3416	1.23		188	80	76
W-1	2.30	1.5166	1.56		188	79	76
W-1	2.30	1.5166	1.56		189	81	77
W-2	2.30	1.5166	1.56		188	80	76
W-2	2.30	1.5166	1.56		187	81	77
W-3	1.90	1.3784	1.30		187	81	77
W-3	1.90	1.3784	1.30		187	81	76
S-1	2.30	1.5166	1.56		188	79	77
S-1	2.30	1.5166	1.56		187	71	70
S-2	1.80	1.3416	1.23		189	74	71
S-2	1.80	1.3416	1.23		189	82	78
S-3	1.50	1.2247	1.03		189	83	79
S-3	1.50	1.2247	1.03	131.584	188	84	79
E-1	2.20	1.4832	1.80	132.014	188	75	73
E-1	2.20	1.4832	1.80		188	77	73
E-2	1.70	1.3038	1.39		187	76	73
E-2	1.70	1.3038	1.39		187	76	73
E-3	1.50	1.2247	1.22		188	79	75
E-3	1.5	1.2247	1.22	153.762	188	79	76
Average	2.0043	1.4118	1.420	85.332	188.00		76.9

Impingers	Initial	Final	Net
1	614.3	780.4	166.1
2	702.2	747.4	45.2
3	696.1	705	8.9
4	647.1	651.2	4.1
5	742.5	742.8	0.3
6	709.7	708.8	-0.9
7	706.5	707.3	0.8
8	856.6	876.5	19.9
	5675.0	5919.4	244.4

EPA REFERENCE METHOD 5

Client APS - Cholla	Test Location Schematic	Sample Train No. 5	Filter No. NA	Run No. 2
Location Joseph City, AZ		Leak Check Initial 0.010 cfm @ 15 "Hg	
Job No.		Final 0.007 cfm @ 10 "Hg	
Date 11/5/99		Impinger	Initial	Final
Technician(s) SP		1	See Recovery Sheet	
Test Location Unit #2 Stack		2		
	Stack Diam. 176 Stack Area	3		
Meter Box No. 3 Yd 1.045 dH@1.644	Port Size 4" Port Length 6"	4		
Probe/Pitot No. 601 Cp 0.84	Barometric 25.10 Static Pressure -1.6	Net Impinger Gain Vlc (g) 244.4		
Nozzle No. 4 unit #2 Nozzle Diam. .180	K-factor	Start Time 828 End Time 929 Theta 120		



Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
N 1	0	2.3	1.56	68.000	188	256	264	56	74	73	5.5
	5	2.3	1.56	72.0	188	258	264	55	76	74	5.5
2	10	2.2	1.50	75.71	189	251	263	55	78	74	5.0
	15	2.2	1.50	79.3	189	256	263	56	80	76	5.0
3	20	1.8	1.23	83.11	188	256	261	56	80	76	4.5
	25	1.8	1.23	86.58	188	259	262	57	80	76	4.5
W 1	30	2.3	1.56	90.011	188	257	263	58	79	76	5.5
	35	2.3	1.56	93.52	189	261	266	59	81	77	5.5
2	40	2.3	1.56	97.20	188	264	267	59	80	76	5.5
	45	2.3	1.56	100.0	187	263	267	59	81	77	5.5
3	50	1.9	1.30	104.55	187	264	268	60	81	77	5.0
	55	1.9	1.30	107.92	187	262	267	60	81	76	5.0
	60			111.390							
Average											

EPA REFERENCE METHOD 5

Client	APS - Cholla
Location	Joseph City, AZ
Job No.	
Date	11/5/99
Technician(s)	SP
Test Location	unit #2 stack

Sample Train No. 5 Filter No. n/A Run No. 2

Port change 0850 to 0900 ~~0900~~

Port change 0930 to 0933

Stop test at 0937 to 1112

Port and nozzle change 1142 to 1150

(volume - 131.584 - 132.014 = 0.43 ft³)

Leak check on new nozzle - nozzle size for .188

Broken nozzle Rinsed and Brushed

Port E - nozzle size 0.188

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
5 1	60	2.3	1.56	111.390	188	263	266	62	79	77	5.5
	65	2.3	1.56	115.03	187	258	264	67	71	70	5.5
2	70	1.8	1.23	118.8	189	257	262	61	74	71	5.5
	75	1.8	1.23	122	189	264	270	66	82	78	5.5
3	80	1.5	1.03	125.57	188	264	270	67	83	79	4.5
	85	1.5	1.03	128.60	188	263	270	67	84	79	4.5
E 1	90	2.2	1.80	131.584	188	262	273	65	75	73	5.5
	95	2.2	1.80	135.5	188	262	271	63	77	73	5.5
2	100	1.7	1.39	139.6	187	257	264	62	76	73	5.0
	105	1.7	1.39	142.7	187	257	261	62	76	73	5.0
3	110	1.5	1.22	146.7	188	257	263	67	79	75	5.0
	115	1.5	1.22	150.4	188	256	261	67	79	76	5.0
	120			153.762							
Average											

Un it 2 Inlet Test Results Run 3 Field Data

Isokinetic Data

Traverse Point Number	Pressure Head dP	dP-½	Meter Setting dH	Dry Gas Meter (ft³)	Stack Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F
A 1	0.240	0.4899	0.62	418.03	263	84	84
2	0.250	0.5000	0.64		269	81	83
3	0.400	0.6325	1.02		269	83	81
4	0.350	0.5916	0.89		270	84	81
5	0.280	0.5292	0.71		270	87	81
6	0.260	0.5099	0.67	433.45	266	87	81
B 1	0.250	0.5000	0.64	434.27	269	86	83
2	0.340	0.5831	0.86		273	87	83
3	0.360	0.6000	0.92		275	89	84
4	0.340	0.5831	0.86		278	90	84
5	0.300	0.5477	0.76		279	90	85
6	0.250	0.5000	0.64	450.43	263	90	86
C 1	0.250	0.5000	0.64	451.36	275	90	87
2	0.320	0.5657	0.80		291	91	87
3	0.360	0.6000	0.90		293	91	87
4	0.340	0.5831	0.85		293	91	88
5	0.200	0.4472	0.50		291	90	88
6	0.180	0.4243	0.46	466.51	270	91	89
D 1	0.380	0.6164	0.96	468.68	279	87	87
2	0.310	0.5568	0.77		293	89	86
3	0.400	0.6325	1.00		294	91	86
4	0.410	0.6403	1.03		297	93	86
5	0.350	0.5916	0.88		299	94	86
6	0.200	0.4472	0.53		276	95	87
				485.45			
Average	0.3050	0.5488	0.77	65.670	279.0		86.9

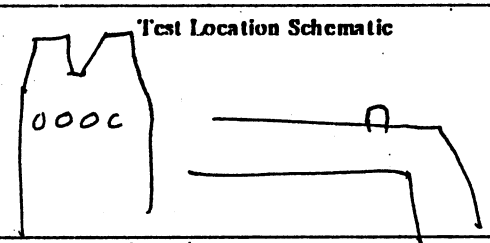
Impingers	Initial	Final	Net
1	709	770.5	61.5
2	623.3	646.4	23.1
3	688.6	743	54.4
4	735.3	742.4	7.1
5	630.2	695	64.8
6	707.6	648.3	-59.3
7	691.9	633.3	-58.6
8	745.3	764.7	19.4
	5531.2	5643.6	112.4

EPA REFERENCE METHOD 5

Pitot leak check Initial PASS Final PASS

Client	APS Cholla Plant	Sample Train No.	#1 Filter No. N/A Run No. 3
Location	~~St Joseph~~ Joseph City, AZ	Leak Check Initial	0.005 cfm @ 15.5 "Hg
Job No.	25938	Final	cfm @ 6.5 "Hg
Date	11/4/99	Impinger	Initial / Final
Technician(s)	BDS	1	See Recovery Sheet pg
Test Location	Unit 2 Inlet	2	
		3	
Meter Box No.	90394 Yd 1.028 dH@ 1.695	4	
Probe/Pitot No.	901 Cp 0.84	Net Impinger Gain	Vlc (g) 412.4
Nozzle No.	N/A Nozzle Diam. 0.255	Start Time	13:14 End Time 15:40 Theta 120

Test Location Schematic



Stack Diam.	88.5"	Stack Area	42.72
Port Size	4"	Port Length	18.5"
Barometric	25.5	Static Pressure	-17.68
K-factor			

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
1-1	0	0.24	0.62	418.03	263	278	282	68	84	84	3.0
1-2	5	0.25	0.64	420.42	269	280	281	68	81	83	3.0
1-3	10	0.40	1.02	423.70	269	279	281	64	83	81	4.0
1-4	15	0.35	0.89	425.69	270	279	283	64	84	81	4.5
1-5	20	0.28	0.71	428.45	270	282	281	65	87	81	5.0
1-6	25	0.26	0.67	430.97	264	280	281	65	87	81	5.5
2-1	30	0.25	0.64	433.45/434.27	269	284	284	66	86	83	6.5
2-2	35	0.34	0.86	436.74	273	284	284	65	87	83	8.5
2-3	40	0.36	0.92	439.54	275	284	282	63	89	84	9.0
2-4	45	0.34	0.86	442.43	278	283	284	63	90	84	10.5
2-5	50	0.30	0.76	445.24	279	284	284	63	90	85	10.5
2-6	55	0.25	0.64	447.72	267	281	273	65	90	86	10.0
	60			450.43							
Average											

All ports not in use were sealed during test. The port in use was sealed around the probe.

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TRC

EPA REFERENCE METHOD 5

Client APS Cholla Plant		Sample Train No. #1 Filter No. N/A Run No. 3
Location Joseph City, AZ		
Job No. 25938		
Date 11/5/99		
Technician(s) BDS		
Test Location Unit 2 Inlet		

* changed filter BDS 11/5/99 ~~Final~~ Final leak check 0.006 @ 17" Hg
initial leak check
Stop 15:00 - Start 15:10 0.009 @ 15" Hg

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
3-1	60	0.25	0.64	451.36	275	282	276	66	90	87	10.0
3-2	65	0.32	0.80	453.82	291	283	276	64	91	87	13.0
3-3	70	0.36	0.90	456.42	293	286	276	65	91	87	14.5
3-4	75	0.34	0.85	459.52	293	281	278	66	91	88	16.0
3-5	80	0.20	0.50	462.19	291	282	277	68	90	88	11.5
3-6	85	0.18	0.46	464.39	270	281	275	61	91	89	11.5
4-1	90	* ~~0.41~~ 0.38	~~1.05~~ 0.96	466.51 / ~~467.22~~ 468.68	279	280	278	60	87	87	3.5
4-2	95	0.31	0.79	471.55	293	283	275	54	89	86	3.0
4-3	100	0.40	1.00	474.25	294	282	275	53	91	86	4.0
4-4	105	0.41	1.03	477.31	297	289	284	53	93	86	5.0
4-5	110	0.35	0.88	480.33	299	295	298	54	94	86	5.5
4-6	115	0.21	0.53	483.17	276	294	298		95	87	5.0
	120			485.95							
Average											

TRC

Unit 2 Outlet Field Data Run 3							
Traverse Point Number	Pressure Head dP	dP-½	Meter Setting dH	Dry Gas Meter (ft³)	Stack Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F
E-1	2.400	1.5492	1.58	154.351	189	83	82
E-1	2.200	1.4832	1.45		188	84	82
E-2	2.400	1.5492	1.58		188	88	83
E-2	2.400	1.5492	1.58		188	89	84
E-3	2.000	1.4142	1.32		188	89	84
E-3	2.000	1.4142	1.32		188	89	85
S-1	2.200	1.4832	1.58		188	82	79
S-1	2.200	1.4832	1.58		188	83	79
S-2	2.000	1.4142	1.32		188	85	80
S-2	2.000	1.4142	1.32		188	86	81
S-3	1.700	1.3038	1.12		187	87	81
S-3	1.700	1.3038	1.12		187	86	82
W-1	2.200	1.4832	1.45		188	85	81
W-1	2.200	1.4832	1.45		188	85	82
W-2	2.200	1.4832	1.45		188	87	83
W-2	2.200	1.4832	1.45		188	88	83
W-3	1.9	1.3784	1.26		188	87	83
W-3	1.9	1.3784	1.26		188	87	83
N-1	2	1.4142	1.32		188	85	82
N-1	2	1.4142	1.32		188	86	85
N-2	2	1.4142	1.32		187	87	84
N-2	2	1.4142	1.32		188	87	84
N-3	1.8	1.3416	1.19		187	88	84
N-3	1.8	1.3416	1.19	238.612	188		
Average	2.0583	1.4330	1.369	84.261	187.88		84.3

Impingers	Initial	Final	Net
1	700.3	865.7	165.4
2	696.9	740.4	43.5
3	604.1	613.8	9.7
4	705	709.3	4.3
5	715.3	714.6	-0.7
6	709.9	709.1	-0.8
7	695.8	696.7	0.9
8	729.9	747.4	17.5
	5557.2	5797.0	239.8

EPA REFERENCE METHOD 5

Client	APS - Cholla	Test Location Schematic	Sample Train No. 4 Filter No. N/A Run No. 3
Location	Joseph City AZ	N E W S meter Box	Leak Check Initial 0.006 cfm @ 15 "Hg
Job No.			Final cfm @ "Hg
Date	11-5-95		Impinger: Initial / Final
Technician(s)	SP		1: See Recovery Sheet
Test Location	Unit #2 Stack		2
		Stack Diam. 176 Stack Area	3
Meter Box No. 3	Yd 1.0615 dH@ 1.694	Port Size 4" Port Length 6"	4
Probe/Pitot No. 601	Cp 0.84	Barometric 25.10 Static Pressure -1.6	Net Impinger Gain Vlc (g) 239.8
Nozzle No.	Nozzle Diam. 0.178	K-factor	Start Time 1314 End Time 1515 Theta 120 min

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
E-1	0	2.4	1.58	154.351	189	256	264	67	83	82	3.0
1	5	2.2	1.48	158.11	188	264	267	67	84	82	3.0
2	10	2.4	1.58	161.75	188	264	267	65	88	83	3.0
	15	2.4	1.58	164	188	263	265	64	89	84	3.0
3	20	2.0	1.32	169	188	261	262	65	89	84	3.0
	25	2.0	1.32	172.67	188	260	263	65	89	85	3.0
S-1	30	2.2	1.58	176.201	188	257	261	67	82	79	3.0
	35	2.2	1.58	179.9	188	260	265	66	83	79	3.0
2	40	2.0	1.32	183.66	188	261	263	64	85	80	3.0
	45	2.0	1.32	187.05	188	258	262	59	86	81	3.0
3	50	1.7	1.12	190.50	187	257	262	58	87	81	2.5
	55	1.7	1.12	193.76	187	258	260	57	86	82	2.5
	60			197.050							
Average											

EPA REFERENCE METHOD 5

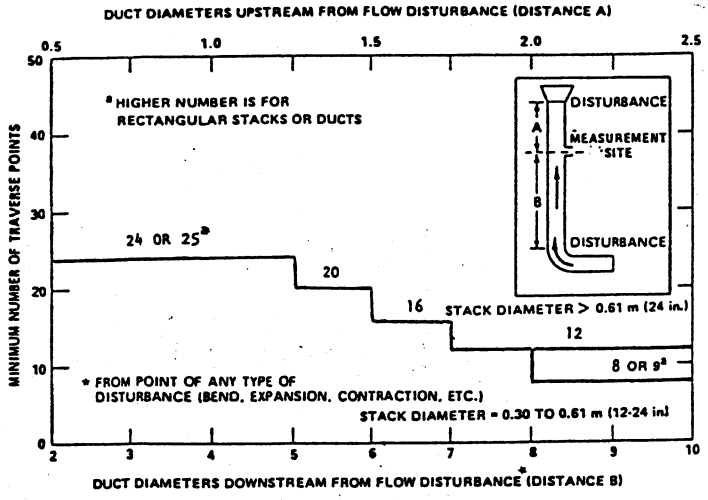
Client: APS Cholla		Sample Train No. 4 Filter No. 4/A Run No. 3
Location: Joseph City, AZ		Port change 1344 to 1346
Job No.		Port change 1416 to 1418
Date: 11-5-99		Port change 1448 to 1452
Technician(s): SD		Filter change restart 1510
Test Location: Unit #2 Stack		

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
W-1	60	2.2	1.45	197.050	188	261	263	62	85	81	3.0
	65	2.2	1.45	200.51	188	258	261	56	85	82	3.0
2	70	2.2	1.45	204.3	188	261	263	55	87	83	3.0
	75	2.2	1.45	208.1	188	260	265	54	88	83	3.0
3	80	1.9	1.26	211.42	188	261	261	56	87	83	3.0
	85	1.9	1.26	215.0	188	260	262	57	87	83	3.0
N 1	90	2.0	1.32	218.320	188	261	265	62	85	83	3.0
	95	2.0	1.32	221.9	187	260	264	62	86	85	3.0
2	100	2.0	1.32	225.4	188	261	265	60	87	84	3.0
	105	2.0	1.32	228.7	188	263	263	59	87	84	3.0
3	110	1.8	1.19	232.1	187	264	261	58	88	84	3.0
	115	1.8	1.19	235.30	188	266	260	60	88	84	3.0
	120			238.612							
Average											

TRC

EPA REFERENCE METHOD 1
FIELD DATA SHEET

Firm Name:	APS	Stack Diameter	27' x 4'6" 27" = 324"
Plant Location:	APS Challa	Sample Port Diameter	4"
Sampling Location:	unit 3 inlet	Sample Port Depth	19"
TRC Project No.:	25938	Distance Upstream	
Date:	11/1/99	Distance Downstream	
Technician:	BPS & DL		



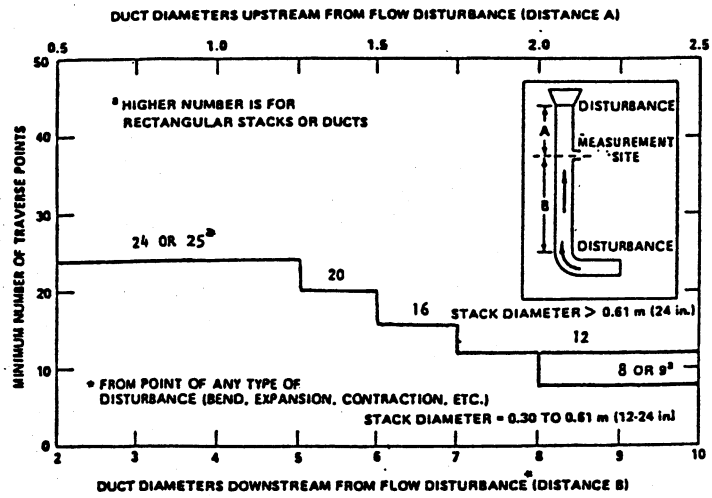
Traverse Point Number	Number Traverse Points On A Diameter											
	2	4	6	8	10	12	14	16	18	20	22	24
1	14.6	6.7	4.4	3.2	2.6	2.1	1.8	1.6	1.4	1.3	1.1	1.1
2	85.4	25.0	14.6	10.5	8.2	6.7	5.7	4.9	4.4	3.9	3.5	3.2
3		75.0	29.6	19.4	14.6	11.8	9.9	8.5	7.5	6.7	6.0	5.5
4		93.3	70.4	32.3	22.6	17.7	14.6	12.5	10.9	9.7	8.7	7.9
5			85.4	67.7	34.2	25.0	20.1	16.9	14.6	12.9	11.6	10.5
6			95.6	80.6	65.8	35.6	26.9	22.0	18.8	16.5	14.6	13.2
7				89.5	77.4	64.4	36.6	28.3	23.6	20.4	18.0	16.1
8				96.8	85.4	75.0	63.4	37.5	29.6	25.0	21.8	19.4
9					91.8	82.3	73.1	62.5	38.2	30.6	26.2	23.0
10					97.4	88.2	79.9	71.7	61.8	38.8	31.5	27.2
11						93.3	85.4	78.0	70.4	61.2	39.3	32.3
12						97.9	90.1	83.1	76.4	69.4	60.7	39.8
13							94.3	87.5	81.2	75.0	68.5	60.2
14							98.2	91.5	85.4	79.6	73.8	67.7
15								95.1	89.1	83.5	78.2	72.8
16								98.4	92.5	87.1	82.0	77.0
17									95.6	90.3	85.4	80.6
18									98.6	93.3	88.4	83.9
19										96.1	91.3	86.8
20										98.7	94.0	89.5
21											96.5	92.1
22											98.9	94.5
23												96.8
24												98.9

Traverse Points	
No.	Distance From Wall
1	29.13
2	49.38
3	69.63
4	89.88
5	110.13
6	130.34
7	150.63
8	170.88
9	191.13
10	211.38
11	231.63
12	251.88
13	272.13
14	292.38
15	312.63
16	332.88
17	
18	
19	
20	
21	
22	
23	
24	

TRC

EPA REFERENCE METHOD 1
FIELD DATA SHEET

Firm Name:	APS CHOLLA	Stack Diameter	210"
Plant Location:	JOSEPH CITY, AZ	Sample Port Diameter	4"
Sampling Location:	UNIT 3 OUTLET	Sample Port Depth	6"
TRC Project No.:	25938	Distance Upstream	19.8 (DIA)
Date:	11-1-99	Distance Downstream	8.1 (DIA)
Technician:	RS & SP		

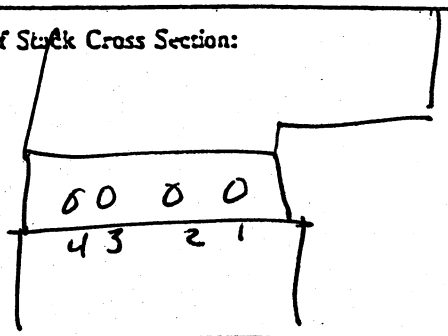


Traverse Point Number	Number Traverse Points On A Diameter											
	2	4	6	8	10	12	14	16	18	20	22	24
1	14.6	6.7	4.4	3.2	2.6	2.1	1.8	1.6	1.4	1.3	1.1	1.1
2	85.4	25.0	14.6	10.5	8.2	6.7	5.7	4.9	4.4	3.9	3.5	3.2
3		75.0	29.6	19.4	14.6	11.8	9.9	8.5	7.5	6.7	6.0	5.5
4		93.3	70.4	32.3	22.6	17.7	14.6	12.5	10.9	9.7	8.7	7.9
5			85.4	67.7	34.2	25.0	20.1	16.9	14.6	12.9	11.6	10.5
6			95.6	80.6	65.8	35.6	26.9	22.0	18.8	16.5	14.6	13.2
7				89.5	77.4	64.4	36.6	28.3	23.6	20.4	18.0	16.1
8				96.8	85.4	75.0	63.4	37.5	29.6	25.0	21.8	19.4
9					91.8	82.3	73.1	62.5	38.2	30.6	26.2	23.0
10					97.4	88.2	79.9	71.7	61.8	38.8	31.5	27.2
11						93.3	85.4	78.0	70.4	61.2	39.3	32.3
12						97.9	90.1	83.1	76.4	69.4	60.7	39.8
13							94.3	87.5	81.2	75.0	68.5	60.2
14							98.2	91.5	85.4	79.6	73.8	67.7
15								95.1	89.1	83.5	78.2	72.8
16								98.4	92.5	87.1	82.0	77.0
17									95.6	90.3	85.4	80.6
18									98.6	93.3	88.4	83.9
19										96.1	91.3	86.8
20										98.7	94.0	89.5
21											96.5	92.1
22											98.9	94.5
23												96.8
24												98.9

Traverse Points	
No.	Distance From Wall
1	15 4/16
2	36 11/16
3	68 3/16
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	

TRC

Plant: APS Cholla	Date: 11/1/99
Unit Number: 3	Stack Diameter (in.): 27'X 11'6"
Load Condition:	Stack Gauge Pressure ("H_2O): 4.0
Run No.: 1	Operators: BDS & DL
Project No.:	Start 16:03
Barometric Pressure at Ground Level ("Hg):	End 16:22
Pitot Tube ID:	
Pitot Tube Coefficient:	Port Change Pitot Leak Check Pre (Pass) Fail
Estimated Stack CO_2%:___ O_2%:___ H_2O%:___	Port #1 final ___ ___
Platform Elevation (feet):	Port #2 ___ ___
Schematic of Stack Cross Section:	Port #3 ___ ___
	Port #4 ___ ___



	Traverse Point Number	Velocity Head (In H_2O)	Stack Temp. (F)
Port 1	1	0.21	683
	2	0.32	683
	3	0.31	682
	4	0.49	682
	5	0.36	681
	6	0.14	643
Port 2	1	0.29	684
	2	0.42	685
	3	0.31	686
	4	0.37	685
	5	0.12	657
	6	0.13	664
	Average:		

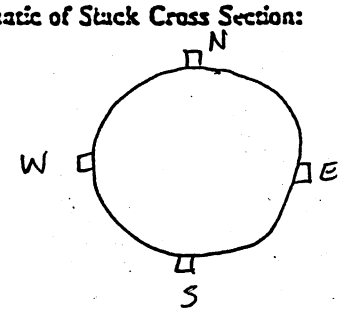
	Traverse Point Number	Velocity Head (In H_2O)	Stack Temp. (F)
Port 3	1	0.27	681
	2	0.34	683
	3	0.28	682
	4	0.28	681
	5	0.26	681
	6	0.11	677
Port 4	1	0.30	677
	2	0.41	681
	3	0.27	681
	4	0.30	681
	5	0.30	682
	6	0.27	675
	Average:		

Reference: 40 CFR 60, Appendix A, Method 2

TRC

VELOCITY TRAVERSE

Plant: APS - CHOLLA	Date: 11-1-99
Unit Number: UNIT #3 OUTLET	Stack Diameter (in.): 210"
Load Condition:	Stack Gauge Pressure ("H_2O): - 1.9
Run No.: 1	Operators: RS & SP
Project No.: 25938	START: 14:28
Barometric Pressure at ~~Ground~~ STACK Level ("Hg): 25.1	END: 14:43
Pitot Tube ID: 601	CYCLONIC: 14:44 - 14:59
Pitot Tube Coefficient: 0.84	Port Change Pitot Leak Check — Pass / Fail
Estimated Stack CO_2%:___ O_2%:___ H_2O%:___	Port #1 ___ ___
Platform Elevation (feet): 203	Port #2 ___ ___
Schematic of Stack Cross Section:	Port #3 ___ ___
	Port #4 ___ ___



Traverse Point Number		Velocity Head (In H_2O)	Stack Temp. (F)	
EAST	1	1.50	314	0°
	2	1.50	314	1°
	3	1.50	314	2°
	4	1.30	314	3°
	5	0.95	314	5°
SOUTH ~~WEST~~ RS	1	1.45	314	8°
	2	1.40	314	0°
	3	1.30	314	4°
	4	1.20	314	7°
	5	0.80	314	6°
Average:				

Traverse Point Number		Velocity Head (In H_2O)	Stack Temp. (F)	
WEST	1	1.40	314	4°
	2	1.40	314	8°
	3	1.40	314	10°
	4	1.25	314	10°
	5	0.96	314	9°
NORTH	1	1.60	314	7°
	2	1.55	314	11°
	3	1.45	315	7°
	4	1.15	314	10°
	5	0.87	314	10°
Average:				

Reference: 40 CFR 60, Appendix A, Method 2

TRC

Appendix B – Section 1
Raw Field Data Sheets
UNIT 3

Unit 3 Inlet Test Results Run 1 Field Data

Isokinetic Data

Traverse Point Number	Pressure Head dP	dP-½	Meter Setting dH	Dry Gas Meter (ft³)	Stack Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F
A 1	0.320	0.5657	0.58	76.6	685	89	84
2	0.440	0.6633	0.80		684	90	84
3	0.380	0.6164	0.69		684	93	84
4	0.360	0.6000	0.66		682	95	86
5	0.330	0.5745	0.61		682	96	86
6	0.330	0.5745	0.61		682	98	87
B 1	0.330	0.5745	0.22		684	93	92
2	0.380	0.6164	0.19		686	101	94
3	0.200	0.4472	0.50		681	98	97
4	0.260	0.5099	0.69		681	101	98
5	0.230	0.4796	0.53		681	105	98
6	0.180	0.4243	0.30		681	106	98
C 1	0.300	0.5477	0.57		682	106	102
2	0.450	0.6708	0.86		682	108	102
3	0.350	0.5916	0.67		684	111	103
4	0.200	0.4472	0.39		682	112	105
5	0.340	0.5831	0.65		682	112	105
6	0.190	0.4359	0.37		676	113	106
D 1	0.340	0.5831	0.65		685	108	106
2	0.400	0.6325	0.76		686	108	106
3	0.340	0.5831	0.66		687	110	106
4	0.490	0.7000	0.93		687	110	105
5	0.390	0.6245	0.75		685	111	105
6	0.110	0.3317	0.22		685	109	104
				132.265			
Average	0.318	0.5574	0.58	55.665	683.2		100.5

Impingers	Initial	Final	Net
1	704.4	782.1	77.7
2	695.4	705.3	9.9
3	696.5	698.4	1.9
4	709.7	711.8	2.1
5	711.5	712.7	1.2
6	712.8	707.5	-5.3
7	696.5	701	4.5
8	849.3	861.6	12.3
	5776.1	5880.4	104.3

EPA REFERENCE METHOD 5

Pitot leak check initial (PASS) Final (PASS)

Client	APS Cholla Plant	Test Location Schematic	Sample Train No. #2 Filter No. N/A Run No. 1
Location	BDS ~~Unit 3 inlet~~ Holbert, AZ 11/2/99		Leak Check Initial 0.010 cfm @ 15.5 "Hg
Job No.	5938		Final 0.008 cfm @ 10.0 "Hg
Date	11/2/99		Impinger: Initial / Final
Technician(s)	BDS		1: See Recovery sheet
Test Location	unit 3 inlet		2
		Stack Diam. 27' x 11'6" Stack Area	3
Meter Box No.	10394 Yd 1.028 dH@ 1.695	Port Size 4" Port Length 19"	4
Probe/Pitot No.	301 Cp 0.84	Barometric 25.25 "Hg Static Pressure -4.2	Net Impinger Gain Vlc (g) 104.3
Nozzle No.	N/A Nozzle Diam. ~~0.265~~ BDS 0.255 11/2/99	K-factor	Start Time 12:20 End Time 15:50 Theta 120

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F *	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
1-1	0	0.32	0.58	766.00 BDS	685	226	312	61	89	84	2.5
1-2	5	0.44	0.80	792.3	684	257	322	57	90	84	3.0
1-3	10	0.38	0.69	816.2	684	284	~~330~~ BDS 11/2/99 332	53	93	84	3.5
1-4	15	0.36	0.66	839.2	682	284	334	51	95	86	4.0
1-5	20	0.33	0.61	86.43	682	275	339	51	96	86	4.5
1-6	25	0.33	0.61	88.83	682	275	331	51	98	87	5.0
2-1	30	* ~~0.33~~ BDS 11/2/99	0.22	91.235 ~~91.12~~ BDS 11/2/99	684	241	325	65	93	92	2.5
2-2	35	* ~~0.38~~ BDS 11/2/99	0.19	92.93	686	263	323	63	101	74	2.5
2-3	40	0.20	0.50	94.365	681	264	333	53	98	97	4.5
2-4	45	0.26	0.69	96.55	681	273	332	52	101	98	5.5
2-5	50	0.23	0.53	BDS 11/2/99 ~~98.~~ 99.05	681	273	333	50	105	98	5.5
2-6	55	0.18	0.30	101.29	681	279	333	51	106	98	5.0
	60			103.395							
Average											

Pitot leak check PASS

* probe temperature is not accurate due to loose of thermal couple. Stack temperature is 684 and there is constant heat applied to the probe.

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TRC

Stop 13:09
Restart 14:06 melted pitot line and re check points. all port sealed when not in use.

EPA REFERENCE METHOD 5

Client: APS Cholla Plant		Sample Train No. #2 Filter No. N/A Run No. 1
Location: Hoobert, AZ		
Job No.: 25938		
Date: 11/2/99		
Technician(s): BDS		
Test Location: Unit 3 inlet		

port in use was sealed around the probe

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH BDS 11/2/99	Dry Gas Meter Reading (ft³)	Stack Temp 682°F	Probe Temp °F BDS 11/2/99	Filter Temp °F BDS 11/2/99	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
3-1	60	0.30	0.~~57~~85	103.395	~~227~~ BDS	~~324~~ 227	~~326~~ 324 BDS 11/2/99	58	106	102	4.0
3-2	65	0.45	0.86	105.77	682 11/2/99	241	320	52	108	102	6.0
3-3	70	0.35	0.67	107.97	684	270	330	50	111	103	5.0
3-4	75	0.20	0.39	111.00	682	275	333	50	112	BDS 11/2/99 105	4.5
3-5	80	0.34	0.65	113.00	682	269	332	51	112	105	6.0
3-6	85	0.19	0.37	115.51	676	272	333	50	113	106	5.0
4-1	90	0.34	0.65	117.560	685	252	331	55	108	106	6.5
4-2	95	0.40	0.70	119.75	686	269	325	53	108	106	7.5
4-3	100	0.34	0.66	122.61	687	290	330	52	110	106	7.0
4-4	105	0.49	0.93	125.16	687	288	335	BDS 11/2/99 ~~57~~ 51	110	105	9.5
4-5	110	0.39	0.75	128.08	685	286	328	51	111	105	9.5
4-6	115	0.11	0.22	130.73	665	284	322	55	109	104	5.5
	120			132.265							
Average											

all ports not ~~used~~ were sealed.

* probe temperature not accurate due to location of thermocouple.

TRC

Unit 3 Outlet Field Data Run 1							
Traverse Point Number	Pressure Head dP	dP-½	Meter Setting dH	Dry Gas Meter (ft³)	Stack Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F
S-1	1.35	1.1619	1.15	707.661	314	79	78
S-1	1.35	1.1619	1.15		314	78	77
S-2	1.35	1.1619	1.15		314	78	76
S-2	1.35	1.1619	1.15		315	79	77
S-3	1.20	1.0954	1.00		315	81	77
S-3	1.20	1.0954	1.00		315	81	78
E-1	1.60	1.2649	1.40		315	81	78
E-1	1.60	1.2649	1.40		316	84	81
E-2	1.50	1.2247	1.30		317	94	82
E-2	1.50	1.2247	1.30		319	94	82
E-3	1.40	1.1832	1.20		318	95	83
E-3	1.40	1.1832	1.20		319	95	83
N-1	1.50	1.2247	1.30		321	90	87
N-1	1.50	1.2247	1.30		319	90	87
N-2	1.35	1.1619	1.20		319	91	87
N-2	1.35	1.1619	1.20		319	91	87
N-3	1.10	1.0488	1.00		320	93	88
N-3	1.10	1.0488	1.00		320	93	88
W-1	1.50	1.2247	1.30		319	93	91
W-1	1.50	1.2247	1.30		319	93	91
W-2	1.40	1.1832	1.20		318	93	91
W-2	1.40	1.1832	1.20		318	94	91
W-3	1.20	1.0954	1.05		320	97	92
W-3	1.20	1.0954	1.05		320	97	92
				785.877			
Average	1.3708	1.1692	1.188	78.216	317.63		86.6

Impingers	Initial	Final	Net
1	694.9	773.5	78.6
2	698.5	726	27.5
3	604.9	611.5	6.6
4	698.5	701.1	2.6
5	708	708.3	0.3
6	716.8	716.7	-0.1
7	694.4	695.4	1
8	778	792.1	14.1
	5594.0	5724.6	130.6

EPA REFERENCE METHOD 5

Client	APS - CHOLLA	Test Location Schematic	Sample Train No. 4 Filter No. NA Run No. 1
Location	JOSEPH CITY, AZ		Leak Check Initial 0.015 cfm @ 15 "Hg
Job No.	25938		Final 0.009 cfm @ 3 "Hg
Date	11-2-99		Impinger: Initial / Final
Technician(s)	RS & SP		1: ~~64~~ See Recovery Sheet
Test Location	UNIT 3 - OUTLET		2
		Stack Diam. 210" Stack Area	3
Meter Box No. 3	Yd 1.045 dH@ 1.644	Port Size 4" Port Length 6"	4
Probe/Pitot No. 601	Cp 0.84	Barometric 25.15"Hg Static Pressure -1.7	Net Impinger Gain Vlc (g) 130.6
Nozzle No. GLASS	Nozzle Diam. 0.194	K-factor PRE-PITOT LEAK CHECK: PASS	Start Time 12:20 End Time 15:47 Theta 120 min

POST-PITOT LEAK CHECK: PASS

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
SOUTH 1	0	1.35	1.15	707.661	314	310	314	66	79	78	3.0
1	5	1.35	1.15	710.88	314	310	310	64	78	77	3.0
2	10	1.35	1.15	714.09	314	308	310	62	78	76	3.0
2	15	1.35	1.15	717.26	315	307	310	62	79	77	3.0
3	20	1.20	1.00	720.39	315	308	310	63	81	77	2.5
3	25	1.20	1.00	723.48	315	307	310	65	81	78	2.5
EAST 1	30	1.60	1.40	726.353	315	307	308	60	81	78	3.0
1	35	1.60	1.40	729.78	316	308	314	58	84	81	3.0
2	40	1.50	1.30	733.22	317	308	311	56	86	82	3.0
2	45	1.50	1.30	736.60	319	309	312	58	85	85	3.0
3	50	1.40	1.20	739.99	318	307	309	55	85	83	3.0
3	55	1.40	1.20	743.23	319	308	310	57	86	84	3.0
	60			746.455							
Average											

EPA REFERENCE METHOD 5

Client	APS - CHOLLA
Location	JOSEPH CITY, AZ
Job No.	25938
Date	11-2-99
Technician(s)	RS & SP
Test Location	UNIT 3 - OUTLET

Sample Train No. 4 Filter No. NA Run No. 1

12:50 to 12:58 SOUTH PORT to EAST PORT

13:09 - STOPPED FOR INLET CREW DUE TO POSSIBLE CLOG

RESTART @ 14:06 | 14:25 to 14:36 EAST PORT - NORTH PORT

15:06 to 15:17 NORTH PORT - WEST PORT

ALL PORTS SEALED WITH RAGS DURING TESTING.

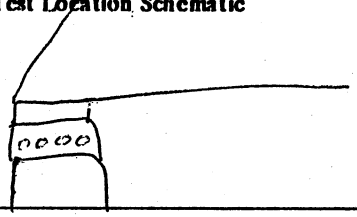
Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
NORTH 1	60	1.50	1.30	746.455	321	300	314	67	90	87	3.0
1	65	1.50	1.30	749.82	319	303	314	60	90	87	3.0
2	70	1.35	1.20	753.21	319	313	314	59	91	87	3.0
2	75	1.35	1.20	756.51	319	318	312	59	91	87	3.0
3	80	1.10	1.00	759.91	320	313	311	60	93	88	3.0
3	85	1.10	1.00	762.93	320	313	311	62	93	88	3.0
WEST 1	90	1.50	1.30	765.967	319	302	311	66	93	91	3.0
1	95	1.50	1.30	769.38	319	301	313	63	93	91	3.0
2	100	1.40	1.20	772.83	318	304	313	61	93	91	3.0
2	105	1.40	1.20	776.21	318	316	311	62	94	91	3.0
3	110	1.20	1.05	779.56	320	315	310	63	97	92	3.0
3	115	1.20	1.05	782.74	320	315	310	64	97	92	3.0
	120			785.877							
Average											

EPA REFERENCE METHOD 5

VOID Train leaked during Run

Pitot leak check initial (PASS) Final

Client	APS Cholla Plant	Test Location Schematic	Sample Train No. #1 Filter No. N/A Run No. 2
Location	Hoobul, AZ		Leak Check Initial 0.012 cfm @ 15 "Hg
Job No.	25938		Final cfm @ "Hg
Date	11/3/99		Impinger: Initial / Final
Technician(s)	BPS		1: See recovery sheet pg
Test Location	Unit 3 Inlet		2
		Stack Diam. 27' Stack Area	3
Meter Box No. 96394	Yd 1.038 dH@ 1.695	Port Size 4" Port Length 19"	4
Probe/Pitot No. 301	Cp 0.84	Barometric Static Pressure	Net Impinger Gain Vlc(g)
Nozzle No. N/A	Nozzle Diam. 0.255	K-factor	Start Time 7:41 End Time Theta



Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe* Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
1-1	0	0.27	0.47	132.550	679	154	311	46	58	58	3.0
1-2	5	0.36	0.63	134.76	681	166	314	41	66	60	3.0
1-3	10	0.30	0.53	137.21	681	206	319	45	61	69	4.0
1-4	15	0.46	0.83	139.31/139.85	682	223	307	47	72	71	2.0
1-5	20	0.33	0.59	142.70	682	221	310	43	75	71	2.0
1-6	25	0.16	0.30	145.10	635	223	313	43	78	71	1.0
2-1	30	0.25	0.46	146.875	679	204	313	48	74	72	1.0
2-2	35	0.42	0.75	149.30	684	209	311	47	80	72	1.0
2-3	40	0.30	0.54	151.83	685	235	316	47	84	73	1.0
2-4	45	0.31	0.55	153.95	685	240	316	48	86	75	1.0
2-5	50	0.27	0.49	156.27	682	254	322	49	88	76	1.0
2-6	55	0.12	0.22	158.47	653	262	325	52	90	78	0.5
	60			BPS ~~160~~ 159.850 11/3/99							
Average				Valid Leak check VOID Run							

op 01 ent 30 6:19 top ak- eck 1.88 ange the 30 11/3/99 ak eck 217 165" Hg

* Probe temperature is not accurate due to the location of the thermal couple. Heat is applied to the probe constantly.

All port that are not in use are covered / secured.

Leak check 139.850 to 140.665

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TRC

EPA REFERENCE METHOD 5

Client APS Cholla Plant		Sample Train No. #1 Filter No. N/A Run No. 2
Location Hoxbert, AZ		
Job No. 25938		
Date 11/3/97		
Technician(s) BPS		
Test Location unit 3 inlet		

VOID

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
3-1	60										
3-2	65										
3-3	70										
3-4	75										
3-5	80										
3-6	85										
4-1	90										
4-2	95										
4-3	100										
4-4	105										
4-5	110										
4-6	115										
	120										
Average											

TRC

EPA REFERENCE METHOD 5

VOID Inlet Train leaked during Run

Client ADS - Cholla	Test Location Schematic	Sample Train No. 4 Filter No. nA Run No. 2	
Location Joseph City, AZ		Leak Check Initial 0.016 cfm @ 15 "Hg	
Job No. 25938		Final cfm @ "Hg	
Date 11-3-99		Impinger	Initial / Final
Technician(s) RS / SJP		1	See Recovery Sheet
Test Location Unit #3 Outlet		2	
	Stack Diam. 210 Stack Area	3	
Meter Box No. 3 Yd 1.045 dH@ 1.644	Port Size 4" Port Length 6"	4	
Probe/Pitot No. 601 Cp .84	Barometric Static Pressure	Net Impinger Gain Vlc (g)	
Nozzle No. Glass 6-3 Nozzle Diam. .194	K-factor	Start Time 0741 End Time Theta	

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
N 1	0	1.4	1.20	787.308	294	302	303	62	72	70	3.0
	5	1.4	1.20	796.66	296	302	309	57	72	71	3.0
2	10	1.3	1.12	793.0	297	317	301	55	73	71	3.0
	15	1.3	1.12	797.02	296	309	299	56	73	70	3.0
3	20	1.1	0.95	800.21	300	309	298	58	77	75	2.5
	25	1.1	0.95	802.05	299	307	296	56	78	75	2.5
E 4	30	1.4	1.21	805.748	300	291	297	62	79	76	3.0
	35	1.4	1.21	808	300	293	299	55	82	77	3.0
2	40	1.2	1.01	812.25	300	308	300	55	83	78	2.5
	45	1.2	1.01	815.25	301	310	301	56	83	78	2.5
3	50	1.1	0.96	818.2	301	308	298	57	84	79	3.0
	55	1.1	0.96	821.3	300	309	298	57	84	79	3.0
	60			824.000							
Average											

VOID Inlet Train Leak

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TRC

EPA REFERENCE METHOD 5

Client APS- Cholla		Sample Train No. 4 Filter No. n/A Run No. 2
Location Joseph city, AZ		@ 0757 - stop Inlet Filter change/restart 0830
Job No. 25938		
Date 11-3-99		
Technician(s) RS / SJP		
Test Location Unit #3 outlet		

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
S 1	60			824.000							
	65										
2	70										
	75										
3	80										
	85										
W 1	90										
~~(2)~~ (2)	95										
2	100										
~~(3)~~ (3)	105										
(3)	110										
~~(3)~~	115										
	120										
Average	120										

Unit 3 Inlet Test Results Run 3 Field Data

Isokinetic Data

Traverse Point Number	Pressure Head dP	dP-½	Meter Setting dH	Dry Gas Meter (ft³)	Stack Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F
A 1	0.330	0.5745	0.60	161.11	679	81	81
2	0.390	0.6245	0.71		677	86	81
3	0.360	0.6000	0.66		680	92	82
4	0.270	0.5196	0.50		677	93	83
5	0.300	0.5477	0.55		678	95	84
6	0.280	0.5292	0.52		677	100	87
B 1	0.300	0.5477	0.56		676	95	91
2	0.340	0.5831	0.64		678	105	95
3	0.250	0.5000	0.47		681	107	6
4	0.300	0.5477	0.55		678	108	97
5	0.250	0.5000	0.47		680	109	99
6	0.250	0.5000	0.46		681	109	100
C 1	0.280	0.5292	0.51		677	102	100
2	0.400	0.6325	0.72		677	107	101
3	0.330	0.5745	0.61		678	111	101
4	0.290	0.5385	0.54		676	112	102
5	0.260	0.5099	0.49		676	114	104
6	0.150	0.3873	0.28		658	115	105
D 1	0.300	0.5477	0.54		675	109	107
2	0.390	0.6245	0.70		676	113	108
3	0.290	0.5385	0.52		675	117	108
4	0.290	0.5385	0.52		677	117	109
5	0.400	0.6325	0.73		677	119	110
6	0.340	0.5831	0.62		674	120	111
				216.64			
Average	0.3058	0.5504	0.56	55.53	676.6		99.8

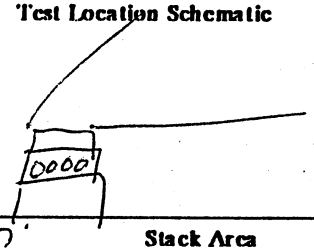
Impingers	Initial	Final	Net
1	697	776	79.0
2	708.2	718.4	10.2
3	694.3	695.7	1.4
4	713.4	715.1	1.7
5	716.7	717.2	0.5
6	715	715.6	0.6
7	702.1	702.4	0.3
8	861.3	870.4	9.1
	5808.0	5910.8	102.8

EPA REFERENCE METHOD 5

Pitot leak check Initial PASS Final PASS

Client	APS Challa Plant	Sample Train No. #2	Filter No. N/A Run No. 3
Location	Hoodbert, AZ	Leak Check Initial	0.007 cfm @ 16.5 "Hg
Job No.	25938	Final	0.004 cfm @ 16.5 "Hg
Date	11/3/99	Impinger	Initial / Final
Technician(s)	BPS	1	Sieve Recovery Shown
Test Location	Unit 3 Inlet	2	
		3	
Meter Box No.	10394 Yd 1.028 dH@ 1.695	4	
Probe/Pitot No.	301 Cp 0.84	Net Impinger Gain	Vlc (g) 102.8
Nozzle No.	N/A Nozzle Diam. 0.255	Start Time 11:14	End Time 13:37 Theta 120

Test Location Schematic



Stack Diam. 27' Stack Area

Port Size 4" Port Length 19"

Barometric 25.25 Static Pressure -4.2

K-factor

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp* °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
1-1	0	0.33	0.60	161.110	679	245	325	57	81	81	2.0
1-2	5	0.39	0.71	163.45	677	294	322	51	86	81	2.5
1-3	10	0.34	0.64	165.94	680	296	312	50	92	82	2.5
1-4	15	0.27	0.50	168.79	677	291	322	50	93	83	2.5
1-5	20	0.30	0.55	170.58	678	288	325	51	95	84	3.0
1-6	25	0.28	0.52	172.88	677	290	311	51	100	87	3.0
2-1	30	0.30	0.56	175.120	676	230	316	57	95	91	2.5
2-2	35	0.34	0.64	177.48	678	224	324	50	105	95	3.0
2-3	40	0.25	0.47	179.92	681	257	325	49	107	96	3.0
2-4	45	0.30	0.55	182.06	678	276	333	48	108	97	3.0
2-5	50	0.25	0.47	184.35	686	281	336	49	109	99	3.0
2-6	55	0.25	0.46	186.48	681	284	336	49	109	100	3.5
	60			188.606							
Average											

* probe temperature not accurate due to location of the Thermocouple. Constant heat applied to the probe

All unused ports are sealed and the port in use is seal around the probe

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TRC

EPA REFERENCE METHOD 5

Client: APS Cholla Plant		Sample Train No. #2 Filter No. N/A Run No. 3
Location: Hoopbed, Az		
Job No.: 25938		
Date: 11/3/99		
Technician(s): BDS		
Test Location: unit 3 inlet		

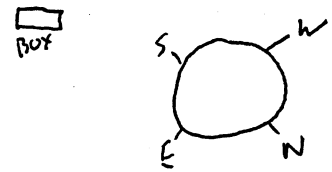
Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
3-1	60	0.28	0.51	188.600	677	241	337	59	102	100	3.0
3-2	65	0.40	0.72	190.89	677	242	336	49	107	101	3.5
3-3	70	0.33	0.61	193.52	678	275	338	46	111	101	4.0
3-4	75	0.29	0.54	195.95	676	279	337	47	112	102	4.0
3-5	80	0.26	0.49	198.25	676	282	336	47	114	104	4.0
3-6	85	0.15	0.28	200.48 ~~199.48~~ BDS 11/3/99	658	287	336	49	115 BDS 11/3/99	105	3.0
4-1	90	0.30	0.54	202.185	675	242	335	57	109	107	3.0
4-2	95	0.39	0.70	204.46	676	243	336	54	113	108	4.0
4-3	100	0.29	0.52	206.89 BDS 11/3/99	675	272	339	52	117	108	4.0
4-4	105	0.29	0.52	209.24	677	276	336	54	117	109	4.0
4-5	110	0.40	0.73	211.53	677	280	336	53	119	110	5.0
4-6	115	0.34	0.62	~~213.7~~ 214.21	674	279	334	52	120	111	5.0
	120			216.640							
Average											

TRC

Unit 3 Outlet Field Data Run 3							
Traverse Point Number	Pressure Head dP	dP-½	Meter Setting dH	Dry Gas Meter (ft³)	Stack Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F
W-1	1.40	1.1832	1.19	825.12	309	79	77
W-1	1.40	1.1832	1.19		309	79	78
W-2	1.30	1.1402	1.11		310	79	77
W-2	1.30	1.1402	1.10		309	80	77
W-3	1.10	1.0488	0.94		309	80	77
W-3	1.10	1.0488	0.94		309	82	78
S-1	1.50	1.2247	1.28		311	82	79
S-1	1.50	1.2247	1.28		311	85	80
S-2	1.50	1.2247	1.28		311	86	81
S-2	1.50	1.2247	1.28		311	86	81
S-3	1.30	1.1402	1.12		311	87	82
S-3	1.30	1.1402	1.12		312	88	83
E-1	1.50	1.2247	1.29		313	86	84
E-1	1.50	1.2247	1.29		313	89	86
E-2	1.30	1.1402	1.12		312	90	85
E-2	1.30	1.1402	1.12		312	90	85
E-3	1.10	1.0488	0.95		312	90	85
E-3	1.10	1.0488	0.95		313	91	86
N-1	1.40	1.1832	1.22		312	91	88
N-1	1.40	1.1832	1.22		312	93	90
N-2	1.30	1.1402	1.13		312	95	91
N-2	1.30	1.1402	1.13		313	94	90
N-3	1.10	1.0488	0.95		313	94	89
N-3	1.1	1.0488	0.95	901.735	313	94	89
Average	1.3261	1.1499	1.139	76.615	311.26		84.9

Impingers	Initial	Final	Net
1	613.3	691	77.7
2	701.7	729.5	27.8
3	695.6	702.7	7.1
4	642.9	645.6	2.7
5	742.7	743.4	0.7
6	709.5	708.9	-0.6
7	705.4	706.5	1.1
8	859.5	874.5	15
	5670.6	5802.1	131.5

EPA REFERENCE METHOD 5

Client APS- Cholla	Test Location Schematic	Sample Train No. 5 Filter No. 4/12 Run No. 3	
Location Joseph City, AZ		Leak Check Initial 0.012 cfm @ 15 "Hg	
Job No. 25938		Final 0.002 cfm @ 8 "Hg	
Date 11-3-99		Impinger	Initial / Final
Technician(s) RS/SSP		1	See recovery sheet
Test Location Unit #3 stack		2	
	Stack Diam. 240 Stack Area	3	
Meter Box No. 3 Yd 1.045 dH@ 1.644	Port Size 4" Port Length 6"	4	
Probe/Pitot No. 601 Cp 0.84	Barometric 25.15 Static Pressure -2.1	Net Impinger Gain Vlc (g) 131.5	
Nozzle No. Class G-3 Nozzle Diam. .194	K-factor	Start Time 1114 End Time 1347 Theta 120	

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
W 1	0	1.4	1.19	825.120	309	299	303	66	79	77	4.5
	5	1.4	1.19	828.5	309	302	308	58	79	78	4.5
2	10	1.3	1.11	832.0	310	320	310	56	79	77	4.0
	15	1.3	1.11	835.2	309	310	308	56	80	77	4.0
3	20	1.1	0.94	838.15	309	309	307	57	80	77	3.0
	25	1.1	0.94	841.08	309	308	308	58	82	78	3.0
S 1	30	1.5	1.28	843.965	311	307	308	65	82	79	4.0
	35	1.5	1.28	847.22	311	297	309	61	85	80	4.0
2	40	1.5	1.28	850.58	311	310	309	59	86	81	4.0
	45	1.5	1.28	853.91	311	323	310	59	86	81	4.0
3	50	1.3	1.12	857.19	311	309	308	59	87	82	4.0
	55	1.3	1.12	860	312	307	307	61	88	83	4.0
	60			863.572							
Average											

EPA REFERENCE METHOD 5

Client APS Cholla		Sample Train No. 5 Filter No. 4/14 Run No. 3
Location Joseph City, AZ		Port change 1144 to 1149
Job No. 25938		Port change 1219 to 1226
Date 11-3-99		Port change 1256 to 1307
Technician(s) AS/SP		
Test Location Unit #3 stack		

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
E 1	60	1.5	1.29	863.572	313	294	307	67	86	84	4.5
	65	1.5	1.29	866.9	313	299	310	62	89	86	4.5
2	70	1.3	1.13	870.3	312	309	310	56	90	85	4.0
	75	1.3	1.13	873.55	312	312	310	55	90	85	4.0
3	80	1.1	0.95	876.6	312	310	309	54	90	85	3.5
	85	1.1	0.95	879.7	313	309	308	54	91	86	3.5
W 1	90	1.4	1.22	882.591	312	295	306	65	91	88	4.0
	95	1.4	1.22	885	312	298	312	60	93	90	4.0
2	100	1.3	1.13	889.1	312	314	314	58	95	91	4.0
	~~105~~ 105	1.3	1.13	892.30	313	312	311	57	94	90	4.0
3	~~115~~ 110	1.1	0.95	895.8	313	310	306	58	94	89	4.0
	~~102~~ 115	1.1	0.95	898.9	313	311	309	58	94	89	4.0
	120			901.735							
Average	120										

TRC

Unit 3 Inlet Test Results Run 4 Field Data

Isokinetic Data

Traverse Point Number	Pressure Head dP	dP-½	Meter Setting dH	Dry Gas Meter (ft³)	Stack Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F
A 1	0.300	0.5477	0.55	216.94	674	107	106
2	0.390	0.6245	0.71		674	107	105
3	0.350	0.5916	0.64		674	112	105
4	0.300	0.5477	0.55		675	114	105
5	0.480	0.6928	0.88		675	114	105
6	0.380	0.6164	0.70		674	116	105
B 1	0.270	0.5196	0.51		675	110	108
2	0.390	0.6245	0.71		677	112	108
3	0.280	0.5292	0.51		677	116	108
4	0.340	0.5831	0.62		677	117	108
5	0.330	0.5745	0.61		677	117	110
6	0.110	0.3317	0.21		645	117	110
C 1	0.390	0.6245	0.71		680	111	108
2	0.330	0.5745	0.60		678	107	108
3	0.170	0.4123	0.31		678	107	107
4	0.360	0.6000	0.65		679	107	105
5	0.230	0.4796	0.42		679	107	105
6	0.150	0.3873	0.27		675	107	104
D 1	0.300	0.5477	0.53		678	104	102
2	0.390	0.6245	0.70		677	101	101
3	0.260	0.5099	0.47		676	104	101
4	0.330	0.5745	0.59		678	104	100
5	0.330	0.5745	0.59		678	105	100
6	0.350	0.5916	0.62		678	103	100
				272.735			
Average	0.3129	0.5535	0.57	55.795	675.3		107.3

Impingers	Initial	Final	Net
1	706.1	774.9	68.8
2	624.4	638.1	13.7
3	690.9	691.8	0.9
4	622.1	623	0.9
5	745	745.7	0.7
6	705.6	705.7	0.1
7	694.8	695.7	0.9
8	788	800.5	12.5
	5576.9	5675.4	98.5

EPA REFERENCE METHOD 5

Pitot Leak check Initial PASS
Final PASS

Client APS Cholla Plant	Test Location Schematic	Sample Train No. #1 Filter No. N/A Run No. 4	
Location Hoobert, AZ		Leak Check Initial 0.005 cfm @ 15.0 "Hg	
Job No. 25938		Final 0.004 cfm @ 9.5 "Hg	
Date 11/3/99		Impinger	Initial / Final
Technician(s) BDS		1	Sample Recovery Sheet
Test Location Unit 3 Inlet		2	
	Stack Diam. 27" Stack Area	3	
Meter Box No. 90394 Yd 1.028 dH@1.695	Port Size 4" Port Length 19"	4	
Probe/Pitot No. 301 Cp 0.84	Barometric 25.23 Static Pressure - 4.1	Net Impinger Gain Vlc (g) 98.5	
Nozzle No. N/A Nozzle Diam. 0.2	K-factor	Start Time 14:58 End Time 17:23 Theta	

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F *	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
1-1	0	0.30	0.55	216.940	674	181	304	67	107	106	2.5
1-2	5	0.39	0.71	219.42	674	198	305	66	107	105	2.5
1-3	10	0.35	0.64	222.00	674	248	304	63	112	105	3.0
1-4	15	0.30	0.55	224.42	675	267	308	60	114	105	3.0
1-5	20	0.48	0.88	226.77	675	273	314	56	114	105	3.5
1-6	25	0.38	~~0.83~~ 0.80 1/3/99	229.72	674	282	321	57	116	105	4.0
2-1	30	0.27	0.51	232.245	675	250	328	63	110	108	3.0
2-2	35	0.39	0.71	234.50	677	262	332	60	112	108	4.0
2-3	40	0.28	0.51	237.11	677	284	335	60	116	108	4.0
2-4	45	0.34	0.62	239.42	677	285	335	59	117	108	4.5
2-5	50	0.33	0.61	241.78	677	278	333	58	117	110	4.5
2-6	55	0.11	0.21	244.26	643	271	333	60	117	110	3.0
	60			245.835							
Average											

* Probe temperature is not accurate due to location of thermo couple. Constant heat applied to probe.

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all ports not in use are sealed and the port in use is sealed around the probe.

EPA REFERENCE METHOD 5

Client APS Cholla Plant		Sample Train No. #1 Filter No. N/A Run No. 4
Location Hoobert, AZ		
Job No. 25938		
Date 11/3/99		
Technician(s) BDS		
Test Location Unit 3 Inlet		

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp* °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
3-1	60	~~0.35~~ 0.39	0.71	245.835	680	197	324	64	111	108	5.5
3-2	65	0.33	0.60	248.61	678	211	320	57	107	108	5.5
3-3	70	0.17	0.31	250.82	678	249	330	57	107	107	4.0
3-4	75	0.36	0.65	252.70	679	257	330	56	107	105	6.0
3-5	80	0.23	0.42	255.12	679	257	330	55	107	105	5.0
3-6	85	0.15	0.27	257.15	675	255	327	57	107	104	4.0
4-1	90	0.30	0.53	258.785	678	203	324	61	104	102	5.0
4-2	95	0.39	0.70	261.04	677	216	324	60	101	101	6.0
4-3	100	0.~~26~~ 30	~~0.47~~ 0.54	263.57	674	249	327	60	104	101	5.0
4-4	105	0.33	0.59	265.70	678	264	329	60	104	100	6.0
4-5	110	0.33	0.59	268.00	678	266	329	60	105	100	6.5
4-6	115	0.35	0.62	269.81	678	266	329	59	103	100	6.5
	120			272.735							
Average											

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Unit 3 Outlet Field Data Run 4							
Traverse Point Number	Pressure Head dP	dP-½	Meter Setting dH	Dry Gas Meter (ft³)	Stack Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F
N-1	1.400	1.1832	1.21	903.3	318	90	88
N-1	1.400	1.1832	1.21		319	89	89
N-2	1.400	1.1832	1.21		319	90	89
N-2	1.400	1.1832	1.21		317	90	87
N-3	1.100	1.0488	0.95		318	92	88
N-3	1.100	1.0488	0.95		318	93	88
E-1	1.400	1.1832	1.21		318	93	90
E-1	1.400	1.1832	1.21		318	96	92
E-2	1.300	1.1402	1.13		318	96	92
E-2	1.300	1.1402	1.13		318	97	93
E-3	1.100	1.0488	0.95		319	98	93
E-3	1.100	1.0488	0.95		319	98	94
S-1	1.500	1.2247	1.31		317	97	94
S-1	1.500	1.2247	1.31		317	99	94
S-2	1.500	1.2247	1.31		318	100	96
S-2	1.500	1.2247	1.31		319	100	96
S-3	1.3	1.1402	1.14		319	101	96
S-3	1.3	1.1402	1.14		320	101	97
W-1	1.4	1.1832	1.22		319	100	98
W-1	1.4	1.1832	1.22		321	103	101
W-2	1.3	1.1402	1.14		318	98	96
W-2	1.3	1.1402	1.14		318	97	96
W-3	1.1	1.0488	0.95		318	97	96
W-3	1.1	1.0488	0.95	981.121	318	97	96
Average	1.3167	1.1458	1.144	77.821	318.38		94.8

Impingers	Initial	Final	Net
1	700.8	777.4	76.6
2	700.7	728.1	27.4
3	605.6	612.8	7.2
4	703.1	705.4	2.3
5	717.1	717.8	0.7
6	710	709.3	-0.7
7	676.3	677.8	1.5
8	772.9	787.9	15
	5586.5	5716.5	130.0

EPA REFERENCE METHOD 5

Client APS - Cholla	Test Location Schematic	Sample Train No. 4 Filter No. NA Run No. 4	
Location Joseph City, AZ		Leak Check Initial 0.007 cfm @ 14 "Hg	
Job No. 25938		Final 0.010 cfm @ 10 "Hg	
Date 11-3-99		Impinger	Initial / Final
Technician(s) GP		1	See Recovery Sheet
Test Location Unit #3 stack		2	
	Stack Diam. 210 Stack Area	3	
Meter Box No. 3 Yd 1.045 dH@ 1.644	Port Size 4" Port Length 6"	4	
Probe/Pitot No. 601 Cp 0.84	Barometric 25.15 Static Pressure -0.1	Net Impinger Gain Vlc (g) 130.0	
Nozzle No. Glass 63 Nozzle Diam. .0.194	K-factor	Start Time 1458 End Time 1723 Theta 120	

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacvuum in Hg
N 1	0	1.4	1.21	903.300	318	306	305	68	90	88	3.0
	5	1.4	1.21	906.78	319	306	309	63	89	89	3.0
2	10	1.4	1.21	910.08	319	316	311	61	90	89	3.0
	15	1.4	1.21	913.4	317	316	312	60	90	87	3.0
3	20	1.1	0.95	916.64	318	315	311	61	92	88	3.0
	25	1.1	0.95	919.51	318	313	312	62	93	88	3.0
E 1	30	1.4	1.21	922.360	318	303	312	67	93	90	3.0
	35	1.4	1.21	925.6	318	304	315	64	96	92	3.0
2	40	1.3	1.13	928.85	318	313	315	62	96	92	3.0
	45	1.3	1.13	931.98	318	312	314	62	97	93	3.0
3	50	1.1	0.95	935.1	319	317	314	63	98	93	3.0
	55	1.1	0.95	938.4	319	314	314	62	98	94	3.0
	60			941.326							
Average											

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EPA REFERENCE METHOD 5

Client APS - Cholla		Sample Train No. 4 Filter No. n/a Run No. 4
Location Joseph City, AZ		Port change - 1528 to 1538
Job No. 25938		Port change - 1608 to 1617
Date 11-3-99		Port change - 1647 to 1653
Technician(s) GD		
Test Location Unit #3 stack		

Traverse Point Number	Elapsed Time min	Pressure Head dP	Meter Setting dH	Dry Gas Meter Reading (ft³)	Stack Temp °F	Probe Temp °F	Filter Temp °F	Impinger Temp °F	Dry Gas Meter Inlet °F	Dry Gas Meter Outlet °F	Pump Vacuum in Hg
S 1	60	1.5	1.31	941.226	317	308	313	66	97	94	3.0
	65	1.5	1.31	944.8	317	309	312	66	99	94	3.0
2	70	1.5	1.31	948.1	318	318	317	63	100	96	3.0
	75	1.5	1.31	951.65	319	318	316	62	100	96	3.0
3	80	1.3	1.14	955.1	319	317	317	63	101	96	3.0
	85	1.3	1.14	958.3	320	315	311	62	101	97	3.0
W 1	90	1.4	1.22	961.792	319	307	314	68	100	98	3.0
	95	1.4	1.22	964	321	316	316	67	103	100	3.0
2	100	1.3	1.14	968.6	318	307	313	62	98	96	3.0
	105	1.3	1.14	972.0	318	308	310	62	97	96	3.0
3	110	1.1	0.95	975.1	318	307	309	62	97	96	2.5
	115	1.1	0.95	977.9	318	309	311	61	97	96	2.5
	120			981.121							
Average											

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Appendix B – Section 2
Calibration Data

EPA METHOD 5 FULL TEST METER BOX CALIBRATION

Meter ID:	90401
Model #:	Nutech 2010A
DGM Serial #	28149
Operator:	R. Szkoda

Date:	May 22, 1999	
Barometric Pressure:	24.95	24.95 in Hg
Critical Orifice Vacuum:	14.18	14.18 in Hg

DRY GAS METER READINGS / ORIFICE DATA CONDITIONS

dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Initial Temps. Inlet (deg F)	Initial Temps. Outlet (deg F)	Final Temps. Inlet (deg F)	Final Temps. Outlet (deg F)	Orifice Serial# (number)	K' Orifice Coefficient (see above)	Vacuum (in Hg)	Ambient Temperature Initial (deg F)	Ambient Temperature (deg F)	Ambient Temperature Average (deg F)
0.540	5.00	490.581	492.862	2.281	75.0	74.0	75.0	76.0	CH-48	0.3541	18.50	74.0	74.0	74.0
0.540	5.00	492.862	495.157	2.295	75.0	76.0	77.0	75.0	CH-48	0.3541	18.50	74.0	74.0	74.0
1.000	5.00	495.157	498.216	3.059	77.0	75.0	77.0	75.0	CH-55	0.4749	17.00	74.0	74.0	74.0
1.000	5.00	498.242	501.318	3.076	77.0	75.0	79.0	78.0	CH-55	0.4749	17.00	74.0	74.0	74.0
1.700	5.00	501.318	505.277	3.959	79.0	78.0	79.0	78.0	CH-63	0.6106	15.50	74.0	75.0	74.5
1.700	5.00	505.277	509.232	3.955	79.0	78.0	79.0	78.0	CH-63	0.6106	15.50	75.0	74.0	74.5
3.200	5.00	515.091	520.543	5.452	78.0	77.0	78.0	77.0	CH-73	0.8374	14.50	75.0	75.0	75.0
3.200	5.00	520.543	526.085	5.542	78.0	77.0	79.0	77.0	CH-73	0.8374	14.50	75.0	75.0	75.0
														#DIV/0!
														#DIV/0!
														#DIV/0!

CALIBRATION RESULTS

DRY GAS METER VOLUME CORRECTED		ORIFICE VOLUME CORRECTED		DRY GAS METER CALIBRATION FACTOR Yd		ORIFICE CALIBRATION FACTOR dH@		
Vm(std) (ft^3)	Vm(std) (liters)	Vcr(std) (ft^3)	Vm(std) (liters)	Value (number)	Variation (number)	Value (in H_2O)	Value (mm H_2O)	Variation (in H_2O)
1.879	53.2	1.912	54.1	1.017	0.007	1.699	43.14	-0.059
1.888	53.5	1.912	54.1	1.012	0.003	1.692	42.98	-0.066
2.519	71.3	2.564	72.6	1.018	0.008	1.747	44.37	-0.011
2.527	71.6	2.564	72.6	1.014	0.005	1.734	44.04	-0.024
3.252	92.1	3.295	93.3	1.013	0.003	1.782	45.27	0.024
3.249	92.0	3.295	93.3	1.014	0.005	1.782	45.27	0.024
4.506	127.6	4.516	127.9	1.002	-0.007	1.814	46.09	0.057
4.579	129.7	4.516	127.9	0.986	-0.023	1.813	46.05	0.055
AVERAGE RESULTS				1.010	+/- 0.02	1.758	44.651	+/- 0.2

Signed: Roman Szkoda

Date: 5-22-99

EPA METHOD 5 FULL TEST METER BOX CALIBRATION

Meter ID:	90401
Model #:	2010A
DGM Serial #:	28149
Operator:	R. SZKODA

Date: 5-22-99	Yd: 1.022	dH: 1.714
Barometric Pressure:	24.95	in Hg
Critical Orifice Vacuum:	14	in Hg

DRY GAS METER READINGS									ORIFICE DATA CONDITIONS					
dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Initial Temps. Inlet (deg F)	Initial Temps. Outlet (deg F)	Final Temps. Inlet (deg F)	Final Temps. Outlet (deg F)	Orifice Serial# (number)	K' Orifice Coefficient (see above)	Vacuum (in Hg)	Ambient Temperature Initial (deg F)	Ambient Temperature (deg F)	Ambient Temperature Average (deg F)
0.54	5	490.581	492.862	2.281	75	74	75	76	CH-48	0.3541	18.5	74	74	74
0.64	5	492.862	495.157	2.295	75	75	77	75	CH-48	0.3541	18.5	75	74	74.5
1.00	5	495.157	498.216	3.059	77	75	77	75	CH-55	0.4749	17.0	74	74	74
1.00	5	498.242	501.318	3.076	78	78	79	78	CH-55	0.4749	17.0	75	74	74.5
1.70	5	501.318	505.277	3.959	79	78	79	78	CH-63	0.6106	15.5	74	75	74.5
1.70	5	505.277	509.232	3.955	79	78	79	78	CH-63	0.6106	15.5	75	74	74.5
3.20	5	515.091	520.543	5.452	78	77	78	77	CH-73	0.8374	14.5	75	75	75
3.20	5	520.543	526.085	5.542	78	77	79	77	CH-73	0.8374	14.5	75	75	75

Signed: Kenneth Szkoda

Date: 5-22-99

Meter Box Cal Template.xls

5/22/998:44 AM

EPA METHOD 5 FULL TEST METER BOX CALIBRATION

Meter ID:	90401
Model #:	Nutech 2010A
DGM Serial #	28149
Operator:	R. Szkoda

Date:	November 24, 1999	
Barometric Pressure:	24.47	24.47 in Hg
Critical Orifice Vacuum:	13.93	13.93 in Hg

DRY GAS METER READINGS									ORIFICE DATA CONDITIONS					
dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Initial Temps. Inlet (deg F)	Initial Temps. Outlet (deg F)	Final Temps. Inlet (deg F)	Final Temps. Outlet (deg F)	Orifice Serial# (number)	K' Orifice Coefficient (see above)	Vacuum (in Hg)	Ambient Temperature Initial (deg F)	Ambient Temperature (deg F)	Ambient Temperature Average (deg F)
0.540	15.00	590.420	597.357	6.937	76.0	76.0	78.0	77.0	CI-48	0.3554	17.50	75.0	73.0	74.0
0.540	16.00	597.357	604.757	7.400	78.0	77.0	79.0	78.0	CI-48	0.3554	17.50	72.0	73.0	72.5
0.540	15.00	604.757	611.717	6.960	79.0	78.0	80.0	78.0	CI-48	0.3554	17.50	73.0	74.0	73.5
1.650	12.00	635.460	644.943	9.483	79.0	79.0	81.0	79.0	CI-63	0.6090	15.00	75.0	74.0	74.5
1.650	12.00	644.943	654.456	9.513	81.0	79.0	81.0	80.0	CI-63	0.6090	15.00	74.0	74.0	74.0
1.650	12.00	654.456	663.979	9.523	81.0	80.0	82.0	80.0	CI-63	0.6090	15.00	74.0	74.0	74.0
0.990	12.00	663.979	671.411	7.432	82.0	80.0	81.0	81.0	CI-55	0.4754	16.50	74.0	74.0	74.0
0.990	12.00	671.411	678.845	7.434	81.0	81.0	81.0	81.0	CI-55	0.4754	16.50	74.0	73.0	73.5
0.990	12.00	678.845	686.287	7.442	81.0	81.0	82.0	81.0	CI-55	0.4754	16.50	73.0	73.0	73.0
3.150	12.00	686.287	699.424	13.137	81.0	81.0	85.0	82.0	CI-73	0.8333	14.00	73.0	72.0	72.5
3.150	12.00	699.424	712.587	13.163	85.0	82.0	86.0	82.0	CI-73	0.8333	14.00	72.0	72.0	72.0
3.150	15.00	712.587	729.046	16.459	86.0	82.0	86.0	82.0	CI-73	0.8333	14.00	72.0	72.0	72.0

CALIBRATION RESULTS

DRY GAS METER VOLUME CORRECTED		ORIFICE VOLUME CORRECTED		DRY GAS METER CALIBRATION FACTOR Yd		ORIFICE CALIBRATION FACTOR dH@		
Vm(std) (ft^3)	Vm(std) (liters)	Vcr(std) (ft^3)	Vm(std) (liters)	Value (number)	Variation (number)	Value (in H_2O)	Value (mm H_2O)	Variation (in H_2O)
5.588	158.2	5.645	159.9	1.010	-0.003	1.703	43.26	-0.014
5.947	168.4	6.030	170.8	1.014	0.001	1.678	42.62	-0.039
5.585	158.2	5.648	159.9	1.011	-0.002	1.681	42.70	-0.036
7.625	215.9	7.735	219.1	1.014	0.001	1.763	44.78	0.046
7.638	216.3	7.739	219.2	1.013	0.000	1.752	44.49	0.034
7.639	216.3	7.739	219.2	1.013	0.000	1.747	44.36	0.030
5.947	168.4	6.041	171.1	1.016	0.002	1.710	43.43	-0.007
5.949	168.5	6.044	171.2	1.016	0.002	1.703	43.27	-0.014
AVERAGE RESULTS				1.013	+/- 0.02	1.717	43.615	+/- 0.2

Signed: Roman Szkoda

Date: 11-24-99

DRY GAS METER CALIBRATION WORKSHEET

DRY GAS METER ID 90401
CALIBRATION DATE 11-24-99
BAROMETRIC PRESSURE 24.47 "Hg
OPERATOR R. SZKODA

ORIFICE SET ID CI

dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Initial Temps. Inlet (°F)	Initial Temps. Outlet (°F)	Final Temps. Inlet (°F)	Final Temps. Outlet (°F)	Orifice Serial# (number)	K' Orifice Coefficient	Vacuum (in Hg)	Ambient Temperature Initial (°F)	Ambient Temperature Final (°F)	Ambient Temperature Average (°F)
0.54	15	590.420	597.357		76	76	78	77	CI-48	0.3554	17.5	75	73	
0.54	16	597.357	604.757		78	77	79	78	CI-48	0.3554	17.5	72	73	
0.54	15	604.757	611.717		79	78	80	78	CI-48	0.3554	17.5	73	74	
AVERAGE														
1.65	12	635.460	644.943		79	79	81	79	CI-63	0.6090	15	75	74	
1.65	12	644.943	654.456		81	79	81	80	CI-63	0.6090	15	74	74	
1.65	12	654.456	663.979		81	80	82	80	CI-63	0.6090	15	74	74	
AVERAGE														
0.99	12	663.979	671.411		82	80	81	81	CI-55	0.4754	16.5	74	74	
0.99	12	671.411	678.845		81	81	81	81	CI-55	0.4754	16.5	74	73	
0.99	12	678.845	686.287		81	81	82	81	CI-55	0.4754	16.5	73	73	
AVERAGE														
3.15	12	686.287	699.424		81	81	85	82	CI-73	0.8333	14	73	72	
3.15	12	699.424	712.587		85	82	86	82	CI-73	0.8333	14	72	72	
3.15	15	712.587	729.046		86	82	86	82	CI-73	0.8333	14	72	72	
AVERAGE														
AVERAGE														

TRC

EPA METHOD 5 FULL TEST METER BOX CALIBRATION

Meter ID:	90394
Model #:	Nutech 2010A
DGM Serial #	28345
Operator:	R. Szkoda

Date:	May 22, 1999	
Barometric Pressure:	24.95	24.95 in Hg
Critical Orifice Vacuum:	14.18	14.18 in Hg

DRY GAS METER READINGS / ORIFICE DATA CONDITIONS

dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Initial Temps. Inlet (deg F)	Initial Temps. Outlet (deg F)	Final Temps. Inlet (deg F)	Final Temps. Outlet (deg F)	Orifice Serial# (number)	K' Orifice Coefficient (see above)	Vacuum (in Hg)	Ambient Temperature Initial (deg F)	Ambient Temperature (deg F)	Ambient Temperature Average (deg F)
0.520	10.00	364.508	369.041	4.533	76.0	75.0	77.0	76.0	CH-48	0.3541	18.50	75.0	75.0	75.0
0.520	10.00	369.041	373.570	4.529	77.0	76.0	77.0	77.0	CH-48	0.3541	18.50	75.0	75.0	75.0
0.960	10.00	373.570	379.624	6.054	77.0	77.0	79.0	78.0	CH-55	0.4749	17.00	75.0	75.0	75.0
0.960	10.00	379.624	385.692	6.068	79.0	78.0	80.0	78.0	CH-55	0.4749	17.00	75.0	75.0	75.0
1.650	10.00	385.692	393.483	7.791	80.0	78.0	80.0	79.0	CH-63	0.6106	15.50	75.0	75.0	75.0
1.650	10.00	393.483	401.275	7.792	80.0	79.0	81.0	79.0	CH-63	0.6106	15.50	75.0	75.0	75.0
3.150	10.00	401.275	412.002	10.727	81.0	79.0	80.0	80.0	CH-73	0.8374	14.00	75.0	75.0	75.0
3.150	10.00	412.002	422.731	10.729	80.0	80.0	81.0	80.0	CH-73	0.8374	14.00	75.0	75.0	75.0
														#DIV/0!
														#DIV/0!
														#DIV/0!

CALIBRATION RESULTS

DRY GAS METER VOLUME CORRECTED		ORIFICE VOLUME CORRECTED		DRY GAS METER CALIBRATION FACTOR Yd		ORIFICE CALIBRATION FACTOR dH@		
Vm(std) (ft^3)	Vm(std) (liters)	Vcr(std) (ft^3)	Vm(std) (liters)	Value (number)	Variation (number)	Value (in H_2O)	Value (mm H_2O)	Variation (in H_2O)
3.728	105.6	3.820	108.2	1.025	-0.003	1.637	41.58	-0.058
3.719	105.3	3.820	108.2	1.027	-0.001	1.629	41.39	-0.066
4.969	140.7	5.123	145.1	1.031	0.003	1.667	42.35	-0.028
4.971	140.8	5.123	145.1	1.030	0.003	1.660	42.15	-0.036
6.390	181.0	6.586	186.5	1.031	0.003	1.728	43.88	0.032
6.385	180.8	6.586	186.5	1.032	0.004	1.723	43.76	0.028
8.824	249.9	9.033	255.8	1.024	-0.004	1.761	44.73	0.066
8.822	249.8	9.033	255.8	1.024	-0.004	1.758	44.64	0.062
AVERAGE RESULTS				1.028	+/- 0.02	1.695	43.061	+/- 0.2

Signed: Roman Szkoda

Date: 5·22·99

EPA METHOD 5 FULL TEST METER BOX CALIBRATION

Meter ID:	90394
Model #:	2010A
DGM Serial #:	28345
Operator:	R. SZKODA

Date: 5-22-99	Yd: 1.013	dH: 1.761	
Barometric Pressure:		24.9	in Hg
Critical Orifice Vacuum:		14	in Hg

DRY GAS METER READINGS									ORIFICE DATA CONDITIONS					
dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Initial Temps.		Final Temps.		Orifice Serial# (number)	K' Orifice Coefficient (see above)	Vacuum (in Hg)	Ambient Temperature		
					Inlet (deg F)	Outlet (deg F)	Inlet (deg F)	Outlet (deg F)				Initial (deg F)	(deg F)	Average (deg F)
0.52	10	364.508	369.041	4.533	76	75	77	76	CH-48	0.3541	18.5	75	75	75
0.52	10	369.041	373.570	4.529	77	76	77	77	CH-48	0.3541	18.5	75	75	75
0.96	10	373.570	379.624	6.054	77	77	79	78	CH-55	0.4749	17	75	75	75
0.96	10	379.624	385.692	6.068	79	78	80	78	CH-55	0.4749	17	75	75	75
1.65	10	385.692	393.483	7.791	80	78	80	79	CH-63	0.6106	15.5	75	75	75
1.65	10	393.483	401.275	7.792	80	79	81	79	CH-63	0.6106	15.5	75	75	75
3.15	10	401.275	412.002	10.727	80	80	80	80	CH-73	0.8374	14	75	75	75
3.15	10	412.002	422.731	10.729	80	80	81	80	CH-73	0.8374	14	75	75	75

Signed: Roman Szkoda

Date: 5-22-99

EPA METHOD 5 FULL TEST METER BOX CALIBRATION

Meter ID:	90394
Model #:	Nutech 2010A
DGM Serial #	28345
Operator:	R. Szkoda

Date:	November 24, 1999		
Barometric Pressure:	24.47	24.47	in Hg
Critical Orifice Vacuum:	13.93	13.93	in Hg

DRY GAS METER READINGS									ORIFICE DATA CONDITIONS					
dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Initial Temps. Inlet (deg F)	Initial Temps. Outlet (deg F)	Final Temps. Inlet (deg F)	Final Temps. Outlet (deg F)	Orifice Serial# (number)	K' Orifice Coefficient (see above)	Vacuum (in Hg)	Ambient Temperature Initial (deg F)	Ambient Temperature (deg F)	Ambient Temperature Average (deg F)
3.100	15.00	791.209	807.416	16.207	70.0	70.0	76.0	71.0	CI-73	0.8333	14.00	72.0	72.0	72.0
3.100	15.00	807.416	823.745	16.329	75.0	71.0	76.0	74.0	CI-73	0.8333	14.00	72.0	73.0	72.5
3.100	12.00	823.745	836.767	13.022	74.0	74.0	79.0	75.0	CI-73	0.8333	14.00	74.0	74.0	74.0
1.600	12.00	836.767	846.235	9.468	75.0	75.0	76.0	75.0	CI-63	0.6090	14.50	74.0	74.0	74.0
1.600	12.00	846.235	855.698	9.463	76.0	75.0	77.0	76.0	CI-63	0.6090	14.50	74.0	74.0	74.0
1.600	12.00	855.698	865.180	9.482	77.0	76.0	80.0	77.0	CI-63	0.6090	14.50	74.0	74.0	74.0
0.960	12.00	896.821	904.230	7.409	78.0	78.0	80.0	79.0	CI-55	0.4754	16.00	75.0	74.0	74.5
0.960	12.00	904.230	911.639	7.409	80.0	79.0	80.0	80.0	CI-55	0.4754	16.00	74.0	74.0	74.0
0.960	12.00	911.639	919.064	7.425	80.0	80.0	81.0	80.0	CI-55	0.4754	16.00	74.0	74.0	74.0
0.530	15.00	919.064	926.046	6.982	81.0	80.0	81.0	81.0	CI-48	0.3554	17.50	74.0	74.0	74.0
0.530	15.00	926.046	933.021	6.975	81.0	81.0	81.0	81.0	CI-48	0.3554	17.50	74.0	74.0	74.0
0.530	15.00	933.021	940.009	6.988	81.0	81.0	83.0	83.0	CI-48	0.3554	17.50	74.0	74.0	74.0

CALIBRATION RESULTS

DRY GAS METER VOLUME CORRECTED		ORIFICE VOLUME CORRECTED		DRY GAS METER CALIBRATION FACTOR Yd		ORIFICE CALIBRATION FACTOR dH@		
Vm(std) (ft^3)	Vm(std) (liters)	Vcr(std) (ft^3)	Vm(std) (liters)	Value (number)	Variation (number)	Value (in H_2O)	Value (mm H_2O)	Variation (in H_2O)
13.279	376.1	13.261	375.5	0.999	-0.008	1.840	46.74	0.085
13.322	377.3	13.255	375.4	0.995	-0.012	1.823	46.30	0.068
10.594	300.0	10.589	299.9	0.999	-0.007	1.821	46.26	0.066
7.672	217.3	7.739	219.2	1.009	0.002	1.744	44.31	-0.011
7.657	216.9	7.739	219.2	1.011	0.004	1.738	44.14	-0.018
7.651	216.7	7.739	219.2	1.011	0.005	1.725	43.81	-0.030
5.953	168.6	6.038	171.0	1.014	0.007	1.683	42.74	-0.073
5.942	168.3	6.041	171.1	1.017	0.010	1.668	42.38	-0.087
AVERAGE RESULTS				1.007	+/- 0.02	1.755	44.586	+/- 0.2

Signed: Roman Szkoda

Date: 11-24-99

DRY GAS METER CALIBRATION WORKSHEET

DRY GAS METER ID 90394
CALIBRATION DATE 11-24-99
BAROMETRIC PRESSURE 24.47" Hg
OPERATOR R. SZKODA

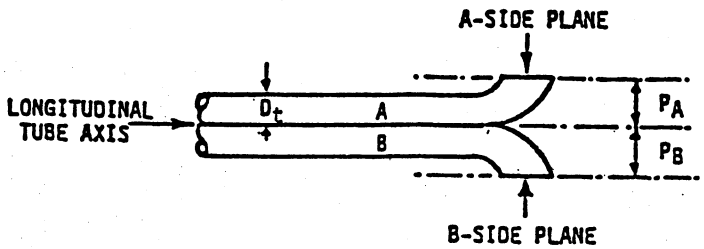
ORIFICE SET ID CI

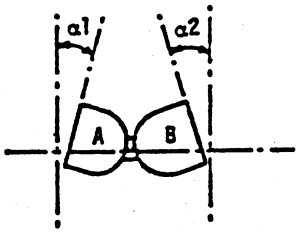
dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Initial Temps. Inlet (°F)	Initial Temps. Outlet (°F)	Final Temps. Inlet (°F)	Final Temps. Outlet (°F)	Orifice Serial# (number)	K' Orifice Coefficient	Vacuum (in Hg)	Ambient Temperature Initial (°F)	Ambient Temperature Final (°F)	Ambient Temperature Average (°F)
3.1	12	791.209	807.416		70	70	76	71	CI-73	0.8333	14	72	72	
3.1	15	807.416	823.745		75	71	76	74	CI-73	0.8333	14	72	73	
3.1	12	823.745	836.767		74	74	79	75	CI-73	0.8333	14	74	74	
AVERAGE														
1.6	12	836.767	846.235		75	75	76	75	CI-63	0.6090	14.5	74	74	
1.6	12	846.235	855.698		76	75	77	76	CI-63	0.6090	14.5	74	74	
1.6	12	855.698	865.180		77	76	80	77	CI-63	0.6090	14.5	74	74	
AVERAGE														
0.96	12	896.821	904.230		78	78	80	79	CI-55	0.4754	16	75	74	
0.96	12	904.230	911.639		80	79	80	80	CI-55	0.4754	16	74	74	
0.96	12	911.639	919.064		80	80	81	80	CI-55	0.4754	16	74	74	
AVERAGE														
0.53	15	919.064	926.046		81	80	81	81	CI-48	0.3554	17.5	74	74	
0.53	15	926.046	933.021		81	81	81	81	CI-48	0.3554	17.5	74	74	
0.53	15	933.021	940.009		81	81	83	83	CI-48	0.3554	17.5	74	74	
AVERAGE														
AVERAGE														

TRC

PITOT TUBE CALIBRATION

Calibrator R. SZKODA	Pitot ID 301
Date 10-14-99	Geometrically Correct YES





$1.05\ D_t < P < 1.50\ D_t$

$P_a = P_b$

$D_t =$ 0.368

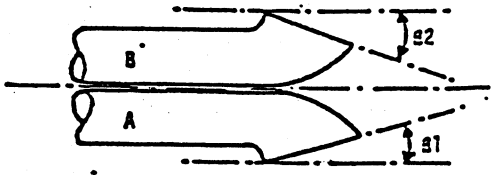
$P_a =$ 0.470

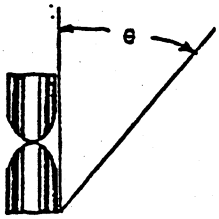
$P_b =$ 0.458

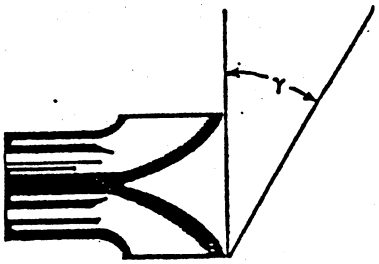
α_1 and $\alpha_2 < 10°$

$\alpha_1 =$ 0°

$\alpha_2 =$ 0°







β_1 and $\beta_2 < 5°$

$\beta_1 =$ 1.5°

$\beta_2 =$ 1.5°

$W < 0.0313$

$\theta =$ 1°

$W = A \sin\theta =$ 0.016196

$Z < 0.125$

$\gamma =$ 0°

$A = P_a + P_b =$ 0.928

$Z = A \sin\gamma =$ 0

TRC

THERMOCOUPLE CALIBRATION

Thermo ID 301	
Standard	
Date 6-10-99	
Calibrator R. SZKODA	

Barometric Pressure 24.38	
Ambient Temp °R 532	

Trial Number	Standard Temp °R	Channel Number 1	2	3	4	5	% Difference
1	492	492.8					0.16
2	532	533.0					0.19
3							
4							
5							
6							
Comments: Average % Difference = ±1.5% Greatest channel difference used in calculations					Average		0.175

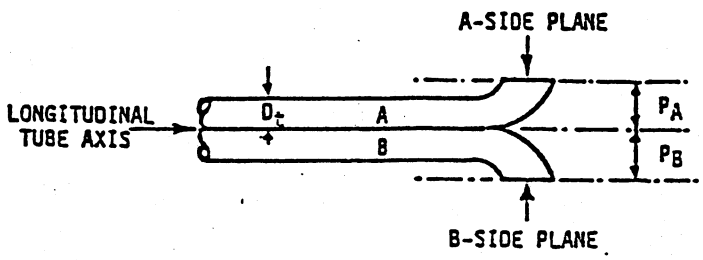
$$\text{Percent Difference} = \left| \frac{\text{Thermo Temp} - \text{Standard Temp}}{\text{Standard Temp}} \right| \times 100$$

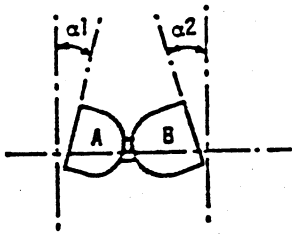
TRC

PITOT TUBE CALIBRATION

Calibrator	R. SZKODA
Date	2-13-99

Pitot ID	601
Geometrically Correct	YES





$1.05\ D_t < P < 1.50\ D_t$
$P_a = P_b$

D_t = 0.375

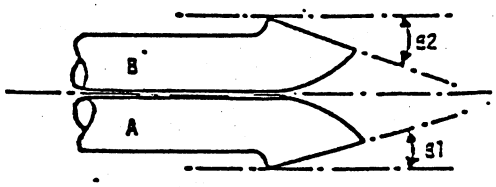
P_a = 0.456

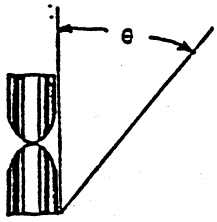
P_b = 0.457

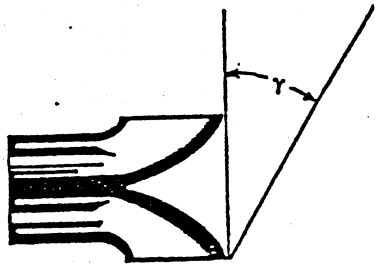
α_1 and $\alpha_2 < 10°$

α_1 = 1°

α_2 = 1°







β_1 and $\beta_2 < 5°$

β_1 = 2°

β_2 = 1°

$W < 0.0313$

θ = 0.5°

$W = A \sin\theta$ = 0.0080

$Z < 0.125$

γ = 0.5°

$A = P_a + P_b$ = 0.913

$Z = A \sin\gamma$ = 0.0080

TRC

THERMOCOUPLE CALIBRATION

Thermo ID	601
Standard	
Date	2-15-99
Calibrator	R SZKODA

Barometric Pressure	24.33" Hg
Ambient Temp °R	524.8

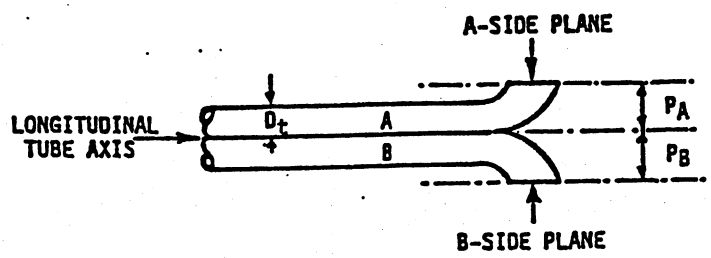
Trial Number	Standard Temp °R	Channel Number 1	2	3	4	5	% Difference
ICE BATH 1	493.0	493.1					0.02
AMBIENT 2	524.8	524.8					0.0
3							
4							
5							
6							
Comments: Average % Difference = ±1.5% Greatest channel difference used in calculations					Average		0.01

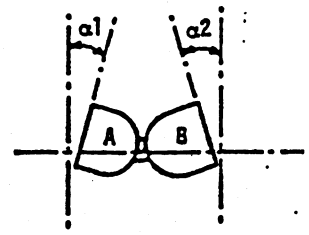
$$\text{Percent Difference} = \left| \frac{\text{Thermo Temp} - \text{Standard Temp}}{\text{Standard Temp}} \right| \times 100$$

TRC

PITOT TUBE CALIBRATION

Calibrator R. Szkoda	Pitot ID 901
Date 10-14-99	Geometrically Correct YES





$1.05\ D_t < P < 1.50\ D_t$

$P_a = P_b$

$D_t =$ .375

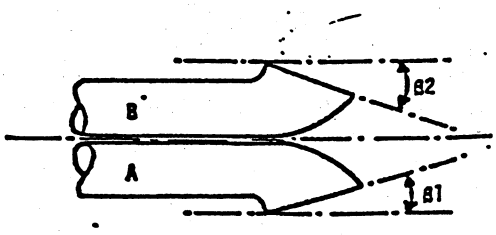
$P_a =$ .439

$P_b =$ .459

α_1 and $\alpha_2 < 10°$

$\alpha_1 =$ 1°

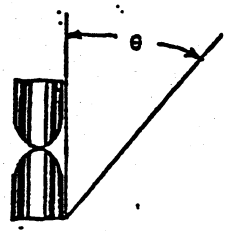
$\alpha_2 =$ 1°



β_1 and $\beta_2 < 5°$

$\beta_1 =$ 1°

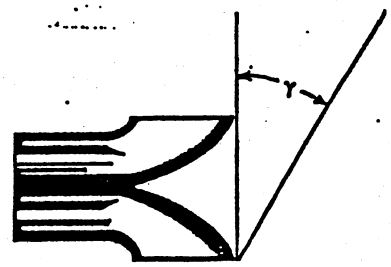
$\beta_2 =$ 0°



$W < 0.0313$

$\theta =$ 0.5°

$W = A \sin\theta =$ 0.007836



$Z < 0.125$

$\gamma =$ 1.5°

$A = P_a + P_b =$ 0.898

$Z = A \sin\gamma =$ 0.023507

TRC

THERMOCOUPLE CALIBRATION

Thermo ID	901
Standard	FLUKE 51
Date	10-14-99
Calibrator	R. SZKODA

Barometric Pressure	24.33" Hg
Ambient Temp °R	541.4

Trial Number	Standard Temp °R	Channel Number 1	2	3	4	5	% Difference
1	493.2	493.2					0.0
2	541.4	541.4					0.0
3							
4							
5							
6							
Comments: Average % Difference = ±1.5% Greatest channel difference used in calculations					Average		0.0

$$\text{Percent Difference} = \left| \frac{\text{Thermo Temp} - \text{Standard Temp}}{\text{Standard Temp}} \right| \times 100$$

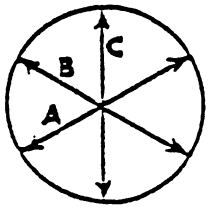
TRC

TRC Environmental Consultants, Inc.

7002 South Revere Parkway
Suite 60
Englewood, CO 80112
(303) 792-5555

NOZZLE CALIBRATION DATA SHEET

NOZZLE SET NO. G-loss DATE 11/2/99 11/5/99 TECHNICIAN R. Ingles Rowan Ashida



NOZZLE NO.	DIAMETER*	A	B	C	AVERAGE**
Unit 3 Inlet	0.255	0.255	0.255	0.255	0.255
Unit 2 Inlet	same nozzle as Unit 3 for Run 1 + Run 2	~~0.255~~	~~0.255~~	~~0.255~~	~~0.255~~
UNIT 2-INLET	REMAINDER RUN-2 AND FOR RUN-3 0.255	0.255	0.255	0.255	0.255

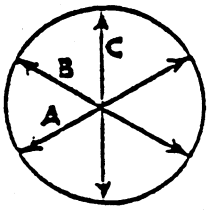
* Measure to nearest .001"
** Three measurements must be within .004" of each other

TRC Environmental Consultants, Inc.

7002 South Revere Parkway
Suite 60
Englewood, CO 80112
(303) 792-5555

NOZZLE CALIBRATION DATA SHEET

NOZZLE SET NO. G-1055 DATE 11/2/99 TECHNICIAN R. Grafton



NOZZLE NO.	DIAMETER*	A	B	C	AVERAGE**
Unit3outlet	0.194	0.194	0.194	0.193	0.194

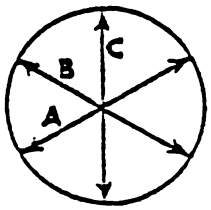
* Measure to nearest .001"
** Three measurements must be within .004" of each other

TRC Environmental Consultants, Inc.

7002 South Revere Parkway
Suite 60
Englewood, CO 80112
(303) 792-5555

NOZZLE CALIBRATION DATA SHEET

NOZZLE SET NO. Unit 2 outlet DATE 11/4/99 11/5/99 TECHNICIAN Scott Peterson R. Saylor



NOZZLE NO.	DIAMETER*	A	B	C	AVERAGE**
Unit #2 outlet	0.180	0.180	0.180	0.180	0.180
~~Run 1: Punch 1~~ Run 2	~~0.188~~				
For Remainder Run 2	0.188	0.187	0.189	0.188	0.188
For Run 3					

* Measure to nearest .001"
** Three measurements must be within .004" of each other

Appendix B - Section 3
Process Data Sheets
UNIT 2

Unit 2
Test Run 1
Coal Feeders
11/04/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
12:18:07	74.28750	79.10000	63.74062	72.49062	289.61874	Start
12:19:26	73.85000	78.68750	63.51250	72.06875	288.11875	
12:20:44	73.58125	78.39687	63.06562	71.74687	286.79061	
12:22:03	73.92812	78.71562	63.43438	72.06875	288.14687	
12:23:22	74.42812	79.20313	63.92500	72.58125	290.13750	
12:24:40	74.68437	79.58750	64.28125	72.88438	291.43750	
12:25:59	75.16250	80.10313	64.71250	73.37813	293.35626	
12:27:18	75.47188	80.29063	64.97813	73.63125	294.37189	
12:28:37	75.46250	80.20000	64.88750	73.55625	294.10625	
12:29:55	76.90000	81.67188	66.33437	74.95313	299.85938	
12:31:14	75.98750	80.73438	65.41563	74.11562	296.25313	
12:32:33	75.51250	80.28125	64.91563	73.63750	294.34688	
12:33:51	75.77812	80.53125	65.23125	73.84688	295.38750	
12:35:10	74.61250	79.43125	64.14687	72.76250	290.95312	
12:36:29	73.30937	78.08437	62.79375	71.40938	285.59687	
12:37:47	73.44688	78.26563	63.05938	71.63438	286.40627	
12:39:06	75.06250	79.97188	64.58750	73.25938	292.88126	
12:40:25	76.45625	81.15938	65.81563	74.59375	298.02501	
12:41:43	73.96250	78.74687	63.50000	72.14687	288.35624	
12:43:02	72.25625	77.08125	61.75312	70.45000	281.54062	
12:44:21	72.68437	77.55937	62.12500	70.80000	283.16874	
12:45:40	73.27812	78.08437	62.78437	71.42188	285.56874	
12:46:58	73.23438	78.15625	62.81250	71.42812	285.63125	
12:48:17	73.35000	78.17188	62.89375	71.51250	285.92813	Stop
12:52:13	74.46250	79.32188	64.04375	72.62500	290.45313	Start
12:53:31	74.87500	79.69688	64.36875	72.99687	291.93750	
12:54:50	74.25313	79.15312	63.84687	72.42500	289.67812	
12:56:09	74.10625	78.85000	63.56562	72.27500	288.79687	
12:57:27	74.50313	79.29375	64.10938	72.63750	290.54376	
12:58:46	75.16250	80.03125	64.46875	73.32188	292.98438	
13:00:05	75.50938	80.30312	65.06563	73.70937	294.58750	
13:01:24	74.92188	79.63125	64.31250	72.93125	291.79688	
13:02:42	74.60625	79.38125	64.02187	72.75313	290.76250	
13:04:01	74.34062	79.36875	64.00938	72.46562	290.18437	
13:05:20	74.77500	79.72500	64.27187	72.91563	291.68750	

Unit 2
Test Run 1
Coal Feeders
11/04/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
13:06:38	74.73438	79.71250	64.38750	72.87187	291.70625	
13:07:57	74.64063	79.62187	64.29063	72.79375	291.34688	
13:09:16	74.64687	79.40312	64.08125	72.58437	290.71561	
13:10:34	73.98438	78.74375	63.51250	72.15625	288.39688	
13:11:53	74.33437	79.19688	63.99375	72.58750	290.11250	
13:13:12	73.96875	78.91250	63.66250	72.24062	288.78437	
13:14:30	74.09062	78.98125	63.74062	72.38750	289.19999	
13:15:49	74.55625	79.29375	63.83437	72.62187	290.30624	
13:17:08	75.30312	80.05000	64.75000	73.33437	293.43749	
13:18:26	74.60938	79.32813	64.14375	72.64063	290.72189	
13:19:45	74.11562	78.95000	63.68750	72.29063	289.04375	
13:21:04	75.76563	80.55312	65.14375	73.81875	295.28125	
13:22:23	75.37187	80.21250	64.83750	73.52187	293.94374	Stop
13:26:19	73.56563	78.43125	63.12188	71.79688	286.91564	Start
13:27:37	74.79688	79.58437	64.33750	72.99687	291.71562	
13:28:56	75.64063	80.35938	65.11875	73.78125	294.90001	
13:30:15	74.47500	79.26875	63.96875	72.50625	290.21875	
13:31:33	72.74062	77.67500	62.26563	70.93125	283.61250	
13:32:52	74.18125	78.98438	63.67500	72.33437	289.17500	
13:34:11	74.69375	79.41875	64.13125	72.84062	291.08437	
13:35:29	73.95937	78.71250	63.47813	72.14687	288.29687	
13:36:48	74.38750	79.17188	63.80938	72.46562	289.83438	
13:38:07	73.86875	78.60000	63.38750	71.98750	287.84375	
13:39:25	74.34375	79.10313	63.88125	72.48438	289.81251	
13:40:44	74.72188	79.63438	64.26250	72.91250	291.53126	Stop
18:12:13	74.43125	79.31250	64.01563	72.71875	290.47813	Start
18:13:31	75.92188	80.66250	65.38438	74.00313	295.97189	
18:14:50	75.04063	79.76875	64.49062	73.15312	292.45312	
18:16:09	75.80312	80.60938	65.20625	73.91875	295.53750	
18:17:27	75.81875	80.62813	65.40625	73.97500	295.82813	
18:18:46	76.17500	80.91563	65.55312	74.21562	296.85937	
18:20:05	76.55625	81.33125	65.93437	74.67812	298.49999	
18:21:24	75.71250	80.49375	65.20000	73.88438	295.29063	
18:22:42	75.60000	80.35625	64.97813	73.65000	294.58438	
18:24:01	76.83125	81.57813	66.19688	74.87813	299.48439	Stop

Unit 2
Test Run 1
Coal Feeders
11/04/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
18:29:16	75.91563	80.53750	65.22813	73.92812	295.60938	Start
18:30:35	75.74062	80.45313	65.25938	73.78750	295.24063	
18:31:54	75.66875	80.38125	65.10938	73.80937	294.96875	
18:33:12	74.89375	79.66875	64.37500	72.97813	291.91563	
18:34:31	74.03125	78.84062	63.68125	72.30312	288.85624	
18:35:50	74.86250	79.72188	64.35313	73.00938	291.94689	
18:37:09	75.63438	80.38125	65.00000	73.64687	294.66250	
18:38:27	79.12813	83.74062	68.36562	77.11250	308.34687	
18:39:46	77.99687	82.73125	67.40625	76.19063	304.32500	
18:41:05	76.63750	81.40625	66.05000	74.65625	298.75000	
18:42:23	76.80000	81.47188	66.11250	74.77500	299.15938	
18:43:42	73.79375	78.63750	63.33750	71.98438	287.75313	
18:45:01	74.21562	79.02812	63.73438	72.39687	289.37499	
18:46:19	75.25625	79.96875	64.61562	73.27500	293.11562	
18:47:38	77.60625	82.27812	66.93750	75.65938	302.48125	
18:48:57	75.90625	80.73125	65.30000	73.94063	295.87813	
18:50:15	75.30000	80.13750	64.79375	73.42812	293.65937	
18:51:34	74.98750	79.87813	64.48125	73.15000	292.49688	
18:52:53	74.47813	79.17188	63.84687	72.41875	289.91563	
18:54:11	73.65000	78.52500	63.24375	71.91875	287.33750	
18:55:30	75.21562	80.04688	64.67812	73.30000	293.24062	
18:56:49	76.35000	81.20625	65.82188	74.42188	297.80001	
18:58:08	76.17500	80.98125	65.55937	74.19688	296.91250	
18:59:26	76.57188	81.49062	65.94063	74.75625	298.75938	End

Overall Summary

Average	**75.34065**	**80.13314**	**64.79926**	**73.44938**	**293.72243**
Maximum	**79.65000**	**84.22500**	**68.87187**	**77.70937**	**310.45624**
Minimum	**71.53438**	**76.44688**	**61.07813**	**69.74062**	**278.80001**

Test Run 1 Summary

Average	**74.94049**	**79.74412**	**64.42437**	**73.07008**	**292.17906**
Maximum	**79.12813**	**83.74062**	**68.36562**	**77.11250**	**308.34687**

Unit 2
Test Run 1
Coal Feeders
11/04/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
Minimum	72.25625	77.08125	61.75312	70.45000	281.54062	

Unit 2
Process Analog Data Listing
Test Run 1

Point		U2_02_wet_O2	U2_02_dry_O2	U2-Load_O2	U2-Heat Input_06	U2-Noxm mBtu-06	U2_H20_%_06	U2_CO2_%_06	U2-SO2m mBtu_06	U2-Flow _Hr_06	U2-SO2m mBtu-70
Units		ppm	%	MWatt	mmBtu/hr	#/mmbtu	I	%	S02 mmBtu	SCFH	InletSO2mm
Full Scale	Time	20	20	350	9000	1.000	100	20	1.2	61080000	1.2
11/04/99	12:15	4.7	5.3	276.6	3,011	0.375	11.32	13.74	0.103	44,495,400	0.84
11/04/99	12:16	4.7	5.4	277.6	2,943	0.388	12.96	13.65	0.094	44,596,200	0.84
11/04/99	12:17	4.9	5.5	276.9	3,009	0.391	10.91	13.56	0.091	44,827,800	0.85
11/04/99	12:18	4.3	5.4	276.5	3,022	0.386	11.11	13.65	0.088	44,826,600	0.85
11/04/99	12:19	4.9	5.7	276.5	2,866	0.402	14.04	13.39	0.081	44,827,800	0.84
11/04/99	12:20	5.0	5.7	275.8	2,924	0.415	12.28	13.39	0.080	44,823,000	0.85
11/04/99	12:21	4.9	5.5	275.8	3,008	0.398	10.91	13.56	0.074	44,820,000	0.84
11/04/99	12:22	4.9	5.6	276.6	2,950	0.406	12.50	13.47	0.067	45,038,400	0.84
11/04/99	12:23	4.9	5.5	276.8	3,027	0.398	10.91	13.56	0.063	45,095,400	0.85
11/04/99	12:24	4.8	5.5	277.1	2,957	0.398	12.73	13.56	0.063	44,980,200	0.84
11/04/99	12:25	4.9	5.6	277.6	2,941	0.406	12.50	13.47	0.062	44,902,800	0.85
11/04/99	12:26	5.0	5.6	277.5	3,001	0.394	10.71	13.47	0.063	44,904,600	0.84
11/04/99	12:27	5.0	5.7	277	2,931	0.407	12.23	13.39	0.064	44,929,800	0.84
11/04/99	12:28	5.1	5.7	275.5	2,990	0.412	10.53	13.39	0.067	44,940,000	0.85
11/04/99	12:29	5.1	5.6	275.5	3,057	0.394	8.93	13.47	0.065	44,842,800	0.84
11/04/99	12:30	5.0	5.6	276.5	2,991	0.399	10.71	13.47	0.069	44,757,000	0.84
11/04/99	12:31	5.0	5.6	275.7	2,992	0.414	10.71	13.47	0.072	44,767,800	0.84
11/04/99	12:32	5.0	5.3	275.7	3,221	0.384	5.66	13.74	0.070	44,731,800	0.84
11/04/99	12:33	4.7	5.3	276.7	3,018	0.382	11.32	13.74	0.073	44,598,000	0.84
11/04/99	12:34	4.9	5.5	277.2	2,993	0.396	10.91	13.56	0.071	44,596,200	0.84
11/04/99	12:35	4.9	5.5	276.4	2,989	0.401	10.91	13.56	0.069	44,531,400	0.84
11/04/99	12:36	4.9	5.3	276	3,141	0.379	7.55	13.74	0.070	44,520,000	0.84
11/04/99	12:37	4.8	5.4	275.8	3,000	0.390	11.11	13.65	0.072	44,509,800	0.83
11/04/99	12:38	4.8	5.3	275	3,066	0.389	9.43	13.74	0.072	44,352,000	0.84
11/04/99	12:39	4.6	5.0	276.4	3,175	0.358	8.00	14.00	0.076	44,359,800	0.84
11/04/99	12:40	4.6	5.3	277.9	2,947	0.385	13.21	13.74	0.074	44,498,400	0.84
11/04/99	12:41	4.8	5.5	277.5	2,934	0.404	12.73	13.56	0.074	44,619,600	0.85
11/04/99	12:42	4.8	5.3	277.1	3,086	0.393	9.43	13.74	0.072	44,647,800	0.85
11/04/99	12:43	4.7	5.3	276.8	3,029	0.381	11.32	13.74	0.076	44,751,600	0.84
11/04/99	12:44	4.7	5.2	277.6	3,106	0.370	9.62	13.83	0.075	44,741,400	0.85
11/04/99	12:45	4.8	5.4	277.9	3,023	0.392	11.11	13.65	0.077	44,848,200	0.85
11/04/99	12:46	4.8	5.3	277.3	3,117	0.388	9.43	13.74	0.079	45,087,000	0.85
11/04/99	12:47	4.8	5.4	277.6	3,039	0.392	11.11	13.65	0.081	45,083,400	0.85
11/04/99	12:48	4.9	5.4	277.9	3,096	0.387	9.26	13.65	0.080	44,994,600	0.85
11/04/99	12:49	4.8	5.4	278.3	3,032	0.382	11.11	13.65	0.079	44,986,200	0.84
11/04/99	12:50	4.9	5.5	278.8	3,024	0.393	10.91	13.56	0.079	45,055,200	0.84
11/04/99	12:51	5.0	5.5	278.6	3,090	0.399	9.09	13.56	0.076	45,120,000	0.84
11/04/99	12:52	5.0	5.5	277.4	3,090	0.417	9.09	13.56	0.077	45,118,800	0.84
11/04/99	12:53	4.8	5.2	277.1	3,188	0.393	7.69	13.83	0.080	44,958,000	0.84
11/04/99	12:54	4.7	5.3	277.9	3,041	0.390	11.32	13.74	0.078	44,936,400	0.83
11/04/99	12:55	4.7	5.3	278.1	3,033	0.388	11.32	13.74	0.080	44,814,600	0.84
11/04/99	12:56	4.8	5.3	278.4	3,087	0.381	9.43	13.74	0.083	44,658,600	0.84
11/04/99	12:57	4.8	5.5	279.7	2,936	0.395	12.73	13.56	0.081	44,655,000	0.84
11/04/99	12:58	5.0	5.6	279.6	2,976	0.400	10.71	13.47	0.077	44,526,600	0.84
11/04/99	12:59	5.0	5.6	278.7	2,973	0.404	10.71	13.47	0.082	44,480,400	0.83
11/04/99	13:00	5.0	5.6	278.3	2,973	0.410	10.71	13.47	0.079	44,475,000	0.84
11/04/99	13:01	5.0	5.6	277.9	2,979	0.414	10.71	13.47	0.084	44,574,600	0.84
11/04/99	13:02	5.0	5.4	277.3	3,131	0.397	7.41	13.65	0.084	44,595,000	0.84
11/04/99	13:03	4.9	5.5	278.2	3,005	0.407	10.91	13.56	0.084	44,767,800	0.85
11/04/99	13:04	5.1	5.8	278.4	2,922	0.428	12.07	13.30	0.080	44,985,000	0.85
11/04/99	13:05	5.2	5.8	278.9	2,980	0.426	10.34	13.30	0.078	44,986,200	0.84
11/04/99	13:06	8.5D	5.9D	278.4	4756D	0.429D	-44.07D	13.21D	0.080D	44,985,000	0.85
11/04/99	13:07	5.5D	5.7D	277.9	3228D	0.423D	3.51D	13.39D	0,080D	44,988,600	0.84
11/04/99	13:08	5.2	5.6	277.2	3,127	0.409	7.14	13.47	0.084	44,988,600	0.84
11/04/99	13:09	5.1	5.7	277	3,003	0.418	10.53	13.39	0.087	45,129,600	0.84
11/04/99	13:10	5.0	5.5	276.5	3,097	0.399	9.09	13.56	0.085	45,215,400	0.84
11/04/99	13:11	5.0	5.7	277	2,949	0.409	12.28	13.39	0.081	45,211,800	0.84
11/04/99	13:12	5.0	5.6	276.6	3,019	0.400	10.71	13.47	0.081	45,176,400	0.86D
11/04/99	13:13	4.9	5.5	276.4	3,032	0.401	10.91	13.56	0.084	45,176,400	0.84D
11/04/99	13:14	4.9	5.4	276.1	3,092	0.386	9.26	13.65	0.087	44,933,400	0-83
11/04/99	13:15	4.8	5.4	276	3,021	0.390	11.11	13.65	0.087	44,818,800	0.84
11/04/99	13:16	4.8	5.5	276.7	2,947	0.396	12.73	13.56	0.087	44,821,800	0.84
11/04/99	13:17	4.8	5.7	268.5	2,806	0.416	15.79	13.39	0.087	44,803,800	0.86
11/04/99	13:18	5.3	6.8	258.4	2,409	0.508	22.06	12.42	0.082	44,801,400	0.86
11/04/99	13:19	6.1	7.0	246	2,629	0.481	12.86	12.24	0.090	44,359,800	0.91
11/04/99	13:20	6.2	7.0	235.3	2,653	0.433	11.43	12.24	0.093	44,052,000	0.86
11/04/99	13:21	6.1	6.8	229.9	2,726	0.407	10.29	12.42	0.089	44,050,200	0.87
11/04/99	13:22	6.0	6.8	226.5	2,615	0.400	11.76	12.42	0.092	42,967,800	0.85
11/04/99	13:23	6.0	6.6	225.8	2,724	0.393	9.09	12.59	0.086	42,826,200	0.84
11/04/99	13:24	6.0	6.8	231.7	2,607	0.411	11.76	12.42	0.084	42,826,800	0.83
11/04/99	13:25	5.9	6.4	238	2,765	0.367	7.81	12.77	0.088	42,275,400	0.84
11/04/99	13:26	5.7	6.5	240.4	2,552	0.369	12.31	12.68	0.087	41,307,000	0.84
11/04/99	13:27	5.8	6.5	240.6	2,596	0.368	10.77	12.68	0.086	41,304,600	0.84
11/04/99	13:28	5.9	6.5	238	2,585	0.370	9.23	12.68	0.087	40,428,000	0.84
11/04/99	13:29	5.9	6.6	234.7	2,528	0.370	10.61	12.59	0.089	40,422,000	0.84
11/04/99	13:30	5.8	6.5	230.1	2,541	0.360	10.77	12.68	0.090	40,423,800	0.84
11/04/99	13:31	5.8	6.5	226.4	2,527	0.356	10.77	12.68	0.090	40,201,200	0.84
11/04/99	13:32	5.8	6.4	222.3	2,572	0.358	9.38	12.77	0.085	40,016,400	0.84
11/04/99	13:33	5.6	6.3	221	2,541	0.358	11.11	12.86	0.085	40,013,400	0.85
11/04/99	13:34	5.7	6.5	215.2	2,459	0.368	12.31	12.68	0.086	39,802,800	0.85
11/04/99	13:35	5.8	6.5	213.1	2,459	0.364	10.77	12.68	0.085	39,111,600	0.85
11/04/99	13:36	5.8	6.6	214.3	2,405	0.365	12.12	12.59	0.086	39,111,600	0.85
11/04/99	13:37	6.0	6.8	213.5	2,381	0.371	11.76	12.42	0.084	39,117,000	0.85
11/04/99	13:38	6.0	6.7	213.6	2,390	0.365	10.45	12.50	0.087	38,409,600	0.85
11/04/99	13:39	6.0	6.9	212.7	2,270	0.377	13.04	12.33	0.086	38,113,800	0.85
11/04/99	13:40	6.1	6.8	211.9	2,358	0.371	10.29	12.42	0.086	38,106,600	0.85
11/04/99	13:41	6.1	6.7	212.4	2,369	0.368	8.96	12.50	0.083	37,456,200	0.85
11/04/99	13:42	6.0	6.6	211.1	2,361	0.366	9.09	12.59	0.088	37,114,800	0.84
11/04/99	13:43	6.0	6.7	211.1	2,309	0.368	10.45	12.50	0.088	37,119,600	0.84
11/04/99	13:44	6.0	6.6	211.8	2,357	0.365	9.09	12.59	0.086	37,063,800	0.84
11/04/99	13:45	6.0	6.6	211.9	2,337	0.365	9.09	12.59	0.085	36,739,800	0.84
11/04/99	13:46	5.9	6.5	211.2	2,350	0.359	9.23	12.68	0.087	36,745,200	0.85
11/04/99	13:47	5.9	6.5	211.9	2,349	0.357	9.23	12.68	0.087	36,731,400	0.85

Unit 2
Process Analog Data Listing
Test Run 1

Point		U2_02_wet_O2	U2_02_dry_O2	U2-Load_O2	U2-Heat Input_06	U2-Noxm mBtu-06	U2_H20_%_06	U2_CO2_%_06	U2-SO2m mBtu_06	U2-Flow _Hr_06	U2-SO2m mBtu-70
Units		ppm	%	MWatt	mmBtu/hr	#/mmbtu	I	%	S02 mmBtu	SCFH	InletSO2mm
Full Scale	Time	20	20	350	9000	1.000	100	20	1.2	61080000	1.2
11/04/99	13:48	5.8	6.5	212.1	2,302	0.354	10.77	12.68	0.087	36,612,000	0.85
11/04/99	13:49	5.8	6.5	211.7	2,302	0.354	10.77	12.68	0.086	36,613,200	0.85
11/04/99	13:50	5.8	6.6	210.9	2,251	0.360	12.12	12.59	0.086	36,609,600	0.85
11/04/99	13:51	5.8	6.5	210.5	2,301	0.357	10.77	12.68	0.084	36,607,800	0.85
11/04/99	13:52	5.8	6.6	210.1	2,251	0.361	12.12	12.59	0.083	36,607,800	0.85
11/04/99	13:53	5.9	6.7	209.7	2,240	0.371	11.94	12.50	0.081	36,607,800	0.84
11/04/99	13:54	5.9	6.5	209.9	2,338	0.358	9.23	12.68	0.083	36,559,800	0.84
11/04/99	13:55	5.8	6.5	211	2,296	0.358	10.77	12.68	0.086	36,521,400	0.84
11/04/99	13:56	5.7	6.3	211.4	2,360	0.345	9.52	12.86	0.088	36,523,800	0.85
11/04/99	13:57	5.6	6.4	211.9	2,268	0.349	12.50	12.77	0.088	36,536,400	0.85
11/04/99	13:58	5.8	6.6	212.1	2,249	0.361	12.12	12.59	0.083	36,575,400	0.85
11/04/99	13:59	5.8	6.4	211.8	2,351	0.349	9.38	12.77	0.084	36,574,800	0.85
11/04/99	14:00	5.8	6.5	211	2,299	0.353	10.77	12.68	0.086	36,568,200	0.85
11/04/99	14:01	5.9	6.5	211.1	2,338	0.353	9.23	12.68	0.087	36,568,800	0.85
11/04/99	14:02	5.9	6.5	210.4	2,339	0.356	9.23	12.68	0.084	36,573,000	0.85
11/04/99	14:03	5.9	6.5	209.8	2,338	0.354	9.23	12.68	0.083	36,568,800	0.84
11/04/99	14:04	5.8	6.5	210.2	2,299	0.353	10.77	12.68	0.085	36,574,800	0.84
11/04/99	14:05	5.8	6.4	211.1	2,352	0.347	9.38	12.77	0.085	36,579,600	0.84
11/04/99	14:06	8.9	6.5	210.7	3529D	0.352D	-36.92D	12.68D	0.078	36,583,200	0.84
11/04/99	14:07	5.9	6.5	210.6	2339D	0.353D	9.23D	12.68	0.085D	36,577,800	0.84
11/04/99	14:08	5.8	6.5	210.7	2,299	0.354	10.77	12.68	0.087	36,574,800	0.85
11/04/99	14:09	5.7	6.6	210.9	2,211	0.355	13.64	12.59	0.087	36,593,400	0.85
11/04/99	14:10	5.7	6.4	210.2	2,312	0.345	10.94	12.77	0.086	36,593,400	0.85
11/04/99	14:11	5.6	6.5	209.2	2,221	0.354	13.85	12.68	0.084	36,590,400	0.85
11/04/99	14:12	5.7	6.6	209.5	2,208	0.359	13.64	12.59	0.081	36,541,800	0.76D
11/04/99	14:13	5.7	6.4	210.4	2,307	0.349	10.94	12.77	0.085	36,518,400	0.84D
11/04/99	14:14	5.7	6.5	209.9	2,256	0.358	12.31	12.68	0.082	36,525,000	0.84
11/04/99	14:15	5.8	6.5	209.9	2,297	0.354	10.77	12.68	0.081	36,541,800	0.85
11/04/99	14:16	5.8	6.6	209	2,248	0.358	12.12	12.59	0.084	36,556,200	0.84
11/04/99	14:17	5.9	6.5	209.8	2,337	0.359	9.23	12.68	0.081	36,548,400	0.84
11/04/99	14:18	5.7	6.3	210.4	2,362	0.342	9.52	12.86	0.081	36,553,200	0.85
11/04/99	14:19	5.6	6.3	211.2	2,322	0.341	11.11	12.86	0.079	36,575,400	0.85
11/04/99	14:20	5.7	6.6	210.7	2,209	0.351	13.64	12.59	0.083	36,570,000	0.85
11/04/99	14:21	5.9	6.6	211.5	2,287	0.353	10.61	12.59	0.081	36,573,000	0.85
11/04/99	14:22	5.8	6.4	210.9	2,346	0.347	9.38	12.77	0.085	36,498,000	0.85
11/04/99	0:00	5.8	6.5	210.2	2,294	0.353	10.77	12.68	0.084	36,498,600	0.85
11/04/99	0:00	5.8	6.5	210.7	2,294	0.353	10.77	12.68	0.085	36,500,400	0.84
11/04/99	14:25	5.7	6.4	210	2,301	0.347	10.94	12.77	0.089	36,418,200	0.84
11/04/99	14:26	5.7	6.4	210.9	2,299	0.346	10.94	12.77	0.087	36,388,800	0.85
11/04/99	14:27	5.7	6.5	210.4	2,248	0.353	12.31	12.68	0.087	36,381,600	0.85
11/04/99	14:28	5.8	6.7	210	2,184	0.364	13.43	12.50	0.082	36,306,600	0.84
11/04/99	14:29	5.8	6.5	209	2,280	0.351	10.77	12.68	0.081	36,268,800	0.84
11/04/99	14:30	5.7	6.4	209.8	2,292	0.350	10.94	12.77	0.083	36,271,800	0.85
11/04/99	14:31	5.7	6.5	211.2	2,241	0.353	12.31	12.68	0.085	36,271,200	0.85
11/04/99	14:32	5.8	6.4	210.4	2,337	0.349	9.38	12.77	0.084	36,360,000	0.85
11/04/99	14:33	5.7	6.5	210	2,248	0.358	12.31	12.68	0.087	36,386,400	0.85
11/04/99	14:34	5.8	6.6	209.3	2,237	0.360	12.12	12.59	0.087	36,386,400	0.85
11/04/99	14:35	5.9	6.6	209.4	2,282	0.358	10.61	12.59	0.087	36,488,400	0.85
11/04/99	14:36	5.9	6.5	209	2,335	0.356	9.23	12.68	0.084	36,522,000	0.85
11/04/99	14:37	5.9	6.5	208.2	2,335	0.357	9.23	12.68	0.088	36,518,400	0.85
11/04/99	14:38	5.8	6.4	208.8	2,347	0.350	9.38	12.77	0.089	36,511,200	0.85
11/04/99	14:39	5.8	6.5	208.8	2,297	0.352	10.77	12.68	0.087	36,536,400	0.85
11/04/99	14:40	5.8	6.5	209.2	2,297	0.355	10.77	12.68	0.086	36,533,400	0.85
11/04/99	14:41	5.9	6.6	208.6	2,279	0.362	10.61	12.59	0.087	36,440,400	0.85
11/04/99	14:42	6.0	6.8	208	2,211	0.375	11.76	12.42	0.085	36,325,200	0.84
11/04/99	14:43	6.1	6.5	209	2,402	0.358	6.15	12.68	0.082	36,333,600	0.84
11/04/99	14:44	5.7	6.1	209.5	2,458	0.335	6.56	13.03	0.082	36,331,200	0.85
11/04/99	14:45	5.6	6.4	210.1	2,253	0.350	12.50	12.77	0.078	36,295,200	0.84
11/04/99	14:46	5.7	6.4	210.1	2,293	0.349	10.94	12.77	0.085	36,293,400	0.85
11/04/99	14:47	5.7	6.6	210	2,192	C.360	13.64	12.59	0.086	36,286,800	0.84
11/04/99	14:48	5.9	6.3	210.9	2,429	0.344	6.35	12.86	0.082	36,310,200	0.84
11/04/99	14:49	5.7	6.3	210.6	2,347	0.345	9.52	12.86	0.086	36,313,200	0.84
11/04/99	14:50	5.7	6.4	209.5	2,294	0.351	10.94	12.77	0.087	36,308,400	0.84
11/04/99	14:51	5.8	6.5	210.3	2,282	0.354	10.77	12.68	0.086	36,306,600	0.84
11/04/99	14:52	5.8	6.5	210.1	2,285	0.354	10.77	12.68	0.087	36,346,200	0.85
11/04/99	14:53	5.8	6.5	210.5	2,285	0.355	10.77	12.68	0.085	36,350,400	0.84
11/04/99	14:54	5.8	6.4	210.8	2,338	0.348	9.38	12.77	0.085	36,364,800	0.85
11/04/99	14:55	5.7	6.4	210	2,298	0.350	10.94	12.77	0.083	36,376,200	0.85
11/04/99	14:56	5.9	6.6	210.7	2,274	0.360	10.61	12.59	0.084	36,367,800	0.84
11/04/99	14:57	5.9	6.4	210.3	2,378	0.349	7.81	12.77	0.084	36,367,800	0.84
11/04/99	14:58	5.7	6.2	211	2,397	0.340	8.06	12.95	0.084	36,256,200	0.85
11/04/99	14:59	5.7	6.7	209.9	2,138	0.362	14.93	12.50	0.081	36,178,800	0.85
11/04/99	15:00	6.1	6.7	209.7	2,288	0.362	8.96	12.50	0.081	36,177,000	0.84
11/04/99	15:01	5.9	6.5	210.7	2,317	0.351	9.23	12.68	0.083	36,235,200	0.85
11/04/99	15:02	5.9	6.5	210.8	2,320	0.352	9.23	12.68	0.085	36,286,800	0.85
11/04/99	15:03	5.8	6.5	210.4	2,282	0.355	10.77	12.68	0.087	36,298,800	0.85
11/04/99	15:04	5.9	6.6	210.8	2,270	0.356	10.61	12.59	0.083	36,297,000	0.85
11/04/99	15:05	5.9	6.5	210.6	2,321	0.356	9.23	12.68	0.082	36,297,000	0.85
11/04/99	15:06	9.3D	6.3D	211.6	3827D	0.341D	-47.62D	12.86D	0.083D	36,293,400	0.85
11/04/99	15:07	5.9D	6.3D	211.7	2428D	0.343D	6.35D	12.86D	0.086D	36,297,000	0.84
11/04/99	15:08	5.6	6.1	211.3	2,412	0.328	8.20	13.03	0.086	36,288,000	0.85
11/04/99	15:09	5.5	6.3	211.5	2,260	0.341	12.70	12.86	0.083	36,238,200	0.84
11/04/99	15:10	5.6	6.4	210.9	2,230	0.352	12.50	12.77	0.087	35,933,400	0.84
11/04/99	15:11	5.6	6.2	211.8	2,334	0.337	9.68	12.95	0.085	35,933,400	0.84
11/04/99	15:12	5.5	6.0	210.8	2,395	0.329	8.33	13.12	0.084	35,844,600	0.75D
11/04/99	15:13	5.3	6.0	211.2	2,294	0.327	11.67	13.12	0.081	35,626,800	0.84D
11/04/99	15:14	5.3	6.1	211.3	2,241	0.328	13.11	13.03	0.087	35,623,800	0.85
11/04/99	15:15	5.5	6.1	211.3	2,325	0.326	9.84	13.03	0.090	35,622,000	0.85
11/04/99	15:16	5.4	6.2	211.3	2,208	0.334	12.90	12.95	0.088	35,250,000	0.85
11/04/99	15:17	5.7	6.5	210.9	2,174	0.347	12.31	12.68	0.085	35,187,000	0.85
11/04/99	15:18	5.7	6.5	209.9	2,176	0.348	12.31	12.68	0.084	35,221,200	0.85
11/04/99	15:19	5.8	6.5	209.8	2,223	0.352	10.77	12.68	0.084	35,356,200	0.84
11/04/99	15:20	5.8	6.4	209.8	2,273	0.351	9.38	12.77	0.084	35,355,000	0.84

Unit 2
Process Analog Data Listing
Test Run 1

Point		U2_02_wet_O2	U2_02_dry_O2	U2-Load_O2	U2-Heat Input_06	U2-Noxm mBtu-06	U2_H20_%_06	U2_CO2_%_06	U2-SO2m mBtu_06	U2-Flow _Hr_06	U2-SO2m mBtu-70
Units		ppm	%	MWatt	mmBtu/hr	#/mmbtu	I	%	S02 mmBtu	SCFH	InletSO2mm
Full Scale	Time	20	20	350	9000	1.000	100	20	1.2	61080000	1.2
11/04/99	15:21	5.7	6.5	210.5	2,184	0.352	12.31	12.68	0.084	35,355,000	0.84
11/04/99	15:22	5.7	6.4	211.2	2,257	0.346	10.94	12.77	0.085	35,731,800	0.85
11/04/99	15:23	5.7	6.4	210.6	2,260	0.347	10.94	12.77	0.086	35,773,800	0.85
11/04/99	15:24	5.7	6.5	210.7	2,210	0.354	12.31	12.68	0.081	35,773,200	0.84
11/04/99	15:25	5.7	6.4	210.7	2,280	0.351	10.94	12.77	0.079	36,088,200	0.84
11/04/99	15:26	5.6	6.4	210.7	2,248	0.351	12.50	12.77	0.080	36,213,000	0.84
11/04/99	15:27	5.7	6.4	211.4	2,288	0.351	10.94	12.77	0.082	36,213,600	0.84
11/04/99	15:28	5.7	6.2	212.3	2,395	0.337	8.06	12.95	0.083	36,215,400	0.85
11/04/99	15:29	5.6	6.4	211.3	2,248	0.346	12.50	12.77	0.086	36,219,600	0.85
11/04/99	15:30	5.7	6.4	211	2,288	0.348	10.94	12.77	0.084	36,218,400	0.85
11/04/99	15:31	5.8	6.4	211.3	2,330	0.348	9.38	12.77	0.083	36,250,200	0.85
11/04/99	15:32	5.8	6.5	210.6	2,283	0.350	10.77	12.68	0.085	36,318,000	0.84
11/04/99	15:33	5.8	6.3	211	2,388	0.345	7.94	12.86	0.085	36,316,800	0.84
11/04/99	15:34	5.7	6.3	211.1	2,347	0.345	9.52	12.86	0.084	36,319,800	0.84
11/04/99	15:35	5.7	6.4	211.7	2,296	0.348	10.94	12.77	0.086	36,346,800	0.84
11/04/99	15:36	5.8	6.4	211.9	2,337	0.350	9.38	12.77	0.085	36,348,600	0.84
11/04/99	15:37	5.8	6.3	213.1	2,390	0.343	7.94	12.86	0.086	36,350,400	0.86
11/04/99	15:38	5.7	6.4	212.6	2,297	0.342	10.94	12.77	0.082	36,365,400	0.85
11/04/99	15:39	5.8	6.7	212.3	2,195	0.359	13.43	12.50	0.081	36,498,600	0.85
11/04/99	15:40	5.9	6.7	212.6	2,233	0.371	11.94	12.50	0.083	36,493,200	0.85
11/04/99	15:41	6.1	6.8	211.7	2,250	0.364	10.29	12.42	0.081	36,351,600	0.84
11/04/99	15:42	6.1	6.7	211.6	2,295	0.363	8.96	12.50	0.081	36,279,600	0.84
11/04/99	15:43	5.9	6.6	210.7	2,268	0.358	10.61	12.59	0.087	36,270,000	0.85
11/04/99	15:44	6.0	6.7	210.2	2,246	0.353	10.45	12.50	0.089	36,099,600	0.85
11/04/99	15:45	6.0	6.6	210.6	2,287	0.363	9.09	12.59	0.086	35,953,800	0.85
11/04/99	15:46	6.0	6.6	211	2,287	0.360	9.09	12.59	0.086	35,961,600	0.86
11/04/99	15:47	6.0	6.7	210.9	2,237	0.367	10.45	12.50	0.084	35,953,800	0.85
11/04/99	15:48	6.1	6.7	210.2	2,269	0.368	8.96	12.50	0.083	35,881,800	0.84
11/04/99	15:49	6.0	6.6	210.1	2,282	0.363	9.09	12.59	0.084	35,881,200	0.84
11/04/99	15:50	6.0	6.5	209.2	2,333	0.359	7.69	12.68	0.085	35,877,000	0.84
11/04/99	15:51	5.9	6.4	208.6	2,346	0.350	7.81	12.77	0.088	35,868,600	0.84
11/04/99	15:52	5.9	6.5	209	2,293	0.357	9.23	12.68	0.083	35,863,200	0.84
11/04/99	15:53	5.9	6.5	209.1	2,293	0.357	9.23	12.68	0.080	35,859,600	0.84
11/04/99	15:54	5.8	6.4	209.5	2,305	0.348	9.38	12.77	0.081	35,861,400	0.84
11/04/99	15:55	5.8	6.4	209.9	2,305	0.345	9.38	12.77	0.080	35,860,200	0.84
11/04/99	15:56	5.7	6.4	209.4	2,266	0.343	10.94	12.77	0.085	35,860,200	0.84
11/04/99	15:57	5.7	6.3	210.1	2,317	0.343	9.52	12.86	0.086	35,858,400	0.84
11/04/99	15:58	5.7	6.4	209	2,266	0.350	10.94	12.77	0.086	35,862,000	0.84
11/04/99	15:59	5.7	6.4	209.2	2,266	0.345	10.94	12.77	0.087	35,863,800	0.84
11/04/99	16:00	5.7	6.3	208.9	OB	0.000B	100.OOB	18.40B	0.000D	OB	0.00B
11/04/99	16:01	5.7	6.4	208.9	2,264	0.347	10.94	12.77	0.087	35,832,000	0.84
11/04/99	16:02	5.7	6.2	209.2	2,369	0.337	8.06	12.95	0.086	35,823,000	0.85
11/04/99	16:03	5.6	6.3	209	2,275	0.340	11.11	12.86	0.086	35,823,600	0.85
11/04/99	16:04	5.6	6.2	208.4	2,327	0.331	9.68	12.95	0.083	35,818,200	0.85
11/04/99	16:05	5.6	6.1	208.8	2,381	0.330	8.20	13.03	0.082	35,826,600	0.85
11/04/99	16:06	9.4	6.2	209	3906D	0.330D	-51.61D	12.95D	0.084D	35,823,000	0.85
11/04/99	16:07	5.9D	6.4D	208.9	2343D	0.345D	7.81D	12.77D	0.084D	35,823,000	0.85
11/04/99	16:08	5.7	6.4	208.6	2,263	0.347	10.94	12.77	0.083	3S825400	0.85
11/04/99	16:09	5.8	6.4	208.4	2,304	0.348	9.38	12.77	0.082	35,846,400	0.84
11/04/99	16:10	5.6	6.2	208	2,332	0.337	9.68	12.95	0.083	35,902,800	0.85
11/04/99	16:11	5.7	6.5	206.9	221-8	0.347	12.31	12.68	0.082	35,901,600	0.85
11/04/99	16:12	5.8	6.4	206.1	2,308	0.350	9.38	12.77	0.085	35,901,600	0.78D
11/04/99	16:13	5.7	6.3	206.4	2,320	0.345	9.52	12.86	0.085	35,895,000	0.83D
11/04/99	16:14	5.6	6.0	207.2	2,441	0.329	6.67	13.12	0.085	35,872,800	0.84
11/04/99	16:15	5.4	6.0	207.4	2,354	0.328	10.00	13.12	0.084	35,883,000	0.811
11/04/99	16:16	5.4	6.1	209	2,303	0.331	11.48	13.03	0.086	35,926,200	0.84
11/04/99	16:17	5.4	6.2	207.4	2,252	0.332	12.90	12.95	0.088	35,958,000	0.84
11/04/99	16:18	5.5	6.2	207	2,294	0.337	11.29	12.95	0.086	35,953,800	0.84
11/04/99	16:19	5.5	6.2	207.9	2,294	0.339	11.29	12.95	0.084	35,956,200	0.84
11/04/99	16:20	5.5	6.1	208.5	2,357	0.335	9.84	13.03	0.082	36,109,800	0.84
11/04/99	16:21	5.5	6.1	208.4	2,357	0.332	9.84	13.03	0.080	36,105,000	0.84
11/04/99	16:22	5.4	6.1	208.6	2,314	0.331	11.48	13.03	0.085	36,106,800	0.85
11/04/99	16:23	5.6	6.4	207.9	2,243	0.348	12.50	12.77	0.080	36,142,800	0.84
11/04/99	16;24	5.7	6.2	208.5	2,390	0.337	8.06	12.95	0.083	36,138,600	0.84
11/04/99	16:25	5.5	6.1	209.1	2,359	0.332	9.84	13.03	0.084	36,141,600	0.85
11/04/99	16:26	5.5	6.3	208.2	2,250	0.338	12.70	12.86	0.083	36,081,600	0.84
11/04/99	16:27	5.7	6.3	208	2,325	0.344	9.52	12.86	0.083	35,977,800	0.84
11/04/99	16:28	5.7	6.2	208.4	2,378	0.333	8.06	12.95	0.084	35,970,000	0.85
11/04/99	16:29	5.6	6.2	208.1	2,330	0.338	9.68	12.95	0.086	35,876,400	0.85
11/04/99	16:30	5.6	6.2	209.5	2,325	0.335	9.68	12.95	0.084	35,800,200	0.84
11/04/99	16:31	5.6	6.3	208.8	2,273	0.342	11.11	12.86	0.087	35,805,000	0.85
11/04/99	16:32	5.7	6.4	208.2	2,262	0.345	10.94	12.77	0.085	35,803,800	0.84
11/04/99	16:33	5.6	6.2	208.9	2,332	0.337	9.68	12.95	0.083	35,904,600	0.84
11/04/99	16:34	5.5	6.1	209.5	2,345	0.330	9.84	13.03	0.083	35,921,400	0.85
11/04/99	16:35	5.6	6.2	208.9	2,335	0.333	9.68	12.95	0.082	35,940,000	0.86
11/04/99	16:36	5.6	6.5	208.6	2,185	0.347	13.85	12.68	0.083	36,001,800	0.85
11/04/99	16:37	5.8	6.5	208.4	2,263	0.346	10.77	12.68	0.083	36,001,800	0.84
11/04/99	16:38	5.7	6.3	209.1	2,326	0.347	9.52	12.86	0.084	35,994,600	0.84
11/04/99	16:39	5.6	6.2	210.8	2,332	0.332	9.68	12.95	0.086	35,908,200	0.84
11/04/99	16:40	5.5	5.9	210.2	2,453	0.280	6.78	13.21	0.089	35,853,000	0.84
11/04/99	16:41	5.3	5.6	210.1	2,540	0.262	5.36	13.47	0.091	35,855,400	0.85
11/04/99	16:42	5.0	5.6	209.3	2,331	0.264	10.71	13.47	0.095	34,872,000	0.85
11/04/99	16:43	5.1	5.5	208.5	2,424	0.263	7.27	13.56	0.091	34,700,400	0.86
11/04/99	16:44	5.0	5.7	208.3	2,264	0.287	12.28	13.39	0.086	34,710,000	0.85
11/04/99	16:45	5.1	5.6	208.7	2,359	0.295	8.93	13.47	0.086	34,608,600	0.85
11/04/99	16:46	5.1	6.0	208.9	2,119	0.317	15.00	13.12	0.085	34,201,200	0.85
11/04/99	16:47	5.4	6.1	209.3	2,191	0.327	11.48	13.03	0.080	34,190,400	0.85
11/04/99	16:48	5.5	6.2	209.8	2,187	0.339	11.29	12.95	0.074	34,275,000	0.84
11/04/99	16:49	5.6	6.2	209.3	2,239	0.337	9.68	12.95	0.075	34,474,800	0.85
11/04/99	16:50	5.6	6.2	209.4	2,239	0.338	9.68	12.95	0.077	34,474,800	0.84
11/04/99	16:51	5.6	6.2	209.2	2,239	0.338	9.68	12.95	0.078	34,476,600	0.85
11/04/99	16:52	5.6	6.3	209.4	2,231	0.341	11.11	12.86	0.075	35,136,600	0.85
11/04/99	16:53	5.6	6.1	210.1	2,361	0.330	8.20	13.03	0.079	35,526,600	0.85

Unit 2
Process Analog Data Listing
Test Run 1

Point		U2_02_wet_O2	U2_02_dry_O2	U2-Load_O2	U2-Heat Input_06	U2-Noxm mBtu-06	U2_H20_%_06	U2_CO2_%_06	U2-SO2m mBtu_06	U2-Flow _Hr_06	U2-SO2m mBtu-70
Units		ppm	%	MWatt	mmBtu/hr	#/mmbtu	I	%	S02 mmBtu	SCFH	InletSO2mm
Full Scale	Time	20	20	350	9000	1.000	100	20	1.2	61080000	1.2
11/04/99	16:54	5.4	6.1	210.6	2,277	0.331	11.48	13.03	0.082	35,529,600	0.85
11/04/99	16:55	5.4	6.2	209.3	2,237	0.329	12.90	12.95	0.082	35,715,000	0.85
11/04/99	16:56	5.5	6.3	209	2,253	0.338	12-70	12.86	0.084	36,125,400	0.85
11/04/99	16:57	5.6	6.2	208.4	2,346	0.336	9.68	12.95	0.084	36,120,000	0.85
11/04/99	16:58	5.6	6.3	208	2,294	0.338	11.11	12.86	0.084	36,123,000	0.85
11/04/99	16:59	5.7	64.0	207.2	2,266	0.348	10-94	12.77	0.081	35,861,400	0.84
11/04/99	17:00	5.7	6.4	207.2	0B	0.00B	100.0B	18.40B	0.00B	0B	0.00B
11/04/99	17:01	5.7	6.3	208.1	2,315	0.342	9.52	12.86	0.083	35,820,000	0.84
11/04/99	17:02	5.6	6.1	208.4	2,371	0.333	8.20	13.03	0.083	35,668,200	0.85
11/04/99	17:03	5.5	6.1	208.4	2,327	0.330	9.84	13.03	0.081	35,647,800	0.86
11/04/99	17:04	5.6	6.4	208.4	2,213	0.346	12-50	12.77	0.081	35,647,800	0.86
11/04/99	17:05	5.7	6.5	207.4	2,202	0.344	12.31	12.68	0.080	35,636,400	0.86
11/04/99	17:06	10.1	6.5	207.4	3901D	0.347D	-55.38D	12.68D	0.083D	35,635,200	0.85
11/04/99	17:07	6.1	6.4D	207.4	2409D	0.348D	4-69D	12.77D	0.089D	35,637,000	0.86
11/04/99	17:08	5.8	6.4	205.7	2,291	0.354	9.38	12.77	0.085	35,637,000	0.86
11/04/99	17:09	5.8	6.7	205.1	2,143	0.374	13.43	12.50	0.080	35,634,600	0.85
11/04/99	17:10	5.9	6.5	205.2	2,272	0.359	9.23	12.68	0.083	35,531,400	0.84
11/04/99	17:11	5.7	6.2	206.5	2,348	0.336	8.06	12.95	0.087	35,512,800	0.84
11/04/99	17:12	5.4	6.2	207.8	2,225	0.328	12.90	12.95	0.092	35,516,400	0.80D
11/04/99	17:13	5.4	6.4	208	2,130	0.340	15.63	12.77	0.084	35,592,000	0.84D
11/04/99	17:14	5.6	6.4	209.3	2,211	0.340	12.50	12.77	0.084	35,618,400	0.87
11/04/99	17:15	5.5	6.1	211.1	2,325	0.353	9.84	13.03	0.089	35,613,000	0.87
11/04/99	17:16	5.5	6.5	211.6	2,123	0.393	15.38	12.68	0.086	35,614,800	0.86
11/04/99	17:17	5.7	6.4	212.3	2,259	0.394	10-94	12.77	0.082	35,758,200	0.86
11/04/99	17:18	5.7	6.5	215.1	2,209	0.416	12.31	12.68	0.083	35,764,800	0.86
11/04/99	17:19	5.8	6.6	219.2	2,200	0.431	12.12	12.59	0.082	35,785,200	0.85
11/04/99	17:20	5.8	6.1	222.1	2,482	0.409	4.92	13.03	0.082	36,056,400	0.85
11/04/99	17:21	5.4	6.2	226.1	2,258	0.424	12.90	12.95	0.087	36,053,400	0.84
11/04/99	17:22	5.5	5.8	228.4	2,526	0.393	5.17	13.30	0.089	36,053,400	0.84
11/04/99	17:23	5.2	5.6	230.7	2,535	0.372	7.14	13.47	0.088	36,470,400	0.84
11/04/99	17:24	4.9	5.1	233	2,743	0.343	3.92	13.91	0.094	36,928,800	0.85
36468	17:25	4.6	5.2	234.8	2,509	0.349	11-54	13.83	0.096	36,928,200	0.86
11/04/99	17:26	4.7	5.3	235.3	2,531	0.339	11.32	13.74	0.097	37,392,000	0.87
11/04/99	17:27	4.8	5.7	237.2	2,371	0.374	15.79	13.39	0.096	37,866,600	0.87
11/04/99	17:28	5.0	5.7	239.4	2,470	0.377	12.28	13.39	0.092	37,860,000	0.86
11/04/99	17:29	5.1	5.9	241.9	2,428	0.404	13-56	13.21	0.086	38,269,800	0.86
11/04/99	17:30	5.2	5.8	245.1	2,566	0.402	10-34	13.30	0.083	38,743,800	0.86
11/04/99	17:31	5.2	5.8	247.6	2,566	0.407	10.34	13.30	0.082	38,745,000	0.85
11/04/99	17:32	5.1	5.6	250.8	2,659	0.385	8.93	13.47	0.084	39,003,000	0.84
11/04/99	17:33	4.9	5.2	253.7	2,851	0.345	5.77	13.83	0.084	39,387,000	0.86
11/04/99	17:34	4.7	5.4	254.2	2,600	0.364	12.96	13.65	0.090	39,391,800	0.86
11/04/99	17:35	4.8	5.6	254.3	2,543	0.389	14.29	13.47	0.090	39,633,000	0.86
11/04/99	17:36	5.0	5.8	255.9	2,552	0.400	13.79	13.30	0.089	40,063,800	0.86
11/04/99	17:37	5.1	5.6	258.5	2,732	0.378	8.93	13.47	0.088	40,070,400	0.86
11/04/99	17:38	5.0	5.3	261	2,905	0.370	5.66	13.74	0.089	40,353,600	0.85
11/04/99	17:39	4.7	5.3	261.9	2,773	0.369	11.32	13.74	0.086	40,971,600	0.86
11/04/99	17:40	4.8	5.5	262.2	2,694	0.394	12.73	13.56	0.086	40,966,800	0.86
11/04/99	17:41	5.0	5.6	262.4	2,750	0.400	10.71	13.47	0.086	41,148,600	0.85
11/04/99	17:42	5.0	5.2	264.1	3,065	0.389	3.85	13.83	0.086	41,508,000	0.85
11/04/99	17:43	4.7	5.1	265.2	2,957	0.373	7.84	13.91	0.088	41,506,800	0.85
11/04/99	17:44	4.7	5.3	266	2,817	0.388	11.32	13.74	0.087	41,621,400	0.86
11/04/99	17:45	4.8	5.3	266.8	2,921	0.389	9.43	13.74	0.080	42,253,800	0.85
11/04/99	17:46	4.7	5.4	267.2	2,790	0.396	12.96	13.65	0.083	42,263,400	0.85
11/04/99	17:47	4.8	5.4	267.2	2,873	0.400	11.11	13.65	0.084	42,627,000	0.85
11/04/99	17:48	4.8	5.3	267.4	2,956	0.392	9.43	13.74	0.086	42,768,000	0.85
11/04/99	17:49	4.7	5.1	269.4	3,047	0.385	7.84	13.91	0.085	42,768,600	0.86
11/04/99	17:50	4.6	5.1	270.7	2,986	0.376	9.80	13.91	0.085	42,830,400	0.86
11/04/99	17:51	4.5	5.1	272	2,928	0.377	11.76	13.91	0.086	42,928,200	0.85
11/04/99	17:52	4.5	5.0	273.8	3,006	0.370	10.00	14.00	0.088	42,933,000	0.85
11/04/99	17:53	4.5	5.0	274.6	3,006	0.364	10.00	14.00	0.091	42,941,400	0.87
11/04/99	17:54	4.5	5.1	275.5	2,929	0.382	11.76	13.91	0.089	42,943,200	0.85
11/04/99	17:55	4.6	5.1	275.7	2,995	0.380	9.80	13.91	0.087	42,949,800	0.85
11/04/99	17:56	4.6	5.1	275.3	3,009	0.379	9.80	13.91	0.085	43,158,600	0.86
11/04/99	17:57	4.6	5.2	275.8	2,934	0.389	11.54	13.83	0.085	43,181,400	0.85
11/04/99	17:58	4.7	5.3	275	2,936	0.392	11.32	13.74	0.085	43,377,000	0.85
11/04/99	17:59	4.8	5.2	275.6	3,091	0.407	7.69	13.83	0.088	43,600,200	0.85
11/04/99	18:00	4.8	5.2	275.6	0B	0.00B	100.00B	18.40	0.000B	0B	0.00B
11/04/99	18:01	4.6	5.2	277	2,987	0.381	11.54	13.83	0.083	43,954,800	0.86
11/04/99	18:02	4.7	5.3	277.4	2,983	0.391	11.32	13.74	0.085	44,071,800	0.86
11/04/99	18:03	4.8	5.5	277.5	2,898	0.398	12.73	13.56	0.087	44,068,200	0.85
11/04/99	18:04	4.9	5.4	278.4	3,033	0.392	9.26	13.65	0.087	44,073,000	0.86
11/04/99	18:05	4.9	5.5	277.9	2,958	0.387	10.91	13.56	0.088	44,073,600	0.85
11/04/99	18:06	9.9D	5.5	277.6	5978D	0.382D	-80.OOD	13.56D	0.078D	44,081,400	0.85
11/04/99	18:07	5.3	5.7	276.3	3049D	0.418D	7.02D	13.39D	0.076D	44,101,200	0.85
11/04/99	18:08	5.0	5.6	275.8	2,960	0.414	10.71	13.47	0.082	44,293,200	0.86
11/04/99	18:09	4.9	5.5	276.5	2,973	0.399	10.91	13.56	0.086	44,293,200	0.85
11/04/99	18:10	4.9	5.6	276.7	2,903	0.409	12.50	13.47	0.085	44,321,400	0.85
11/04/99	18:11	4.9	5.5	276.6	2,979	0.401	10.91	13.56	0.087	44,380,200	0.85
11/04/99	18:12	4.9	5.5	276.9	2,979	0.400	10.91	13.56	0.083	44,383,200	0.86D
11/04/99	18:13	4.8	5.4	277.5	2,992	0.400	11.11	13.65	0.086	44,383,800	0.84D
11/04/99	18:14	4.8	5.4	277.5	2,990	0.394	11.11	13.65	0.086	44,359,800	0.85
11/04/99	18:15	4.8	5.5	276.8	2,917	0.402	12-73	13.56	0.082	44,358,600	0.86
11/04/99	18:16	4.9	5.4	276.6	3,046	0.399	9.26	13.65	0.083	44,263,200	0.86
11/04/99	18:17	4.8	5.3	276.6	3,057	0.390	9.43	13.74	0.087	44,220,000	0.85
11/04/99	18:18	4.7	5.2	276.7	3,069	0.384	9.62	13.83	0.087	44,209,800	0.86
11/04/99	18:19	4.7	5.3	276.2	2,985	0.394	11.32	13.74	0.084	44,105,400	0.86
11/04/99	18:20	4.7	5.2	276.6	3,062	0.387	9.62	13.83	0.082	44,104,800	0.86
11/04/99	18:21	4.6	5.2	277.2	2,997	0.386	11-54	13.83	0.081	44,106,600	0.85
11/04/99	18:22	4.6	5.1	277.7	3,076	0.375	9.80	13.91	0.086	44,119,800	0.86
11/04/99	18:23	4.5	5.3	276.1	2,859	0.396	15.09	13.74	0.089	44,116,800	0.86
11/04/99	18:24	4.7	5.4	275.9	2,911	0.401	12.96	13.65	0.079	44,103,000	0.85
11/04/99	18:25	4.7	5.1	276.6	3,137	0.383	7.84	13.91	0.086	44,034,600	0.85
11/04/99	18:26	4.5	5.1	277.6	3,003	0.386	11-76	13.91	0.091	44,029,800	0.85

Unit 2
Process Analog Data Listing
Test Run 1

Point		U2_02_wet_O2	U2_02_dry_O2	U2-Load_O2	U2-Heat Input_06	U2-Noxm mBtu-06	U2_H20_%_06	U2_CO2_%_06	U2-SO2m mBtu_06	U2-Flow _Hr_06	U2-SO2m mBtu-70
Units		ppm	%	MWatt	mmBtu/hr	#/mmbtu	I	%	S02 mmBtu	SCFH	InletSO2mm
Full Scale	Time	20	20	350	9000	1.000	100	20	1.2	61080000	1.2
11/04/99	18:27	4.5	5.1	278.8	3,006	0.378	11.76	13.91	0.089	44,075,400	0.85
11/04/99	18:28	4.5	5.2	279.6	2,941	0.377	13.46	13.83	0.080	44,238,000	0.85
11/04/99	18:29	4.6	5.3	279.6	2,930	0.391	13-21	13.74	0.080	44,236,800	0.85
11/04/99	18:30	4.8	5.4	279.4	2,989	0.393	11.11	13.65	0.088	44,336,400	0.86
11/04/99	18:31	4.9	5.6	278.1	2,909	0.414	12-50	13.47	0.088	44,410,200	0.86
11/04/99	18:32	5.0	5.5	277.5	3,042	0.410	9.09	13.56	0.082	44,412,000	0.85
11/04/99	18:33	5.0	5.4	278.3	3,135	0.400	7.41	13.65	0.078	44,653,200	0.85
11/04/99	18:34	4.9	5.5	277.9	2,997	0.403	10.91	13.56	0.080	44,655,000	0.86
11/04/99	18:35	5.0	5.5	277.6	3,059	0.400	9.09	13.56	0.084	44,664,600	0.86
11/04/99	18:36	4.9	5.3	277.5	3,155	0.394	7.55	13.74	0.089	44,711,400	0.85
11/04/99	18:37	4.8	5.2	276.9	3,170	0.381	7.69	13.83	0.089	44,705,400	0.86
11/04/99	18:38	4.7	5.1	277.7	3,152	0.367	7.84	13.91	0.092	44,240,400	0.85
11/04/99	18:39	4.5	5.0	278.3	3,094	0.363	10.00	14.00	0.093	44,199,600	0.86
11/04/99	18:40	4.5	5.0	278.3	3,095	0.359	10.00	14.00	0.092	44,208,000	0.86
11/04/99	18:41	4.5	5.2	277.5	2,924	0.387	13.46	13.83	0.087	43,988,400	0.85
11/04/99	18:42	4.6	5.2	276.5	2,988	0.387	11-54	13.83	0.089	43,980,000	0.86
11/04/99	18:43	4.6	5.2	275.6	2,973	0.393	11.54	13.83	0.091	43,756,800	0.85
11/04/99	18:44	4.6	5.2	274.9	2,969	0.401	11.54	13.83	0.090	43,696,200	0.85
11/04/99	18:45	4.7	5.0	276.2	3,195	0.377	6.00	14.00	0.087	43,696,800	0.86
11/04/99	18:46	4.4	4.8	277.8	3,160	0.359	8.33	14.18	0.090	43,765,200	0.86
11/04/99	18:47	4.4	5.1	277.4	2,921	0.382	13.73	13.91	0.086	43,807,800	0.85
11/04/99	18:48	4.6	5.1	277.2	3,055	0.381	9.80	13.91	0.087	43,813,800	0.85
11/04/99	18:49	4.6	5.1	277.9	3,057	0.370	9.80	13.91	0.086	43,848,600	0.85
11/04/99	18:50	4.5	5.0	278.5	3,070	0.370	10.00	14.00	0.089	43,848,600	0.86
11/04/99	18:51	4.6	5.1	278.4	3,060	0.378	9.80	13.91	0.088	43,883,400	0.86
11/04/99	18:52	4.7	5.3	278.7	2,974	0.382	11.32	13.74	0.087	43,938,000	0.86
11/04/99	18:53	-4.7	5.2	277.3	3,051	0.385	9.62	13.83	0.086	43,944,600	0.86
11/04/99	18:54	4.8	5.6	276	2,832	0.403	14.29	13.47	0.084	44,137,800	0.85
11/04/99	18:55	5.0	5.4	276.6	3,102	0.390	7.41	13.65	0.081	44,185,200	0.85
11/04/99	18:56	4.8	5.2	277.4	3,134	0.374	7.69	13.83	0.077	44,208,000	0.86
11/04/99	18:57	4.7	5.3	277.4	3,000	0.376	11.32	13.74	0.083	44,318,400	0.86
11/04/99	18:S8	4.8	5.4	277.5	2,987	0.392	11.11	13.65	0.086	44,313,600	0.86
11/04/99	18:59	4.8	5.4	277	2,992	0.394	11.11	13.65	0.084	44,391,600	0.86
11/04/99	19:00	4.8	5.3	277	3,073	0.385	9.43	13.74	0.083	44,458,800	0.85
11/04/99	19:01	4.7	5.1	277.9	3,167	0.373	7.84	13.91	0.086	44,456,400	0.86
11/04/99	19:02	4.6	5.2	277.8	3,005	0.371	11.54	13.83	0.086	44,230,200	0.86
11/04/99	19:03	4.7	5.4	276.5	2,916	0.383	12.96	13.65	0.081	44,184,600	0.85
11/04/99	19:04	4.8	5.3	275.9	3,054	0.385	9.43	13.74	0.080	44,188,800	0.85
11/04/99	19:05	4.8	5.2	275.9	3,133	0.376	7.69	13.83	0.081	44,184,600	0.86
11/04/99	19:06	11.0D	5.1D	275.5	7366D	0.364D	-115.69D	13.91D	0.085D	44,183,400	0.86
11/04/99	19:07	5.3D	5.2D	274.9	3459D	0.368D	-1.92D	13.83D	0.089D	44,185,200	0.86
11/04/99	19:08	4.7	4.8	275.7	3,408	0.344	2.08	14.18	0.087	44,184,600	0.86
11/04/99	19:09	4.3	49.0	276.7	3,027	0.354	12.24	14.09	0.087	44,068,800	0.86

Unit 2
Process Analog Data Listing
Test Run 1

Point		U2_02_wet_O2	U2_02_dry_O2	U2-Load_O2	U2-Heat Input_06	U2-Noxm mBtu-06	U2_H20_%_06	U2_CO2_%_06	U2-SO2m mBtu_06	U2-Flow _Hr_06	U2-SO2m mBtu-70
Units		ppm	%	MWatt	mmBtu/hr	#/mmbtu	I	%	SO2 mmBtu	SCFH	InletSO2mm
Full Scale	Time	20	20	350	9000	1.000	100	20	1.2	61080000	1.2
Average		5.30	6.00	236.9	2584	0.367	10.54	13.14	0.08	39,463,337	0.85
Minimum		4.30	4.80	205.1	2119	0.262	2.08	12.24	0.06	34,190,400	0.83
Maximum		6.20	7.00	279.7	3408	0.508	22.06	14.18	0.10	45,215,400	0.91
Missing	(%)	0	0	0	0	0	0	0	0	0	0
Invalid	(%)	3.37	3.37	0	4.1	4.1	4.1	4.1	4.1	0.72	3.61
O O Cal	(%)	0	0	0	0	0	0	0	0	0	0
In Cal	(%)	0	0	0	0	0	0	0	0	0	0
Valid	(%)	96.63	96.63	100	95.9	95.9	95.9	95.9	95.9	99.28	96.39
Available	(%)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

M	MissingData	F	PowerFailure	P	InPurge	f	DiscreteMissing	D	Downed	C	InCalibration
O	Part60-OOC	O	Part75-OOC	B	NoSamples	<	TooFewSamples	r	Reserved-1	u	Reserved-2
A	HighAlarm	a	LowAlarm	m	EPA-MinC02Max(	G	EPA_AppG_C02	>	EnoughSamples	E	Edited
S	StackOffline	!	PrimaryMonito	@	BackupMonitor	#	Alternate	$	ReferenceMethoc	%	Parametric
^	Average_HB_I	&	Init_QA_Hrs_A	*	90thPercentile	(	95thPercentile	)	Binmaximum	-	BinAverage
+	MaxPotential	|	Other								

Unit 2
11/4/1999
Test Run 1
Process Data

TIME	FW-FLOW	FURN-PRE	STM-FLOW klb/hr	DRY O_2 %	UNIT-LOAD MW	U2-SCRUB	U2 _ FLDSK	U2 _ ABS 1A	U2 _ ABS 1B	U2 _ ABS 2A	U2 _ ABS 2B	U2_SCRUB_1	FGAS-FLO	FGAS-TEM °F	NOX-2 ppm	DRY-02-2 %	U2-MN-ST °F	U2-02 %	Comment
12:18:49	828.8438	-0.3668	823.1563	5.4148	276.5766	-0.4125	20.8744	5.5000	6.9700	6.4400	6.5800	-0.4000	747.03125	169.31250	245.15312	5.46172	1,000.68750	3.07000	Start
12:20:08	840.7500	-0.2940	828.6563	5.7000	275.8109	-0.4500	20.9991	5.5000	6.9300	6.6000	6.5700	-0.4500	747.12500	169.60938	248.56563	5.60625	999.98438	3.17781	
12:21:27	836.0625	-0.3738	828.0625	5.5930	275.9312	-0.5250	20.9241	5.5000	6.9200	6.6900	6.5400	-0.5250	747.03125	170.53125	256.39688	5.67266	998.95313	3.13906	
12:22:46	837.0000	-0.3323	828.9375	5.6070	276.8937	-0.6250	20.9494	5.5000	6.9100	6.7600	6.5400	-0.6250	746.93750	170.46875	251.73750	5.54922	998.81250	3.01813	
12:24:04	835.8750	-0.3243	825.5938	5.4500	277.0469	-0.5375	20.9494	5.5000	6.8700	6.9200	6.5200	-0.5375	751.53125	169.57813	253.37813	5.49687	998.53125	3.14250	
12:25:23	827.3125	-0.3548	823.9063	5.5414	277.5828	-0.4125	21.0366	5.5000	6.8600	7.0100	6.5700	-0.4125	750.40625	169.62500	250.51250	5.51953	997.78125	3.11375	
12:26:42	834.6875	-0.4158	828.2188	5.6023	277.3312	-0.4875	21.0741	5.5000	6.8400	7.0500	6.6300	-0.4875	748.34375	169.92188	254.27499	5.62500	996.28125	3.18719	
12:28:00	839.9375	-0.3873	826.6875	5.6672	275.7563	-0.4750	21.0497	5.5000	6.7900	6.9400	6.7700	-0.5000	748.46875	169.93750	247.99687	5.56172	994.50000	3.29562	
12:29:19	838.4063	-0.3085	828.9063	5.7500	275.6469	-0.5125	21.1369	5.5000	6.7200	6.9400	6.8400	-0.5125	748.96875	169.35938	256.09064	5.75859	992.57813	3.26094	
12:30:38	820.3438	-0.2435	827.3438	5.5781	276.2375	-0.5375	21.0741	5.5000	6.7600	6.9000	6.8900	-0.5375	747.71875	170.01563	248.01875	5.64766	991.50000	3.17500	
12:31:56	837.4688	-0.3550	826.4688	5.5992	275.4609	-0.5875	20.8744	5.5000	6.7300	6.9100	6.9500	-0.5875	745.90625	170.01563	253.83749	5.59062	991.12500	3.10125	
12:33:15	845.5625	-0.4258	829.0938	5.3055	276.7297	-0.3625	20.8866	5.5000	6.7000	6.9300	6.9900	-0.3625	746.09375	169.57813	252.26250	5.44609	991.31250	3.09281	
12:34:34	834.3438	-0.4438	830.8750	5.4172	277.0578	-0.6125	20.7994	5.5000	6.6700	6.8400	6.9700	-0.6125	743.71875	169.84375	243.55624	5.30703	991.40625	3.15344	
12:35:52	830.9375	-0.3520	832.8125	5.4664	275.9750	-0.6250	20.5866	5.5000	6.6500	6.8300	6.9500	-0.6250	743.12500	169.65625	251.34375	5.47344	990.93750	3.03344	
12:37:11	839.9375	-0.4870	829.5938	5.3391	275.8328	-0.4875	20.6991	5.5000	6.6300	6.8200	6.9200	-0.4875	742.00000	170.10938	247.20938	5.36719	990.51563	3.13063	
12:38:30	842.2500	-0.5063	827.3125	5.3961	275.2313	-0.3875	20.8247	5.5000	6.5800	6.7900	6.9000	-0.3625	742.06250	171.15625	246.18124	5.39844	990.79688	2.76281	
12:39:48	835.9688	-0.5165	825.0625	5.0961	277.5063	-0.3375	21.2616	5.5000	6.5500	6.7500	6.8800	-0.3375	739.06250	171.18750	245.06563	5.21641	992.67188	2.85875	
12:41:07	824.9375	-0.2090	828.5000	5.2398	277.5391	-0.6500	21.1116	5.5000	6.4800	6.7000	6.8600	-0.6500	739.31250	171.28125	237.40938	5.11641	995.10938	3.04344	
12:42:26	816.0313	-0.1925	824.4063	5.4516	277.0360	-0.7250	20.8866	5.5000	6.5200	6.6900	6.8600	-0.7250	743.75000	170.67188	254.23125	5.45234	996.65625	2.91844	
12:43:45	845.2188	-0.4590	825.1250	5.3023	277.2109	-0.4375	20.9494	5.5000	6.6200	6.6800	6.8300	-0.4375	744.34375	171.84375	251.08125	5.30703	997.78125	2.97719	
12:45:03	846.3125	-0.4170	831.4375	5.2234	277.8234	-0.3875	21.1491	5.5000	6.6800	6.6300	6.8300		745.81250	171.81250	238.74374	5.24453	998.53125	2.97219	
12:46:22	831.7188	-0.4458	827.4063	5.3734	277.3203	-0.4625	21.2747	5.5000	6.7200	6.6200	6.8100		746.40625	171.31250	246.35625	5.34531	999.56250	2.82156	
12:47:41	834.7813	-0.5420	825.9375	5.2688	277.8563	-0.4250	21.0497	5.5000	6.7900	6.6300	6.7900		751.37500	171.10938	248.32500	5.28672	1,001.57813	3.04938	
12:48:59	847.2188	-0.5613	827.9063	5.4414	278.1297	-0.2875	21.0366	5.5000	6.8400	6.5900	6.7600		751.00000	171.25000	247.58125	5.43750	1,003.54688	2.93438	Stop
12:50:18	834.5625	-0.5480	828.8438	5.3844	278.8297	-0.3750	21.1744	5.5000	6.9100	6.5700	6.7300		749.78125	171.68750	243.79688	5.33828	1,004.71875	3.14906	
12:51:37	833.7500	-0.4060	828.1250	5.4711	278.0422	-0.6125	21.1247	5.5000	6.9500	6.5000	6.6900		750.62500	172.09375	247.77812	5.49219	1,004.85938	3.07531	
12:52:55	843.2813	-0.2618	827.9063	5.4938	277.1234	-0.8003	21.0994	5.5000	7.0200	6.6100	6.6800		752.00000	172.03125	255.85001	5.48359	1,005.23438	2.88125	Start
12:54:14	837.5938	-0.2023	834.4688	5.2273	277.9328	-0.7875	21.0366	5.5000	6.9700	6.6600	6.6600		750.68750	171.39063	256.41876	5.29531	1,007.29688	2.95000	
12:55:33	837.8125	-0.1400	829.2188	5.3047	278.1078	-0.5000	20.9241	5.5000	6.9500	6.7500	6.6600		748.90625	171.18750	249.83438	5.30234	1,009.54688	2.93000	
12:56:51	840.8750	-0.2303	827.0313	5.3188	279.2453	-0.4375	21.1997	5.5000	6.9400	6.8500	6.6500		746.50000	170.81250	246.85938	5.29375	1,010.39063	3.01938	
12:58:10	838.8750	-0.2170	832.8125	5.4906	279.5844	-0.5125	21.2747	5.5000	6.9300	6.9200	6.7000		744.31250	170.81250	245.45938	5.39141	1,008.98438	3.37188	
12:59:29	837.4688	-0.1308	832.6875	5.5875	278.4797	-0.5375	21.1491	5.5000	6.9200	6.9900	6.7000		742.81250	170.32813	251.25626	5.62109	1,005.75000	3.14781	
13:00:48	839.2813	-0.2918	828.6875	5.5609	278.0750	-0.4750	21.1866	5.5000	6.8900	7.0200	6.6400		741.28125	170.56250	253.55313	5.54453	1,002.65625	3.12969	
13:02:06	837.8125	-0.3003	829.2500	5.5586	277.4188	-0.4750	21.1622	5.5000	6.7800	6.9000	6.6200		741.75000	171.14063	258.25626	5.55469	1,000.64063	2.99813	
13:03:25	846.3125	-0.2180	828.4063	5.4211	278.3156	-0.1625	21.2991	5.5000	6.8100	6.9800	6.6100		743.25000	171.06250	254.45000	5.48438	1,000.07813	2.98969	
13:04:44	837.0313	-0.2965	827.6563	5.6563	278.6437	-0.2125	21.4247	5.5000	6.8000	7.0400	6.5900		745.62500	171.06250	257.88437	5.52969	999.09375	3.33656	
13:06:02	834.6563	-0.3635	833.1875	13.0313	278.5562	-0.4875	21.5991	5.5000	6.7700	7.0600	6.5700		749.75000	170.87500	212.03438	8.47031	996.89063	3.13562	
13:07:21	841.7500	-0.3078	836.1875	7.4961	277.7578	-0.4250	21.4866	5.5000	6.7300	7.0200	6.5600		749.68750	170.65625	161.10938	12.03594	994.59375	3.36469	
13:08:39	847.3438	-0.3013	834.3750	5.7555	277.0906	-0.6125	21.4369	5.5000	6.7200	7.0300	6.5500		749.78125	170.87500	264.62189	5.83984	992.62500	3.09250	
13:09:58	848.7188	-0.1998	832.6875	5.6867	276.6750	-0.7250	21.3994	5.5000	6.6800	7.0300	6.5300		749.84375	172.60938	258.91251	5.64609	991.40625	3.14500	
13:11:17	840.8750	-0.2488	828.8438	5.5273	276.9375	-0.6750	21.2616	5.5000	6.6700	7.0900	6.5200		753.56250	172.75000	254.10001	5.58672	990.98438	3.11719	
13:12:35	832.3125	-0.4318	826.8125	5.6258	276.5219	-0.9128	21.1866	5.5000	6.6100	7.0400	6.5700		753.46875	172.70313	253.88126	5.62969	990.42188	3.11219	
13:13:54	836.5625	-0.4155	828.0625	5.5133	276.2156	-0.4125	20.8744	5.5000	6.5800	7.0700	6.6800		752.96875	171.73438	252.70000	5.53359	989.95313	2.94969	
13:15:13	843.2813	-0.5323	824.1563	5.4078	276.0844	-0.3375	21.0994	5.5000	6.5800	7.1500	6.7500		752.21875	170.75000	247.77812	5.42422	989.67188	2.96094	
13:16:32	831.0313	-0.5258	825.3750	5.4477	276.7734	-0.4750	21.1622	5.5000	6.5400	7.1200	6.8000		747.00000	170.73438	247.49374	5.42266	989.67188	3.02500	
13:17:50	831.8750	-0.3670	827.1563	5.4992	271.7313	-0.5625	20.7244	5.5000	6.5200	7.1700	6.9000		746.96875	170.50000	250.88437	5.45078	989.67188	3.69781	
1319:09	840.2500	-0.2165	833.0938	6.6445	259.1203	-1.0378	18.7744	5.5000	6.5300	7.1600	6.9800		746.75000	170.53125	278.86249	6.20547	987.46875	4.48688	
13:20:28	848.5938	-0.0310	832.3750	7.0125	243.0859	-0.6750	18.3113	5.5000	6.5700	7.1800	7.0000		742.00000	173.32813	279.08124	6.97969	982.26563	4.66406	
13:21:46	827.6563	-0.0603	828.9063	6.8133	232.2250	-0.3625	18.8616	5.5000	6.6600	7.1900	7.0200		734.25000	173.39063	245.52499	6.93125	978.89063	4.53062	
13:23:05	831.4688	-0.2205	831.5000	6.7641	226.8875	-0.5375	19.0997	5.5000	6.7200	7.2000	6.9900		726.59375	173.34375	233.58125	6.77578	981.14063	4.51438	Stop
13:24:24	846.6563	-0.2235	831.2188	6.7008	226.5156	-0.7750	18.5616	5.5000	6.7800	7.2000	6.9700		713.75000	173.25000	230.08125	6.67500	987.56250	4.47563	
13:25:42	837.0625	-0.3118	826.6875	6.5289	235.2766	-0.5750	17.9494	5.5000	6.8300	7.2000	6.9400		713.84375	173.25000	234.67500	6.69922	994.96875	4.12063	
13:27:01	841.1563	-0.2828	831.7188	6.4500	239.9469	-0.5750	17.8622	5.5000	6.8900	7.2100	6.9100		701.15625	171.23438	216.75937	6.38203	999.46875	4.29219	Start
13:28:20	841.2813	-0.1913	831.6563	6.5305	240.3516	-0.5625	17.6616	5.5000	6.9200	7.2600	6.8800		688.50000	171.20313	217.48125	6.52812	999.60938	4.29844	

Unit 2
11/4/1999
Test Run 1
Process Data

TIME	FW-FLOW	FURN-PRE	STM-FLOW klb/hr	DRY O_2 %	UNIT-LOAD MW	U2-SCRUB	U2 _ FLDSK	U2 _ ABS 1A	U2 _ ABS 1B	U2 _ ABS 2A	U2 _ ABS 2B	U2_SCRUB_1	FGAS-FLO	FGAS-TEM °F	NOX-2 ppm	DRY-02-2 %	U2-MN-ST °F	U2-02 %	Comment
13:29:38	825.8125	-0.2923	830.5938	6.5453	236.7094	-0.5875	17.3747	5.5000	6.9600	7.2800	6.8700		677.40625	171.29688	218.46562	6.53750	995.67188	4.21938	
13:30:57	841.7188	-0.3310	829.7188	6.5227	231.3500	-0.6000	17.1994	5.5000	7.0000	7.3400	6.8200		673.75000	171.28125	215.42500	6.52500	990.32813	4.17500	
13:32:16	855.5313	-0.3565	832.7500	6.4945	226.1000	-0.4500	17.1994	5.5000	6.9800	7.3200	6.7900		672.87500	173.29688	210.08749	6.50859	986.20313	4.07000	
13:33:34	835.4375	-0.2043	829.5000	6.3273	222.0203	-0.6875	17.0869	5.5000	6.9600	7.3200	6.7900		666.90625	173.20313	212.38437	6.40703	984.84375	3.59500	
13:34:53	822.5313	-0.3195	830.6875	6.4281	217.3500	-0.4625	17.0372	5.5000	6.9100	7.3600	6.7400		666.84375	173.29688	215.27188	6.34844	985.96875	3.73688	
13:36:12	840.7813	-0.3005	826.9063	6.4797	213.2813	-0.4625	16.8619	5.5000	6.8900	7.3500	6.7200		657.40625	172.50000	216.16875	6.49844	988.12500	3.84469	
13:37:31	850.6875	-0.3940	831.3125	6.6836	214.0031	-0.5500	16.7616	5.5000	6.8900	7.3600	6.7200		651.93750	172.26563	213.47812	6.57266	989.53125	4.07094	
13:38:49	834.8125	-0.3548	829.7500	6.7438	213.6094	-0.5375	16.8872	5.5000	6.8500	7.3900	6.6900		651.96875	172.37500	213.65312	6.80469	989.71875	4.03531	
13:40:08	831.1250	-0.2085	826.5313	6.8516	212.8547	-0.6000	16.7494	5.5000	6.8500	7.3900	6.6800		635.81250	173.71875	214.98750	6.76563	988.92188	4.10750	
11:41:27	828.8438	-0.2913	831.7500	6.7836	212.1328	-0.4875	16.7869	5.5000	6.8000	7.4100	6.6600		635.09375	173.57813	214.74687	6.82344	987.46875	3.96031	Stop
11:42:45	838.3438	-0.2460	828.2188	6.6477	211.6625	-0.4625	16.7869	5.5000	6.7700	7.4600	6.6100		624.71875	173.25000	214.26563	6.69375	986.29688	3.93156	
13:44:04	840.2188	-0.0765	832.5625	6.6617	211.0609	-0.5125	16.6744	5.5000	6.7400	7.5000	6.6000		618.65625	173.42188	214.46249	6.65156	985.82813	3.96688	
13:45:23	832.9063	-0.1805	829.1875	6.6375	211.8922	-0.5875	16.4616	5.5000	6.7400	7.5000	6.5800		618.62500	174.51563	213.58749	6.65000	985.68750	3.83531	
13:46:41	845.4375	-0.5020	830.9375	6.5188	211.4219	-0.4625	16.7241	5.5000	6.6700	7.4600	6.5400		613.09375	174.45313	213.65312	6.56250	985.96875	3.84656	
13:48:00	838.7500	-0.4218	831.9688	6.5375	211.7500	-0.5750	16.7241	5.5000	6.6700	7.4200	6.5400		612.37500	173.60938	212.23125	6.53828	986.90625	3.75281	
13:49:19	833.9063	-0.5268	825.9063	6.5070	212.1438	-0.5500	16.6866	5.5000	6.6300	7.4100	6.5100		611.03125	173.60938	208.77499	6.49922	987.79688	3.78250	
13:50:37	829.1250	-0.5418	829.3125	6.5414	211.3891	-0.6625	16.4494	5.5000	6.6500	7.4200	6.5300		610.25000	173.54688	208.73125	6.51016	988.21875	3.89906	
13:51:56	841.7188	-0.4378	826.9688	6.5672	210.5250	-0.3500	16.6238	5.5000	6.6000	7.3400	6.6300		610.18750	173.75000	210.78751	6.58984	988.12500	3.85594	
13:53:15	835.8438	-0.4508	829.3125	6.6086	210.0547	-0.6125	16.6866	5.5000	6.6000	7.3100	6.7200		610.15625	173.70313	210.61250	6.56406	987.79688	4.03406	
13:54:33	834.3438	-0.2063	830.4375	6.6727	209.6609	-0.5250	16.5366	5.5000	6.5700	7.2700	6.8100		609.90625	173.76563	215.49063	6.70547	987.32813	3.77781	
13:55:52	829.3438	-0.2335	827.3438	6.4844	210.6563	-0.4875	16.8113	5.5000	6.5200	7.2400	6.8900		609.21875	173.32813	210.72188	6.50156	987.28125	3.64844	
13:57:11	839.6875	-0.2260	830.0000	6.2922	211.3563	-0.4500	16.9369	5.5000	6.5500	7.2400	6.9500		608.68750	173.59375	209.10312	6.39844	988.45313	3.67000	
13:58:30	840.3438	-0.2095	831.7188	6.5250	212.0234	-0.5875	16.6116	5.5000	6.5900	7.2300	7.0100		608.81250	172.84375	206.82813	6.38125	989.81250	3.88000	
13:59:48	841.0625	-0.2430	830.6563	6.4625	211.8922	-0.4750	16.7241	5.5000	6.6800	7.2400	6.9800		609.62500	172.78125	209.51875	6.56484	990.42188	3.76312	
14:01:07	835.3750	-0.1495	830.3125	6.5156	211.1484	-0.5875	16.5244	5.5000	6.7300	7.2000	6.9500		609.43750	172.71875	207.94376	6.44063	990.56250	3.90844	
14:02:26	833.7813	-0.4233	830.1875	6.5305	210.9625	-0.5250	16.5872	5.5000	6.7700	7.1700	6.9400		609.46875	172.81250	208.38126	6.53594	990.28125	3.81344	
14:03:44	840.9688	-0.4473	830.9688	6.4766	210.0219	-0.4875	16.6866	5.5000	6.8800	7.1000	6.9100		609.50000	172.75000	209.73750	6.49531	989.90625	3.76875	
14:05:03	829.0625	-0.3498	829.0313	6.4383	210.0984	-0.4625	16.6613	5.5000	6.9300	7.1200	6.8900		609.43750	172.89063	208.90625	6.44531	990.14063	3.87250	
14:06:22	834.4375	-0.4680	824.2813	14.8422	210.9953	-0.4750	16.7991	5.5000	6.9800	7.0600	6.8900		609.65625	172.76563	118.16875	12.13750	990.23438	3.80625	
14:07:40	843.3750	-0.4018	829.4688	6.5320	210.6234	-0.5875	16.7869	5.5000	7.0400	7.1200	6.8700		609.65625	172.90625	183.46562	8.88750	990.56250	3.80156	
14:08:59	836.3125	-0.3245	828.7813	6.4898	210.6125	-0.5375	16.8366	5.5000	6.9900	7.1200	6.8500		609.65625	172.67188	207.63750	6.47734	991.07813	3.90031	
14:10:18	831.7188	-0.1493	831.3438	6.5563	210.7875	-0.4625	16.7747	5.5000	6.9800	7.1500	6.8000		609.78125	173.96875	208.14063	6.54453	991.45313	3.74906	
14:11:36	831.1875	-0.2640	830.7188	6.3898	209.8031	-0.5750	16.6866	5.5000	6.9400	7.1700	6.8000		609.90625	174.06250	205.45000	6.42656	991.96875	3.86750	
14:12:55	838.1563	-0.4378	831.5625	6.5797	209.3328	-0.4500	16.5497	5.5000	6.9500	7.2000	6.7700		609.81250	174.04688	209.12500	6.53281	992.57813	3.82250	
14:14:14	848.0938	-0.2923	829.4688	6.4383	210.3719	-0-50000	16.6744	5.5000	6.9300	7.2100	6.7500		608.75000	173.82813	208.46875	6.49141	993.18750	3.88438	
14:15:32	823.4375	-0.3063	830.5000	6.5484	209.7266	-0.6000	16.7241	5.5000	6.9100	7.2200	6.7300		608.62500	173.93750	210.78751	6.50938	993.84375	3.84687	
14:16:51	835.8125	-0.4030	827.6250	6.5484	209.3984	-0.4500	16.6997	5.5000	6.9300	7.2400	6.7100		609.12500	175.04688	208.86250	6.50547	994.31250	4.02938	
14:18:10	841.7813	-0.3390	831.0625	6.5539	209.6609	-0.4750	16.8366	5.5000	6.8400	7.2400	6.6900		609.18750	175.00000	212.23125	6.63672	994.92188	3.60875	
14:19:29	833.5938	-0.3340	828.0313	6.2953	210.6016	-0.4375	16.8113	5.5000	6.7900	7.2300	6.6900		609.15625	174.92188	205.25313	6.31641	995.95313	3.67531	
14:20:47	833.6875	-0.3563	831.5313	6.4266	211.0063	-0.7125	16.5741	5.5000	6.8300	7.2300	6.6900		609.50000	174.71875	204.15938	6.33516	997.35938	4.05000	
14:22:06	843.6250	-0.2350	830.4063	6.6047	211.2469	-0.5000	16.6369	5.5000	6.7900	7.2500	6.6300		609.53125	174.81250	206.85001	6.64297	997.68750	3.76344	
14:23:25	837.5000	-0.2263	832.3438	6.4164	210.6891	-0.5000	16.7363	5.5000	6.6900	7.2600	6.6300		608.81250	174.39063	205.90938	6.41250	997.40625	3.84594	
14:24:43	834.4688	-0.2510	830.6563	6.5359	210.4703	-0.4500	16.6369	5.5000	6.7000	7.3000	6.6000		608.28125	174.46875	208.40312	6.50859	997.21875	3.70969	
14:26:02	837.9688	-0.1960	832.0313	6.3508	210.1750	-0.5375	16.6491	5.5000	6.6600	7.3500	6.5800		608.15625	174.85938	207.02499	6.40469	997.82813	3.69625	
14:27:21	836.8125	-0.0895	829.8750	6.4047	210.8203	-0.5125	16.5122	5.5000	6.6700	7.3300	6.5700		606.56250	174.62500	205.60312	6.37891	998.90625	3.88031	
14:28:39	833.0313	-0.1005	827.3125	6.5883	210.3828	-0.5000	16.4991	5.5000	6.6200	7.3400	6.5500		606.40625	174.73438	208.66562	6.50781	999.46875	3.95937	
14:29:58	840.5313	-0.0910	832.4375	6.5180	209.1469	-0.4125	16.6997	5.5000	6.6000	7.3600	6.5300		604.87500	174.84375	210.06563	6.59922	999.46875	3.69406	
14:31:17	845.0938	-0.0765	833.1875	6.3914	210.0219	-0.5750	16.6369	5.5000	6.6000	7.3600	6.5200		604.37500	174.96875	207.02499	6.40469	999.89063	3.82406	
14:32:35	834.7500	-0.2218	832.3125	6.4852	210.9188	-0.4250	16.8497	5.5000	6.5700	7.3600	6.5100		604.53125	174.89063	208.44687	6.47109	1,000.64063	3.74656	
14:33:54	838.3438	-0.1045	829.5625	6.4547	210.1750	-0.5625	16.5619	5.5000	6.5600	7.3800	6.6400		606.18750	175.10938	208.70938	6.41563	1,001.34375	3.90344	
14:35:13	837.0625	-0.3020	829.3750	6.5703	209.3328	-0.6500	16.5619	5.5000	6.6200	7.3700	6.7000		606.46875	175.10938	211.22501	6.56328	1,001.53125	3.95187	
14:36:32	834.4688	-0.3663	829.0313	6.5648	209.4203	-0.4750	16.6116	5.5000	6.6400	7.3600	6.7500		607.50000	174.68750	210.02188	6.58828	1,001.39063	3.88250	
14:37:50	842.7500	-0.2703	829.0313	6.5102	208.4031	-0.5000	16.6866	5.5000	6.7200	7.4100	6.8500		608.68750	174.65625	210.08749	6.52031	1,001.43750	3.80875	
14:39:09	830.0625	-0.2213	827.4063	6.4484	208.6438	-0.5250	16.5619	5.5000	6.7700	7.4300	6.9000		608.56250	174.76563	209.49687	6.47188	1,001.95313	3.83188	

Unit 2
11/4/1999
Test Run 1
Process Data

TIME	FW-FLOW	FURN-PRE	STM-FLOW kib/hr	DRY O_2 %	UNIT-LOAD MW	U2-SCRUB	U2 _ FLDSK	U2 _ ABS 1A	U2 _ ABS 1B	U2 _ ABS 2A	U2 _ ABS 2B	U2_SCRUB_1	FGAS-FLO	FGAS-TEM °F	NOX-2 ppm	DRY-02-2 %	U2-MN-ST °F	U2-02 %	Comment
14:40:28	826.7500	-0.3185	829.3125	6.4500	208.8516	-0.5750	16.3369	5.5000	6.8200	7.4500	6.9600		608.78125	173.64063	207.57187	6.45703	1,002.60938	3.87812	
14:41:46	840.6250	-0.2910	830.9375	6.5508	208.9719	-0.4375	16.3622	5.5000	6.8900	7.4700	6.9800		608.81250	173.42188	209.97812	6.50156	1,002.89063	4.11375	
14:43:05	838.3750	-0.2293	828.7500	6.7680	208.0531	-0.4750	16.6491	5.5000	7.0100	7.4500	6.9700		606.28125	174.03125	214.28751	6.70313	1,002.32813	3.92219	
14:44:24	831.6250	-0.0620	830.8125	6.4219	209.0922	-0.4375	16.9247	5.5000	6.9500	7.4700	6.9200		605.46875	173.90625	213.45625	6.58516	1,002.46875	3.49281	
14:45:42	831.1563	-0.3608	828.0313	6.2680	209.6281	-0.7000	16.5994	5.5000	6.9400	7.4000	6.9100		605.53125	174.07813	204.11563	6.19531	1,004.29688	3.75031	
14:47:01	843.1563	-0.2695	828.3125	6.4000	210.2188	-0.4750	16.5488	5.5000	7.0300	7.3800	6.9000		604.87500	173.95313	208.14063	6.42969	1,006.21875	3.93438	
14:48:20	828.4688	-0.1668	829.7813	6.5859	210.0547	-0.4875	16.6988	5.5000	6.8800	7.3600	6.8600		604.78125	174.00000	209.45313	6.53047	1,007.01563	3.69438	
14:49:38	823.5313	-0.1660	829.8750	6.2891	211.0391	-0.5250	16.8244	5.5000	6.8800	7.3300	6.8900		605.09375	174.14063	205.90938	6.35625	1,007.57813	3.71531	
14:50:57	842.2813	-0.1278	830.1250	6.4078	209.6719	-0.5625	16.5366	5.5000	6.8100	7.2400	6.8600		605.15625	174.10938	207.59375	6.36250	1,008.37500	3.79813	
14:52:16	840.9688	-0.1805	831.7500	6.4828	210.3719	-0.4875	16.4241	5.5000	6.8000	7.2400	6.8400		605.06250	174.25000	208.51250	6.46094	1,008.60938	3.85313	
14:53:34	830.0938	-0.2283	828.2813	6.4586	210.1094	-0.4500	16.4241	5.5000	6.7600	7.2300	6.8200		605.65625	174.21875	208.97188	6.48828	1,008.28125	3.79938	
14:54:53	829.2813	-0.2130	830.1250	6.4430	210.8641	-0.4625	16.7119	5.5000	6.7100	7.2500	6.7900		605.84375	174.17188	208.84062	6.45937	1,007.76563	3.70375	
14:56:12	840.0625	-0.2495	830.4688	6.4367	210.0000	-0.6125	16.5122	5.5000	6.6900	7.2400	6.7700		606.21875	174.93750	207.48438	6.37656	1,007.85938	3.89625	
14:57:31	829.3438	-0.3663	825.7500	6.5273	210.6125	-0.3750	16.7747	5.5000	6.7100	7.2200	6.7500		606.18750	174.89063	210.54688	6.55937	1,008.23438	3.65594	
14:58:49	831.0938	-0.1105	830.3125	6.2641	210.7437	-0.5375	16.9866	5.5000	6.6300	7.1500	6.7400		606.03125	175.01563	206.58749	6.34141	1,009.03125	3.78156	
15:00:08	843.7813	-0.4023	828.9063	6.6094	210.0438	-0.5500	16.9369	5.5000	6.6800	7.1300	6.6900		603.43750	175.21875	207.17813	6.42891	1,009.78125	4.12000	
15:01:27	838.0313	-0.2550	830.6250	6.5938	209.9563	-0.5125	17.0747	5.5000	6.5900	7.1200	6.7000		602.93750	175.23438	211.75000	6.71797	1,010.20313	3.87531	
15:02:45	814.5313	-0.2148	829.5000	6.5453	210.7656	-0.4750	16.9369	5.5000	6.5500	7.1200	6.6800		604.09375	175.70313	207.22188	6.51094	1,010.43750	3.79500	
15:04:04	829.6875	-0.1193	829.7188	6.4992	210.4594	-0.6625	16.6744	5.5000	6.5500	7.1000	6.6800		604.81250	175.85938	207.85625	6.46250	1,010.85938	4.05469	
15:05:23	851.3125	0.0510	830.4688	6.6984	210.7328	-0.4750	16.6238	5.5000	6.5200	7.0900	6.6500		604.90625	175.78125	209.34375	6.66406	1,010.39063	3.77781	
15:06:41	831.2813	-0.0283	827.2500	14.5555	211.0281	-0.6000	16.4869	5.5000	6.5600	7.1800	6.6300		604.96875	175.67188	89.99375	14.57813	1,010.01563	3.59687	
15:08:00	816.2500	-0.0020	826.8125	6.3570	211.6953	-0.4750	16.4494	5.5000	6.6000	7.1700	6.6200		604.93750	175.75000	204.31250	6.41719	1,009.87500	3.47625	
15:09:19	834.2188	-0.2473	830.9063	6.1813	211.3125	-0.5250	16.3744	5.5000	6.6500	7.1800	6.6000		604.84375	175.75000	202.27812	6.23828	1,009.68750	3.58687	
15:10:37	847.6875	-0.2198	830.5313	6.3289	211.1047	-0.6500	16.1869	5.5000	6.6800	7.2100	6.5900		604.00000	175.76563	204.48750	6.26484	1,009.35938	3.64031	
15:11:56	833.5625	-0.2453	830.4688	6.2734	211.5641	-0.4375	16.2244	5.5000	6.7700	7.2300	6.5400		598.93750	175.60938	207.39688	6.34453	1,008.51563	3.35406	
15:13:15	828.3438	-0.3998	827.5000	6.0273	210.8313	-0.4250	16.6491	5.5000	6.8300	7.2200	6.5300		598.93750	174.89063	201.29375	6.09688	1,007.71875	3.22500	
15:14:33	831.5313	-0.4750	827.0625	5.9938	211.3891	-0.5500	16.4241	5.5000	6.8900	7.2200	6.5300		594.53125	174.79688	199.93750	5.98438	1,008.32813	3.45281	
15:15:52	830.7188	-0.4803	829.2500	6.1789	211.1922	-0.3750	16.6866	5.5000	6.9800	7.2400	6.5400		593.75000	174.93750	198.86563	6.16094	1,008.65625	3.39219	
15:17:11	838.4375	-0.5405	826.4688	6.1891	211.3344	-0.6500	16.6491	5.5000	7.0300	7.2500	6.6000		591.81250	174.56250	198.49374	6.08828	1,008.56250	3.84594	
15:18:30	828.5625	-0.4403	826.5625	6.4477	210.5578	-0.4000	16.7869	5.5000	6.9600	7.2600	6.6800		586.50000	174.62500	204.99063	6.46172	1,007.29688	3.91344	
15:19:48	836.0938	-0.2658	827.9688	6.5273	209.9234	-0.4250	17.1366	5.5000	6.9900	7.3100	6.7800		587.50000	175.29688	205.99687	6.48672	1,005.65625	3.85063	
15:21:07	819.1563	-0.1653	828.2500	6.4445	209.6719	-0.6375	17.0991	5.5000	6.9400	7.3500	6.8200		589.28125	175.18750	208.05313	6.46094	1,005.51563	3.78437	
15:22:26	830.6875	-0.3048	825.2500	6.4234	210.5031	-0.4625	17.0241	5.5000	6.9400	7.4100	6.9000		589.21875	175.15625	208.42500	6.45391	1,006.50000	3.75344	
15:23:44	851.5313	-0.3000	826.8125	6.4289	211.0500	-0.5000	16.8994	5.5000	6.9200	7.4200	7.0000		595.37500	173.93750	205.55937	6.41016	1,007.29688	3.86812	
15:25:03	829.2813	-0.3433	824.7188	6.4766	210.6781	-0.5500	16.9238	5.5000	6.8500	7.4500	6.9900		596.21875	173.98438	207.65938	6.46172	1,007.81250	3.75000	
15:26:22	818.2813	-0.3105	824.7188	6.3781	210.7875	-0.5250	16.9369	5.5000	6.8400	7.4100	6.9800		599.00000	174.98438	208.00937	6.39687	1,008.56250	3.70625	
15:27:40	829.5938	-0.1445	828.2188	6.3992	210.6234	-0.4750	17.0494	5.5000	6.8200	7.4600	6.9500		603.53125	174.90625	208.35938	6.37734	1,008.89063	3.74656	
15:28:59	838.4063	-0.2838	828.9688	6.2711	212.2422	-0.4250	17.3119	5.5000	6.7700	7.4500	6.9300		603.53125	174.45313	207.46249	6.39531	1,009.31250	3.58281	
15:30:18	835.9063	-0.2478	828.8438	6.3664	211.2141	-0-61250	17.0119	5.5000	6.7600	7.4600	6.9100		603.59375	174.53125	204.20313	6.24766	1,010.10938	3.80125	
15:31:36	829.9375	-0.2378	826.7500	6.4125	211.3016	-0.5000	16.9997	5.5000	6.7600	7.5100	6.9000		603.59375	174.35938	206.39063	6.43203	1,010.67188	3.81188	
15:32:55	829.1250	-0.2703	828.3125	6.4875	210.7219	-0.4500	17.0616	5.5000	6.6800	7.4700	6.8500		604.43750	174.85938	206.10625	6.44063	1,010.43750	3.76312	
15:34:14	836.1250	-0.2510	829.0625	6.3773	211.0063	-0.4375	17.1366	5.5000	6.6500	7.4600	6.8400		605.28125	174.75000	207.04688	6.43984	1,010.62500	3.68094	
15:35:32	835.0938	-0.4295	828.0000	6.3172	211.2250	-0.6125	16.8619	5.5000	6.6200	7.4800	6.8400		605.34375	174.82813	206.63126	6.32422	1,011.28125	3.74844	
15:36:51	832.5938	-0.4343	830.2813	6.4266	211.7719	-0.3875	17.0241	5.5000	6.5900	7.4500	6.7500		605.78125	175.26563	207.41875	6.39453	1,011.98438	3.77250	
15:38:10	829.5000	-0.1303	834.1250	6.3586	212.9312	-0.5750	17.0869	5.5000	6.5600	7.4300	6.7700		605.78125	175.32813	206.21562	6.38672	1,012.17188	3.78281	
15:39:29	838.2813	-0.0183	831.5313	6.4953	212.4391	-0.6375	16.7241	5.5000	6.5800	7.4200	6.7400		605.81250	175.28125	203.50313	6.38984	1,011.28125	4.09375	
15:40:47	828.6250	-0.2145	831.1875	6.6414	212.4609	-0.4250	16.7494	5.5000	6.5200	7.3900	6.7000		608.28125	175.25000	208.18437	6.62969	1,008.46875	4.25875	
15:42:06	842.7500	-0.4863	824.8125	6.8328	211.8703	-0.3375	16.4747	5.5000	6.5200	7.3600	6.6900		607.78125	176.90625	214.46249	6.79453	1,003.07813	4.16844	
15:43:25	845.6250	-0.4875	817.4688	6.6375	211.3891	-0.4875	16.5122	5.5000	6.5100	7.3200	6.6800		604.62500	176.96875	212.03438	6.74453	996.70313	4.14844	
15:44:43	809.2500	-0.2403	819.3750	6.6875	210.5906	-0.5250	16.4616	5.5000	6.6300	7.2900	6.6500		604.53125	176.96875	208.86250	6.61641	990.60938	4.03875	
15:46:02	810.4063	-0.6880	819.2500	6.6195	210.3172	-0.4375	16.4869	5.5000	6.6300	7.2700	6.6200		600.53125	176.00000	206.71875	6.63047	984.79688	4.06344	
15:47:21	842.9688	-0.5863	822.5313	6.6438	211.0391	-0.4000	16.8872	5.5000	6.6700	7.2300	6.6100		599.21875	175.96875	212.62500	6.64531	979.40625	4.02812	
15:48:39	842.3125	-0.2035	826.3438	6.7109	210.5797	-0.7000	16.5366	5.5000	6.7200	7.2700	6.6000		599.21875	176.01563	214.35312	6.70625	974.53125	3.88406	
15:49:58	819.1563	-0.0060	825.2188	6.6211	210.1422	-0.3625	16.5741	5.5000	6.8200	7.2600	6.5500		598.06250	176.65625	213.25937	6.65469	970.78125	3.78375	

Unit 2
11/4/1999
Test Run 1
Process Data

TIME	FW-FLOW	FURN-PRE	STM-FLOW klb/hr	DRY O_2 %	UNIT-LOAD MW	U2-SCRUB	U2 _ FLDSK	U2 _ ABS 1A	U2 _ ABS 1B	U2 _ ABS 2A	U2 _ ABS 2B	U2_SCRUB_I	FGAS-FLO	FGAS-TEM °F	NOX-2 ppm	DRY-02-2 %	U2-MN-ST °F	U2-02 %	Comment
15:51:17	818.0000	-0.0428	827.2813	6.5031	209.1031	-0.5500	16.6744	5.5000	6.8400	7.2600	6.5300		597.90625	176.59375	211.99063	6.56250	968.20313	3.69688	
15:52:35	839.3750	-0.2668	829.9063	6.4844	208.7531	-0.5500	16.5872	5.5000	6.8900	7.2700	6.4900		597.84375	176.32813	208.57813	6.44219	966.98438	3.76563	
15:53:54	846.5938	-0.1668	832.3125	6.4930	208.9828	-0.4375	16.5244	5.5000	6.9800	7.2000	6.6100		597.65625	176.34375	210.10938	6.50469	966.32813	3.72250	
15:55:13	830.9375	-0.2163	829.4063	6.3711	209.5188	-0.5000	16.8122	5.5000	7.0100	7.1800	6.6600		597.56250	174.81250	209.01563	6.42578	965.81250	3.60156	
15:56:32	825.6875	-0.4768	833.5313	6.3414	209.8797	-0.5375	16.6247	5.5000	6.9800	7.1600	6.7100		597.65625	174.54688	204.96875	6.34531	965.48438	3.65062	
15:57:50	855.1563	-0.3128	829.6250	6.3578	209.6719	-0.4875	16.4119	5.5000	6.9500	7.1200	6.8100		597.71875	174.82813	204.18124	6.37344	965.25000	3.58656	
15:59:09	824.9688	-0.5903	825.5313	6.3711	209.1688	-0.4750	16.6744	5.5000	6.9400	7.1000	6.8800		597.68750	174.39063	206.71875	6.33125	964.68750	3.66500	
16:00:28	822.8438	-0.4575	827.7813	6.3695	209.1250	-0.5750	16.6369	5.5000	6.9400	7.1000	6.9500		597.78125	174.65625	205.51563	6.37969	963.98438	3.59875	
16:01:46	840.1875	-0.3188	829.5625	6.3305	208.9172	-0.5000	16.6997	5.5000	6.8900	7.1300	7.0100		597.43750	173.92188	202.91251	6.31484	963.46875	3.57406	
16:03:05	843.2813	-0.1573	830.1563	6.2180	209.1359	-0.5375	16.6369	5.5000	6.8500	7.1500	7.0100		597.15625	173.81250	205.36250	6.29219	963.46875	3.52094	
16:04:.24	835.8438	-0.2060	832.3750	6.2844	208.8625	-0.4625	16.6369	5.5000	6.8000	7.2000	6.9900		597.03125	173.71875	203.02188	6.25391	963.84375	3.44656	
16:05:42	828.1875	-0.2665	830.0313	9.4367	208.5016	-0.5750	16.5741	5.5000	6.7500	7.2000	6.9500		596.93750	173.71875	200.33125	6.20234	964.64063	3.54719	
16:07:01	832.5000	-0.3768	829.0938	11.7563	209.0813	-0.5625	16.6369	5.5000	6.7300	7.2200	7.0000		597.06250	173.78125	87.10625	14.97891	965.43750	3.50031	
16:08:20	835.5625	-0.4183	831.9375	6.2883	208.8625	-0.5750	16.4241	5.5000	6.7200	7.1600	6.9100		597.06250	173.78125	200.76875	6.27812	965.81250	3.68219	
16:09:38	840.2500	-0.4093	832.0313	6.4383	2,108.4578	-0.3250	16.6491	5.5000	6.7000	7.2300	6.9100		597.12500	173.65625	206.21562	6.39844	965.34375	3.51875	
16:10:57	838.6875	-0.5180	831.8438	6.2336	208.2172	-0.6375	16.5863	5.5000	6.6700	7.2300	6.9100		597.68750	174.59375	204.02812	6.29063	965.39063	3.68156	
16:1216	831.6875	-0.4175	831.7500	6.4461	206.8391	-0.5125	16.4372	5.5000	6.6000	7.2200	6.8600		598.37500	174.50000	204.85938	6.40547	966.28125	3.67281	
16:13:34	831.5000	-0.4740	829.6563	6.3586	205.9750	-0.5125	16.5619	5.5000	6.6500	7.2500	6.8500		598.37500	174.46875	207.17813	6.39063	968.01563	3.49781	
16:14:53	842.5000	-0.5210	828.0313	6.1344	206.9813	-0.5000	16.7372	5.5000	6.6000	7.2400	6.8400		598.21875	175.34375	205.31876	6.24609	971.39063	3.20969	
16:16:12	831.3438	-0.4913	828.7188	6.0164	207.4516	-0.4750	16.7372	5.5000	6.5600	7.2700	6.8200		597.81250	175.25000	199.58749	5.98984	977.01563	3.31813	
16:17:31	830.4688	-0.4233	825.1875	6.1156	208.5781	-0.6125	16.5244	5.5000	6.5700	7.2900	6.7800		598.53125	174.20313	200.98750	6.07031	983.15625	3.48750	
16:18:49	834.5313	-0.2485	830.7813	6.2031	207.1344	-0.5500	16.3247	5.5000	6.5400	7.3200	6.7900		599.31250	174.21875	200.68124	6.21328	987.51563	3.46781	
16:20:08	832.0000	-0.3378	831.4375	6.1977	207.6703	-0.4750	16.3744	5.5000	6.5100	7.3400	6.7400		599.25000	174.90625	204.05000	6.19844	990.42188	3.37250	
16:21:27	828.4063	-0.4570	830.6250	6.1742	208.4578	-0.3500	16.6997	5.5000	6.5700	7.3600	6.7700		600.90625	174.81250	203.15312	6.14766	992.53125	3.31844	
16:22:45	842.8750	-0.2663	829.9063	6.0547	208.6328	-0.6875	16.6491	5.5000	6.6300	7.3700	6.7100		601.75000	174.92188	200.83438	6.08359	994.68750	3.61250	
16:24:04	834.6250	-0.3863	832.4375	6.4039	207.9766	-0-57500	16.2244	5.5000	6.6600	7.3900	6.6600		601.96875	175.15625	204.33438	6.32188	996.37500	3.48906	
16:25:23	836.5000	-0.5120	831.9375	6.1750	208.7203	-0.3875	16.5366	5.5000	6.7100	7.3900	6.6900		602.37500	175.00000	204.33438	6.29219	997.35938	3.33969	
16:26:41	824.6875	-0.5335	830.3125	6.1570	208.6984	-0.5750	16.5872	5.5000	6.8100	7.4000	6.6700		602.28125	175.00000	201.00937	6.09922	998.53125	3.56906	
16:28:00	830.5625	-0.5948	826.5000	6.3508	207.9547	-0.5375	16.3866	5.5000	6.9000	7.4100	6.6600		600.93750	174.31250	203.74374	6.32734	999.93750	3.48187	
16:29:19	846.6563	-0.6423	828.8125	6.2172	208.1953	-0.3625	16.4616	5.5000	6.9200	7.3700	6.6400		599.59375	174.42188	203.56876	6.26172	1,001.20313	3.48094	
16:30:37	837.0313	-0.6048	830.2500	6.2438	208.7094	-0.5125	16.5122	5.5000	6.9800	7.4100	6.6200		598.03125	174.50000	203.06563	6.22109	1,002.46875	3.46531	
16:31:56	826.9063	-0.4385	828.8750	6.2594	209.0484	-0.5625	16.4991	5.5000	6.9800	7.4500	6.5500		596.65625	174.54688	202.38750	6.22891	1,003.50000	3.65031	
16:33:15	823.1875	-0.5558	828.7188	6.3539	208.2609	-0.5250	16.4119	5.5000	6.9600	7.4500	6.5800		596.78125	174.37500	205.03438	6.39141	1,004.48438	3.43031	
16:34:33	841.5625	-0.5020	826.8438	6.1563	209.1578	-0.4625	16.3744	5.5000	6.9500	7.4200	6.5400		597.71875	174.37500	202.73750	6.21875	1,005.60938	3.45031	
16:35:52	840.3438	-0.3565	829.7500	6.2688	209.1688	-0.5000	16.4494	5.5000	6.9300	7.3600	6.5700		598.71875	174.40625	201.31563	6.20937	1,006.96875	3.62406	
16:37:11	823.4375	-0.2870	829.1563	6.4367	208.6438	-0.5625	16.2872	5.5000	6.9000	7.3800	6.6200		599.43750	173.84375	201.20625	6.33828	1,007.62500	3.72344	
16:38:30	832.0000	-0.3153	829.8125	6.4258	208.4688	-0.4500	16.7616	5.5000	6.9500	7.3300	6.6800		600.03125	173.90625	204.88126	6.48281	1,007.57813	3.54375	
16:39:48	831.6250	-0.3865	828.2188	6.2563	210.2188	-0.7875	15.8616	5.5000	6.8400	7.2700	6.7900		599.90625	173.90625	207.22188	6.28359	1,008.04688	3.35562	
16:41:07	830.2188	-0.4310	832.0625	5.9508	210.3281	-0.4500	15.7997	5.5000	6.7900	7.2300	6.8800		597.87500	174.04688	185.93750	6.07109	1,008.37500	2.90125	
16:42:26	839.4375	-0.4108	829.6563	5.5430	209.9016	-0.4875	15.7866	5.5000	6.8000	7.2200	6.9400		597.59375	174.06250	165.89999	5.64766	1,007.43750	3.01031	
16:43:44	835.3125	-0.5135	831.3438	5.6352	208.9281	-0.3500	16.1616	5.5000	6.7400	7.1900	7.0100		583.15625	173.57813	165.26563	5.63594	1,006.17188	2.86344	
16:45:03	835.7500	-0.6525	828.4375	5.5977	208.2938	-0.4125	16.6369	5.5000	6.7200	7.1900	7.0000		578.34375	173.64063	170.77812	5.53203	1,004.20313	2.95937	
16:46:22	843.3750	-0.4660	830.8125	5.6305	208.7531	-0.4125	17.3616	5.5000	6.7400	7.2000	6.9800		578.53125	174.20313	183.83749	5.63203	1,002.46875	3.18625	
16:47:40	821.6250	-0.1540	822.4375	6.0617	209.1578	-0.4375	17.7741	5.5000	6.7000	7.2000	6.9700		570.03125	174.23438	193.65938	5.96562	1,001.29688	3.34250	
16:48:59	813.4375	-0.3385	824.0000	6.2070	209.6609	-0.5250	17.6747	5.5000	6.6400	7.1400	6.9400		569.78125	175.12500	201.00937	6.16016	1,000.54688	3.42563	
16:50:18	840.3438	-0.4120	824.3750	6.2344	209.3328	-0.5375	17.4872	5.5000	6.6500	7.1400	6.9100		573.40625	175.01563	203.13126	6.20469	1,000.59375	3.48312	
16:51:36	843.0938	-0.3193	829.3438	6.1867	209.3875	-0.5250	17.8238	5.5000	6.6000	7.1200	6.8800		574.46875	175.12500	203.63437	6.24687	1,001.34375	3.47125	
16:52:55	826.7500	0.1405	835.0625	6.2992	209.2016	-0.5750	17.3738	5.5000	6.5700	7.1200	6.9100		574.37500	175.14063	204.53125	6.24062	1,002.51563	3.42625	
16:54:14	819.4063	0.0005	829.1250	6.1102	210.0547	-0.3250	17.6241	5.5000	6.5600	7.1700	6.8700		589.84375	174.17188	201.29375	6.20703	1,003.40625	3.26406	
16:55:32	834.9375	-0.5128	832.6250	6.1094	210.4156	-0.5500	17.6991	5.5000	6.5500	7.1300	6.8400		592.12500	174.18750	199.87187	6.05859	1,004.34375	3.41000	
16:56:51	861.3750	-0.7445	822.1563	6.2305	208.8406	-0.6500	17.3991	5.5000	6.5300	7.0700	6.8400		595.84375	174.20313	198.69063	6.16328	1,005.09375	3.52500	
16:58:10	826.6875	-0.5920	821.4688	6.2625	208.5672	-0.4875	17.3616	5.5000	6.5700	7.1600	6.8100		602.06250	174.28125	202.86874	6.30156	1,005.14063	3.57719	
16:59:29	809.7188	-0.5198	819.9375	6.3273	207.7688	-0.5625	17.2369	5.5000	6.6100	7.1900	6.8100		602.09375	174.21875	202.38750	6.28828	1,004.81250	3.73969	
17:00:47	831.7500	-0.4648	818.2813	6.3883	207.0906	-0.4500	17.3119	5.5000	6.6800	7.2500	6.7900		598.15625	174.98438	206.76250	6.41406	1,004.20313	3.55719	

Unit 2
11/4/1999
Test Run 1
Process Data

TIME	FW-FLOW	FURN-PRE	STM-FLOW klb/hr	DRY O_2 %	UNIT-LOAD MW	U2-SCRUB	U2 _ FLDSI	U2 _ ABS 1A	U2 _ ABS 1B	U2 _ ABS 2A	U2 _ ABS 2B	U2_SCRUB_1	FGAS-FLO	FGAS-TEM °F	NOX-2 ppm	DRY-02-2 %	U2-MN-ST °F	U2-02 %	Comment
17:02:06	828.4688	-0.5370	816.9688	6.3000	207.9875	-0.4500	17.5247	5.5000	6.7200	7.2400	6.7600		596.87500	174.92188	205.29688	6.32188	1,004.20313	3.33219	
17:03:25	825.6563	-0.5160	820.4688	6.0906	208.5562	-0.4750	17.7863	5.5000	6.7800	7.2400	6.7400		595.18750	174.81250	202.36563	6.12266	1,005.37500	3.39687	
17:04:43	830.7188	-0.4758	822.0313	6.2594	208.2281	-0.6875	17.4741	5.5000	6.8700	7.2500	6.7000		594.06250	174.81250	200.63750	6.16328	1,007.25000	3.69094	
17:06:02	825.8750	-0.4703	821.4375	12.7430	207.6922	-0.4750	17.4122	5.5000	6.9200	7.2700	6.7000		594.15625	174.75000	163.90938	8.75625	1,008.09375	3.78938	
17:07:21	825.7813	-0.5310	819.0938	8.2070	207.4078	-0.4625	17.4741	5.5000	6.9700	7.2700	6.6700		593.87500	174.79688	129.04062	12.55937	1,007.67188	3.61344	
17:08:39	832.4375	-0.4980	821.0313	6.3930	206.7625	-0.5125	17.5116	5.5000	7.0200	7.2700	6.6500		593.87500	174.79688	206.21562	6.42031	1,007.10938	3.79656	
17:09:58	828.6250	-0.4678	819.3438	6.6445	205.2094	-0.5375	17.5491	5.5000	7.0200	7.2800	6.6300		594.00000	174.71875	212.99687	6.53984	1,006.73438	3.78813	
17:11:17	827.6250	-0.3868	818.7500	6.4836	205.3516	-0.4875	17.6119	5.5000	6.9500	7.2900	6.6300		593.09375	175.34375	213.95938	6.58125	1,007.01563	3.39250	
17:12:35	819.7813	-0.4863	817.8125	6.1039	206.8609	-0.4125	17.8247	5.5000	6.9300	7.3000	6.5900		591.90625	175.32813	203.24063	6.20859	1,008.65625	3.51375	
1713:54	823.6563	-0.4908	822.0000	6.3398	207.9219	-0.6750	17.5988	5.5000	6.9000	7.3600	6.5700		592.18750	175.37500	197.55313	6.23438	1,011.04688	3.67812	
17:15:13	832.7813	-0.6055	818.3750	6.3781	209.4203	-0.2750	17.9119	5.5000	6.9000	7.3600	6.5400		593.68750	173.79688	203.50313	6.46406	1,012.87500	3.37125	
17:16:32	825.8125	-0.5600	819.6250	6.2203	211.4000	-0.7875	17.6119	5.5000	6.8400	7.3800	6.5300		593.59375	173.75000	211.99063	6.14687	1,013.76563	3.83844	
17:17:50	823.5313	-0.5098	823.2813	6.4867	211.6734	-0.5250	17.3372	5.5000	6.9400	7.4200	6.5800		593.93750	173.76563	232.96875	6.46719	1,012.87500	3.84000	
17:19:09	833.1563	-0.4925	821.6250	6.4789	214.9875	-0.2500	17.9616	5.5000	6.8100	7.4300	6.6000		596.06250	173.60938	239.57500	6.44688	1,009.92188	3.85969	
17:20:28	834.1250	-0.4035	825.5000	6.4719	219.9969	-0.4250	18.5372	5.5000	6.7900	7.4200	6.6600		596.12500	175.45313	250.86250	6.55469	1,006.73438	3.31031	
17:21:46	829.8125	-0.3440	823.3438	6.0852	224.1750	-0.3625	18.6994	5.5000	6.7200	7.4200	6.7900		600.93750	175.34375	249.37500	6.06484	1,005.84375	3.42188	
17:23:05	819.0625	-0.1885	822.9375	5.8836	228.2437	-0.5750	18.9619	5.5000	6.6900	7.4500	6.9200		600.93750	175.46875	250.77499	6.06172	1,007.76563	3.02031	
17:24:24	823.8750	-0.2345	821.6250	5.4766	231.0984	-0.5750	18.5494	5.5000	6.7000	7.4500	6.9400		602.59375	172.79688	235.89999	5.63281	1,012.68750	2.37750	
17:25:42	829.1250	-0.2255	821.6250	5.1391	233.9969	-0.5000	18.4866	5.5000	6.6500	7.4900	7.0200		615.46875	172.78125	222.31563	5.12422	1,019.53125	2.53031	
17:27:01	821.3438	-0.3275	821.5625	5.2523	235.2328	-0.4875	18.4247	5.5000	6.6500	7.5500	7.0000		615.43750	171.92188	220.34688	5.24219	1,025.01563	2.91375	
17:28:20	823.8125	-0.3793	818.9375	5.6547	237.3766	-0.3875	18.5119	5.5000	6.6100	7.5200	6.9800		629.06250	171.85938	228.24374	5.56016	1,026.28125	3.21844	
17:29:38	822.4063	-0.3783	823.9375	5.7734	240.5484	-0.4250	18.6741	5.5000	6.5900	7.5300	6.9600		631.00000	171.85938	236.44687	5.69063	1,022.85938	3.35781	
17:30:57	836.3438	-0.4693	826.3438	5.8273	244.1031	-0.4750	19.0866	5.5000	6.5800	7.4600	6.9000		640.21875	174.35938	247.82187	5.84062	1,017.00000	3.33375	
17:32:16	827.1563	-0.4240	824.1250	5.8141	247.8000	-0.4750	19.6116	5.5000	6.5600	7.4600	6.8900		645.81250	174.32813	251.30000	5.83359	1,010.71875	3.02187	
17:33:34	827.2500	-0.5288	824.2500	5.3578	251.8578	-0.5625	19.5497	5.5000	6.6200	7.4400	6.8700		649.75000	174.40625	241.25937	5.55859	1,006.96875	2.51969	
17:34:53	834.4688	-0.6655	817.0313	5.3156	254.2313	-0.7125	19.3491	5.5000	6.7200	7.3900	6.8300		656.50000	174.40625	225.77188	5.22734	1,005.98438	2.84844	
17:36:12	822.5938	-0.6998	812.9375	5.5977	254.2531	-0.4875	19.1119	5.5000	6.7400	7.3500	6.8300		656.62500	173.28125	236.49063	5.50156	1,003.78125	3.11219	
17:37:31	806.1250	-0.5953	812.2500	5.7406	256.7031	-0.1750	20.1497	5.5000	6.7900	7.3400	6.8100		666.25000	173.46875	247.03438	5.74219	998.48438	2.80000	
17:38:49	818.8125	-0.4950	811.6875	5.3602	260.0609	-0.4750	20-36156	5.5000	6.8800	7.3200	6.7600		667.87500	174.07813	236.60001	5.50938	993.93750	2.50875	
17:40:08	829.9375	-0.4433	810.3438	5.2500	261.8875	-0.6375	20.1619	5.5000	6.9200	7.3200	6.7600		677.21875	173.98438	233.10001	5.19688	992.67188	2.94250	
17:41:27	814.5313	-0.3780	813.8438	5.5758	262.1281	-0.4375	20.1741	5.5000	6.9600	7.3500	6.7400		682.87500	173.40625	248.50000	5.50156	991.59375	2.99437	
17:42:45	814.0625	-0.2938	816.2188	5.5117	263.1781	-0.3125	20.4872	5.5000	6.9200	7.2900	6.6800		686.12500	173.35938	252.04375	5.61406	990.42188	2.49187	
17:44:04	822.1875	-0.1350	818.8438	5.0523	265.0812	-0.4750	20-39906	5.5000	6.9500	7.2700	6.6800		691.78125	172.34375	244.25626	5.09766	991.68750	2.62375	
17:45:23	819.9063	-0.0443	820.4375	5.3352	266.1422	-0.4625	20.2744	5.5000	6.9300	7.2800	6.6800		691.78125	172.35938	245.41562	5.26016	994.03125	2.81719	
17:46:41	829.7500	-0.0978	818.0000	5.2914	266.9406	-0.4125	20.3738	5.5000	6.8900	7.2100	6.6300		702.62500	172.32813	249.46249	5.29219	994.92188	3.19031	
17:48:00	809.9375	-0.1453	817.5938	5.4063	267.2469	-0.4625	20.5247	5.5000	6.9300	7.1700	6.6100		705.34375	173.73438	252.52499	5.39766	994.17188	3.07969	
17:49:19	818.9688	-0.2028	819.5938	5.2992	267.5531	-0.6500	20.4863	5.5000	6.8700	7.1700	6.6100		712.84375	173.98438	254.25313	5.36562	993.79688	2.64188	
17:50:37	815.8438	-0.5085	820.8125	5.1203	269.8937	-0.5000	20.5622	5.5000	6.8200	7.1500	6.6000		712.78125	173.82813	248.08438	5.16484	994.82813	2.86656	
17:51:56	834.3750	-0.6663	820.4688	5.0984	271.5781	-0.3375	20.6372	5.5000	6.7700	7.1200	6.5600		714.37500	173.96875	243.29375	5.07656	995.81250	2.80063	
17:53:15	830.6250	-0.5593	818.1875	5.0172	273.6453	-0.2375	20-89969	5.5000	6.7800	7.1300	6.5300		715.56250	173.45313	241.32500	5.02734	996.46875	2.59375	
17:54:33	810.1875	-0.5188	817.5313	5.0539	274.9031	-0.3250	21.0122	5.5000	6.7800	7.1300	6.5400		715.62500	173.29688	238.72188	5.01406	998.06250	2.98219	
17:55:52	814.7813	-0.5333	817.0938	5.0703	275.6688	-0.2625	20.9869	5.5000	6.7400	7.1500	6.6300		715.62500	173.39063	247.75626	5.12813	1,000.50000	2.93031	
17:57:11	830.4063	-0.5063	815.5313	5.1266	275.3406	-0.3375	20.8866	5.5000	6.6600	7.1700	6.6800		717.18750	174.35938	244.05937	5.10703	1,002.93750	3.03844	
17:58:30	830.8125	-0.5873	815.7500	5.2148	275.5703	-0.3125	20.9241	5.5000	6.6500	7.1600	6.7300		719.56250	173.76563	249.96562	5.18359	1,004.85938	2.98344	
17:59:58	819.1563	-0.4710	815.9375	5.3172	275.3188	-0.1250	21.1369	5.5000	6.6100	7.1700	6.8300		723.03125	173.57813	253.66251	5.30000	1,006.54688	2.71375	
18:01:07	816.1563	-0.4708	812.2813	5.0719	276.2047	-0.1250	21.2241	5.5000	6.5800	7.1900	6.9200		726.62500	173.73438	257.27188	5.09688	1,009.17188	2.89906	
18:02:26	824.5938	-0.4078	813.5938	5.2422	277.0688	-0.0375	21.2991	5.5000	6.5800	7.2100	6.9500		730.37500	173.70313	247.20938	5.20937	1,011.89063	3.17906	
18:03:44	822.0938	-0.4768	816.0938	5.3891	277.5281	-0.0250	21.1622	5.5000	6.4800	7.2100	6.9700		734.50000	173.81250	249.89999	5.32813	1,012.50000	3.25187	
18:05:03	824.6563	-0.2538	826.4375	5.4484	278.1625	-0.0250	21.2494	5.5000	6.5600	7.1900	6.9600		734.40625	173.73438	252.30624	5.47578	1,011.46875	3.37844	
18:06:22	827.7813	-0.2965	825.8438	14.2875	277.9110	0.0125	21.2372	5.5000	6.6000	7.2100	6.9500		734.62500	173.71875	147.06563	11.03203	1,009.03125	3.42062	
18:07:40	828.3750	-0.4138	830.4688	5.6094	277.1016	-0.0875	21.2494	5.5000	6.6500	7.2100	6.9100		734.75000	173.65625	211.99063	8.48125	1,006.45313	3.37719	
18:08:59	836.5625	-0.2025	833.0000	5.6211	275.7125	-0.2625	21.0741	5.5000	6.7200	7.2500	6.8900		735.93750	173.57813	256.26563	5.59062	1,004.48438	3.33500	
18:10:18	832.2813	-0.0740	828.0938	5.5352	276.5438	-0.3875	20.9869	5.5000	6.7600	7.2800	6.8700		738.18750	174.54688	255.23750	5.55703	1,002.89063	3.38937	
18:11:36	824.1250	-0.2973	829.1875	5.5734	276.6531	-0.2500	20.9494	5.5000	6.8600	7.3300	6.8600		738.65625	174.40625	255.41251	5.60156	1,001.01563	3.27531	

Unit 2
11/4/1999
Test Run 1
Process Data

TIME	FW-FLOW	FURN-PRE	STM-FLOW klb/hr	DRY O_2 %	UNIT-LOAD MW	U2-SCRUB	U2 _ FLDSK	U2 _ ABS 1A	U2 _ ABS 1B	U2 _ ABS 2A	U2 _ ABS 2B	U2_SCRUB_I	FGAS-FLO	FGAS-TEM °F	NOX-2 ppm	DRY-02-2 %	U2-MN-ST °F	U2-02 %	Comment
18:12:55	835.7500	-0.4483	830.0625	5.4719	276.7734	-0.4375	20.9747	5.5000	6.9200	7.2800	6.8200		739.65625	174.42188	252.72188	5.45781	999.23438	3.16156	Start
18:14:14	840.3750	-0.4435	829.3125	5.4070	277.4844	-0.4250	20.9991	5.5000	6.9700	7.3200	6.8100		739.84375	173.46875	253.46562	5.42812	997.92188	3.19969	
18:15:32	829.7188	-0.3803	828.6875	5.4539	277.2875	-0.5750	21.0619	5.5000	6.9900	7.2700	6.7900		739.37500	173.54688	251.14688	5.41563	996.42188	3.36250	
18:16:51	820.7500	-0.4718	826.9688	5.4633	276.6969	-0.5875	20.8247	5.5000	6.9400	7.2200	6.7700		739.31250	173.23438	254.49374	5.50703	995.01563	3.13188	
18:18:10	829.5625	-0.3628	823.3438	5.2836	276.6422	-0.5125	20.8369	5.5000	6.9300	7.3300	6.7400		737.09375	173.06250	251.03751	5.31953	994.68750	3.06719	
18:19:29	828.0313	-0.2733	823.9688	5.2469	276.5438	-0.5625	20.8491	5.5000	6.9500	7.3100	6.7300		737.09375	172.62500	247.18750	5.25156	995.34375	3.12469	
18:20:47	820.0938	-0.2360	825.0938	5.2813	276.4234	-0.6500	20.8988	5.5000	6.8700	7.3100	6.7100		735.15625	172.43750	251.75937	5.31563	996.28125	2.92875	
18:22:06	827.0938	-0.2890	828.3438	5.1531	277.0797	-0.6000	20.9372	5.5000	6.8800	7.3100	6.6800		735.09375	173.75000	247.49374	5.13359	997.64063	2.91000	
18:23:25	840.7500	-0.3573	830.0000	5.0641	277.2875	-0.4500	20.7872	5.5000	6.8200	7.3600	6.6800		735.28125	173.68750	244.82500	5.11484	999.32813	3.07000	
18:24:43	836.5313	-0.3380	833.9688	5.4391	275.9859	-0.5125	20.7619	5.5000	6.8100	7.3600	6.6400		735.37500	173.28125	253.55313	5.32344	1,000.40625	3.07000	Stop
18:26:02	820.1875	-0.3385	828.4063	5.1625	276.3359	-0.3750	20.7741	5.5000	6.7800	7.3600	6.6300		734.78125	173.43750	250.60001	5.25859	1,001.62500	2.86969	
18:27:21	827.1250	-0.5040	824.4688	5.0789	277.7906	-0.3250	20.9869	5.5000	6.8000	7.3900	6.6100		733.87500	173.73438	249.81250	5.10000	1,004.29688	2.85313	
18:28:39	834.7813	-0.5420	825.5938	5.1430	279.1797	-0.0875	21.1866	5.5000	6.7400	7.3900	6.5900		734.12500	173.70313	244.71562	5.07656	1,007.15625	2.96625	
18:29:58	830.3750	-0.6945	825.7188	5.2297	279.5187	0.0375	21.3366	5.5000	6.6900	7.3500	6.5700		737.18750	173.75000	243.46875	5.19063	1,008.60938	3.15781	Start
18:31:17	819.0313	-0.6303	823.2813	5.4250	279.3656	0.0125	21.0994	5.5000	6.7000	7.3600	6.5800		737.59375	173.18750	250.97188	5.38438	1,008.09375	3.36438	
18:32:35	825.5313	-0.5018	823.8750	5.6422	277.8891	-0.0750	21.1116	5.5000	6.6800	7.4100	6.5600		740.15625	172.76563	258.03751	5.59844	1,006.03125	3.30188	
18:33:54	825.5000	-0.5143	820.3125	5.4484	277.9656	-0.0250	21.4744	5.5000	6.6100	7.3400	6.5400		740.65625	173.90625	259.19687	5.51875	1,004.43750	3.33719	
18:35:13	827.2500	-0.4763	821.3438	5.5148	277.9219	-0.8128	21.2616	5.5000	6.6500	7.4200	6.5300		744.31250	173.93750	251.16875	5.42031	1,003.87500	3.40781	
18:36:32	823.5938	-0.5105	819.8750	5.4531	277.5500	-1.4503	20.5866	5.5000	6.5500	7.4100	6.6000		744.31250	173.31250	253.64063	5.57266	1,003.35938	3.08844	
18:37:50	824.4688	-0.2985	824.6250	5.2742	277.1781	-0.3750	19.8366	5.5000	6.5400	7.4300	6.6500		745.21875	173.25000	250.40312	5.31406	1,002.75000	2.91438	
18:39:09	826.6563	0.0860	829.0000	5.0945	277.5063	-0.4500	20.1488	5.5000	6.4800	7.4500	6.7200		742.03125	173.45313	241.32500	5.15625	1,001.48438	2.80406	
18:40:28	824.6250	-0.1433	822.4688	4.9992	278.3375	-0.4250	20.4497	5.5000	6.5900	7.4800	6.8200		736.68750	173.48438	236.07500	5.00156	1,000.50000	2.82063	
18:41:47	826.0938	-0.0783	823.4688	5.1047	277.9110	-0.6250	20.4497	5.5000	6.6300	7.4600	6.8800		736.65625	172.04688	236.62187	5.00000	999.89063	3.04531	
18:43:06	818.9375	-0.1563	825.1875	5.1734	276.7078	-0.5875	20.4497	5.5000	6.6600	7.4700	6.9200		733.00000	172.04688	249.98750	5.21875	999.37500	2.91969	
18:44:24	829.2188	-0.4925	827.7500	5.1820	275.4828	-0.4875	20.4122	5.5000	6.7100	7.4800	6.9900		731.15625	171.28125	250.90625	5.17266	999.60938	3.00875	
18:45:43	842.5313	-0.6398	824.9063	5.1742	275.2860	-0.5250	20.3991	5.5000	6.8100	7.4000	7.0000		728.28125	171.34375	257.33749	5.23125	1,001.29688	2.45000	
18:47:02	833.5313	-0.5575	828.4063	4.7945	277.4953	-0.3750	20.7497	5.5000	6.8400	7.3600	6.9900		728.18750	170.85938	240.05624	4.85469	1,004.95313	2.78688	
18:48:20	811.9063	-0.4608	830.8438	5.1063	277.4078	-0.6750	20.6241	5.5000	6.9000	7.3500	6.9900		730.18750	171.00000	244.27812	5.00547	1,008.18750	2.94688	
18:49:39	832.2813	-0.5488	821.0625	5.1719	277.4188	-0.6375	20.3991	5.5000	6.9900	7.3200	6.9400		730.28125	171.14063	246.77188	5.14922	1,009.64063	2.89750	
18:50:58	829.0938	-0.4545	818.7813	5.0258	278.3156	-0.4375	20.4122	5.5000	7.0100	7.3000	6.9400		730.78125	170.96875	238.10938	5.07813	1,009.82813	2.85156	
18:52:17	813.1875	-0.4843	821.5938	5.1633	278.4688	-0.4875	20.5369	5.5000	6.9900	7.3000	6.9100		730.78125	171.48438	242.20000	5.09453	1,009.31250	2.97563	
18:53:35	827.2500	-0.5505	821.3750	5.2461	278.4031	-0.5000	20.5369	5.5000	6.9700	7.2500	6.8600		732.03125	171.45313	245.80937	5.25469	1,007.95313	3.10687	
18:54:54	832.2188	-0.6050	823.2188	5.4852	276.3141	-0.5250	20.5369	5.5000	6.9200	7.2600	6.8900		732.25000	172.00000	249.68124	5.35234	1,005.79688	3.32500	
18:56:13	822.0938	-0.4473	824.6875	5.3883	276.4562	-0.4500	20.7244	5.5000	6.9300	7.2400	6.8500		736.40625	172.01563	249.81250	5.52031	1,003.68750	2.94344	
18:57:31	818.3125	-0.4863	825.8438	5.2570	277.4516	-0.4125	20.8369	5.5000	6.9200	7.1700	6.8300		736.78125	171.60938	241.52188	5.23438	1,003.07813	3.12562	
18:58:50	831.0938	-0.4813	822.1563	5.3984	277.4188	-0.7500	20.4872	5.5000	6.8900	7.1200	6.8000		738.62500	171.56250	242.04688	5.36484	1,002.23438	2.96875	
19:00:09	825.0000	-0.3980	823.9063	5.4141	277.1125	-0.5875	20.3747	5.5000	6.8600	7.1500	6.8000		738.53125	171.51563	250.75313	5.40625	999.89063	3.00312	End

Overall Summary

Average	832.3409	-0.3491	826.9098	6.1699	241.9123	**Average**	18.3713	5.5000	6.7681	7.2281	6.7611	-0.5088	655.10240	173.52789	221.68111	6.16884	998.14022	3.45551
Maximum	861.3750	0.1405	836.1875	14.8422	2,108.4578	**Maximum**	21.5991	5.5000	7.0400	7.5500	7.0200	-0.3375	753.56250	176.96875	279.08124	14.97891	1,026.28125	4.66406
Minimum	806.1250	-0.7445	810.3438	4.7945	205.2094	**Minimum**	15.7866	5.5000	6.4800	6.4400	6.4900	-0.7250	569.78125	169.31250	87.10625	4.85469	963.46875	2.37750

Unit 2 Test Run 1 Summary

Average	836.2266	-0.3354	828.7912	5.8327	266.0292	**Average**	20.2550	5.5000	6.7904	7.0350	6.7433	-0.5088	731.17361	171.54796	243.14640	5.82489	995.15951	3.32527
Maximum	855.5313	-0.0310	836.1875	13.0313	279.5844	**Maximum**	21.5991	5.5000	7.0200	7.4100	7.0200	-0.3375	753.56250	174.42188	279.08124	12.03594	1,010.39063	4.66406
Minimum	816.0313	-0.6945	822.3750	4.9500	212.1328	**Minimum**	16.7494	5.5000	6.4800	6.4400	6.5200	-0.7250	635.09375	169.31250	161.10938	4.91172	978.89063	2.76281

Unit 2
Test Run 2
Coal Feeders
11/05/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
8:27:52	77.60625	77.35625	70.90938	77.79688	303.66876	Start
8:28:44	77.52500	77.35938	70.83750	77.75000	303.47188	
8:29:37	77.55937	77.39063	67.13750	77.80312	299.89062	
8:30:29	77.64063	77.36562	66.49687	72.38438	293.88750	
8:31:22	77.62187	77.45937	65.19375	71.71875	291.99374	
8:32:14	77.65938	77.40000	61.67188	71.67500	288.40626	
8:33:07	77.60938	77.40625	61.14375	71.66875	287.82813	
8:33:59	77.36875	77.17188	60.80938	71.40312	286.75313	
8:34:51	73.50938	73.62500	56.97500	67.81875	271.92813	
8:35:44	72.66563	72.56563	56.06875	66.98125	268.28126	
8:36:36	72.63750	72.60625	56.12812	67.14687	268.51874	
8:37:29	72.74062	72.63125	56.10938	67.01250	268.49375	
8:38:21	72.61250	72.62187	56.14375	67.04063	268.41875	
8:39:14	72.61875	72.60625	56.21563	66.89687	268.33750	
8:40:06	72.61875	72.51250	55.98750	66.84062	267.95937	
8:40:59	71.44375	71.38438	54.76250	65.74687	263.33750	
8:41:51	70.87187	72.57188	55.03750	65.13125	263.61250	
8:42:44	72.66875	74.48438	56.91250	66.88125	270.94688	
8:43:36	75.06875	77.20000	60.56875	69.85938	282.69688	
8:44:29	76.95937	79.83437	63.28750	72.04688	292.12812	
8:45:21	79.43750	82.17500	65.58437	74.35938	301.55625	
8:46:13	81.50313	83.93125	67.62187	76.54688	309.60313	
8:47:06	81.63438	81.27500	67.64375	76.70937	307.26250	
8:47:58	76.05937	75.87813	62.37500	71.25313	285.56563	
8:48:51	73.55312	73.44375	59.73750	68.71562	275.44999	
8:49:43	73.04688	72.90312	59.27500	68.14063	273.36563	
8:50:36	75.56875	75.51250	61.91563	70.75313	283.75001	
8:51:28	76.53125	76.40000	62.90625	71.60000	287.43750	
8:52:21	76.59375	76.45313	63.00000	71.72813	287.77501	
8:53:13	78.83437	78.55312	65.00000	73.87187	296.25936	
8:54:06	79.13438	78.89687	65.33750	74.18437	297.55312	
8:54:58	77.15625	76.91250	63.36875	72.25938	289.69688	
8:55:50	77.05625	77.00313	63.39063	72.21250	289.66251	
8:56:43	78.94375	79.38750	65.06250	72.96250	296.35625	
8:57:35	78.81563	79.56563	65.08437	71.90000	295.36563	

Unit 2
Test Run 2
Coal Feeders
11/05/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
8:58:28	79.75313	80.55937	65.92500	72.86250	299.10000	Stop
9:00:13	80.55937	81.24687	66.65938	73.63750	302.10312	Start
9:01:05	78.73438	79.43750	64.80000	71.66875	294.64063	
9:01:58	79.59688	80.48125	65.69688	72.60938	298.38439	
9:02:50	80.67812	81.39375	66.71250	73.74687	302.53124	
9:03:43	78.76875	79.46875	64.97813	71.87187	295.08750	
9:04:35	78.40625	79.19375	64.57500	71.64687	293.82187	
9:05:28	78.60313	79.52812	64.87500	71.89063	294.89688	
9:06:20	78.88125	79.56875	65.04063	71.99062	295.48125	
9:07:12	77.89375	78.69063	64.14375	70.94688	291.67501	
9:08:05	76.62187	77.51250	62.93125	69.80000	286.86562	
9:08:57	75.24687	76.07813	61.45313	68.38438	281.16251	
9:09:50	76.30937	77.29375	62.82500	69.50313	285.93125	
9:10:42	76.99687	77.85938	63.35938	70.19688	288.41251	
9:11:35	78.25000	79.11562	64.35938	71.35313	293.07813	
9:12:27	78.64375	79.44375	64.83125	71.76250	294.68125	
9:13:20	78.25000	78.82188	64.59062	71.35000	293.01250	
9:14:12	79.35625	80.08750	65.43750	72.39687	297.27812	
9:15:05	79.98125	80.61875	66.13438	72.96562	299.70000	
9:15:57	80.25313	80.86875	66.24687	73.29375	300.66250	
9:16:50	80.48750	81.22500	66.54688	73.46250	301.72188	
9:17:42	79.84062	80.56875	65.89375	72.89375	299.19687	
9:18:34	80.04375	80.72500	66.05937	73.00938	299.83750	
9:19:27	79.38750	80.04688	65.45000	72.38750	297.27188	
9:20:19	78.13438	78.89063	64.31563	71.20937	292.55001	
9:21:12	77.20000	78.10625	63.47187	70.47813	289.25625	
9:22:04	77.03438	77.80625	63.28750	70.04688	288.17501	
9:22:57	78.12187	78.85938	64.35938	71.25938	292.60001	
9:23:49	78.55937	79.26875	64.66563	71.67188	294.16563	
9:24:42	78.74062	79.40625	64.84375	71.73438	294.72500	
9:25:34	78.23438	78.98438	64.43125	71.35938	293.00939	
9:26:27	78.65625	79.31563	64.76250	71.70937	294.44375	
9:27:19	78.96562	79.64063	65.13438	72.05625	295.79688	
9:28:11	79.82188	80.55937	65.93125	72.80625	299.11875	
9:29:04	78.74687	79.53125	64.92500	71.80937	295.01249	

Unit 2
Test Run 2
Coal Feeders
11/05/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
9:29:56	78.74062	79.65938	64.96250	71.78125	295.14375	Stop
9:33:26	77.81875	78.77812	64.14687	70.95937	291.70311	Start
9:34:19	78.35938	79.09062	64.44063	71.36875	293.25938	
9:35:11	80.42812	81.15000	66.52500	73.47813	301.58125	
9:36:04	81.08437	81.82500	67.07188	74.00938	303.99063	
9:36:56	78.77812	79.39687	64.85000	71.72188	294.74687	Stop
11:12:14	78.16875	78.87187	64.29688	71.21562	292.55312	Start
11:13:07	79.72188	80.40000	65.78125	72.68125	298.58438	
11:11:59	81.14063	81.73750	67.13438	74.09688	304.10939	
11:14:51	79.11562	79.77187	65.23125	72.29375	296.41249	
11:15:44	77.56250	78.15938	63.87812	70.83437	290.43437	
11:16:36	77.84688	78.43437	63.92500	70.98438	291.19063	
11:17:29	78.14687	78.60313	64.16250	71.20000	292.11250	
11:18:21	78.86250	79.47813	64.84062	71.80312	294.98437	
11:19:14	78.33437	78.73125	64.33125	71.44375	292.84062	
11:20:06	77.82813	78.50313	63.97813	71.02187	291.33126	
11:20:59	77.09688	77.79688	63.32188	70.27187	288.48751	
11:21:51	77.25625	77.83437	63.30625	70.21562	288.61249	
11:22:44	78.87187	79.55000	64.95625	71.82500	295.20312	
11:23:36	81.64063	82.24375	67.74687	74.59375	306.22500	
11:24:29	80.85313	81.43437	66.76563	73.83750	302.89063	
11:25:21	79.87500	80.60625	66.09062	72.96250	299.53437	
11:26:13	76.35000	77.06875	62.56875	69.54063	285.52813	
11:27:06	75.80625	76.54063	62.10313	68.86562	283.31563	
11:27:58	76.37187	77.09062	62.50625	69.45937	285.42811	
11:28:51	78.21875	78.85625	64.41563	71.20625	292.69688	
11:29:43	78.07813	78.71875	64.21562	71.13125	292.14375	
11:30:36	78.05937	78.69375	64.25000	71.10313	292.10625	
11:31:28	77.90938	78.71250	64.11250	71.12500	291.85938	
11:32:21	77.56563	78.16250	63.60625	70.65938	289.99376	
11:33:13	77.05312	77.77812	63.30938	70.23750	288.37812	
11:34:06	77.59688	78.43750	63.83437	70.74375	290.61250	
11:34:58	77.61562	78.26875	63.82813	70.72500	290.43750	
11:35:50	77.89063	78.59062	64.11250	70.90000	291.49375	
11:36:43	77.73750	78.50938	63.88750	70.77187	290.90625	

Unit 2
Test Run 2
Coal Feeders
11/05/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
11:37:35	77.60625	78.25313	63.78125	70.53125	290.17188	
11:38:28	78.34375	79.04375	64.44688	71.40000	293.23438	
11:39:20	78.81250	79.42812	64.95937	71.80937	295.00936	
11:40:13	79.43750	80.06250	65.52187	72.57500	297.59687	
11:41:05	78.40938	79.19375	64.60625	71.68437	293.89375	
11:41:58	79.02812	79.90000	65.24375	72.31875	296.49062	Stop
11:59:27	79.47500	80.21250	65.51250	72.55312	297.75312	Start
12:00:20	79.33125	79.93437	65.54375	72.48438	297.29375	
12:01:12	79.65625	80.25313	65.70625	72.65625	298.27188	
12:02:05	79.19063	79.70313	65.13438	72.10000	296.12814	
12:02:57	78.26250	78.90625	64.34688	71.21562	292.73125	
12:03:50	77.75000	78.42812	63.88438	70.74687	290.80937	
12:04:42	75.41875	76.07188	61.67500	68.65312	281.81875	
12:05:35	75.00313	75.80937	61.34063	68.16563	280.31876	
12:06:27	76.13125	76.92188	62.43438	69.21250	284.70001	
12:07:20	76.41250	77.08750	62.69062	69.54063	285.73125	
12:08:12	77.34688	78.05000	63.56875	70.49062	289.45625	
12:09:04	76.40000	77.23750	62.63438	69.53125	285.80313	
12:09:57	76.78438	77.45313	63.01875	69.78750	287.04376	
12:10:49	76.72813	77.38125	62.98125	69.81250	286.90313	
12:11:42	77.32188	78.09375	63.68125	70.47188	289.56876	
12:12:34	80.10938	80.70937	66.19375	73.06875	300.08125	
12:13:27	79.70313	80.37813	65.79688	72.67188	298.55002	
12:14:19	79.61562	80.20313	65.81250	72.81563	298.44688	
12:15:12	78.31875	79.05000	64.43750	71.35625	293.16250	
12:16:04	77.56563	78.24062	63.78125	70.64687	290.23437	
12:16:57	76.72813	77.49687	62.97500	69.82500	287.02500	
12:17:49	77.42500	78.17812	63.64063	70.66250	289.90625	
12:18:41	77.38438	77.89687	63.53750	70.38750	289.20625	
12:19:34	76.80625	77.85313	63.44375	70.25000	288.35313	
12:20:26	77.05937	77.77812	63.38750	70.34062	288.56561	
12:21:19	77.50625	78.12813	63.75000	70.55937	289.94375	
12:22:11	77.54688	78.19063	63.66563	70.53125	289.93439	
12:23:04	77.74375	78.43437	63.83437	70.75313	290.76562	
12:23:56	80.39063	80.98438	66.45937	73.39687	301.23125	

Unit 2
Test Run 2
Coal Feeders
11/05/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
12:24:49	80.90312	81.55625	66.93750	73.86562	303.26249	
12:25:41	80.24687	80.87813	66.36875	73.30625	300.80000	
12:26:34	80.83125	81.42812	66.79688	73.79688	302.85313	
12:27:26	79.10313	79.65938	65.17188	72.14375	296.07814	
12:28:19	79.66875	80.37500	65.75313	72.67500	298.47188	
12:29:11	78.53125	79.24687	64.70000	71.65625	294.13437	End

Overall Summary

Average	**78.33478**	**78.99073**	**64.44531**	**71.66357**	**293.43439**
Maximum	**81.84062**	**83.93125**	**70.90938**	**77.80312**	**309.60313**
Minimum	**70.87187**	**71.38438**	**54.76250**	**65.13125**	**263.33750**

Test Run 2 Summary

Average	**77.83874**	**78.44947**	**63.92468**	**71.39788**	**291.61077**
Maximum	**81.64063**	**83.93125**	**70.90938**	**77.80312**	**309.60313**
Minimum	**70.87187**	**71.38438**	**54.76250**	**65.13125**	**263.33750**

Unit 2
Process Analog Data Listing
Test Run 2

Point		U2_02_wet_O2	U2_02_dry_O2	U2-Load_O2	U2-Heat Input_06	U2-Noxm mBtu-06	U2_H20_%_06	U2_CO2_%_06	U2-SO2m mBtu_06	U2-Flow _Hr_06	U2-SO2m mBtu-70
Units		ppm	%	MWatt	mmBtu/hr	#/mmbtu	I	%	S02 mmBtu	SCFH	InletSO2mm
Full Scale	Time	20	20	350	9000	1.000	100	20	1.2	61080000	1.2
11/05/99	13:10	4.7	4.8	274.7	3341	0.336	2.08	14.18	0.087	43,312,800	0.91
11/05/99	13:11	4.4	5.3	274.1	2744	0.380	16.98	13.74	0.089	43,311,600	0.91
11/05/99	13:12	4.4	5.5	274.1	2622	0.388	20.00	13.56	0.086	43,498,800	0.97D
11/05/99	13:13	4.7	5.5	272.0	2813	0.392	14.55	13-56	0.081	43,693,800	0.90D
11/05/99	13:14	4.8	5.8	271.4	2671	0.407	17.24	13-30	0.071	43,693,800	0.90
11/05/99	13:15	4.9	5.3	272.0	3082	0.369	7.55	13.74	0.078	43,684,800	0.90
11/05/99	13:16	5.0	5.0	272.9	3397	0.362	0.00	14.00	0.088	43,675,200	0.91
11/05/99	13:17	4.7	5.3	273.1	2957	0.377	11.32	13.74	0.090	43,686,600	0.91
11/05/99	13:18	4.5	5.5	273.0	2735	0.389	18.18	13.56	0.093	44,371,200	0.91
11/05/99	13:19	4.7	5.4	273.3	2935	0.382	12.96	13-65	0.088	44,470,200	0.91
11/05/99	13:20	4.8	5.5	273.3	2918	0.371	12.73	13.56	0.084	44,385,000	0.90
11/05/99	13:21	4.8	5.4	273.6	2962	0.366	11.11	13.65	0.085	43,936,800	0.91
11/05/99	13:22	4.7	5.3	274.2	2974	0.365	11.32	13.74	0.085	43,936,800	0.91
11/05/99	13:23	4.7	5.5	274.5	2826	0.384	14.55	13-56	0.081	43,890,000	0.91
11/05/99	13:24	4.9	5.6	274.2	2872	0.390	12.50	13.47	0.083	43,846,800	0.91
11/05/99	13:25	5.0	5.7	273.3	2860	0.403	12.28	13.39	0.087	43,848,000	0.90
11/05/99	13:26	5.1	5.6	272.3	2982	0.399	8.93	13.47	0.087	43,751,400	0.91
11/05/99	13:27	5.0	5.7	271.8	2851	0.400	12.28	13.39	0.082	43,708,200	0.91
11/05/99	13:28	5.0	5.5	271.3	2993	0.389	9.09	13-56	0.081	43,704,600	0.91
11/05/99	13:29	4.9	5.6	270.9	2871	0.397	12.50	13.47	0.082	43,828,800	0.91
11/05/99	13:30	4.9	5.5	271.1	2944	0.390	10.91	13-56	0.083	43,865,400	0.91
11/05/99	13:31	4.9	5.4	271.0	3016	0.378	9.26	13.65	0.087	43,834,800	0.90
11/05/99	13:32	4.8	5.4	270.8	2946	0.375	11.11	13.65	0.086	43,711,800	0.90
11/05/99	13:33	4.8	5.3	270.6	3021	0.379	9.43	13.74	0.085	43,707,000	0.90
11/05/99	13:34	4.7	5.2	270.1	3032	0.374	9.62	13.83	0.090	43,681,200	0.90
11/05/99	13:35	4.7	5.2	270.9	3017	0.367	9.62	13.83	0.088	43,456,200	0.90
11/05/99	13:36	4.7	5.0	271.5	3178	0.350	6.00	14.00	0.086	43,461,600	0.90
11/05/99	13:37	4.5	5.2	272.0	2883	0.367	13.46	13-83	82.000	43,374,600	0.90
11/05/99	13:38	4.5	5.3	271.3	2805	0.372	15.09	13-74	0.085	43,288,800	0.90
11/05/99	13:39	4.6	5.4	270.3	2796	0.380	14.81	13.65	0.088	43,284,600	0.90
11/05/99	13:40	4.7	5.3	270.2	2940	0.377	11.32	13-74	0.088	43,435,200	0.90
11/05/99	13:41	4.8	5.2	269.5	3083	0.370	7.69	13.83	0.085	43,486,200	0.90
11/05/99	13:42	4.7	5.1	270.1	3098	0.364	7.84	13.91	0.082	43,488,000	0.90
11/05/99	13:43	4.7	5.1	270.4	3107	0.364	7.84	13.91	0.083	43,616,400	0.90
11/05/99	13:44	4.5	5.2	270.5	2904	0.370	13.46	13-83	0.078	43,693,200	0.90
11/05/99	13:45	4.5	5.3	270.7	2832	0.376	15.09	13-74	0.082	43,701,600	0.90
11/05/99	13:46	4.6	5.2	271.2	2980	0.370	11.54	13.83	0.086	43,858,800	0.91
11/05/99	13:47	4.6	5.4	270.3	2837	0.384	14.81	13.65	0.091	43,909,800	0.91
11/05/99	13:48	4.7	5.3	270.9	2969	0.386	11.32	13.74	0.093	43,870,200	0.90
11/05/99	13:49	4.7	5.2	271.7	3035	0.373	9.62	13.83	0.091	43,713,600	0.90
11/05/99	13:50	4.7	5.2	271.9	3035	0.374	9.62	13.83	0.086	43,714,800	0.91
11/05/99	13:51	4.6	5.3	271.3	2892	0.385	13.21	13.74	0.061	43,659,600	0.91
11/05/99	13:52	4.6	5.2	270.9	2960	0.373	11.54	13.83	0.080	43,563,600	0.91
11/05/99	13:53	4.6	5.2	270.8	2960	0.371	11.54	13.83	0.084	43,563,000	0.90
11/05/99	13:54	4.7	5.0	271.6	3177	0.360	6.00	14.00	0.091	43,443,000	0.91
11/05/99	13:55	4.6	5.1	271.8	3021	0.365	9.80	13.91	0.095	43,328,400	0.91
11/05/99	13:56	4.5	5.2	271.5	2880	0.375	13.46	13.83	0.090	43,330,200	0.90
11/05/99	13:57	4.6	5.2	271.7	2930	0.373	11.54	13.83	0.082	43,123,200	0.90
11/05/99	13:58	4.7	5.1	272.0	3072	0.367	7.84	13.91	0.086	43,117,800	0.91
11/05/99	13:59	4.6	5.3	271.4	2859	0.384	13.21	13.74	0.086	43,156,800	0.91
11/05/99	14 : 0 0	4.6	5.2	271.5	2946	0.380	11.54	13.83	0.085	43,361,400	0.91
11/05/99	14:01	4.7	5.2	271.5	3010	0.377	9.62	13.83	0.089	43,360,200	0.91
11/05/99	14:02	4.7	5.3	271.9	2935	0.379	11.32	13.74	0.089	43,359,600	0.91
11/05/99	14:03	4.7	5.0	272.7	3169	0.360	6.00	14.00	0.088	43,343,400	0.91
11/05/99	14:04	4.7	5.1	272.6	3087	0.369	7.84	13.91	0.088	43,338,000	0.91
11/05/99	14:05	4.6	5.2	272.5	2945	0.375	11.54	13.83	0.087	43,339,800	0.92
11/05/99	14:06	14.7D	5.4D	272.8	8946D	0.374D	-172.22D	13.65D	0.088D	43,338,600	0.92
11/05/99	14:07	6.6D	5.4	272.3	4017D	0.373D	-22.22D	13.65D	0.091D	43,343,400	0.91
11/05/99	14:08	5.4	5.3	272.3	3371	0.369	-1.89	13.74	0.087	43,345,200	0.91
11/05/99	14:09	5.0	5.2	272.8	3232	0.362	3.85	13.83	0.086	43,766,400	0.92
11/05/99	14:10	4.8	5.3	272.9	3026	0.372	9.43	13.74	0.088	43,773,000	0.92
11/05/99	14:11	4.7	5.3	272.9	2963	0.378	11.32	13.74	0.087	43,773,000	0.91
11/05/99	14:12	4.6	5.3	273.3	2904	0.365	13.21	13.74	0.088	43,848,000	0.85D
11/05/99	14:13	4.7	5.3	273.1	2967	0.370	11.32	13.74	0.091	43,843,200	0.91D
11/05/99	14:14	4.7	5.4	272.4	2897	0.378	12.96	13.65	0.093	43,894,800	0.91
11/05/99	14:15	4.7	5.3	273.2	2972	0.369	11.32	13.74	0.090	43,908,000	0.91
11/05/99	14:16	4.8	5.1	272.3	3194	0.359	5.88	13.91	0.086	43,906,200	0.91
11/05/99	14:17	4.6	5.4	271.8	2833	0.380	1481.00	13.65	0.086	43,860,000	0.91
11/05/99	14:18	4.7	5.4	272.7	2893	0.374	12.96	13.65	0.085	43,828,800	0.91
11/05/99	14:19	4.8	5.2	273.1	3108	0.360	7.69	13.83	0.090	43,830,000	0.92
11/05/99	14:20	4.7	5.4	272.8	2894	0.382	12.96	13.65	0.090	43,850,400	0.92
11/05/99	14:21	4.7	5.5	272.4	2823	0.392	14.55	13.56	0.087	43,845,000	0.92
11/05/99	14:22	4.8	5.5	272.0	2886	0.392	12.73	13.56	0.083	43,891,200	0.92
11/05/99	14:23	4.8	5.4	271.9	2964	0.386	11.11	13.65	0.083	43,977,000	0.92
11/05/99	14:24	4.8	5.3	272.9	3040	0.376	9.43	13.74	0.085	43,976,400	0.92
11/05/99	14:25	4.8	5.3	273.4	3042	0.374	9.43	13.74	0.085	44,013,000	0.92
11/05/99	14:26	4.7	5.4	273.5	2907	0.390	12.96	13.65	0.088	44,049,600	0.93
11/05/99	14:27	4.7	5.5	272.9	2836	0.394	14.55	13.56	0.092	44,053,800	0.93
11/05/99	14:28	4.8	5.6	271.5	2826	0.409	14.29	13.47	0.094	44,041,800	0.92
11/05/99	14:29	4.8	5.7	271.8	2758	0.410	15.79	13.39	0.098	44,036,400	0.93
11/05/99	14:30	4.9	5.6	270.7	2885	0.401	12.50	13.47	0.095	44,046,600	0.93
11/05/99	14:31	5.0	5.9	269.6	2742	0.427	15.25	13.21	0.084	44,092,800	0.92
11/05/99	14:32	5.0	5.6	269.9	2947	0.396	10.71	13.47	0.079	44,088,600	0.91
11/05/99	14:33	5.1	5.4	270.5	3153	0.385	5.56	13.65	0.086	44,025,000	0.92
11/05/99	14:34	5.0	5.5	270.6	3011	0.397	9.09	13.56	0.089	43,960,200	0.92
11/05/99	14:35	4.9	5.6	270.1	2879	0.403	12.50	13.47	0.095	43,956,600	0.92
11/05/99	14:36	4.9	5.6	268.7	2874	0.399	12.50	13.47	0.096	43,884,600	0.92
11/05/99	14:37	5.0	5.5	269.3	3001	0.394	9.09	13.56	0.094	43,808,400	0.92
11/05/99	14:38	5.0	5.3	269.4	3154	0.375	5.66	13.74	0.095	43,806,600	0.92
11/05/99	14:39	4.8	5.4	269.5	2944	0.385	11.11	13.65	0.091	43,678,800	0.93
11/05/99	14:40	4.8	5.3	270.0	3014	0.379	9.43	13.74	0.086	43,598,400	0.93
11/05/99	14:41	4.7	5.4	269.5	2877	0.386	12.96	13.65	0.093	43,593,000	0.93
11/05/99	14:42	4.8	5.2	268.6	3077	0.365	7.69	13.83	0.099	43,396,800	0.92

Unit 2
Process Analog Data Listing
Test Run 2

Point		U2_02_wet_O2	U2_02_dry_O2	U2-Load_O2	U2-Heat Input_06	U2-Noxm mBtu-06	U2_H20_%_06	U2_CO2_%_06	U2-SO2m mBtu_06	U2-Flow _Hr_06	U2-SO2m mBtu-70
Units		ppm	%	MWatt	mmBtu/hr	#/mmbtu	I	%	S02 mmBtu	SCFH	InletSO2mm
Full Scale	Time	20	20	350	9000	1.000	100	20	1.2	61080000	1.2
11/05/99	14:43	4.7	5.2	268.4	3013	0.364	9.62	13.83	0.100	43,396,200	0.92
11/05/99	14:44	4.6	5.1	268.3	3026	0.356	9.80	13.91	0.097	43,398,000	0.93
11/05/99	14:45	4.5	5.0	268.4	3016	0.354	10.00	14.00	0.094	43,083,000	0.93
11/05/99	14:46	4.5	4.9	269.1	3096	0.345	8.16	14.09	0.093	43,063,800	0.92
11/05/99	14:47	4.4	4.7	270.0	3196	0.336	6.38	14.27	0.095	43,069,800	0.93
11/05/99	14:48	4.3	5.0	269.6	2856	0.361	14.00	14.00	0.096	42,694,800	0.93
11/05/99	14:49	4.4	5.1	269.0	2845	0.368	13.73	13.91	0.093	42,668,400	0.93
11/05/99	14:50	4.5	5.0	269.0	2987	0.360	10.00	14.00	0.093	42,663,600	0.93
11/05/99	14:51	4.5	5.0	268.4	2974	0.355	10.00	14.00	0.093	42,480,000	0.93
11/05/99	14:52	4.5	5.0	268.3	2972	0.354	10.00	14.00	0.098	42,446,400	0.93
11/05/99	14:53	4.5	4.8	270.0	3133	0.340	6.25	14.18	0.099	42,423,600	0.93
11/05/99	14:54	4.5	4.9	270.5	3049	0.348	8.16	14.09	0.095	42,412,800	0.93
11/05/99	14:55	4.4	5.1	270.6	2828	0.368	13.73	13.91	0.091	42,413,400	0.93
11/05/99	14:56	4.4	5.1	270.3	2829	0.365	13.73	13.91	0.091	42,417,000	0.93
11/05/99	14:57	4.6	5.0	270.4	3058	0.357	8.00	14.00	0.095	42,725,400	0.93
11/05/99	14:58	4.6	4.9	270.6	3140	0.353	6.12	14.09	0.095	42,726,600	0.93
11/05/99	14:59	4.5	4.8	271.1	3159	0.350	6.25	14.18	0.099	42,781,200	0.93
11/05/99	15:00	4.4	4.9	270.8	3012	0.354	10.20	14.09	0.097	42,855,000	0.93
11/05/99	15:01	4.3	5.0	271.1	2867	0.350	14.00	14.00	0.092	42,861,600	0.93
11/05/99	15:02	4.4	4.9	271.8	3014	0.353	10.20	14.09	0.091	42,874,800	0.94
11/05/99	15:03	4.4	5.2	271.8	2788	0.373	15.38	13.83	0.092	42,900,000	0.93
11/05/99	15:04	4.4	5.3	271.6	2718	0.389	16.98	13.74	0.090	42,903,600	0.93
11/05/99	15:05	4.4	5.2	271.8	2789	0.385	15.38	13.83	0.091	42,903,600	0.93
11/05/99	15:06	15.5D	5.4D	271.6	9337D	0.397D	-187.04D	13.65D	0.087D	42,898,200	0.93
11/05/99	15:07	7.5D	5.2D	271.7	4752D	0.377D	-44.23D	13.83D	0.090D	42,894,600	0.93
11/05/99	15:08	5.9	5.0	271.8	3937	0.367	-18.00	14.00	0.096	42,894,600	0.93
11/05/99	15:09	5.0	5.3	271.9	3088	0.392	5.66	13.74	0.096	42,895,200	0.92
11/05/99	15:10	4.7	5.2	272.5	2978	0.379	9.62	13.83	0.090	42,891,600	0.93
11/05/99	15:11	4.7	5.2	272.3	2978	0.386	9.62	13.83	0.096	42,901,800	0.94
11/05/99	15:12	4.6	5.5	271.4	2712	0.404	16.36	13.56	0.097	43,036,800	0.85D
11/05/99	15:13	4.8	5.3	271.2	2980	0.392	9.43	13.74	0.091	43,106,400	0.91D
11/05/99	15:14	4.8	5.2	271.5	3056	0.379	7.69	13.83	0.094	43,102,800	0.92
11/05/99	15:15	4.7	5.2	272.6	3008	0.378	9.62	13.83	0.096	43,327,800	0.93
11/05/99	15:16	4.6	5.2	273.3	2949	0.371	11.54	13.83	0.090	43,408,200	0.93
11/05/99	15:17	4.6	5.5	272.6	2738	0.390	16.36	13.56	0.088	43,444,800	0.93
11/05/99	15:18	4.7	5.5	272.0	2817	0.406	14.55	13.56	0.085	43,749,600	0.92
11/05/99	15:19	4.8	5.3	272.5	3024	0.383	9.43	13.74	0.085	43,751,400	0.92
11/05/99	15:20	4.8	5.1	272.8	3184	0.374	5.88	13.91	0.088	43,760,400	0.93
11/05/99	15:21	4.6	5.3	272.2	2899	0.387	13.21	13.74	0.093	43,760,400	0.92
11/05/99	15 : 2 2	4.6	5.2	272.6	2973	0.381	11.54	13.83	0.098	43,759,800	0.93
11/05/99	15:23	4.6	5.4	273.3	2827	0.383	14.81	13.65	0.096	43,766,400	0.93
11/05/99	15:24	4.7	5.5	272.7	2833	0.405	14.55	13.56	0.091	44,000,400	0.93
11/05/99	15:25	4.8	5.7	271.7	2755	0.421	15.79	13.39	0.082	43,993,200	0.92
11/05/99	15:26	5.0	5.5	271.9	3013	0.406	9.09	13.56	0.085	43,995,000	0.92
11/05/99	15:27	5.0	5.3	271.8	3167	0.390	5.66	13.74	0.091	43,992,000	0.93
11/05/99	15:28	4.8	5.3	271.5	3041	0.389	9.43	13.74	0.091	43,998,000	0.92
11/05/99	15:29	4.8	5.3	271.3	3046	0.388	9.43	13.74	0.090	44,065,200	0.92
11/05/99	15:30	4.8	5.3	271.3	3050	0.388	9.43	13.74	0.094	44,119,800	0.92
11/05/99	15:31	4.7	5.3	271.0	2986	0.398	11.32	13.74	0.096	44,113,800	0.92
11/05/99	15:32	4.8	5.3	271.0	3029	0.385	9.43	13.74	0.090	43,813,800	0.92
11/05/99	15:33	4.7	5.2	271.3	3036	0.376	9.62	13.83	0.086	43,733,400	0.92
11/05/99	15:34	4.7	5.2	271.7	3027	0.380	9.62	13.83	0.091	43,605,000	0.92
11/05/99	15:35	4.6	5.2	272.0	2948	0.380	11.54	13.83	0.093	43,386,600	0.93
11/05/99	15:36	4.6	5.3	272.3	2874	0.385	13.21	13.74	0.094	43,384,800	0.93
11/05/99	15:37	4.6	5.4	273.5	2804	0.381	14.81	13.65	0.093	43,402,800	0.93
11/05/99	15:38	4.7	5.4	273.4	2872	0.387	12.96	13.65	0.092	43,518,000	0.94
11/05/99	15:39	4.7	5.6	273.4	2734	0.402	16.07	13.47	0.086	43,512,000	0.93
11/05/99	15:40	4.9	5.6	272.1	2864	0.407	12.50	13.47	0.088	43,731,600	0.93
11/05/99	15:41	5.0	5.9	271.3	2732	0.432	15.25	13.21	0.088	43,933,800	0.93
11/05/99	15:42	5.1	5.6	271.4	2995	0.412	8.93	13.47	0.088	43,938,600	0.93
11/05/99	15:43	5.2	5.4	271.5	3209	0.391	3.70	13.65	0.091	43,940,400	0.93
11/05/99	15:44	5.0	5.5	270.9	3020	0.404	9.09	13.56	0.097	44,088,600	0.93
Average		**4.7**	**5.3**	**271.6**	**2968**	**0.379**	**10.75**	**13.74**	**0.089**	**43,538,625**	**0.92**
Minimum		**4.3**	**4.7**	**268.3**	**2622**	**0.336**	**-18.00**	**13.21**	**0.071**	**42,412,800**	**0.90**
Maximum		**5.9**	**5.9**	**274.7**	**3937**	**0.432**	**20.00**	**14.27**	**0.100**	**44,470,200**	**0.94**
Missing	**(%)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Invalid	**(%)**	**2.58**	**2.58**	**0**	**2.58**	**2.58**	**2.58**	**2.58**	**2.58**	**0**	**3.87**
0 0 Cal	**(%)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
In Cal	**(%)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Valid	**(%)**	**97.42**	**97.42**	**100**	**97.42**	**97.42**	**97.42**	**97.42**	**97.42**	**100**	**96.13**
Available(%	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	

M	**MissingData**	**F**	**PowerFailure**	**P**	**InPurge**	**f**	**DiscreteMissing**	**D**	**Downed**	**C**	**InCalibration**
O	**Part60-OOC**	**O**	**Part75-OOC**	**B**	**NoSamples**	**<**	**TooFewSamples**	**r**	**Reserved-1**	**u**	**Reserved-2**
A	**HighAlarm**	**a**	**LowAlarm**	**m**	**EPA-MinC02MaxO:**	**G**	**EPA_AppG_C02**	**>**	**EnoughSamples**	**E**	**Edited**
S	**StackOffline**	**!**	**PrimaryMonitor**	**@**	**BackupMonitor**	**#**	**Alternate**	**$**	**ReferenceMethod**	**%**	**Parametric**
^	**Average_HB_HA**	**&**	**Init_QA_Hrs_Avg**	*****	**90thPercentile**	**(**	**95thPercentile**	**)**	**Binmaximum**	**-**	**BinAverage**
+	**MaxPotential**	**|**	**Other**								

Unit 2
11/5/1999
Test Run 2
Process Data

TIME	OPACITY %	WET O_2 %	FGAS-FLO	FGAS-TEM	UNIT-LOAD MW	MN ST °F	O_2 %	ABS_1A	ABS_1B	ABS_2A	ABS_2B	DEM_1B	DEM_2A	DEM_2B	FURN_PRE	FW_FLOW	FGAS_FLO	FGAS_TEM	U2_02 %	Comment Comment
8:28:11	6.49062	4.84000	758.50000	167.84375	277.98749	998.15625	3.00281	5.50	6.56	7.27	6.79	28.99688	27.00000	147.00000	-0.55100	793.96875	759.75000	167.98438	3.01688	Start
8:29:04	7.24375	4.76563	754.21875	167.84375	277.98749	999.00000	3.14687	5.50	6.65	7.23	6.75	30.99375	45.00000	114.99375	-0.44825	822.84375	754.06250	167.84375	3.12906	
8:29:56	7.01250	4.82937	754.25000	167.20313	277.97656	999.28125	2.83906	5.50	6.63	7.20	6.73	48.99375	39.99375	183.99374	-0.44375	828.37500	754.28125	167.20313	2.90750	
8:30:49	7.87187	4.87250	752.59375	167.14063	278.90625	999.84375	2.78594	5.50	6.63	7.20	6.73	4.99687	7.99687	193.99687	-0.56250	822.53125	752.59375	167.14063	2.73125	
8:31:41	7.08125	4.91625	750.37500	167.14063	279.43124	1,000.54688	3.20156	5.50	6.72	7.20	6.73	213.00000	51.99375	30.00000	-0.21850	835.68750	750.34375	167.14063	3.18594	
8:32:34	7.06250	4.76563	750.25000	166.43750	279.31094	1,000.82813	2.96750	5.50	6.74	7.18	6.65	228.99374	4.99687	0.99375	0.05400	855.21875	750.25000	166.43750	2.99531	
8:33:26	7.22188	4.74438	753.59375	166.31250	279.01563	1,001.15625	3.04469	5.50	6.79	7.11	6.66	225.99374	12.99375	16.99688	0.03550	829.15625	752.46875	166.31250	3.04000	
8:34:19	6.61562	4.93000	755.71875	166.46875	278.92813	1,001.85938	3.01187	5.50	6.85	7.13	6.66	244.99687	15.99375	4.99687	-0-53325	784.53125	755.71875	166.46875	2.98625	
8:35:11	6.79375	4.89625	755.59375	166.73438	278.50156	1,002.84375	3.21094	5.50	6.87	7.13	6.65	244.99687	15.99375	4.99687	-0.68000	793.12500	755.56250	166.46875	3.19250	
8:36:03	8.71875	4.90625	755.87500	166.73438	277.82343	1,003.78125	3.11250	5.50	6.93	7.12	6.63	243.00000	37.99688	9.99375	-0.59675	826.09375	755.68750	166.73438	3.14094	
8:36:56	7.35000	4.92625	756.59375	166.71875	277.75781	1,004.06250	3.24000	5.50	6.96	7.11	6.62	222.99374	36.99375	30.00000	-0.54775	820.59375	756.62500	166.71875	3.22750	
8:37:48	6.35938	5.08125	756.78125	166.73438	278.20624	1,004.01563	3.14625	5.50	6.96	7.11	6.62	57.99375	153.00000	19.99688	-0.51950	792.78125	756.78125	166.73438	3.16344	
8:38:41	6.64063	5.11375	759.03125	166.79688	278.41406	1,004.01563	3.19187	5.50	7.01	7.11	6.59	6.99375	39.99375	21.00000	-0.48775	757.43750	757.93750	166.79688	3.16250	
8:39:33	6.48750	5.14437	762.34375	166.93750	278.93906	1,003.78125	3.23469	5.50	6.97	7.14	6.57	21.99375	115.99687	3.00000	-0.43725	739.00000	762.34375	166.93750	3.24094	
8:40:26	6.78125	5.08437	762.25000	167.70313	278.84064	1,002.98438	3.36250	5.50	6.92	7.16	6.56	18.99375	172.99687	6.00000	-0.49875	729.96875	762.25000	167.70313	3.35969	
8:41:18	6.50000	5.09250	761.06250	167.85938	278.32657	1,002.00000	3.11906	5.50	6.96	7.17	6.53	24.99375	64.99687	21.00000	-0.49250	729.09375	761.06250	167.85938	3.16969	
8:42:11	7.05937	5.11250	760.06250	167.71875	278.46875	1,001.34375	2.83437	5.50	6.92	7.19	6.51	24.99375	64.99687	21.00000	-0.54550	744.12500	760.06250	167.85938	2.83000	
8:43:03	7.81250	5.15250	760.18750	167.71875	279.16876	1,001.48438	3.00312	5.50	6.93	7.17	6.56	46.99688	48.99375	121.99687	-0.53275	754.90625	760.12500	167.71875	2.98750	
8:43:56	6.62187	5.00063	761.12500	167.42188	279.54062	1,001.95313	3.14313	5.50	6.88	7.21	6.61	46.99688	28.99688	177.99374	-0.58750	761.06250	760.81250	167.42188	3.13812	
8:44:48	6.21250	4.82937	761.68750	167.51563	279.93439	1,002.04688	3.05750	5.50	6.88	7.21	6.61	46.99688	15.00000	199.99687	-0.54075	761.40625	761.68750	167.51563	3.08500	
8:45:40	6.61562	4.86688	761.68750	166.84375	279.37656	1,001.57813	3.15125	5.50	6.88	7.22	6.67	18.99375	34.99688	144.00000	-0.48825	766.65625	761.68750	166.84375	3.16344	
8:46:33	6.90312	4.91813	761.18750	166.90625	278.85156	1,001.34375	2.94688	5.50	6.85	7.20	6.73	1.99688	237.00000	0.99375	-0.34250	767.06250	761.31250	166.90625	2.93969	
8:47:25	6.64687	4.91937	760.84375	166.84375	278.87344	1,001.71875	3.06656	5.50	6.83	7.21	6.77	93.00000	78.00000	18.00000	-0.42525	748.78125	760.87500	166.84375	3.02750	
8:48:18	6.47500	4.95437	760.78125	166.85938	277.73593	1,002.23438	3.32375	5.50	6.82	7.22	6.83	247.99687	36.99375	9.00000	-0.58150	772.34375	760.78125	166.85938	3.32250	
8:49:10	6.34688	4.87500	760.37500	166.95313	277.03595	1,002.70313	3.07844	5.50	6.77	7.21	6.90	247.99687	36.99375	9.00000	-0.65350	804.71875	760.43750	166.85938	3.12094	
8:50:03	6.90625	4.92750	760.00000	166.95313	276.77344	1,003.64063	2.91125	5.50	6.80	7.21	6.97	240.00000	34.99688	13.99687	-0.58175	807.46875	760.06250	166.95313	2.94656	
8:50:55	8.16250	5.07500	759.84375	166.79688	278.31561	1,005.37500	2.74281	5.50	6.73	7.25	7.00	235.99687	45.00000	18.99375	-0.48550	801.37500	759.93750	166.79688	2.73219	
8:51:48	8.43437	5.01750	759.12500	166.95313	279.34375	1,007.10938	3.07188	5.50	6.73	7.25	7.00	213.99374	9.00000	0.99375	-0.39300	791.18750	759.12500	166.95313	3.05188	
8:52:40	6.96250	4.84562	757.68750	166.96875	279.90155	1,008.37500	3.27719	5.50	6.77	7.23	7.01	30.00000	75.99375	4.99687	-0.46350	791.43750	757.65625	166.96875	3.22625	
8:53:33	6.31563	4.79125	757.81250	166.48438	279.82501	1,008.00000	3.17062	5.52	6.71	7.29	6.99	45.00000	69.99375	9.99375	-0.53400	805.31250	757.78125	166.48438	3.20906	
8:54:25	6.81250	4.93875	756.25000	166.71875	279.86874	1,006.64063	3.01844	5.50	6.75	7.27	6.99	27.00000	216.99374	1.99688	-0.40925	797.15625	756.75000	166.71875	3.01875	
8:55:18	6.71250	5.08563	755.18750	167.01563	279.47501	1,005.18750	3.07531	5.50	6.67	7.30	6.94	46.99688	51.99375	48.99375	-0.55450	801.50000	755.18750	167.01563	3.09031	
8:56:10	6.75625	5.07500	755.12500	166.89063	279.04843	1,004.06250	2.88125	5.50	6.64	7.31	6.93	46.99688	51.99375	48.99375	-0.59700	818.62500	755.12500	167.01563	2.89687	
8:57:02	7.36250	5.02250	754.87500	166.89063	279.59531	1,003.26563	2.84000	5.50	6.66	7.31	6.90	48.99375	46.99688	129.00000	-0.41925	820.46875	755.03125	166.89063	2.82594	
8:57:55	9.45938	5.02063	754.84375	166.96875	279.09219	1,002.84375	2.80031	5.50	6.62	7.30	6.91	49.99688	45.00000	174.99374	-0.47650	807.31250	754.75000	166.96875	2.80500	
8:58:47	14.25625	4.90125	754.56250	167.48438	278.64374	1,002.56250	2.57906	5.50	6.62	7.30	6.91	1.99688	4.99687	165.00000	-0.47125	813.87500	754.56250	167.48438	2.60656	Stop
8:59:40	11.80313	4.89000	755.59375	167.37500	278.85156	1,002.70313	2.91969	5.50	6.59	7.33	6.89	40.99688	63.00000	130.99687	-0.49500	812.03125	755.59375	167.37500	2.87594	
9:00:32	6.91250	4.91250	756.96875	167.37500	279.27814	1,002.75000	3.04187	5.50	6.55	7.30	6.86	1.99688	244.99687	0.99375	-0.48275	806.71875	756.96875	167.37500	3.05000	Start
9:01:25	6.84688	4.79938	757.15625	168.26563	279.16876	1,002.46875	2.85437	5.50	6.54	7.33	6.87	97.99687	66.99375	21.99375	-0.57225	806.81250	757.21875	168.26563	2.84281	
9:02:17	6.84375	4.89250	757.15625	168.31250	279.05939	1,002.04688	3.27000	5.50	6.54	7.31	6.86	249.99374	40.99688	9.00000	-0.37775	830.06250	757.15625	168.31250	3.23281	
9:03:10	6.85313	4.92625	757.65625	168.42188	277.40781	1,001.48438	3.00625	5.50	6.47	7.32	6.85	249.99374	40.99688	9.00000	-0.35075	817.59375	757.65625	168.31250	3.06844	
9:04:02	7.98750	4.88438	757.78125	168.42188	277.22186	1,001.25000	2.64969	5.50	6.51	7.30	6.82	237.99374	39.99375	30.99375	-0.52600	791.25000	757.78125	168.42188	2.67031	
9:04:55	8.25313	5.06563	757.43750	167.39063	278.25000	1,002.00000	2.75813	5.50	6.59	7.36	6.81	204.00000	12.00000	0.99375	-0.54275	813.53125	757.50000	167.39063	2.71656	
9:05:47	7.60625	5.03438	757.46875	167.56250	278.31561	1,003.17188	2.95906	5.50	6.59	7.36	6.81	190.99687	18.99375	1.99688	-0.49125	812.71875	757.46875	167.56250	2.97281	
9:06:40	7.92812	12.04062	757.65625	167.50000	278.08594	1,004.29688	2.80719	5.50	6.64	7.33	6.79	40.99688	73.99687	6.99375	-0.45475	813.18750	757.65625	167.50000	2.80750	
9:07:32	7.50938	13.52938	757.65625	167.46875	278.54532	1,005.23438	2.49062	5.50	6.76	7.39	6.76	58.99688	57.99375	12.99375	-0.54700	805.75000	757.71875	167.46875	2.53531	
9:08:24	9.69375	6.57875	757.62500	167.40625	279.87970	1,006.03125	2.96125	5.50	6.73	7.40	6.75	46.99688	219.00000	6.99375	-0.56350	806.78125	757.53125	167.40625	2.83625	
9:09:17	6.74375	5.03750	756.31250	167.59375	280.02188	1,006.07813	3.01813	5.50	6.79	7.40	6.72	36.00000	30.99375	66.99375	-0.58550	815.15625	756.71875	167.59375	3.09406	
9:10:09	7.32500	4.68937	755.31250	167.34375	280.15314	1,004.95313	3.03312	5.50	6.84	7.41	6.72	36.00000	30.99375	66.99375	-0.57850	823.50000	755.31250	167.59375	2.97656	

Unit 2
11/5/1999
Test Run 2
Process Data

TIME	OPACITY %	WET O_2 %	FGAS-FLO	FGAS-TEM	UNIT-LOAD MW	MN ST °F	O_2 %	ABS_1A	ABS_1B	ABS_2A	ABS_2B	DEM_1B	DEM_2A	DEM_2B	FURN_PRE	FW_FLOW	FGAS_FLO	FGAS_TEM	U2_02 %	Comment Comment
9:11:02	6.85625	4.81750	755.12500	167.34375	279.01563	1,002.70313	3.16500	5.50	6.89	7.42	6.67	1.99688	15.99375	163.99687	-0.57225	812.37500	755.12500	167.34375	3.18500	
9:11:54	6.97188	4.88875	753.53125	166.71875	277.30939	999.84375	2.95438	5.50	6.94	7.38	6.67	13.99687	16.99688	172.99687	-0.45800	807.53125	753.96875	166.71875	2.98813	
9:12:47	7.16875	5.02938	753.12500	167.21875	276.25937	997.31250	2.86313	5.50	6.94	7.38	6.67	7.99687	7.99687	166.99687	-0.46675	801.75000	753.18750	167.21875	2.86625	
9:13:39	7.24687	5.10625	753.09375	168.40625	275.73438	996.04688	2.76250	5.50	6.98	7.36	6.66	30.00000	106.99687	87.99375	-0-55650	808.65625	753.09375	168.40625	2.76437	
9:14:32	7.67500	5.00688	753.28125	168.25000	275.66876	995.95313	2.69844	5.50	7.05	7.34	6.64	1.99688	258.99374	0.99375	-0.47125	811.87500	753.25000	168.25000	2.70406	
9:15:24	7.88438	4.89313	745.81250	168.35938	275.71249	996.89063	2.67719	5.50	6.98	7.32	6.65	198.99374	45.00000	21.00000	-0.47125	804.09376	747.28125	168.35938	2.70906	
9:16:17	9.15312	4.79063	745.81250	168.43750	276.30313	998.34375	2.56687	5.50	6.99	7.30	6.61	235.99687	4.99687	0.99375	-0.49500	800.28125	745.84375	168.43750	2.55094	
9:17:09	8.21250	4.76813	745.25000	168.42188	276.77344	999.79688	2.86750	5.50	6.96	7.27	6.58	235.99687	4.99687	0.99375	-0.55125	801.09375	745.25000	168.43750	2.84156	
9:18:01	7.57188	4.64563	742.12500	168.42188	276.70782	1,000.64063	2.74719	5.50	6.94	7.25	6.59	244.99687	12.99375	0.99375	-0.46975	809.84375	742.31250	168.42188	2.77656	
9:18:54	7.83125	4.70000	742.28125	167.71875	276.41251	1,001.29688	2.59906	5.50	6.91	7.24	6.59	159.00000	48.00000	6.99375	-0.52050	815.50000	742.18750	167.71875	2.61656	
9:19:46	8.61875	4.78438	742.31250	167.67188	277.73593	1,002.14063	2.44563	5.50	6.91	7.24	6.59	135.00000	39.99375	16.99688	-0.42325	824.84375	742.31250	167.67188	2.45094	
9:20:39	8.57500	4.70500	739.18750	167.70313	278.47968	1,002.98438	2.81844	5.50	6.91	7.22	6.57	69.00000	54.99375	12.99375	-0.46975	817.93750	739.18750	167.70313	2.74406	
9:21:31	7.08125	4.56313	739.34375	168.32813	278.85156	1,003.78125	2.68469	5.50	6.90	7.23	6.55	64.99687	45.99375	16.99688	-0.57700	815.12500	739.21875	168.32813	2.72625	
9:22:24	7.45625	4.58437	739.87500	168.18750	279.62811	1,004.57813	2.47875	5.50	6.89	7.21	6.56	3.00000	171.00000	0.99375	-0.53100	819.75000	739.28125	168.18750	2.48688	
9:23:16	7.37187	4.72437	742.34375	168.32813	281.84845	1,006.17188	2.87500	5.50	6.86	7.20	6.62	13.99687	208.99687	0.99375	-0.42975	829.96875	742.28125	168.32813	2.74250	
9:24:09	6.86562	4.54688	742.43750	169.28125	282.23126	1,007.57813	3.29437	5.50	6.85	7.17	6.71	13.99687	208.99687	0.99375	-0.50000	818.87500	742.43750	168.32813	3.30219	
9:25:01	6.85000	4.45188	744.59375	169.28125	282.04532	1,008.14063	3.33812	5.50	6.83	7.15	6.75	30.00000	39.99375	141.00000	-0.50500	807.68750	742.37500	169.28125	3.32437	
9:25:54	5.80000	4.72875	753.59375	169.35938	282.57031	1,007.81250	3.43750	5.50	6.81	7.14	6.79	36.99375	15.99375	180.99374	-0.53050	818.31250	753.53125	169.35938	3.44563	
9:26:46	5.94688	5.01937	753.53125	168.26563	282.45001	1,007.15625	3.53594	5.50	6.81	7.14	6.79	6.99375	10.99687	183.99374	-0.54200	824.53125	753.53125	168.26563	3.48375	
9:27:39	5.85625	5.12000	753.43750	168.20313	281.43280	1,006.07813	3.64344	5.50	6.80	7.09	6.87	19.99688	19.99688	69.00000	-0.50700	822.78125	753.43750	168.20313	3.66937	
9:28:31	5.88438	5.15812	765.65625	168.15625	280.39374	1,004.95313	3.52125	5.50	6.74	7.06	6.92	1.99688	4.99687	171.99374	-0.50975	801.46875	765.65625	168.15625	3.53344	
9:29:23	5.79063	5.30062	765.71875	168.96875	279.38751	1,004.29688	3.34125	5.50	6.69	7.06	6.99	10.99687	18.00000	162.99374	-0.54700	816.81250	765.75000	168.96875	3.34406	
9:30:16	5.83750	5.36438	767.34375	169.01563	278.77499	1,004.25000	3.26781	5.50	6.71	7.03	7.01	226.99687	4.99687	0.99375	-0.52725	828.84375	765.84375	169.01563	3.29063	Stop
9:31:08	5.90625	5.28813	773.28125	169.53125	278.40314	1,004.95313	3.22125	5.50	6.71	6.97	7.00	226.99687	4.99687	0.99375	-0.48850	827.71875	773.28125	169.01563	3.21062	
9:32:01	5.76563	5.17750	773.31250	169.53125	278.41406	1,005.89063	3.20563	5.50	6.69	6.97	6.98	252.99374	36.00000	6.00000	-0.48000	808.37500	773.25000	169.53125	3.21594	
9:32:53	5.70313	5.13188	773.25000	169.25000	278.56720	1,006.78125	3.19563	5.50	6.67	6.96	6.98	199.99687	48.00000	12.99375	-0.53725	797.93750	773.34375	169.25000	3.19906	
9:33:46	5.83750	5.09937	767.56250	169.34375	279.48593	1,007.48438	3.16594	5.50	6.67	6.96	6.98	60.99375	76.99687	24.00000	-0.39575	813.68750	768.65625	169.34375	3.14344	Start
9:34:38	5.67188	5.08187	767.53125	169.64063	279.69376	1,007.85938	3.42469	5.50	6.62	6.90	6.95	1.99688	192.99374	0.99375	-0.53450	823.59375	767.53125	169.64063	3.40250	
9:35:31	5.63750	5.02187	767.56250	169.37500	278.72031	1,007.85938	3.36125	5.50	6.60	6.88	6.90	19.99688	162.99374	1.99688	-0.47375	821.93750	767.59375	169.37500	3.39094	
9:36:23	5.77500	5.11438	768.34375	169.85938	278.74219	1,008.09375	3.27219	5.50	6.54	6.86	6.87	4.99687	30.00000	159.00000	-0.46475	812.43750	768.09375	169.85938	3.28094	
9:37:16	5.86562	5.20250	768.40625	169.95313	278.84064	1,008.60938	3.24406	5.50	6.54	6.84	6.84	21.99375	9.99375	162.99374	-0.50875	807.90625	768.37500	169.95313	3.24563	Stop
9:38:08	5.68437	5.06563	768.43750	170.09375	278.86249	1,009.26563	3.40281	5.50	6.52	6.82	6.83	21.99375	9.99375	162.99374	-0.49350	811.96875	768.43750	169.95313	3.37594	
9:39:00	5.68125	5.02875	767.68750	170.09375	278.52344	1,009.82813	3.17094	5.50	6.60	6.75	6.86	25.99688	18.00000	192.00000	-0.44950	824.31250	767.68750	170.09375	3.22656	
9:39:53	5.89687	5.02063	767.65625	170.03125	278.47968	1,010.76563	3.25531	5.50	6.66	6.81	6.79	3.99375	10.99687	157.99687	-0.48275	823.00000	767.68750	170.03125	3.19812	
9:40:45	5.93437	5.11812	768.15625	170.65625	278.78595	1,011.70313	3.28594	5.50	6.66	6.81	6.79	1.99688	4.99687	165.99374	-0.55475	829.15625	767.81250	170.65625	3.33375	
9:41:38	6.25938	4.97937	769.03125	170.53125	279.11407	1,012.82813	3.21781	5.50	6.67	6.75	6.81	229.99687	7.99687	7.99687	-0.52950	821.15625	769.03125	170.53125	3.18375	
9:42:30	5.60625	5.00875	769.09375	170.64063	280.37189	1,013.90625	3.37219	5.50	6.78	6.74	6.79	246.99374	6.00000	3.99375	-0.49500	799.96875	769.09375	170.64063	3.36594	
9:43:23	13.26563	4.98187	768.81250	170.68750	280.70001	1,014.00000	3.51469	5.50	6.80	6.70	6.80	228.99374	12.99375	0.99375	-0.53750	813.31250	768.96875	170.68750	3.50000	
9:44:15	6.18750	5.02063	768.25000	170.59375	280.35001	1,013.20313	3.43219	5.50	6.85	6.68	6.76	232.99687	13.99687	12.00000	-0.51600	821.15625	768.28125	170.59375	3.46750	
9:45:08	5.72500	5.15125	768.21875	171.17188	280.03281	1,012.03125	3.22625	5.50	6.87	6.62	6.71	232.99687	13.99687	12.00000	-0.50500	828.00000	768.21875	170.59375	3.21062	
9:46:00	5.52500	5.27125	771.46875	171.17188	280.60156	1,011.32813	3.39438	5.50	6.92	6.69	6.72	60.00000	189.00000	16.99688	-0.46175	810.53125	770.62500	171.17188	3.38750	
9:46:53	5.71875	5.23063	772.50000	171.09375	280.55780	1,010.67188	3.25844	5.50	6.96	6.64	6.71	21.00000	162.00000	1.99688	-0.52825	810.96875	772.53125	171.09375	3.28750	
9:47:45	5.97500	5.14063	772.65625	170.04688	279.78125	1,009.59375	3.05063	5.50	6.96	6.64	6.71	31.99688	210.00000	9.00000	-0.51175	827.12500	772.62500	170.04688	3.08125	
9:48:38	5.87187	5.18250	773.06250	170.09375	279.96719	1,008.70313	2.93344	5.50	7.00	6.63	6.67	30.00000	223.99687	12.00000	-0.42675	830.43750	773.06250	170.09375	2.93656	
9:49:30	5.77187	5.06250	772.96875	170.07813	280.91876	1,008.28125	3.21750	5.50	7.00	6.55	6.65	6.00000	22.99688	162.99374	-0.46975	809.09375	772.96875	170.07813	3.15875	
9:50:22	5.58437	4.89313	772.78125	169.00000	281.06094	1,007.29688	3.39375	5.50	6.99	6.67	6.64	21.00000	45.00000	156.99374	-0.47775	798.96875	772.81250	169.00000	3.38875	
9:51:15	5.52812	4.84438	767.31250	168.87500	280.56876	1,005.93750	3.41844	5.50	6.97	6.59	6.61	40.99688	28.99688	162.00000	-0.60750	806.00000	768.68750	168.87500	3.40281	
9:52:07	5.51875	5.03375	766.09375	170.17188	280.10938	1,004.06250	3.54750	5.50	6.95	6.56	6.61	40.99688	28.99688	162.00000	-0.44500	831.34375	766.09375	168.87500	3.57437	
9:51:00	5.52812	5.12063	765.93750	170.17188	279.39844	1,001.90625	3.27781	5.50	6.91	6.54	6.56	24.99375	18.00000	190.99687	-0.38300	832.09375	765.93750	170.17188	3.29031	

Unit 2
11/5/1999
Test Run 2
Process Data

TIME	OPACITY %	WET O_2 %	FGAS-FLO	FGAS-TEM	UNIT-LOAD MW	MN ST °F	O_2 %	ABS_1A	ABS_1B	ABS_2A	ABS_2B	DEM_1B	DEM_2A	DEM_2B	FURN_PRE	FW_FLOW	FGAS_FLO	FGAS_TEM	U2_02 %	Comment Comment
9:53:52	5.58125	5.17438	763.34375	170.15625	279.15781	1,000.31250	3.16625	5.50	6.91	6.52	6.57	60.00000	25.99688	172.99687	-0.44425	816.71875	763.78125	170.15625	3.15219	
9:54:45	5.52187	5.19375	763.40625	170.17188	279.35468	999.37500	3.19563	5.50	6.91	6.52	6.57	1.99688	4.99687	171.00000	-0.44025	799.68750	763.37500	170.17188	3.20313	
9:55:37	5.58750	5.04812	763.59375	169.76563	279.54062	998.76563	3.19031	5.50	6.88	6.59	6.56	231.00000	42.99375	16.99688	-0.48925	809.03125	763.59375	169.76563	3.21844	
9:56:30	5.66250	4.95563	763.37500	169.84375	279.34375	998.29688	3.11906	5.50	6.86	6.64	6.53	240.99374	39.99375	16.99688	-0.19950	839.09375	763.37500	169.84375	3.11625	
9:57:22	5.67188	4.92938	763.18750	169.89063	278.87344	997.92188	3.08875	5.50	6.85	6.70	6.53	232.99687	40.99688	9.99375	-0.17400	827.18750	763.25000	169.89063	3.07437	
9:58:15	5.72813	4.88125	763.50000	170.15625	278.86249	997.73438	3.05844	5.50	6.80	6.73	6.50	229.99687	16.99688	9.99375	-0.43450	804.75000	763.43750	170.15625	3.08313	
9:59:07	5.69375	4.81063	761.56250	170.00000	278.53436	997.73438	3.03969	5.50	6.83	6.87	6.57	229.99687	16.99688	9.99375	-0.71275	809.40625	761.56250	170.15625	3.04156	
10:00:00	5.64063	4.82000	761.12500	170.00000	278.14063	997.73438	3.18000	5.50	6.75	6.94	6.61	63.00000	192.00000	13.99687	-0.66775	847.06250	761.12500	170.00000	3.15781	
10:00:52	5.76875	4.80688	759.56250	169.81250	277.93280	997.73438	2.60281	5.50	6.76	6.99	6.65	33.00000	202.99687	7.99687	-0.34875	862.31250	761.03125	169.81250	2.69313	
10:01:44	12.55000	4.83500	753.56250	169.65625	277.41876	998.10938	2.73563	5.50	6.76	6.99	6.65	33.00000	208.99687	13.99687	-0.29800	838.00000	753.65625	169.65625	2.62562	
10:02:37	6.94063	4.78562	753.65625	169.70313	276.60938	999.00000	2.88500	5.50	6.70	7.04	6.71	9.99375	228.99374	4.99687	-0.53400	789.34375	753.59375	169.70313	2.93062	
10:03:29	5.97188	4.51188	753.34375	169.75000	276.50000	1,000.03125	2.57687	5.50	6.74	7.02	6.76	43.99688	27.99375	163.99687	-0.65400	789.06250	753.34375	169.75000	2.61125	
10:04:22	5.98750	4.68625	753.65625	169.70313	278.51251	1,001.29688	2.54906	5.50	6.67	7.00	6.82	19.99688	37.99688	157.99687	-0.60125	843.25000	753.62500	169.70313	2.51500	
10:05:14	6.16875	4.64313	753.56250	169.78125	280.17499	1,002.89063	3.07781	5.50	6.67	6.96	6.86	28.99688	24.00000	162.99374	-0.41925	862.96875	753.59375	169.78125	3.03156	
10:06:07	5.62187	6.42000	753.43750	169.73438	280.55780	1,003.59375	3.12719	5.50	6.67	6.96	6.95	28.99688	24.00000	162.99374	-0.32875	841.25000	753.50000	169.78125	3.11000	
10:06:59	5.73438	15.61750	753.68750	169.73438	280.40469	1,002.98438	3.20281	5.50	6.64	6.92	6.98	27.00000	27.00000	189.99374	-0.41750	787.25000	753.68750	169.73438	3.21594	
10:07:52	5.75000	13.10000	753.68750	169.78125	279.79218	1,001.48438	3.02875	5.50	6.63	6.90	6.97	216.00000	21.99375	18.00000	-0.58150	804.59375	753.68750	169.78125	3.04125	
10:08:44	5.83750	7.06125	753.68750	169.75000	279.17969	1,000.17188	3.02125	5.50	6.63	6.90	6.97	229.99687	4.99687	0.99375	-0.56975	840.37500	753.65625	169.75000	3.02750	
10:09:37	5.75625	5.39000	748.93750	170.64063	278.78595	999.42188	3.01500	5.50	6.62	6.89	6.99	232.99687	6.99375	3.99375	-0.52225	847.46875	751.31250	170.64063	3.00094	
10:10:29	5.77187	4.93687	741.65625	170.42188	277.91095	998.90625	3.00000	5.50	6.59	6.92	6.97	243.00000	16.99688	7.99687	-0.26275	840.65625	741.65625	170.42188	3.01219	
10:11:21	5.92188	4.79437	741.81250	170.62500	277.14532	999.00000	2.81562	5.50	6.55	6.88	6.93	232.99687	36.00000	12.00000	-0.06925	807.71875	741.84375	170.62500	2.83969	
10:12:14	6.27812	4.79000	741.59375	170.62500	277.56094	999.75000	2.62219	5.50	6.53	6.85	6.90	235.99687	10.99687	7.99687	-0.58400	786.65625	741.62500	170.62500	2.63844	
10:13:06	6.40938	4.71438	740.59375	170.53125	278.45782	1,001.29688	2.76094	5.50	6.48	6.93	6.90	235.99687	10.99687	7.99687	-0.65250	825.78125	741.12500	170.62500	2.72750	
10:13:59	5.92188	4.54063	739.00000	170.53125	279.16876	1,002.84375	2.85531	5.50	6.53	6.94	6.87	55.99688	192.99374	6.99375	-0.60525	843.40625	739.00000	170.53125	2.86562	
10:14:51	5.76875	4.42375	738.90625	170.35938	279.28906	1,003.92188	2.82625	5.50	6.57	6.94	6.87	6.99375	64.99687	9.99375	-0.39650	848.37500	738.84375	170.35938	2.79906	
10:15:44	5.69063	4.50125	743.59375	170.54688	279.50781	1,004.10938	2.98469	5.50	6.57	6.94	6.87	9.00000	154.99687	10.99687	-0.27550	821.40625	742.37500	170.54688	3.00406	
10:16:36	5.91250	4.55062	744.78125	170.32813	279.51874	1,003.96875	3.04156	5.50	6.63	6.95	6.83	36.99375	222.99374	24.99375	-0.20700	801.59375	744.84375	170.32813	3.00062	
10:17:29	5.61562	4.56625	744.84375	171.09375	279.10312	1,003.31250	3.16406	5.50	6.66	6.94	6.82	37.99688	30.00000	162.99374	-0.32450	809.71875	744.84375	171.09375	3.15937	
10:18:21	5.49687	4.65312	747.34375	171.14063	278.72031	1,002.37500	3.06094	5.50	6.68	6.97	6.78	13.99687	48.99375	156.99374	-0.38325	831.15625	746.59375	171.14063	3.07406	
10:19:14	5.42812	4.73250	749.00000	171.15625	278.64374	1,002.00000	3.01938	5.50	6.72	6.92	6.78	27.00000	51.00000	162.99374	-0.30200	836.75000	748.93750	171.15625	3.01375	
10:20:06	5.71250	4.77688	749.00000	170.73438	278.64374	1,002.14063	3.10844	5.50	6.80	6.94	6.74	27.00000	51.00000	162.99374	-0.41725	812.25000	749.00000	171.15625	3.09656	
10:20:59	5.50625	4.71688	751.34375	170.73438	278.37030	1,002.65625	2.96344	5.50	6.83	6.89	6.75	16.99688	27.99375	199.99687	-0.25200	825.03125	751.34375	170.73438	2.99656	
10:21:51	5.61562	4.68937	752.87500	170.90625	278.53436	1,003.45313	2.95344	5.50	6.89	6.91	6.74	9.00000	19.99688	10.99687	-0.07575	826.37500	752.90625	170.90625	2.95250	
10:22:43	5.49062	4.74563	752.75000	170.81250	279.10312	1,004.62500	3.07625	5.50	6.89	6.91	6.74	225.00000	4.99687	0.99375	-0.45075	816.90625	752.68750	170.81250	3.05562	
10:23:36	5.57813	4.69938	754.53125	170.34375	278.76407	1,005.56250	3.16625	5.50	6.92	6.90	6.71	237.99374	37.99688	10.99687	-0.35750	833.03125	753.71875	170.34375	3.16281	
10:24:28	5.58125	4.69063	756.75000	170.53125	278.51251	1,006.07813	2.89719	5.50	6.96	6.86	6.70	241.99687	15.99375	10.99687	-0.18700	834.25000	756.75000	170.53125	2.96250	
10:25:21	5.89687	4.78500	757.09375	170.51563	279.45313	1,006.87500	2.70062	5.50	6.95	6.86	6.68	231.99374	13.99687	3.99375	-0.56825	816.12500	757.06250	170.51563	2.67000	
10:26:13	5.79688	4.86312	757.28125	170.92188	280.22968	1,008.18750	3.13188	5.50	6.98	6.84	6.67	238.99687	7.99687	3.99375	-0.80275	804.21875	757.18750	170.92188	3.10156	
10:27:06	5.47188	4.67250	757.62500	170.81250	280.30624	1,008.89063	3.13063	5.50	6.94	6.82	6.63	238.99687	7.99687	3.99375	-0.59275	841.25000	757.62500	170.92188	3.15000	
10:27:58	5.56875	4.58938	757.81250	170.81250	279.97812	1,008.98438	3.10500	5.50	6.91	6.80	6.63	19.99688	180.99374	28.99688	-0.25275	837.25000	757.81250	170.81250	3.10219	
10:28:51	6.92812	4.77688	759.46875	169.89063	280.28436	1,008.89063	2.31281	5.50	6.89	6.79	6.59	3.99375	96.99375	9.99375	-0.34350	803.15625	758.81250	169.89063	2.41781	
10:29:43	9.10625	4.81187	760.37500	169.82813	281.03906	1,008.84375	2.57625	5.50	6.89	6.79	6.59	18.00000	174.00000	4.99687	-0.43825	802.21875	760.37500	169.82813	2.55031	
10:30:36	6.49687	4.74125	760.25000	169.90625	281.31250	1,008.46875	2.51750	5.50	6.88	6.81	6.58	21.00000	225.99374	18.00000	-0.25225	830.46875	760.37500	169.90625	2.55219	
10:31:28	6.62500	4.42688	753.37500	170.95313	280.65625	1,006.96875	2.22906	5.50	6.85	6.79	6.53	7.99687	24.00000	163.99687	-0.31175	830.06250	753.37500	170.95313	2.25938	
10:32:20	6.93750	4.33125	743.21875	170.84375	279.94531	1,005.04688	2.08344	5.50	6.86	6.77	6.52	13.99687	45.00000	156.99374	-0.29525	825.37500	743.25000	170.84375	2.08125	
10:33:13	6.91563	4.28687	743.43750	170.93750	279.87970	1,003.03125	2.24719	5.50	6.78	6.73	6.52	46.99688	48.99375	165.00000	-0.37950	824.12500	743.43750	170.93750	2.24813	
10:34:05	6.61875	4.13375	743.37500	170.98438	279.11407	1,001.10938	2.37500	5.50	6.83	6.72	6.55	46.99688	48.99375	165.00000	-0.35950	827.31250	743.40625	170.93750	2.34094	
10:34:58	7.76875	3.97750	728.96875	170.98438	276.64218	999.04688	2.38687	5.50	6.74	6.72	6.61	52.99688	31.99688	198.00000	-0.37250	821.62500	728.96875	170.98438	2.39937	
10:35:50	8.29375	3.96813	725.31250	171.01563	275.04532	997.87500	2.12188	5.50	6.75	6.71	6.65	229.99687	12.99375	18.00000	-0.41825	815.09375	725.31250	171.01563	2.21062	

Unit 2
11/5/1999
Test Run 2
Process Data

TIME	OPACITY %	WET O_2 %	FGAS-FLO	FGAS-TEM	UNIT-LOAD MW	MN ST °F	O_2 %	ABS_1A	ABS_1B	ABS_2A	ABS_2B	DEM_1B	DEM_2A	DEM_2B	FURN_PRE	FW_FLOW	FGAS_FLO	FGAS_TEM	U2_02 %	Comment Comment
10:36:43	13.68750	4.05062	725.31250	172.54688	276.59845	998.90625	1.96906	5.50	6.75	6.71	6.65	228.99374	4.99687	0.99375	-0.58025	813.37500	725.34375	172.54688	1.93094	
10:37:35	10.59375	4.20375	711.81250	172.48438	278.65469	1,001.95313	2.53187	5.50	6.75	6.69	6.72	231.00000	6.00000	3.00000	-0.51325	839.28125	714.59375	172.48438	2.43688	
10:38:28	6.74062	4.20563	711.68750	172.53125	279.46405	1,005.04688	2.94438	5.50	6.72	6.70	6.74	246.99374	9.00000	7.99687	-0.53775	837.46875	711.68750	172.53125	2.91125	
10:39:20	6.10000	4.04250	711.71875	170.75000	280.71094	1,006.87500	3.16375	5.50	6.65	6.64	6.80	238.99687	21.00000	21.00000	-0.55900	824.56250	711.65625	170.75000	3.14500	
10:40:13	5.40938	4.11938	711.75000	170.78125	281.49844	1,006.92188	3.30000	5.50	6.69	6.66	6.86	232.99687	33.99375	19.99688	-0.62675	809.31250	711.71875	170.78125	3.29500	
10:41:05	5.36875	4.41313	725.87500	170.78125	281.94687	1,005.37500	3.27875	5.50	6.64	6.63	6.92	232.99687	33.99375	19.99688	-0.57800	814.40625	723.12500	170.78125	3.26125	
10:41:58	5.34062	4.64375	725.90625	170.81250	281.56406	1,002.93750	3.57000	5.50	6.63	6.62	6.96	54.99375	183.99374	22.99688	-0.55325	822.96875	725.90625	170.81250	3.57750	
10:42:50	5.80000	4.85063	729.84375	170.39063	279.81406	1,000.03125	3.24219	5.50	6.61	6.63	7.00	10.99687	151.99687	4.99687	-0.47675	828.90625	729.84375	170.39063	3.26094	
10:43:42	5.86875	4.97750	745.81250	170.15625	278.03125	997.21875	3.04375	5.50	6.61	6.63	7.00	22.99688	208.99687	6.99375	-0.36325	832.71875	745.81250	170.15625	3.09094	
10:44:35	6.07188	5.12875	745.68750	171.57813	277.24374	995.62500	2.82687	5.50	6.59	6.63	6.97	27.99375	231.99374	12.00000	-0.41950	831.96875	745.65625	171.57813	2.83844	
10:45:27	6.18750	5.10437	751.03125	171.60938	277.06876	995.43750	2.58219	5.50	6.55	6.61	6.98	46.99688	48.00000	124.99687	-0.49950	817.03125	751.03125	171.60938	2.61125	
10:46:20	7.32500	4.99000	758.96875	171.51563	277.48438	996.28125	2.67438	5.50	6.52	6.59	6.94	48.00000	43.99688	156.00000	-0.60675	808.28125	758.96875	171.51563	2.67469	
10:47:12	8.37813	4.79688	759.03125	171.54688	278.05313	997.50000	2.68500	5.50	6.51	6.60	6.93	48.00000	43.99688	156.00000	-0.62525	828.28125	759.06250	171.54688	2.67375	
10:48:05	7.10313	4.59937	759.25000	171.54688	278.73126	998.10938	2.71031	5.50	6.50	6.58	6.92	36.99375	39.00000	163.99687	-0.50450	844.40625	759.21875	171.54688	2.71875	
10:48:57	6.82500	4.51625	758.46875	170.42188	278.80780	997.92188	2.81906	5.50	6.54	6.53	6.91	40.99688	30.99375	196.99687	-0.39975	828.68750	758.46875	170.42188	2.77938	
10:49:50	6.26250	4.51563	758.00000	170.32813	279.14688	996.37500	2.95688	5.50	6.54	6.53	6.91	51.00000	228.00000	15.99375	-0.29150	818.53125	758.00000	170.32813	2.94750	
10:50:42	6.28125	4.55562	757.96875	170.43750	279.21249	993.51563	3.00625	5.50	6.61	6.52	6.90	1.99688	240.99374	0.99375	-0.14775	810.31250	758.03125	170.43750	2.98750	
10:51:35	5.98438	4.57062	755.09375	170.92188	278.40314	990.42188	3.32594	5.50	6.63	6.51	6.88	222.99374	21.00000	15.00000	-0.22150	806.25000	756.53125	170.92188	3.30063	
10:52:27	6.01250	4.65812	750.62500	170.95313	277.22186	987.56250	3.00312	5.50	6.68	6.55	6.88	243.99374	9.00000	10.99687	-0.25225	823.25000	750.62500	170.95313	3.02344	
10:53:20	6.28750	4.69875	750.46875	171.01563	277.21094	985.59375	3.15344	5.50	6.71	6.64	6.85	237.00000	33.00000	19.99688	-0.05900	837.90625	750.46875	171.01563	3.13375	
10:54:12	5.95937	4.83437	750.03125	171.10938	277.23282	984.46875	3.33750	5.50	6.77	6.68	6.80	237.00000	33.00000	19.99688	-0.09200	843.56250	750.65625	171.01563	3.30938	
10:55:04	5.90312	4.82000	746.96875	171.10938	276.50000	983.90625	3.30469	5.50	6.81	6.75	6.81	229.99687	33.00000	12.00000	-0.17425	835.53125	747.03125	171.10938	3.34031	
10:55:57	5.93125	4.79437	747.40625	171.14063	276.16095	984.04688	3.21094	5.50	6.84	6.82	6.76	57.00000	190.99687	27.99375	-0.45400	809.03125	747.34375	171.14063	3.21031	
10:56:49	5.95000	4.88688	748.37500	170.70313	276.14999	985.17188	3.29219	5.50	6.84	6.82	6.76	15.99375	183.00000	3.99375	-0.71325	808.31250	748.37500	170.70313	3.27781	
10:57:42	5.97813	4.95875	752.37500	170.81250	276.08438	987.00000	3.27437	5.50	6.87	6.89	6.76	36.99375	58.99688	15.99375	-0.70775	837.62500	752.37500	170.81250	3.28312	
10:58:34	6.05625	4.91187	752.40625	170.90625	275.86563	988.96875	3.29500	5.50	6.90	6.98	6.75	49.99688	225.99374	21.00000	-0.55200	852.25000	752.43750	170.90625	3.32437	
10.:59:27	8.28125	4.90875	754.53125	170.20313	275.82187	990.51563	2.96375	5.50	6.95	7.04	6.72	12.00000	42.99375	150.99374	-0.50950	826.12500	752.43750	170.20313	2.97000	
11:00:19	10.06563	4.95250	762.62500	170.06250	276.76251	991.78125	3.03063	5.50	6.99	7.03	6.71	27.99375	45.99375	156.99374	-0.53775	805.00000	762.62500	170.06250	3.03844	
11:01:12	9.84375	4.98500	762.37500	170.79688	277.07968	992.81250	3.26969	5.50	6.99	6.93	6.73	27.99375	45.99375	156.99374	-0.46075	820.06250	762.43750	170.06250	3.23750	
11:02:04	6.47188	4.97750	762.46875	170.79688	276.78436	994.03125	3.24625	5.50	6.98	6.97	6.66	30.99375	31.99688	162.00000	-0.35275	831.12500	762.43750	170.79688	3.26250	
11:02:57	6.22500	5.02063	771.50000	170.76563	276.56561	995.57813	3.08031	5.50	6.95	6.93	6.64	18.99375	18.99375	192.99374	-0.48675	819.81250	769.71875	170.76563	3.11250	
11:03:49	13.63437	5.05312	771.68750	170.73438	276.69687	996.84375	2.92469	5.50	6.95	6.93	6.64	54.99375	190.99687	36.99375	-0.40900	825.78125	771.68750	170.73438	2.94656	
11:04:41	20.08438	4.99188	771.62500	170.90625	277.05780	997.92188	2.74156	5.50	6.92	6.92	6.63	1.99688	246.00000	0.99375	-0.39000	834.84375	771.65625	170.90625	2.72594	
11:05:34	18.55625	4.92750	771.78125	170.85938	277.27655	999.18750	3.20187	5.50	6.91	6.90	6.60	225.00000	39.00000	30.99375	-0.24825	827.50000	771.75000	170.85938	3.14531	
11:06:26	11.45313	10.02687	771.68750	170.73438	276.85001	1,000.50000	2.98656	5.50	6.89	6.87	6.61	244.99687	37.99688	18.00000	-0.57175	815.62500	771.65625	170.73438	3.06875	
11:07:19	20.92500	14.55875	771.81250	170.85938	276.32501	1,001.01563	2.78375	5.50	6.86	6.84	6.59	237.00000	39.99375	12.99375	-0.47325	827.65625	771.81250	170.85938	2.76563	
11:08:11	16.81250	7.63375	771.50000	170.85938	276.85001	1,001.43750	2.88562	5.50	6.86	6.84	6.55	237.00000	39.99375	12.99375	-0.53300	827.75000	771.56250	170.85938	2.89531	
11:09:04	12.66562	5.30937	771.53125	170.85938	277.60468	1,002.75000	2.73750	5.50	6.84	6.81	6.53	231.99374	33.99375	6.99375	-0.26950	830.40625	771.43750	170.85938	2.78375	
11:09:56	19.12812	4.80500	768.65625	170.35938	278.77499	1,004.48438	2.90031	5.50	6.80	6.80	6.55	43.99688	190.99687	21.00000	-0.52175	827.65625	769.68750	170.35938	2.81094	
11:10:49	9.59062	4.55438	766.84375	170.15625	279.73749	1,005.60938	3.19656	5.50	6.80	6.80	6.55	24.99375	30.99375	21.99375	-0.48900	832.25000	766.84375	170.15625	3.18563	
11:11:41	11.10625	4.40500	767.03125	170.85938	280.19687	1,005.56250	2.34875	5.50	6.78	6.79	6.50	15.00000	90.00000	19.99688	-0.51475	822.43750	767.03125	170.85938	2.41594	
11:12:34	17.73750	4.49438	763.71875	170.76563	280.78751	1,004.53125	2.46219	5.50	6.76	6.76	6.57	37.99688	225.99374	28.99688	-0.68600	825.06250	764.96875	170.76563	2.49625	Start
11:13:26	15.46875	4.60687	761.37500	170.93750	280.71094	1,002.70313	2.11906	5.50	6.76	6.76	6.60	45.99375	42.00000	153.00000	-0.51875	834.25000	761.28125	170.93750	2.17719	
11:14:19	16.61563	4.32562	761.43750	172.60938	279.69376	1,000.31250	1.92000	5.50	6.71	6.72	6.66	46.99688	33.00000	156.99374	-0.28725	830.31250	761.43750	172.60938	1.93438	
11:15:11	17.06875	4.16187	746.25000	172.31250	279.05939	998.06250	1.64844	5.50	6.71	6.72	6.73	46.99688	33.00000	156.99374	-0.46400	795.53125	751.34375	172.60938	1.64250	
11:16:03	20.86875	4.00688	735.75000	172.31250	278.62189	996.37500	1.85687	5.50	6.70	6.71	6.78	60.99375	31.99688	160.99687	-0.57425	805.68750	735.78125	172.31250	1.86406	
11:16:56	20.54375	3.89250	735.68750	172.42188	277.52814	995.48438	1.70406	5.50	6.67	6.60	6.84	22.99688	12.99375	199.99687	-0.31800	841.21875	735.78125	172.42188	1.71750	
11:17:48	25.28750	3.74625	735.78125	172.45313	276.23749	995.29688	1.95875	5.50	6.67	6.60	6.84	76.99687	252.99374	39.99375	-0.18175	845.12501	735.78125	172.45313	1.86656	
11:18:41	16.97812	3.68187	724.18750	171.45313	276.10626	994.73438	2.43094	5.50	6.66	6.65	6.91	1.99688	256.99689	0.99375	-0.18275	833.68750	728.03125	171.45313	2.42188	

Unit 2
11/5/1999
Test Run 2
Process Data

TIME	OPACITY %	WET O_2 %	FGAS-FLO	FGAS-TEM	UNIT-LOAD MW	MN ST °F	O_2 %	ABS_1A	ABS_1B	ABS_2A	ABS_2B	DEM_1B	DEM_2A	DEM_2B	FURN_PRE	FW_FLOW	FGAS_FLO	FGAS_TEM	U2_02 %	Comment Comment
11:19:33	13.08438	3.67250	716.75000	171.39063	274.76093	993.04688	2.31031	5.50	6.63	6.63	6.97	234.00000	10.99687	9.99375	-0.22975	822.37500	716.68750	171.39063	2.29000	
11:20:26	10.76875	3.86500	716.90625	172.75000	273.72186	989.53125	2.48031	5.50	6.62	6.54	7.00	243.00000	43.99688	15.00000	-0.47375	818.93750	716.84375	172.75000	2.48563	
11:21:18	11.61875	4.06625	708.06250	172.60938	272.43124	984.84375	2.57250	5.50	6.61	6.61	7.00	234.99374	46.99688	9.00000	-0.59450	820.75000	708.06250	172.60938	2.54688	
11:22:11	10.75937	4.26750	694.62500	172.78125	271.16251	980.20313	2.40812	5.50	6.57	6.57	7.00	234.99374	46.99688	9.00000	-0.77575	829.87500	694.65625	172.60938	2.45969	
11:23:03	13.54062	4.31812	694.71875	172.78125	270.41876	976.40625	2.14687	5.50	6.55	6.52	6.99	234.99374	31.99688	12.99375	-0.68450	832.40625	694.81250	172.78125	2.17438	
11:23:56	15.14063	4.34688	694.65625	172.84375	269.98126	974.34375	2.25688	5.50	6.54	6.59	6.97	33.00000	168.99374	27.00000	-0.39075	819.25000	694.59375	172.84375	2.21156	
11:24:48	14.08438	4.16250	690.96875	172.62500	269.89374	973.59375	2.29531	5.50	6.54	6.59	6.97	7.99687	51.99375	30.00000	-0.47950	809.71875	690.96875	172.62500	2.33156	
11:25:40	14.33438	4.01813	688.59375	172.62500	269.93750	973.50000	2.34875	5.50	6.53	6.65	6.93	12.00000	123.99375	6.99375	-0.56625	810.90625	688.50000	172.62500	2.32156	
11:26:33	14.32500	4.12313	688.68750	171.59375	270.27655	973.40625	2.09750	5.50	6.50	6.74	6.93	31.99688	225.00000	24.99375	-0.62675	821.03125	688.65625	171.59375	2.13781	
11:27:25	20.14688	4.14500	685.68750	171.95313	271.64374	973.50000	2.30312	5.50	6.48	6.80	6.91	15.00000	42.00000	165.00000	-0.59075	831.62500	686.43750	171.95313	2.27156	
11:28:18	13.16250	4.04375	685.03125	171.71875	271.04218	973.50000	2.19375	5.50	6.55	6.87	6.87	42.99375	46.99688	132.99374	-0.47125	824.90625	685.03125	171.71875	2.27031	
11:29:10	26.74688	3.92812	685.03125	171.71875	271.98282	973.17188	2.17062	5.50	6.62	6.95	6.87	42.99375	46.99688	132.99374	-0.47150	814.40625	685.06250	171.71875	2.09750	
11:30:03	16.45313	4.06938	685.15625	171.71875	271.33749	972.65625	2.35125	5.50	6.64	7.00	6.86	48.00000	45.99375	174.00000	-0.48425	804.25000	685.09375	171.71875	2.30250	
11:30:55	12.05000	3.96563	684.34375	171.26563	270.23282	972.14063	2.22375	5.50	6.70	7.01	6.85	27.99375	21.00000	201.99374	-0.47975	812.09375	684.56250	171.26563	2.25156	
11:31:48	15.70313	4.03875	684.00000	171.17188	269.27032	971.67188	1.99219	5.50	6.70	7.01	6.85	21.00000	24.00000	153.00000	-0.54700	815.87500	684.00000	171.17188	2.00938	
11:32:40	20.57187	4.16125	683.96875	171.17188	269.47812	972.09375	1.79844	5.50	6.74	7.01	6.84	1.99688	4.99687	169.99687	-0.46775	811.65625	684.03125	171.17188	1.83500	
11:33:33	19.93125	4.14125	684.75000	169.96875	270.34219	973.50000	2.14875	5.50	6.79	7.00	6.83	228.99374	22.99688	3.00000	-0-50775	807.03125	684.50000	169.96875	2.07281	
11:34:25	13.47188	4.01625	685.28125	169.96875	270.73593	975.32813	2.07844	5.50	6.84	7.01	6.81	247.99687	33.99375	16.99688	-0.51825	814.03125	685.21875	169.96875	2.11531	
11:35:18	16.81875	3.93125	685.31250	170.09375	271.02032	976.82813	2.43031	5.50	6.89	7.01	6.80	238.99687	36.99375	33.99375	-0.49950	812.87500	685.31250	170.09375	2.37812	
11:36:10	13.00000	4.05000	685.34375	169.81250	271.06406	977.53125	2.43719	5.50	6.93	6.99	6.77	238.99687	36.99375	33.99375	-0.49425	815.50000	685.34375	170.09375	2.42031	
11:37:02	12.12187	4.06000	688.75000	169.81250	270.80157	977.48438	2.32531	5.50	6.97	7.02	6.77	234.00000	45.99375	19.99688	-0.51675	821.00000	688.78125	169.81250	2.34906	
11:37:55	14.37500	4.18000	688.84375	169.89063	270.63751	977.34375	2.23250	5.50	7.02	7.05	6.75	45.99375	181.99687	30.00000	-0.50925	813.93750	688.84375	169.89063	2.26781	
11:38:47	21.42188	4.20188	688.87500	169.84375	270.32031	977.95313	2.24531	5.50	7.02	7.05	6.75	10.99687	112.99687	4.99687	-0.45800	815.71875	688.87500	169.84375	2.17906	
11:39:40	11.25937	4.11062	689.90625	170.01563	270.80157	979.03125	2.56500	5.50	6.95	7.05	6.71	15.00000	168.00000	7.99687	-0.44025	820.00000	689.90625	170.01563	2.60344	
11:40:32	9.88437	3.96875	691.53125	170.09375	270.46249	980.34375	2.23219	5.50	6.96	7.07	6.71	28.99688	237.00000	12.00000	-0.46550	804.25000	691.56250	170.09375	2.23156	
11:41:25	15.69687	4.10500	691.43750	170.14063	270.65936	981.98438	2.17125	5.50	6.96	7.09	6.67	48.00000	55.99688	87.00000	-0.56275	802.56250	691.40625	170.14063	2.15469	
11:42:17	12.53750	4.16563	692.56250	169.54688	271.51251	983.53125	2.41188	5.50	6.93	7.09	6.67	31.99688	45.00000	148.99687	-0.48025	814.50000	692.56250	169.54688	2.39406	Stop
11:43:10	11.77500	4.08313	696.34375	169.53125	271.93906	984.89063	2.49250	5.50	6.91	7.10	6.65	31.99688	45.00000	148.99687	-0.44175	820.81250	696.34375	169.54688	2.50594	
11:44:02	11.07500	4.14125	696.43750	169.53125	271.90625	985.68750	2.33687	5.50	6.87	7.10	6.65	48.99375	49.99688	166.99687	-0.52525	826.46875	696.46875	169.53125	2.36937	
11:44:55	13.59688	4.30688	696.37500	170.56250	272.00470	986.53125	2.27719	5.50	6.86	7.09	6.62	36.00000	25.99688	198.99374	-0.48050	821.56250	696.37500	170.56250	2.26344	
11:45:47	11.82187	4.33875	704.18750	170.46875	272.73749	987.84375	2.46094	5.50	6.86	7.09	6.62	18.99375	15.00000	156.00000	-0.50450	797.43750	704.18750	170.46875	2.44187	
11:46:40	13.55625	4.25000	706.31250	170.46875	273.50311	989.25000	2.54500	5.50	6.86	7.10	6.62	1.99688	4.99687	168.00000	-0.52450	792.96875	706.25000	170.40625	2.52000	
11:47:32	13.98125	4.23313	706.18750	170.40625	274.35626	990.04688	2.99250	5.50	6.84	7.09	6.61	219.99374	42.00000	43.99688	-0.55850	824.53125	706.34375	171.04688	2.93438	
11:48:25	8.70000	4.19750	708.40625	171.04688	272.80313	989.34375	2.82969	5.50	6.83	7.08	6.60	243.99374	40.99688	21.00000	-0.48425	831.75000	707.31250	170.85938	2.86500	
11:49:17	9.32813	4.26375	711.65625	170.85938	271.37030	987.75000	2.61469	5.50	6.80	7.09	6.53	237.00000	30.00000	24.00000	-0.51650	821.21875	711.53125	171.04688	2.66406	
11:50:10	10.58125	4.55750	711.84375	171.04688	270.86719	986.85938	2.45750	5.50	6.75	7.10	6.55	237.00000	30.00000	24.00000	-0.50050	819.78125	711.84375	171.04688	2.46000	
11:51:02	12.53125	4.71750	711.93750	170.93750	271.43594	987.56250	2.49563	5.50	6.76	7.13	6.55	235.99687	36.00000	12.99375	-0.47825	816.59375	711.96875	170.93750	2.47656	
11:51:55	11.87813	4.54563	717.06250	170.93750	272.03751	989.34375	2.57969	5.50	6.72	7.16	6.52	52.99688	186.00000	28.99688	-0.46700	809.34375	716.06250	170.53125	2.57781	
11:52:47	10.86250	4.31000	717.06250	170.53125	272.57343	991.31250	2.39094	5.50	6.72	7.16	6.52	52.99688	186.00000	28.99688	-0.49375	807.50000	717.06250	170.62500	2.42625	
11:53:40	12.45313	4.28125	716.96875	170.62500	272.98907	993.00000	2.62094	5.50	6.70	7.15	6.51	70.99687	45.00000	18.00000	-0.43750	808.28125	716.96875	170.31250	2.58594	
11:54:32	10.90938	4.34125	715.84375	170.31250	273.16406	994.35938	2.52875	5.50	6.67	7.16	6.50	18.00000	73.99687	6.99375	-0.49575	824.12500	716.18750	170.35938	2.59125	
11:55:25	11.23438	4.32000	715.53125	170.35938	273.07657	995.20313	2.32531	5.50	6.67	7.16	6.50	39.00000	235.99687	16.99688	-0.49175	823.62500	715.46875	170.35938	2.32969	
11:56:17	12.85312	4.41062	715.37500	170.35938	272.24530	995.95313	2.09687	5.50	6.65	7.18	6.55	19.99688	27.99375	126.99375	-0.37075	812.75000	715.43750	170.82813	2.13969	
11:57:10	15.31875	4.38125	716.25000	170.82813	272.47501	997.64063	2.27781	5.50	6.65	7.20	6.60	48.00000	42.99375	153.99374	-0.47300	814.34375	716.25000	170.82813	2.21031	
11:58:02	10.37813	4.36875	717.34375	170.65625	272.98907	999.98438	2.54719	5.50	6.63	7.19	6.68	48.00000	42.99375	153.99374	-0.38925	817.75000	717.37500	170.65625	2.53406	
11:58:54	10.47188	4.28188	717.53125	170.65625	274.65155	1,001.43750	2.83844	5.50	6.63	7.21	6.73	54.00000	27.99375	162.00000	-0.17175	809.71876	717.50000	170.81250	2.79250	
11:59:47	9.13750	4.17312	717.62500	170.81250	275.42813	1,001.10938	3.30188	5.50	6.62	7.21	6.79	7.99687	10.99687	186.00000	-0.05800	803.59376	717.62500	170.81250	3.24875	Start
12:00:39	6.67500	4.17063	719.00000	170.37500	275.32968	998.48438	3.61750	5.50	6.62	7.21	6.79	27.99375	28.99688	195.00000	-0.01900	818.31250	719.00000	170.37500	3.62844	
12:01:32	7.02812	4.29625	719.03125	170.64063	274.67343	994.73438	3.00125	5.50	6.57	7.21	6.83	1.99688	4.99687	171.00000	-0.06650	825.90625	719.03125	170.64063	3.03813	

Unit 2
11/5/1999
Test Run 2
Process Data

TIME	OPACITY %	WET O_2 %	FGAS-FLO	FGAS-TEM	UNIT-LOAD MW	MN ST °F	O_2 %	ABS_1A	ABS_1B	ABS_2A	ABS_2B	DEM_1B	DEM_2A	DEM_2B	FURN_PRE	FW_FLOW	FGAS_FLO	FGAS_TEM	U2_02 %	Comment Comment
12:02:24	6.75313	4.60063	718.93750	170.51563	274.52032	992.25000	3.41687	5.50	6.56	7.20	6.91	217.99687	48.99375	31.99688	-0.07475	809.84375	718.93750	170.51563	3.32687	
12:03:17	6.37187	4.91500	724.37500	171.79688	274.47656	991.17188	3.63937	5.50	6.55	7.20	6.97	243.99374	27.00000	9.99375	-0.19250	815.78125	722.56250	171.79688	3.63250	
12:04:09	6.25313	4.86438	728.00000	171.75000	273.47031	990.84375	3.62406	5.50	6.56	7.21	7.01	250.99687	52.99688	15.00000	-0.34675	816.03125	728.00000	171.75000	3.63438	
12:05:02	6.42500	4.88938	728.03125	171.82813	272.92343	991.54688	3.57188	5.50	6.49	7.19	7.01	250.99687	52.99688	15.00000	-0.77050	817.81250	728.00000	171.75000	3.58719	
12:05:54	6.39063	5.44812	728.00000	171.82813	272.92343	993.09375	3.33781	5.50	6.50	7.23	6.95	207.00000	42.00000	13.99687	-0.85550	818.03125	728.03125	171.82813	3.34562	
12:06:47	6.80625	13.51688	727.96875	171.85938	273.37189	995.62500	3.42969	5.50	6.57	7.24	6.97	63.99375	109.99687	9.00000	-0.69600	822.09375	728.03125	171.85938	3.41656	
12:07:39	7.52812	15.25187	727.93750	171.89063	273.36093	998.20313	3.58281	5.50	6.57	7.24	6.97	42.00000	46.99688	30.99375	-0.55975	804.81250	727.93750	171.89063	3.58562	
12:08:31	6.61875	9.28875	745.25000	170.78125	272.94531	999.79688	3.38313	5.50	6.59	7.22	6.94	15.00000	63.00000	22.99688	-0.49450	806.59375	741.78125	170.78125	3.39000	
12:09:24	6.55937	6.45250	745.84375	170.62500	272.81406	1,001.15625	3.61906	5.50	6.62	7.30	6.92	51.00000	231.00000	21.00000	-0.53450	818.53125	745.71875	170.62500	3.59969	
12:10:16	6.40312	5.65188	745.96875	170.65625	273.07657	1,002.70313	3.42937	5.50	6.67	7.28	6.91	25.99688	99.00000	9.00000	-0.49500	822.84375	745.93750	170.65625	3.41313	
12:11:09	6.42500	5.35563	761.03125	171.78125	272.85782	1,004.48438	3.70500	5.50	6.69	7.27	6.89	27.00000	43.99688	120.00000	-0.52600	814.18750	761.03125	171.78125	3.70937	
12:12:01	6.14687	5.25875	760.96875	171.81250	273.77655	1,005.75000	3.61594	5.50	6.77	7.29	6.86	27.00000	43.99688	120.00000	-0.45275	813.56250	761.03125	171.78125	3.62531	
12:12:54	5.84688	5.25938	760.96875	171.81250	274.13751	1,006.96875	3.59000	5.50	6.80	7.30	6.85	46.99688	51.99375	186.99374	-0.27750	826.03125	761.00000	171.81250	3.57625	
12:13:46	5.98125	5.29625	774.40625	172.75000	273.84219	1,007.85938	3.64937	5.50	6.85	7.27	6.83	9.99375	7.99687	195.00000	-0.47175	814.65625	771.65625	172.75000	3.65344	
12:14:39	6.01563	5.29938	774.40625	172.82813	272.78125	1,008.56250	3.56156	5.50	6.85	7.27	6.83	198.99374	18.99375	25.99688	-0.49575	789.62500	774.40625	172.82813	3.58125	
12:15:31	5.81563	5.38125	773.87500	172.81250	272.16876	1,009.31250	3.39344	5.50	6.88	7.25	6.82	231.00000	4.99687	0.99375	-0.58925	798.87500	774.15625	172.81250	3.42062	
12:16:24	5.90000	5.40938	772.93750	172.96875	272.00470	1,010.48438	3.25844	5.50	6.92	7.32	6.79	256.99689	15.00000	0.99375	-0.60600	830.56250	773.00000	172.96875	3.28406	
12:17:16	5.99375	5.28937	772.90625	172.96875	272.72656	1,011.98438	2.93156	5.50	6.96	7.29	6.78	244.99687	18.00000	0.99375	-0.52825	830.68750	772.87500	172.96875	2.95688	
12:18:09	6.31250	5.15562	772.87500	172.89063	273.95157	1,014.09375	2.95594	5.50	7.00	7.30	6.76	243.00000	55.99688	27.00000	-0.36150	810.65625	772.87500	172.89063	2.94031	
12:19:01	5.91875	5.00250	773.18750	173.29688	275.18750	1,016.10938	3.06969	5.50	6.98	7.34	6.75	243.00000	55.99688	27.00000	-0.49900	813.21875	773.18750	172.89063	3.05750	
12:19:53	5.87500	4.82500	773.21875	173.29688	275.67969	1,017.42188	3.14500	5.50	6.96	7.34	6.71	228.99374	33.00000	10.99687	-0.47350	814.37500	773.18750	173.29688	3.15500	
12:20:46	6.02187	4.84250	773.37500	173.12500	276.45624	1,017.75000	2.60156	5.50	6.95	7.41	6.70	48.99375	124.99687	28.99688	-0.52875	812.56250	773.37500	173.12500	2.69937	
12:21:38	8.67500	4.91062	767.34375	173.54688	278.63281	1,017.65625	2.80594	5.50	6.95	7.41	6.70	15.00000	60.00000	24.00000	-0.56700	810.87500	767.34375	173.54688	2.69156	
12:22:31	6.53125	4.84875	765.71875	173.53125	278.47968	1,016.29688	2.98719	5.50	6.94	7.37	6.66	19.99688	105.99375	3.99375	-0.56875	812.03125	765.71875	173.53125	3.01094	
12:23:23	6.94063	4.50500	765.84375	173.57813	277.04688	1,013.01563	2.37594	5.50	6.92	7.39	6.63	16.99688	171.00000	6.99375	-0.53825	805.18750	765.84375	173.57813	2.44844	
12:24:16	15.49063	4.71500	748.15625	173.10938	275.88751	1,008.75000	2.23719	5.50	6.90	7.42	6.62	52.99688	67.99687	27.00000	-0.38425	817.50000	751.65625	173.10938	2.25688	
12:25:08	21.69062	4.74250	748.34375	173.28125	275.14374	1,004.20313	2.07969	5.50	6.84	7.43	6.60	39.00000	46.99688	127.99687	-0.36050	821.93750	748.34375	173.28125	2.06094	
12:26:01	19.39375	4.55188	748.12500	173.31250	274.11563	1,000.31250	2.12781	5.50	6.81	7.42	6.58	39.00000	46.99688	127.99687	-0.47150	820.15625	748.06250	173.28125	2.13469	
12:26:53	23.88750	4.49937	733.12500	173.31250	273.16406	996.93750	2.14469	5.50	6.80	7.45	6.56	27.99375	46.99688	178.99687	-0.49900	817.06250	736.87500	173.31250	2.13750	
12:27:46	19.13437	4.41375	729.43750	173.90625	272.26718	994.45313	1.88563	5.50	6.82	7.41	6.56	12.00000	13.99687	199.99687	-0.38925	818.75000	729.46875	173.90625	1.92250	
12:28:38	29.35625	4.36438	729.53125	173.93750	272.04843	993.00000	1.75406	5.50	6.82	7.41	6.56	30.99375	42.99375	142.99687	-0.25825	818.81250	729.53125	173.93750	1.78281	
12:29:30	35.45313	4.35437	724.75000	173.95313	272.82501	992.90625	1.73125	5.50	6.81	7.42	6.55	222.00000	4.99687	0.99375	-0.15950	821.90625	729.21875	173.95313	1.68375	End

Overall Summary

Average	8.95846	5.01867	744.82581	170.08202	276.97580	999.03503	2.87327	5.50	6.77	7.00	6.75	99.62	66.82	64.61	-0.45857	815.44088	744.86970	170.07181	2.87354
Maximum	35.45313	15.61750	774.40625	173.95313	282.57031	1,017.75000	3.70500	5.52	7.05	7.45	7.01	257.00	258.99	201.99	0.05400	862.96875	774.40625	173.95313	3.70937
Minimum	5.34062	3.67250	683.96875	166.31250	269.27032	971.67188	1.64844	5.50	6.47	6.51	6.50	2.00	5.00	0.99	-0.85550	729.09375	684.00000	166.31250	1.64250

Unit 2 Test Run 2 Summary

Average	10.11532	4.80896	738.96488	168.90916	276.82077	996.56665	2.75977	5.50	6.76	7.10	6.78	91.74	67.82	62.46	-0.47920	808.12030	739.08241	168.90611	2.75843
Maximum	35.45313	13.52938	768.40625	173.95313	282.57031	1,008.60938	3.64344	5.52	7.05	7.42	7.01	249.99	258.99	201.99	0.05400	855.21875	768.65625	173.95313	3.66937
Minimum	5.63750	3.67250	683.96875	166.31250	269.27032	971.67188	1.64844	5.50	6.47	6.52	6.51	2.00	5.00	0.99	-0.77575	729.09375	684.00000	166.31250	1.64250

Unit 2
Test Run 3
Coal Feeders
11/05/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
13:14:39	78.05000	78.69375	64.06250	71.20937	292.01562	Start
13:15:31	78.38750	79.19688	64.60938	71.54063	293.73439	
13:16:24	78.87813	79.51875	64.96562	71.96562	295.32812	
13:17:16	79.08125	79.74687	65.25625	72.11562	296.19999	
13:18:09	81.52500	82.08437	67.46875	74.30000	305.37812	
13:19:01	81.50938	82.05625	67.51563	74.52187	305.60313	
13:19:54	80.10313	80.80625	66.25313	73.19375	300.35626	
13:20:46	80.07500	80.65312	66.14375	73.07500	299.94687	
13:21:39	79.26250	79.94063	65.41563	72.32813	296.94689	
13:22:31	79.95313	80.54688	65.96875	72.90312	299.37188	
13:21:23	80.12500	80.87813	66.27812	73.16875	300.45000	
13:24:16	79.52812	80.01250	65.50000	72.48750	297.52812	
13:25:08	79.33750	80.05937	65.49687	72.40938	297.30312	
13:26:01	79.42500	80.11562	65.54063	72.52812	297.60937	
13:26:53	78.55000	79.14375	64.60625	71.46250	293.76250	
13:27:46	79.01875	79.58750	65.10000	71.89063	295.59688	
13:28:38	80.66250	81.15312	66.58125	73.48750	301.88437	
13:29:31	79.39063	79.98125	65.42188	72.47813	297.27189	
13:30:23	78.51563	79.05937	64.67812	71.54688	293.80000	
13:31:16	80.07813	80.60313	66.10000	72.98438	299.76564	
13:32:08	80.13125	80.70313	66.24375	73.21250	300.29063	
13:33:00	79.43750	80.13125	65.55937	72.45625	297.58437	
13:33:53	79.47188	80.09375	65.51875	72.25313	297.33751	
13:34:45	79.22500	80.11562	65.45313	72.17812	296.97187	
13:35:38	79.46250	80.20000	65.45625	72.36562	297.48437	
13:36:30	79.40000	79.93437	65.56875	72.50938	297.41250	
13:37:23	79.40000	79.93125	65.41250	72.50938	297.25313	
13:38:15	79.33750	79.95625	65.36875	72.50938	297.17188	
13:39:08	78.82188	79.45313	64.98750	71.98438	295.24689	
13:40:00	79.54375	80.15938	65.60625	72.40938	297.71876	
13:40:53	80.46562	81.12187	66.46875	73.31563	301.37187	
13:41:45	81.21875	81.76875	67.23750	74.15938	304.38438	
13:42:38	78.88750	79.55312	65.08437	71.90625	295.43124	
13:43:30	79.09375	79.81250	65.33437	72.09375	296.33437	
13:44:22	79.97813	80.52187	66.09062	72.90625	299.49687	Stop

Unit 2
Test Run 3
Coal Feeders
11/05/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
13:46:07	78.92500	79.71562	65.02500	71.90000	295.56562	Start
13:47:00	80.63750	81.17812	66.73750	73.45313	302.00625	
13:47:52	79.56563	80.23750	65.55625	72.59062	297.95000	
13:48:45	79.87813	80.37813	65.90000	72.96875	299.12501	
13:49:37	80.25313	80.92500	66.31875	73.28750	300.78438	
13:50:30	79.47813	80.21250	65.69688	72.46562	297.85313	
13:51:22	78.52187	79.17188	64.67500	71.63750	294.00625	
13:52:15	78.37500	79.14063	64.60000	71.46875	293.58438	
13:53:07	78.80625	79.44063	64.93437	71.86875	295.05000	
13:54:00	79.05312	79.57188	65.24062	72.03438	295.90000	
13:54:52	78.34062	78.99375	64.50313	71.30625	293.14375	
13:55:44	79.21250	79.87187	65.27812	72.22500	296.58749	
13:56:37	79.23438	79.90000	65.28750	72.30937	296.73125	
13:57:29	79.06250	79.73125	65.17812	72.19063	296.16250	
13:58:22	79.17812	79.81250	65.28438	72.18750	296.46250	
13:59:14	80.20313	80.69063	66.16563	73.11250	300.17189	
14:00:07	79.83125	80.43125	65.92500	72.74687	298.93437	
14:00:59	79.73438	80.32813	65.78438	72.73125	298.57814	
14:01:52	79.78125	80.37500	65.98125	72.87500	299.01250	
14:02:44	81.05937	81.72500	67.04063	73.98750	303.81250	
14:03:37	80.52500	81.11250	66.53750	73.56875	301.74375	
14:04:29	80.15625	80.69688	66.28125	73.05937	300.19375	
14:05:21	79.34062	79.90625	65.40625	72.24375	296.89687	
14:06:14	79.86562	80.83437	66.29688	73.20313	300.20000	
14:07:06	79.10000	79.71250	65.18437	72.10313	296.10000	
14:07:59	79.09688	79.80625	65.23750	72.01875	296.15938	
14:08:51	79.60000	80.25313	65.73125	72.56875	298.15313	
14:09:44	80.26875	80.88125	66.25938	73.20937	300.61875	
14:10:36	80.03438	80.68437	66.11875	73.05625	299.89375	
14:11:29	79.91563	80.48750	65.98125	72.90000	299.28438	
14:12:21	80.48750	81.04688	66.50938	73.42500	301.46876	
14:13:14	80.35313	81.05625	66.35938	73.35625	301.12501	
14:14:06	79.62813	80.31250	65.71562	72.68750	298.34375	
14:14:59	80.08437	80.65000	66.15938	73.10000	299.99375	
14:15:51	80.02812	80.64687	65.99062	72.92188	299.58749	

Unit 2
Test Run 3
Coal Feeders
11/05/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
14:16:43	80.12813	80.69688	66.13750	72.95937	299.92188	Stop
14:18:28	81.40000	81.98125	67.42500	74.30625	305.11250	Start
14:19:21	81.15312	81.70313	67.14063	74.09062	304.08750	
14:20:13	81.50000	82.06563	67.61562	74.54375	305.72500	
14:21:06	82.19688	82.71875	68.17188	75.03750	308.12501	
14:21:58	80.86562	81.40312	66.83125	73.77812	302.87811	
14:22:51	80.04688	80.65000	66.19688	73.02812	299.92188	
14:23:43	79.33125	80.00000	65.47813	72.31875	297.12813	
14:24:36	79.86875	80.48125	65.96250	72.96875	299.28125	
14:25:28	80.22500	80.88125	66.28125	73.16875	300.55625	
14:26:20	80.99062	81.55312	67.02812	73.95937	303.53123	
14:27:13	78.50313	79.13125	64.60000	71.55000	293.78438	
14:28:05	77.83750	78.55625	64.04063	71.01563	291.45001	
14:28:58	78.65625	79.21875	64.81875	71.53125	294.22500	
14:29:50	79.43750	79.85313	65.49375	72.24687	297.03125	
14:30:43	79.96562	80.51563	66.01250	73.07813	299.57188	
14:31:35	80.05312	80.61562	66.16250	73.13125	299.96249	
14:32:28	79.89063	80.47500	65.86562	72.81563	299.04688	
14:33:20	80.21250	80.88438	66.31875	73.28438	300.70001	
14:34:13	79.44688	80.14375	65.60000	72.56875	297.75938	
14:35:05	79.96875	80.59375	65.96250	72.92500	299.45000	
14:35:58	80.28125	80.73438	66.23750	73.20000	300.45313	
14:36:50	80.89687	81.48438	66.96875	73.90938	303.25938	
14:37:42	80.77812	81.31250	66.76250	73.69375	302.54687	
14:38:35	81.48750	81.98750	67.52187	74.41563	305.41250	
14:39:27	80.38750	80.85625	66.43125	73.26563	300.94063	
14:40:20	80.43125	80.97500	66.50000	73.43437	301.34062	
14:41:12	80.78438	81.30625	66.83437	73.74062	302.66562	
14:42:05	80.12500	80.62500	66.14687	73.09688	299.99375	
14:42:57	79.37187	79.99062	65.55000	72.44688	297.35937	
14:43:50	78.20937	78.88438	64.44688	71.36875	292.90938	
14:44:42	79.42188	80.00938	65.58125	72.37813	297.39064	
14:45:35	79.97188	80.35000	65.99062	72.82813	299.14063	
14:46:27	79.24687	79.90000	65.34688	72.31875	296.81250	
14:47:20	79.12500	79.64063	65.30937	72.15625	296.23125	

Unit 2
Test Run 3
Coal Feeders
11/05/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
14:48:12	80.74062	81.38438	66.83437	73.67188	302.63125	Stop
14:52:34	80.01875	80.60938	66.06875	72.98125	299.67813	Start
14:53:27	78.45625	79.10000	64.53750	71.52500	293.61875	
14:54:19	77.60313	78.27500	63.75938	70.64687	290.28438	
14:55:12	78.88125	79.56875	65.02500	71.92500	295.40000	
14:56:04	79.84375	80.46562	65.83437	72.80937	298.95311	
14:56:57	80.18125	80.85000	66.31875	73.18750	300.53750	
14:57:49	81.83750	82.37500	67.85625	74.73125	306.80000	
14:58:41	82.67500	83.30000	68.71562	75.75938	310.45000	
14:59:34	81.60938	82.28438	67.72188	74.55937	306.17501	
15:00:26	79.86250	80.55625	66.05937	72.88438	299.36250	Stop
15:13:33	76.14063	77.02812	62.63750	69.38438	285.19063	Start
15:14:26	76.12813	76.97188	62.54688	69.23125	284.87814	
15:15:18	78.65000	79.25313	64.75313	71.64375	294.30001	
15:16:11	80.26563	80.90625	66.27187	73.22813	300.67188	
15:17:03	80.15938	80.77500	66.22500	73.12500	300.28438	
15:17:56	78.71875	79.37500	64.80312	71.79063	294.68750	
15:18:48	79.20000	79.75625	65.27500	72.09375	296.32500	
15:19:40	81.26875	81.93437	67.29688	74.11875	304.61875	
15:20:33	82.06250	82.59062	68.01875	74.83750	307.50937	
15:21:25	81.92188	82.41875	67.92500	74.73750	307.00313	
15:22:18	81.39687	81.90312	67.34688	74.29375	304.94062	
15:23:10	80.79688	81.39063	66.86250	73.68437	302.73438	
15:24:03	80.43750	81.06875	66.34062	73.30937	301.15624	
15:24:55	79.26250	79.90625	65.30937	72.29688	296.77500	
15:25:48	78.30000	79.00000	64.56250	71.42500	293.28750	
15:26:40	79.38125	80.00625	65.40625	72.36875	297.16250	
15:27:33	79.91875	80.61250	66.02187	72.99687	299.54999	
15:28:25	79.53125	80.28125	65.73438	72.71875	298.26563	
15:29:18	79.60313	80.09688	65.59375	72.52500	297.81876	
15:30:10	79.48125	80.01563	65.42500	72.43125	297.35313	
15:31:02	78.78750	79.40938	64.89063	71.81875	294.90626	
15:31:55	79.20937	79.73750	65.18125	72.11250	296.24062	
15:32:47	79.16875	79.70313	65.10625	71.99375	295.97188	
15:33:40	78.97500	79.56875	65.12813	72.16875	295.84063	

Unit 2
Test Run 3
Coal Feeders
11/05/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
15:34:32	78.86875	79.42812	64.91563	71.86562	295.07812	
15:35:25	77.62187	78.34062	63.84375	70.78750	290.59374	End

Overall Summary

Average	**79.71044**	**80.32755**	**65.79689**	**72.70523**	**298.54011**
Maximum	**82.67500**	**83.30000**	**68.71562**	**75.75938**	**310.45000**
Minimum	**76.12813**	**76.97188**	**62.54688**	**69.23125**	**284.87814**

Test Run 3 Summary

Average	**79.73317**	**80.34956**	**65.81802**	**72.72791**	**298.62865**
Maximum	**82.67500**	**83.30000**	**68.71562**	**75.75938**	**310.45000**
Minimum	**76.12813**	**76.97188**	**62.54688**	**69.23125**	**284.87814**

Unit 2
Process Analog Data Listing
Test Run 3

Point		U2_02_wet_O2	U2_02_dry_O2	U2-Load_O2	U2-Heat Input_06	U2-Noxm mBtu-06	U2_H20_%_06	U2_CO2_%_06	U2-SO2m mBtu_06	U2-Flow _Hr_06	U2-SO2m mBtu-70
Units		ppm	%	MWatt	mmBtu/hr	#/mmbtu	I	%	SO2 mmBtu	SCFH	InletSO2mm
Full Scale	Time	20	20	350	9000	1.000	100	20	1.2	61080000	1.2
11/05/99	13:10	4.7	4.8	274.7	3341	0.336	2.08	14.18	0.087	43,312,800	0.91
11/05/99	13:11	4.4	5.3	274.1	2744	0.380	16.98	13.74	0.089	43,311,600	0.91
11/05/99	13:12	4.4	5.5	274.1	2622	0.388	20.00	13.56	0.086	43,498,800	0.97D
11/05/99	13:13	4.7	5.5	272.0	2813	0.392	14.55	13-56	0.081	43,693,800	0.90D
11/05/99	13:14	4.8	5.8	271.4	2671	0.407	17.24	13-30	0.071	43,693,800	0.90
11/05/99	13:15	4.9	5.3	272.0	3082	0.369	7.55	13.74	0.078	43,684,800	0.90
11/05/99	13:16	5.0	5.0	272.9	3397	0.362	0.00	14.00	0.088	43,675,200	0.91
11/05/99	13:17	4.7	5.3	273.1	2957	0.377	11.32	13.74	0.090	43,686,600	0.91
11/05/99	13:18	4.5	5.5	273.0	2735	0.389	18.18	13.56	0.093	44,371,200	0.91
11/05/99	13:19	4.7	5.4	273.3	2935	0.382	12.96	13-65	0.088	44,470,200	0.91
11/05/99	13:20	4.8	5.5	273.3	2918	0.371	12.73	13.56	0.084	44,385,000	0.90
11/05/99	13:21	4.8	5.4	273.6	2962	0.366	11.11	13.65	0.085	43,936,800	0.91
11/05/99	13:22	4.7	5.3	274.2	2974	0.365	11.32	13.74	0.085	43,936,800	0.91
11/05/99	13:23	4.7	5.5	274.5	2826	0.384	14.55	13-56	0.081	43,890,000	0.91
11/05/99	13:24	4.9	5.6	274.2	2872	0.390	12.50	13.47	0.083	43,846,800	0.91
11/05/99	13:25	5.0	5.7	273.3	2860	0.403	12.28	13.39	0.087	43,848,000	0.90
11/05/99	13:26	5.1	5.6	272.3	2982	0.399	8.93	13.47	0.087	43,751,400	0.91
11/05/99	13:27	5.0	5.7	271.8	2851	0.400	12.28	13.39	0.082	43,708,200	0.91
11/05/99	13:28	5.0	5.5	271.3	2993	0.389	9.09	13-56	0.081	43,704,600	0.91
11/05/99	13:29	4.9	5.6	270.9	2871	0.397	12.50	13.47	0.082	43,828,800	0.91
11/05/99	13:30	4.9	5.5	271.1	2944	0.390	10.91	13-56	0.083	43,865,400	0.91
11/05/99	13:31	4.9	5.4	271.0	3016	0.378	9.26	13.65	0.087	43,834,800	0.90
11/05/99	13:32	4.8	5.4	270.8	2946	0.375	11.11	13.65	0.086	43,711,800	0.90
11/05/99	13:33	4.8	5.3	270.6	3021	0.379	9.43	13.74	0.085	43,707,000	0.90
11/05/99	13:34	4.7	5.2	270.1	3032	0.374	9.62	13.83	0.090	43,681,200	0.90
11/05/99	13:35	4.7	5.2	270.9	3017	0.367	9.62	13.83	0.088	43,456,200	0.90
11/05/99	13:36	4.7	5.0	271.5	3178	0.350	6.00	14.00	0.086	43,461,600	0.90
11/05/99	13:37	4.5	5.2	272.0	2883	0.367	13.46	13-83	82.000	43,374,600	0.90
11/05/99	13:38	4.5	5.3	271.3	2805	0.372	15.09	13-74	0.085	43,288,800	0.90
11/05/99	13:39	4.6	5.4	270.3	2796	0.380	14.81	13.65	0.088	43,284,600	0.90
11/05/99	13:40	4.7	5.3	270.2	2940	0.377	11.32	13-74	0.088	43,435,200	0.90
11/05/99	13:41	4.8	5.2	269.5	3083	0.370	7.69	13.83	0.085	43,486,200	0.90
11/05/99	13:42	4.7	5.1	270.1	3098	0.364	7.84	13.91	0.082	43,488,000	0.90
11/05/99	13:43	4.7	5.1	270.4	3107	0.364	7.84	13.91	0.083	43,616,400	0.90
11/05/99	13:44	4.5	5.2	270.5	2904	0.370	13.46	13-83	0.078	43,693,200	0.90
11/05/99	13:45	4.5	5.3	270.7	2832	0.376	15.09	13-74	0.082	43,701,600	0.90
11/05/99	13:46	4.6	5.2	271.2	2980	0.370	11.54	13.83	0.086	43,858,800	0.91
11/05/99	13:47	4.6	5.4	270.3	2837	0.384	14.81	13.65	0.091	43,909,800	0.91
11/05/99	13:48	4.7	5.3	270.9	2969	0.386	11.32	13.74	0.093	43,870,200	0.90
11/05/99	13:49	4.7	5.2	271.7	3035	0.373	9.62	13.83	0.091	43,713,600	0.90
11/05/99	13:50	4.7	5.2	271.9	3035	0.374	9.62	13.83	0.086	43,714,800	0.91
11/05/99	13:51	4.6	5.3	271.3	2892	0.385	13.21	13.74	0.061	43,659,600	0.91
11/05/99	13:52	4.6	5.2	270.9	2960	0.373	11.54	13.83	0.080	43,563,600	0.91
11/05/99	13:53	4.6	5.2	270.8	2960	0.371	11.54	13.83	0.084	43,563,000	0.90
11/05/99	13:54	4.7	5.0	271.6	3177	0.360	6.00	14.00	0.091	43,443,000	0.91
11/05/99	13:55	4.6	5.1	271.8	3021	0.365	9.80	13.91	0.095	43,328,400	0.91
11/05/99	13:56	4.5	5.2	271.5	2880	0.375	13.46	13.83	0.090	43,330,200	0.90
11/05/99	13:57	4.6	5.2	271.7	2930	0.373	11.54	13.83	0.082	43,123,200	0.90
11/05/99	13:58	4.7	5.1	272.0	3072	0.367	7.84	13.91	0.086	43,117,800	0.91
11/05/99	13:59	4.6	5.3	271.4	2859	0.384	13.21	13.74	0.086	43,156,800	0.91
11/05/99	14 : 0 0	4.6	5.2	271.5	2946	0.380	11.54	13.83	0.085	43,361,400	0.91
11/05/99	14:01	4.7	5.2	271.5	3010	0.377	9.62	13.83	0.089	43,360,200	0.91
11/05/99	14:02	4.7	5.3	271.9	2935	0.379	11.32	13.74	0.089	43,359,600	0.91
11/05/99	14:03	4.7	5.0	272.7	3169	0.360	6.00	14.00	0.088	43,343,400	0.91
11/05/99	14:04	4.7	5.1	272.6	3087	0.369	7.84	13.91	0.088	43,338,000	0.91
11/05/99	14:05	4.6	5.2	272.5	2945	0.375	11.54	13.83	0.087	43,339,800	0.92
11/05/99	14:06	14.7D	5.4D	272.8	8946D	0.374D	-172.22D	13.65D	0.088D	43,338,600	0.92
11/05/99	14:07	6.6D	5.4	272.3	4017D	0.373D	-22.22D	13.65D	0.091D	43,343,400	0.91
11/05/99	14:08	5.4	5.3	272.3	3371	0.369	-1.89	13.74	0.087	43,345,200	0.91
11/05/99	14:09	5.0	5.2	272.8	3232	0.362	3.85	13.83	0.086	43,766,400	0.92
11/05/99	14:10	4.8	5.3	272.9	3026	0.372	9.43	13.74	0.088	43,773,000	0.92
11/05/99	14:11	4.7	5.3	272.9	2963	0.378	11.32	13.74	0.087	43,773,000	0.91
11/05/99	14:12	4.6	5.3	273.3	2904	0.365	13.21	13.74	0.088	43,848,000	0.85D
11/05/99	14:13	4.7	5.3	273.1	2967	0.370	11.32	13.74	0.091	43,843,200	0.91D
11/05/99	14:14	4.7	5.4	272.4	2897	0.378	12.96	13.65	0.093	43,894,800	0.91
11/05/99	14:15	4.7	5.3	273.2	2972	0.369	11.32	13.74	0.090	43,908,000	0.91
11/05/99	14:16	4.8	5.1	272.3	3194	0.359	5.88	13.91	0.086	43,906,200	0.91
11/05/99	14:17	4.6	5.4	271.8	2833	0.380	1481.00	13.65	0.086	43,860,000	0.91
11/05/99	14:18	4.7	5.4	272.7	2893	0.374	12.96	13.65	0.085	43,828,800	0.91
11/05/99	14:19	4.8	5.2	273.1	3108	0.360	7.69	13.83	0.090	43,830,000	0.92
11/05/99	14:20	4.7	5.4	272.8	2894	0.382	12.96	13.65	0.090	43,850,400	0.92
11/05/99	14:21	4.7	5.5	272.4	2823	0.392	14.55	13.56	0.087	43,845,000	0.92
11/05/99	14:22	4.8	5.5	272.0	2886	0.392	12.73	13.56	0.083	43,891,200	0.92
11/05/99	14:23	4.8	5.4	271.9	2964	0.386	11.11	13.65	0.083	43,977,000	0.92
11/05/99	14:24	4.8	5.3	272.9	3040	0.376	9.43	13.74	0.085	43,976,400	0.92
11/05/99	14:25	4.8	5.3	273.4	3042	0.374	9.43	13.74	0.085	44,013,000	0.92
11/05/99	14:26	4.7	5.4	273.5	2907	0.390	12.96	13.65	0.088	44,049,600	0.93
11/05/99	14:27	4.7	5.5	272.9	2836	0.394	14.55	13.56	0.092	44,053,800	0.93
11/05/99	14:28	4.8	5.6	271.5	2826	0.409	14.29	13.47	0.094	44,041,800	0.92
11/05/99	14:29	4.8	5.7	271.8	2758	0.410	15.79	13.39	0.098	44,036,400	0.93
11/05/99	14:30	4.9	5.6	270.7	2885	0.401	12.50	13.47	0.095	44,046,600	0.93
11/05/99	14:31	5.0	5.9	269.6	2742	0.427	15.25	13.21	0.084	44,092,800	0.92
11/05/99	14:32	5.0	5.6	269.9	2947	0.396	10.71	13.47	0.079	44,088,600	0.91
11/05/99	14:33	5.1	5.4	270.5	3153	0.385	5.56	13.65	0.086	44,025,000	0.92
11/05/99	14:34	5.0	5.5	270.6	3011	0.397	9.09	13.56	0.089	43,960,200	0.92
11/05/99	14:35	4.9	5.6	270.1	2879	0.403	12.50	13.47	0.095	43,956,600	0.92
11/05/99	14:36	4.9	5.6	268.7	2874	0.399	12.50	13.47	0.096	43,884,600	0.92
11/05/99	14:37	5.0	5.5	269.3	3001	0.394	9.09	13.56	0.094	43,808,400	0.92
11/05/99	14:38	5.0	5.3	269.4	3154	0.375	5.66	13.74	0.095	43,806,600	0.92
11/05/99	14:39	4.8	5.4	269.5	2944	0.385	11.11	13.65	0.091	43,678,800	0.93
11/05/99	14:40	4.8	5.3	270.0	3014	0.379	9.43	13.74	0.086	43,598,400	0.93
11/05/99	14:41	4.7	5.4	269.5	2877	0.386	12.96	13.65	0.093	43,593,000	0.93
11/05/99	14:42	4.8	5.2	268.6	3077	0.365	7.69	13.83	0.099	43,396,800	0.92

Unit 2
Process Analog Data Listing
Test Run 3

Point		U2_02_wet_O2	U2_02_dry_O2	U2-Load_O2	U2-Heat Input_06	U2-Noxm mBtu-06	U2_H20_%_06	U2_CO2_%_06	U2-SO2m mBtu_06	U2-Flow _Hr_06	U2-SO2m mBtu-70
Units		ppm	%	MWatt	mmBtu/hr	#/mmbtu	I	%	S02 mmBtu	SCFH	InletSO2mm
Full Scale	Time	20	20	350	9000	1.000	100	20	1.2	61080000	1.2
11/05/99	14:43	4.7	5.2	268.4	3013	0.364	9.62	13.83	0.100	43,396,200	0.92
11/05/99	14:44	4.6	5.1	268.3	3026	0.356	9.80	13.91	0.097	43,398,000	0.93
11/05/99	14:45	4.5	5.0	268.4	3016	0.354	10.00	14.00	0.094	43,083,000	0.93
11/05/99	14:46	4.5	4.9	269.1	3096	0.345	8.16	14.09	0.093	43,063,800	0.92
11/05/99	14:47	4.4	4.7	270.0	3196	0.336	6.38	14.27	0.095	43,069,800	0.93
11/05/99	14:48	4.3	5.0	269.6	2856	0.361	14.00	14.00	0.096	42,694,800	0.93
11/05/99	14:49	4.4	5.1	269.0	2845	0.368	13.73	13.91	0.093	42,668,400	0.93
11/05/99	14:50	4.5	5.0	269.0	2987	0.360	10.00	14.00	0.093	42,663,600	0.93
11/05/99	14:51	4.5	5.0	268.4	2974	0.355	10.00	14.00	0.093	42,480,000	0.93
11/05/99	14:52	4.5	5.0	268.3	2972	0.354	10.00	14.00	0.098	42,446,400	0.93
11/05/99	14:53	4.5	4.8	270.0	3133	0.340	6.25	14.18	0.099	42,423,600	0.93
11/05/99	14:54	4.5	4.9	270.5	3049	0.348	8.16	14.09	0.095	42,412,800	0.93
11/05/99	14:55	4.4	5.1	270.6	2828	0.368	13.73	13.91	0.091	42,413,400	0.93
11/05/99	14:56	4.4	5.1	270.3	2829	0.365	13.73	13.91	0.091	42,417,000	0.93
11/05/99	14:57	4.6	5.0	270.4	3058	0.357	8.00	14.00	0.095	42,725,400	0.93
11/05/99	14:58	4.6	4.9	270.6	3140	0.353	6.12	14.09	0.095	42,726,600	0.93
11/05/99	14:59	4.5	4.8	271.1	3159	0.350	6.25	14.18	0.099	42,781,200	0.93
11/05/99	15:00	4.4	4.9	270.8	3012	0.354	10.20	14.09	0.097	42,855,000	0.93
11/05/99	15:01	4.3	5.0	271.1	2867	0.350	14.00	14.00	0.092	42,861,600	0.93
11/05/99	15:02	4.4	4.9	271.8	3014	0.353	10.20	14.09	0.091	42,874,800	0.94
11/05/99	15:03	4.4	5.2	271.8	2788	0.373	15.38	13.83	0.092	42,900,000	0.93
11/05/99	15:04	4.4	5.3	271.6	2718	0.389	16.98	13.74	0.090	42,903,600	0.93
11/05/99	15:05	4.4	5.2	271.8	2789	0.385	15.38	13.83	0.091	42,903,600	0.93
11/05/99	15:06	15.5D	5.4D	271.6	9337D	0.397D	-187.04D	13.65D	0.087D	42,898,200	0.93
11/05/99	15:07	7.5D	5.2D	271.7	4752D	0.377D	-44.23D	13.83D	0.090D	42,894,600	0.93
11/05/99	15:08	5.9	5.0	271.8	3937	0.367	-18.00	14.00	0.096	42,894,600	0.93
11/05/99	15:09	5.0	5.3	271.9	3088	0.392	5.66	13.74	0.096	42,895,200	0.92
11/05/99	15:10	4.7	5.2	272.5	2978	0.379	9.62	13.83	0.090	42,891,600	0.93
11/05/99	15:11	4.7	5.2	272.3	2978	0.386	9.62	13.83	0.096	42,901,800	0.94
11/05/99	15:12	4.6	5.5	271.4	2712	0.404	16.36	13.56	0.097	43,036,800	0.85D
11/05/99	15:13	4.8	5.3	271.2	2980	0.392	9.43	13.74	0.091	43,106,400	0.91D
11/05/99	15:14	4.8	5.2	271.5	3056	0.379	7.69	13.83	0.094	43,102,800	0.92
11/05/99	15:15	4.7	5.2	272.6	3008	0.378	9.62	13.83	0.096	43,327,800	0.93
11/05/99	15:16	4.6	5.2	273.3	2949	0.371	11.54	13.83	0.090	43,408,200	0.93
11/05/99	15:17	4.6	5.5	272.6	2738	0.390	16.36	13.56	0.088	43,444,800	0.93
11/05/99	15:18	4.7	5.5	272.0	2817	0.406	14.55	13.56	0.085	43,749,600	0.92
11/05/99	15:19	4.8	5.3	272.5	3024	0.383	9.43	13.74	0.085	43,751,400	0.92
11/05/99	15:20	4.8	5.1	272.8	3184	0.374	5.88	13.91	0.088	43,760,400	0.93
11/05/99	15:21	4.6	5.3	272.2	2899	0.387	13.21	13.74	0.093	43,760,400	0.92
11/05/99	15 : 2 2	4.6	5.2	272.6	2973	0.381	11.54	13.83	0.098	43,759,800	0.93
11/05/99	15:23	4.6	5.4	273.3	2827	0.383	14.81	13.65	0.096	43,766,400	0.93
11/05/99	15:24	4.7	5.5	272.7	2833	0.405	14.55	13.56	0.091	44,000,400	0.93
11/05/99	15:25	4.8	5.7	271.7	2755	0.421	15.79	13.39	0.082	43,993,200	0.92
11/05/99	15:26	5.0	5.5	271.9	3013	0.406	9.09	13.56	0.085	43,995,000	0.92
11/05/99	15:27	5.0	5.3	271.8	3167	0.390	5.66	13.74	0.091	43,992,000	0.93
11/05/99	15:28	4.8	5.3	271.5	3041	0.389	9.43	13.74	0.091	43,998,000	0.92
11/05/99	15:29	4.8	5.3	271.3	3046	0.388	9.43	13.74	0.090	44,065,200	0.92
11/05/99	15:30	4.8	5.3	271.3	3050	0.388	9.43	13.74	0.094	44,119,800	0.92
11/05/99	15:31	4.7	5.3	271.0	2986	0.398	11.32	13.74	0.096	44,113,800	0.92
11/05/99	15:32	4.8	5.3	271.0	3029	0.385	9.43	13.74	0.090	43,813,800	0.92
11/05/99	15:33	4.7	5.2	271.3	3036	0.376	9.62	13.83	0.086	43,733,400	0.92
11/05/99	15:34	4.7	5.2	271.7	3027	0.380	9.62	13.83	0.091	43,605,000	0.92
11/05/99	15:35	4.6	5.2	272.0	2948	0.380	11.54	13.83	0.093	43,386,600	0.93
11/05/99	15:36	4.6	5.3	272.3	2874	0.385	13.21	13.74	0.094	43,384,800	0.93
11/05/99	15:37	4.6	5.4	273.5	2804	0.381	14.81	13.65	0.093	43,402,800	0.93
11/05/99	15:38	4.7	5.4	273.4	2872	0.387	12.96	13.65	0.092	43,518,000	0.94
11/05/99	15:39	4.7	5.6	273.4	2734	0.402	16.07	13.47	0.086	43,512,000	0.93
11/05/99	15:40	4.9	5.6	272.1	2864	0.407	12.50	13.47	0.088	43,731,600	0.93
11/05/99	15:41	5.0	5.9	271.3	2732	0.432	15.25	13.21	0.088	43,933,800	0.93
11/05/99	15:42	5.1	5.6	271.4	2995	0.412	8.93	13.47	0.088	43,938,600	0.93
11/05/99	15:43	5.2	5.4	271.5	3209	0.391	3.70	13.65	0.091	43,940,400	0.93
11/05/99	15:44	5.0	5.5	270.9	3020	0.404	9.09	13.56	0.097	44,088,600	0.93
Average		**4.7**	**5.3**	**271.6**	**2968**	**0.379**	**10.75**	**13.74**	**0.089**	**43,538,625**	**0.92**
Minimum		**4.3**	**4.7**	**268.3**	**2622**	**0.336**	**-18.00**	**13.21**	**0.071**	**42,412,800**	**0.90**
Maximum		**5.9**	**5.9**	**274.7**	**3937**	**0.432**	**20.00**	**14.27**	**0.100**	**44,470,200**	**0.94**
Missing	**(%)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Invalid	**(%)**	**2.58**	**2.58**	**0**	**2.58**	**2.58**	**2.58**	**2.58**	**2.58**	**0**	**3.87**
0 0 Cal	**(%)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
In Cal	**(%)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Valid	**(%)**	**97.42**	**97.42**	**100**	**97.42**	**97.42**	**97.42**	**97.42**	**97.42**	**100**	**96.13**
Available(%	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	

M	**MissingData**	**F**	**PowerFailure**	**P**	**InPurge**	**f**	**DiscreteMissing**	**D**	**Downed**	**C**	**InCalibration**
O	**Part60-OOC**	**O**	**Part75-OOC**	**B**	**NoSamples**	**<**	**TooFewSamples**	**r**	**Reserved-1**	**u**	**Reserved-2**
A	**HighAlarm**	**a**	**LowAlarm**	**m**	**EPA-MinC02MaxO:**	**G**	**EPA_AppG_C02**	**>**	**EnoughSamples**	**E**	**Edited**
S	**StackOffline**	**I**	**PrimaryMonitor**	**@**	**BackupMonitor**	**#**	**Alternate**	**$**	**ReferenceMethod**	**%**	**Parametric**
^	**Average_HB_HA**	**&**	**Init_QA_Hrs_Avg**	*****	**90thPercentile**	**(**	**95thPercentile**	**)**	**Binmaximum**	**-**	**BinAverage**
+	**MaxPotential**	**|**	**Other**								

Unit 2
11/5/1999
Test Run 3
Process Data

TIME	OPACITY %	WET O_2 %	FGAS-FLO	FGAS-TEM °F	UNIT-LOAD MW	MN ST °F	O_2 %	ABS_1A	ABS_1B	ABS_2A	ABS_2B	DEM_1B	DEM_2A	DEM_2B	FURN_PRE	FW_FLOW	U2_02 %	Comment
13:14:58	6.10313	4.76062	728.28125	172.06250	271.37030	997.87500	2.75531	5.50	6.64	7.18	6.86	243.99374	57.00000	15.99375	-0.34025	820.71875	2.86281	Start
13:15:51	8.16562	4.88750	727.90625	172.06250	271.89532	999.09375	2.54781	5.50	6.61	7.14	6.93	225.99374	30.99375	10.99687	-0.27500	818.18750	2.48500	
13:16:43	7.04688	4.98875	727.93750	172.06250	272.68280	1,001.57813	2.75469	5.50	6.59	7.16	7.00	58.99688	151.99687	27.00000	-0.43725	806.96875	2.75312	
13:17:36	11.33438	4.78813	727.87500	172.09375	273.15314	1,003.78125	2.87812	5.50	6.59	7.16	7.00	22.99688	141.99374	0.99375	-0.40575	815.46875	2.86531	
13:18:28	9.37187	4.55188	730.75000	172.09375	273.09845	1,004.57813	2.85219	5.50	6.53	7.18	6.99	19.99688	150.99374	4.99687	0.08975	831.28125	2.86094	
13:19:21	6.95000	4.56375	741.06250	171.25000	273.00000	1,003.82813	2.98625	5.50	6.52	7.18	6.96	19.99688	177.99374	6.00000	-0.05450	825.75000	2.95375	
13:20:13	6.25000	4.70000	741.09375	171.28125	273.41562	1,002.32813	2.99312	5.50	6.46	7.17	6.94	42.99375	81.00000	18.00000	-0.22250	809.56250	3.00813	
13:21:06	6.33750	4.79625	739.40625	171.75000	273.21875	1,000.78125	2.94094	5.50	6.50	7.15	6.93	30.00000	46.99688	120.99375	-0.09675	823.31251	2.93406	
13:21:58	6.46250	4.80375	732.31250	171.71875	273.71094	999.00000	3.08656	5.50	6.55	7.14	6.91	30.00000	46.99688	120.99375	0.05600	825.25000	3.05437	
13:22:50	6.27812	4.76188	732.34375	171.71875	274.15936	997.03125	3.14594	5.50	6.58	7.15	6.89	46.99688	42.00000	186.00000	0.18175	828.06250	3.15156	
13:23:43	6.14687	4.71250	732.00000	171.75000	274.44376	994.64063	3.20094	5.50	6.65	7.11	6.89	1.99688	4.99687	163.99687	0.22700	819.21875	3.19031	
13:24:35	6.01875	4.84000	730.71875	172.21875	274.46564	991.59375	3.40219	5.50	6.65	7.11	6.89	1.99688	4.99687	165.99374	-0.17975	819.18750	3.39969	
13:25:28	6.22500	4.91750	730.78125	172.21875	273.86407	988.12500	2.99938	5.50	6.66	7.11	6.87	1.99688	258.00000	0.99375	-0.48175	823.00000	3.04406	
13:26:20	7.45625	5.02500	730.81250	172.15625	272.91251	984.75000	2.98469	5.50	6.69	7.09	6.86	150.00000	81.99375	12.00000	-0.47075	837.53125	2.95438	
13:27:13	7.14063	5.06313	728.50000	171.89063	271.98282	982.12500	2.98813	5.50	6.75	7.08	6.84	246.99374	21.00000	1.99688	-0.55225	840.65625	2.99281	
13:28:05	6.77500	4.98688	728.34375	171.90625	271.75311	980.10938	2.90188	5.50	6.78	7.03	6.81	243.99374	57.00000	19.99688	-0.38000	825.03125	2.90969	
13:28:58	7.56563	4.99250	728.46875	171.92188	271.29376	979.07813	3.05063	5.50	6.85	7.01	6.82	243.99374	57.00000	19.99688	-0.25950	806.09375	3.03531	
13:29:50	6.98438	4.89813	730.12500	171.92188	270.93280	978.28125	3.06687	5.50	6.89	7.01	6.80	231.99374	4.99687	0.99375	-0.46575	815.50000	3.08812	
13:30:43	10.25625	4.89187	731.15625	171.51563	270.96564	977.67188	3.01813	5.50	6.94	7.03	6.77	241.99687	4.99687	0.99375	-0.48525	831.53125	2.99563	
13:31:35	6.40000	4.88062	731.00000	171.67188	271.11874	977.20313	3.02500	5.50	6.94	7.03	6.77	24.99375	117.99375	4.99687	-0.12000	834.62500	3.04000	
13:32:28	6.25000	4.83437	729.59375	171.54688	270.91095	976.96875	2.98187	5.50	6.98	7.01	6.76	24.00000	130.99687	1.99688	-0.34500	818.28125	2.96937	
13:33:20	6.10625	4.78250	728.40625	171.96875	270.75781	976.78125	2.97062	5.50	7.01	7.00	6.69	15.00000	189.99374	0.99375	-0.08325	823.21875	2.99875	
13:34:12	6.14375	4.79125	728.56250	171.90625	270.49530	976.64063	2.98031	5.50	6.99	6.98	6.71	52.99688	69.99375	27.99375	0.04025	833.84375	2.96031	
13:35:05	6.40938	4.72875	727.68750	172.45313	270.09064	976.31250	2.68187	5.50	6.94	6.99	6.69	1.99688	4.99687	172.99687	0.02800	827.71875	2.74625	
13:35:57	7.36250	4.70062	724.21875	172.42188	270.93280	976.78125	2.75969	5.50	6.94	6.92	6.67	1.99688	4.99687	172.99687	-0.01325	822.37500	2.71594	
13:36:50	6.19688	4.68188	724.37500	172.42188	271.47968	977.53125	2.96750	5.50	7.00	6.95	6.66	1.99688	4.99687	165.00000	-0.09825	815.00000	2.94875	
13:37:42	5.99375	4.58000	723.75000	172.57813	271.93906	978.32813	2.95844	5.50	6.94	6.89	6.63	1.99688	4.99687	163.99687	-0.25125	818.06250	2.96031	
13:38:35	6.12813	4.47437	721.53125	170.92188	271.54532	978.42188	3.11031	5.50	6.94	6.89	6.63	22.99688	27.99375	159.99374	-0.11550	820.31250	3.09750	
13:39:27	6.19375	4.54500	721.40625	171.04688	270.77969	978.28125	3.05625	5.50	6.89	6.92	6.63	1.99688	4.99687	169.99687	-0.07575	832.09375	3.07125	
13:40:20	6.21250	4.62125	721.40625	171.01563	270.26563	978.14063	2.94438	5.50	6.88	6.89	6.61	174.00000	25.99688	85.99687	-0.18500	839.53125	2.93781	
13:41:12	6.15000	4.70687	724.87500	172.12500	270.01407	978.28125	2.86875	5.50	6.84	6.86	6.61	234.99374	4.99687	0.99375	-0.25750	828.43750	2.92156	
13:42:05	6.11875	4.76438	724.65625	172.17188	269.59845	979.26563	2.73969	5.50	6.87	6.86	6.57	249.99374	4.99687	0.99375	-0.39050	816.56250	2.72250	
13:42:57	6.10625	4.73000	724.87500	172.18750	270.14532	981.00000	2.81531	5.50	6.77	6.85	6.58	249.99374	4.99687	0.99375	-0.61400	814.50000	2.80281	
13:43:50	5.99062	4.67188	725.56250	172.18750	270.40781	982.82813	2.79312	5.50	6.79	6.83	6.56	211.99687	4.99687	0.99375	-0.38150	833.81250	2.81781	
13:44:42	8.30313	4.57125	728.12500	172.35938	270.51718	984.37500	2.79281	5.50	6.70	6.83	6.54	225.99374	4.99687	0.99375	-0.31800	827.46875	2.77406	Stop
13:45:34	7.29063	4.53375	728.31250	172.26563	270.65936	985.26563	2.66188	5.50	6.70	6.83	6.54	24.99375	93.99375	3.00000	-0.01150	819.03125	2.69563	
13:46:27	10.55313	4.55875	728.37500	172.18750	271.04218	985.87500	2.76187	5.50	6.74	6.82	6.53	13.99687	84.99375	6.00000	-0.04600	821.81250	2.71312	Start
13:47:19	10.93125	4.62563	731.75000	173.06250	270.80157	986.01563	2.70781	5.50	6.71	6.83	6.49	21.99375	186.99374	9.00000	-0.05950	825.96875	2.74062	
13:48:12	9.39063	4.63500	731.93750	173.42188	270.44061	985.73438	2.62063	5.50	6.70	6.81	6.54	1.99688	252.99374	0.99375	-0.17675	817.00000	2.62719	
13:49:04	9.00937	4.68188	731.12500	172.82813	270.97656	985.45313	2.47813	5.50	6.70	6.80	6.63	1.99688	4.99687	174.00000	-0.11525	827.15625	2.49219	
13:49:57	9.60000	4.74875	728.56250	172.76563	271.73126	985.64063	2.68844	5.50	6.69	6.79	6.64	1.99688	4.99687	174.00000	-0.04200	828.84375	2.66031	
13:50:49	9.02188	4.68875	728.62500	172.76563	271.95001	985.92188	2.70438	5.50	6.66	6.78	6.70	1.99688	4.99687	163.99687	-0.14325	831.03125	2.70000	

Unit 2
11/5/1999
Test Run 3
Process Data

TIME	OPACITY %	WET O_2 %	FGAS-FLO	FGAS-TEM °F	UNIT-LOAD MW	MN ST °F	O_2 %	ABS_1A	ABS_1B	ABS_2A	ABS_2B	DEM_1B	DEM_2A	DEM_2B	FURN_PRE	FW_FLOW	U2_02 %	Comment
13:51:42	9.19063	4.59750	728.50000	172.76563	271.38126	985.96875	2.67219	5.50	6.64	6.74	6.77	1.99688	4.99687	165.00000	-0.18025	824.68750	2.63687	
13:52:34	6.92188	4.59688	726.06250	172.07813	271.00937	985.96875	3.02969	5.50	6.64	6.74	6.77	39.99375	36.99375	147.00000	-0.22700	824.62500	3.05531	
13:53:27	6.27500	4.64750	726.00000	172.04688	270.81250	986.25000	2.70969	5.50	6.65	6.74	6.82	1.99688	4.99687	168.00000	-0.27975	822.15625	2.73969	
13:54:19	6.41875	4.64500	726.06250	172.03125	271.17343	987.23438	2.80594	5.50	6.62	6.69	6.91	190.99687	43.99688	78.99375	-0.07275	820.78125	2.78781	
13:55:11	6.29063	4.67188	722.90625	172.53125	271.65469	988.50000	2.89812	5.50	6.61	6.71	6.97	234.00000	4.99687	0.99375	-0.36525	825.75000	2.88438	
13:56:04	6.23750	4.59562	722.18750	172.56250	271.74219	989.57813	2.96563	5.50	6.60	6.69	7.01	249.99374	4.99687	0.99375	-0.28175	827.46875	2.97219	
13:56:56	6.25000	4.53000	722.09375	172.01563	271.52344	990.42188	2.91031	5.50	6.57	6.67	7.00	249.99374	4.99687	0.99375	-0.36775	819.56250	2.92125	
13:57:49	6.26875	4.56250	719.46875	172.01563	271.68750	991.17188	2.79719	5.50	6.55	6.65	6.96	192.99374	4.99687	3.00000	-0.46800	830.65625	2.78375	
13:58:41	6.03125	4.64313	718.71875	172.01563	272.08124	992.25000	2.96156	5.50	6.51	6.65	6.93	207.00000	10.99687	0.99375	-0.25625	835.43750	2.95375	
13:59:34	6.00625	4.65312	718.62500	171.98438	271.51251	993.37500	2.89969	5.50	6.51	6.65	6.93	31.99688	87.99375	4.99687	-0.08575	830.25000	2.94969	
14:00:26	7.58437	4.60563	721.15625	171.84375	271.41406	994.54688	2.61125	5.50	6.52	6.64	6.93	39.00000	66.00000	33.99375	-0.30950	816.50000	2.59562	
14:01:19	8.99063	4.66813	722.59375	171.73438	271.47968	995.76563	2.66438	5.50	6.53	6.62	6.91	1.99688	178.99687	0.99375	-0.38475	825.03125	2.62625	
14:02:11	6.58125	4.70813	722.65625	171.79688	271.54532	996.89063	2.92219	5.50	6.59	6.61	6.87	1.99688	252.99374	0.99375	-0.37750	835.09375	2.93281	
14:03:04	6.38750	4.66937	722.59375	171.78125	272.05939	997.96875	2.66625	5.50	6.60	6.59	6.86	1.99688	7.99687	171.00000	-0.18825	833.90625	2.67000	
14:03:56	6.24687	4.66437	722.34375	171.68750	272.68280	999.37500	2.81312	5.50	6.64	6.61	6.84	1.99688	7.99687	171.00000	-0.36475	828.40625	2.79156	
14:04:49	6.85938	4.67562	722.40625	171.68750	272.69376	1,000.59375	2.77562	5.50	6.73	6.60	6.84	6.00000	7.99687	165.00000	-0.10475	821.28125	2.81875	
14:05:41	13.06250	4.53937	722.28125	171.81250	272.33282	1,001.25000	2.55031	5.50	6.72	6.56	6.83	4.99687	4.99687	168.00000	-0.12875	834.12500	2.56250	
14:06:33	12.79688	10.65375	722.31250	171.75000	272.94531	1,001.10938	2.81312	5.50	6.72	6.56	6.83	12.00000	31.99688	171.99374	-0.19375	838.37500	2.75625	
14:07:26	9.88437	13.99125	722.18750	171.73438	272.42032	1,000.35938	2.76406	5.50	6.74	6.54	6.81	1.99688	4.99687	174.00000	-0.22100	833.93750	2.80469	
14:08:18	10.58125	7.17562	722.40625	171.73438	272.20157	999.23438	2.59125	5.50	6.80	6.50	6.80	1.99688	4.99687	172.99687	-0.27100	828.28125	2.61656	
14:09:11	15.75937	5.31687	723.68750	173.00000	272.45313	998.57813	2.55687	5.50	6.86	6.51	6.77	234.00000	4.99687	0.99375	-0.26800	831.43750	2.52938	
14:10:03	10.59375	4.93875	729.43750	172.90625	272.81406	998.62500	2.60469	5.50	6.92	6.61	6.76	244.99687	4.99687	0.99375	-0.30200	821.71875	2.59750	
14:10:56	8.04062	4.77688	729.56250	173.00000	272.92343	998.81250	2.92000	5.50	6.94	6.70	6.75	244.99687	4.99687	0.99375	-0.28650	823.34375	2.89219	
14:11:48	9.59375	4.66250	729.50000	173.00000	272.80313	999.04688	2.74719	5.50	6.99	6.80	6.74	172.99687	12.99375	1.99688	-0.25925	830.09375	2.76500	
14:12:41	7.83437	4.63750	730.43750	173.01563	273.20782	999.09375	2.77625	5.50	7.06	6.85	6.72	151.99687	30.99375	9.00000	-0.05450	841.50000	2.77781	
14:13:33	7.91563	4.68437	730.87500	173.01563	273.55780	999.04688	2.99250	5.50	7.06	6.85	6.72	1.99688	192.99374	0.99375	0.04975	831.93750	2.95563	
14:14:26	6.13438	4.69625	730.93750	172.75000	272.46405	998.71875	3.07719	5.50	6.93	6.93	6.68	1.99688	211.99687	0.99375	0.17075	820.37500	3.09125	
14:15:18	6.38125	4.64875	731.71875	172.62500	272.57343	998.10938	2.82906	5.50	6.92	6.97	6.67	1.99688	180.00000	0.99375	0.29000	832.09375	2.84437	
14:16:10	6.65312	4.70000	731.78125	172.64063	273.13126	997.87500	2.89188	5.50	6.95	7.00	6.66	1.99688	249.99374	0.99375	-0.32025	830.00000	2.84250	
14:17:03	11.26563	4.75812	731.75000	172.65625	272.24530	997.82813	3.02688	5.50	6.91	6.97	6.64	1.99688	16.99688	165.00000	-0.33075	826.81250	3.03500	Stop
14:17:55	7.84062	4.65063	731.21875	172.40625	271.67657	997.78125	2.82813	5.50	6.97	6.97	6.60	1.99688	16.99688	165.00000	-0.19350	839.15625	2.90000	
14:18:48	13.00000	4.65875	730.43750	172.40625	272.57343	997.54688	2.63562	5.50	6.88	6.98	6.60	28.99688	18.00000	171.99374	-0.04500	841.03125	2.60469	Start
14:19:40	10.66250	4.76000	730.50000	172.56250	273.12030	997.59375	2.74281	5.50	6.84	6.96	6.59	12.00000	9.00000	168.99374	-0.04950	822.25000	2.73500	
14:20:33	9.14688	4.74937	730.59375	172.51563	272.91251	997.40625	3.01875	5.50	6.84	6.96	6.59	1.99688	4.99687	174.99374	0.02775	820.25000	2.95625	
14:21:25	6.31563	4.65625	730.81250	171.45313	272.60626	996.37500	3.13406	5.50	6.87	6.90	6.58	231.00000	4.99687	0.99375	0.05850	822.96875	3.13250	
14:22:18	6.09375	4.68750	730.71875	171.34375	272.27814	994.82813	3.10844	5.50	6.75	6.90	6.54	231.00000	4.99687	0.99375	0.01450	830.31250	3.13313	
14:23:10	6.17812	4.78125	732.12500	172.35938	271.79688	993.18750	3.10625	5.50	6.79	6.90	6.55	234.00000	4.99687	0.99375	-0.06375	831.68750	3.10562	
14:24:03	6.19688	4.82625	732.93750	172.40625	272.07031	991.78125	2.97594	5.50	6.75	6.87	6.53	243.00000	13.99687	0.99375	-0.07775	832.96875	2.97719	
14:24:55	6.30000	4.84062	732.87500	172.40625	272.83594	990.98438	3.04844	5.50	6.73	6.90	6.52	243.00000	13.99687	0.99375	-0.12225	838.25000	3.04344	
14:25:48	5.85313	4.78813	733.15625	172.21875	273.37189	990.32813	3.21312	5.50	6.72	6.89	6.51	165.99374	39.00000	7.99687	-0.28725	833.21875	3.18344	
14:26:40	5.91563	4.73562	734.03125	172.64063	273.66718	989.48438	3.27562	5.50	6.69	6.89	6.57	252.00000	4.99687	0.99375	-0.41450	810.96875	3.30375	
14:27:32	5.95937	4.69125	734.21875	172.62500	273.12030	988.26563	3.24062	5.50	6.69	6.89	6.57	1.99688	192.99374	0.99375	-0.75925	818.12500	3.21500	

Appendix B - Section 3
Process Data Sheets
UNIT 3

Unit 3
Test Run 1
Coal Feeders
11/2/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
12:20:33	70.30000	75.13750	59.70937	68.54063	273.68750	Start
12:21:26	70.29063	75.24375	60.02813	68.50625	274.06876	
12:22:18	70.24062	75.37813	59.84687	68.50000	273.96562	
12:23:11	70.72500	75.70313	60.18125	68.84688	275.45626	
12:24:03	70.85625	75.81250	60.34063	68.91563	275.92501	
12:24:56	71.13125	76.06250	60.72187	69.28438	277.20000	
12:25:48	71.60313	76.42500	61.22813	69.77187	279.02813	
12:26:40	71.28438	76.19375	60.94375	69.51250	277.93438	
12:27:33	70.99375	75.95000	60.48438	69.04063	276.46876	
12:28:25	71.12187	75.99687	60.68125	69.42812	277.22811	
12:29:18	71.19688	76.04375	60.70937	69.37187	277.32187	
12:30:10	72.76250	77.58437	62.28437	70.90000	283.53124	
12:31:03	72.16250	77.07188	61.80625	70.35938	281.40001	
12:31:55	71.52500	76.29688	61.04063	69.66875	278.53126	
12:32:48	71.31250	76.21875	60.80625	69.48125	277.81875	
12:33:40	70.75938	75.66875	60.28437	68.90938	275.62188	
12:34:33	70.92188	75.83125	60.43438	69.02500	276.21251	
12:35:25	70.92500	75.82500	60.50000	69.16250	276.41250	
12:36:18	71.09688	75.89687	60.63438	69.30625	276.93438	
12:37:10	71.79688	76.74687	61.30312	69.91250	279.75937	
12:38:02	73.00313	77.85000	62.53437	71.15625	284.54375	
12:38:55	73.33125	78.20000	62.90937	71.53750	285.97812	
12:39:47	72.05000	76.84062	61.55000	70.20313	280.64375	
12:40:40	71.08125	76.02187	60.66875	69.33750	277.10937	
12:41:32	70.00000	74.90312	59.52187	68.21250	272.63749	
12:42:25	69.41563	74.28750	58.93125	67.65625	270.29063	
12:43:17	70.80937	75.66250	60.30312	68.99375	275.76874	
12:44:10	70.61562	75.56563	60.14375	68.80000	275.12500	
12:45:02	70.68125	75.59688	60.29688	68.99687	275.57188	
12:45:55	71.58750	76.49687	61.12188	69.81250	279.01875	
12:46:47	71.99375	76.81875	61.47813	70.13125	280.42188	
12:47:39	73.50313	78.37500	63.16250	71.68437	286.72500	
12:48:32	73.30937	78.06875	62.84687	71.35938	285.58437	
12:49:24	72.36250	77.21562	61.90313	70.62187	282.10312	
12:50:17	70.46875	75.42812	59.95937	68.62500	274.48124	Stop
12:51:09	70.30312	75.29688	59.81250	68.51250	273.92500	
12:52:02	70.80625	75.73438	60.35938	69.01250	275.91251	

Unit 3
Test Run 1
Coal Feeders
11/2/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
12:52:54	72.35313	77.20000	61.85313	70.55312	281.95938	
12:53:47	71.36562	76.11562	60.95937	69.48438	277.92499	
12:54:39	71.28125	76.19063	60.81562	69.47188	277.75938	
12:55:32	71.67188	76.30625	60.99062	69.67812	278.64687	
12:56:24	71.66875	76.47188	61.15625	69.75313	279.05001	
12:57:17	72.02500	76.83750	61.46563	70.22188	280.55001	
12:58:09	71.94688	76.84375	61.52187	70.18125	280.49375	Start
12-59:01	72.07188	76.91250	61.52187	70.25938	280.76563	
12:59:54	71.71875	76.65938	61.34375	70.17188	279.89376	
13:00:46	71.34688	76.16563	60.88750	69.73750	278.13751	
13:01:39	71.38125	76.38125	60.89687	69.57188	278.23125	
13:02:31	71.91250	76.73438	61.58125	69.97813	280.20626	
13:03:24	71.21250	76.18125	60.68750	69.42812	277.50937	
13:04:16	70.15312	75.13438	59.74062	68.43437	273.46249	
13:05:09	70.75313	75.69063	60.26563	69.11250	275.82189	
13:06:01	70.69063	75.74375	60.26875	68.89063	275.59376	
13:06:54	70.82188	75.76875	60.38125	69.02500	275.99688	
13:07:46	71.76250	76.65625	61.33750	70.00625	279.76250	
13:08:39	72.05625	76.90000	61.56875	70.28438	280.80938	
13:09:31	71.84375	76.68437	61.37812	69.95313	279.85937	Stop
13:10:24	71.77500	76.67812	61.40313	70.03438	279.89063	
13:11:16	70.60625	75.49375	60.13125	68.80625	275.03750	
13:12:09	70.05000	74.93437	59.63125	68.25938	272.87500	
13:13:01	69.25938	74.22188	58.85000	67.58437	269.91563	
13:13:54	69.54375	74.54375	59.06875	67.73438	270.89063	
13:14:46	69.50000	74.47500	59.05938	67.75625	270.79063	
13:15:39	70.66875	75.55312	60.12812	68.77812	275.12811	
13:16:31	70.51563	75.46875	60.06562	68.76250	274.81250	
13:17:24	70.20937	75.03750	59.72187	68.38125	273.34999	
13:18:16	71.07188	76.03750	60.56875	69.34062	277.01875	
13:19:09	71.82813	76.80625	61.43750	70.03125	280.10313	
13:20:01	73.14063	77.87187	62.51563	71.16250	284.69063	
13:20:53	73.44375	78.29688	63.03125	71.62187	286.39375	
13:21:46	72.42812	77.26250	61.97187	70.54688	282.20937	
13:22:38	71.70313	76.49687	61.22187	69.90938	279.33125	
13:23:31	72.15000	76.97813	61.67188	70.34375	281.14376	
13:24:23	72.46250	77.31875	61.95313	70.55937	282.29375	

Unit 3
Test Run 1
Coal Feeders
11/2/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
13:25:16	72.17500	76.85000	61.41563	70.15625	280.59688	
13:26:08	71.09062	76.05000	60.69062	69.30312	277.13436	
13:27:01	69.64063	74.59688	59.23750	67.90938	271.38439	
13:27:53	70.46875	75.45000	60.09063	68.76875	274.77813	
13:28:46	70.20937	75.19063	59.78437	68.54375	273.72812	
13:29:38	70.07813	75.15000	59.69062	68.35938	273.27813	
13:30:30	69.52187	74.45000	59.12188	67.75313	270.84688	
13:31:23	69.68750	74.69375	59.28125	67.93750	271.60000	
13:32:15	71.38438	76.25313	60.89063	69.58125	278.10939	
13:33:08	71.27187	76.18750	60.78750	69.48125	277.72812	
13:34:00	71.70937	76.53750	61.19062	69.84375	279.28124	
13:34:53	71.55625	76.44375	61.06562	69.79063	278.85625	
13:35:45	71.22500	76.19375	60.84063	69.47500	277.73438	
13:36:38	71.50938	76.43125	61.04688	69.70000	278.68751	
13:37:30	72.32500	77.10625	61.87812	70.51563	281.82500	
13:38:23	73.07188	78.01563	62.66563	71.21562	284.96876	
13:39:15	72.57188	77.30625	61.94375	70.60000	282.42188	
13:40:08	72.79375	77.59688	62.22187	70.90312	283.51562	
13:41:00	71.61562	76.49062	61.15625	69.76563	279.02812	
13:41:52	71.43125	76.31875	60.89687	69.58125	278.22812	
13:42:45	70.72500	75.71875	60.29063	69.01563	275.75001	
13:43:37	70.76250	75.60625	60.23125	68.95625	275.55625	
13:44:30	70.74375	75.60625	60.25312	68.87500	275.47812	
13:45:22	70.88750	75.77812	60.40313	69.01250	276.08125	
13:46:15	71.67188	76.54688	61.23438	69.88438	279.33752	
13:47:07	71.70000	76.75000	61.29063	69.95313	279.69376	
13:48:00	71.55000	76.41250	61.13125	69.67500	278.76875	
13:48:52	71.84688	76.70937	61.21563	69.86875	279.64063	
13:49:45	72.08750	76.79688	61.45000	70.07188	280.40626	
13:50:37	72.15000	76.87813	61.69688	70.30937	281.03438	
13:51:29	72.35313	77.18125	61.95313	70.68125	282.16876	
13-52:22	72.79375	77.65625	62.25938	71.02187	283.73125	
13:53:14	71.67500	76.72813	61.21250	69.90938	279.52501	
13:54:07	70.67500	75.56875	60.19688	68.89687	275.33750	
13:54:59	69.74062	74.65312	59.29688	67.98750	271.67812	
13:55:52	69.79375	74.76563	59.30312	68.01563	271.87813	
13:56:44	70.49687	75.42500	60.06562	68.76563	274.75312	

Unit 3
Test Run 1
Coal Feeders
11/2/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
13:57:37	70.75313	75.65000	60.34687	68.99375	275.74375	
13:58:29	70.66563	75.68125	60.26875	68.94375	275.55938	
13:59:22	70.89687	75.77500	60.44375	69.01563	276.13125	
14:00:14	71.31563	76.10938	60.80312	69.54375	277.77188	
14:01:07	71.49375	76.32500	61.08750	69.64687	278.55312	
14:01:59	70.06875	74.96250	59.60625	68.34375	272.98125	
14:02:51	71.18750	75.90938	60.63438	69.16875	276.90001	
14:03:44	71.62813	76.45000	61.15313	69.79375	279.02501	
14:04:36	72.40938	77.35313	61.99688	70.69688	282.45627	
14:05:29	72.65938	77.48438	62.11875	70.79063	283.05314	
14:06:21	72.87187	77.75313	62.35625	70.96875	283.95000	Start
14:07:14	72.80312	77.55625	62.28750	70.87500	283.52187	
14:08:06	72.02187	76.82500	61.55000	70.13750	280.53437	
14:08:59	71.73438	76.54688	61.40000	69.96250	279.64376	
14:09:51	71.90625	76.71875	61.41875	70.08437	280.12812	
14:10:44	71.21875	75.92812	60.60000	69.27500	277.02187	
14:11:36	70.07500	74.90625	59.51875	68.22813	272.72813	
14:12:29	68.89375	73.81563	58.51563	67.15312	268.37813	
14:13:21	68.90625	73.93125	58.60938	67.13438	268.58126	
14:14:13	68.34688	73.38750	58.07813	66.73438	266.54689	
14:15:06	69.47813	74.42812	59.05312	67.67188	270.63125	
14:15:58	70.22188	75.21562	59.75625	68.38125	273.57500	
14:16:51	70.17188	75.00625	59.76875	68.26250	273.20938	
14:17:43	71.54688	76.40000	60.95937	69.62500	278.53125	
14:18:36	72.46562	77.35938	62.02187	70.69375	282.54062	
14:19:28	71.54688	76.51875	61.12500	69.75938	278.95001	
14:20:21	70.84062	75.85938	60.40313	69.08125	276.18438	
14:21:13	70.41250	75.39375	59.90313	68.60625	274.31563	
14:22:06	72.39687	77.26875	61.88125	70.52187	282.06874	
14:22:58	72.81250	77.70313	62.38438	70.95625	283.85626	
14:23:50	71.68125	76.62500	61.32500	69.90000	279.53125	
14:24:43	71.22500	76.12187	60.75000	69.29375	277.39062	
14:25:35	70.64063	75.54375	60.22500	68.82500	275.23438	Stop
14:26:28	71.21250	76.17188	60.79063	69.38750	277.56251	
14:27:20	71.67188	76.55625	61.20937	69.85313	279.29063	
14:28:13	71.94375	76.74375	61.44688	70.02500	280.15938	
14:29:05	71.75000	76.59375	61.33750	69.86875	279.55000	

Unit 3
Test Run 1
Coal Feeders
11/2/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
14:29:58	71.30937	76.16250	60.94062	69.53125	277.94374	
14:30:50	71.30937	76.06250	60.79688	69.41563	277.58438	
14:31:43	70.62187	75.45313	60.14687	68.70937	274.93124	
14:32:35	70.56250	75.46562	60.06250	68.75313	274.84375	
14:33:28	71.23438	76.13438	60.86250	69.51563	277.74689	
14:34:20	70.54375	75.41563	60.08437	68.66250	274.70625	
14:35:12	69.60625	74.53750	59.12500	67.75938	271.02813	
14:36:05	69.85625	74.86875	59.47187	68.18125	272.37812	Start
14:36:57	69.87500	74.78750	59.44375	68.05625	272.16250	
14:37:50	70.00625	74.89687	59.51563	68.17812	272.59687	
14:38:42	70.69688	75.54688	60.24688	68.83750	275.32814	
14:39:35	70.51563	75.41875	60.07813	68.71875	274.73126	
14:40:27	70.44688	75.41563	60.09063	68.70937	274.66251	
14:41:20	71.42188	76.29688	60.91563	69.57500	278.20939	
14:42:12	73.69375	78.45313	63.17812	71.78438	287.10938	
14:43:05	73.45000	78.24687	62.97500	71.57188	286.24375	
14:43:57	72.31563	77.18750	61.84063	70.52812	281.87188	
14:44:49	70.96250	75.83750	60.50312	69.17500	276.47812	
14:45:42	71.05937	75.95313	60.63438	69.31563	276.96251	
14:46:34	70.20313	75.11562	59.84063	68.50313	273.66251	
14:47:27	69.75938	74.70937	59.27500	67.98125	271.72500	
14:48:19	70.22500	75.17812	59.78125	68.56250	273.74687	
14:49:12	70.64687	75.58437	60.23750	68.88125	275.34999	
14:50:04	71.01563	75.84062	60.50625	69.10313	276.46563	
14:50:57	70.77812	75.61875	60.23750	68.96562	275.59999	
14:51:49	70.74687	75.65312	60.27813	69.02500	275.70312	
14:52:42	71.13125	75.91250	60.64375	69.39687	277.08437	
14:53:34	70.74375	75.59062	60.26875	69.02812	275.63124	
14:54:27	72.39687	77.15938	61.91250	70.37187	281.84062	
14:55:19	73.10000	77.95313	62.63750	71.30312	284.99375	
14:56:11	71.24062	76.08750	60.70937	69.30937	277.34686	
14:57:04	71.71250	76.43750	61.18125	69.71875	279.05000	
14:57:56	71.77187	76.70313	61.31875	69.87187	279.66562	
14:58:49	71.55000	76.39063	61.05000	69.70000	278.69063	
14:59:41	72.15312	76.97813	61.61250	70.24062	280.98437	
15:00:34	71.97188	76.72813	61.32500	69.93125	279.95626	
15:01:26	72.12187	76.90625	61.71563	70.02500	280.76875	

Unit 3
Test Run 1
Coal Feeders
11/2/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
15:02:19	71.37187	76.22813	60.89375	69.55937	278.05312	
15:03:11	71.43750	76.37187	61.03125	69.64063	278.48125	
15:04:04	71.98125	76.75938	61.50938	70.15312	280.40313	
15:04:56	71.90312	76.74687	61.43438	70.07500	280.15937	
15:05:49	71.82188	76.70625	61.42500	69.99375	279.94688	Stop
15:06:41	71.20625	76.01563	60.80312	69.38750	277.41250	
15:07:33	70.51875	75.41875	60.07500	68.78125	274.79375	
15:08:26	69.59375	74.65000	59.25000	67.94375	271.43750	
15:09:18	70.63438	75.57188	60.20625	68.85313	275.26564	
15:10:11	71.74062	76.58125	61.17812	69.85000	279.34999	
15:11:03	71.62500	76.55937	61.26250	69.89687	279.34374	
15:11:56	71.83750	76.82500	61.44688	70.09688	280.20626	
15:12:48	71.47500	76.37813	61.00938	69.65938	278.52189	
15:13:41	71.34375	76.04375	60.65625	69.39063	277.43438	
15:14:33	71.34062	76.43437	60.90625	69.53750	278.21874	
15:15:26	71.18437	76.14063	60.72500	69.34375	277.39375	
15:16:18	72.14063	76.99375	61.58437	70.21875	280.93750	
15:17:10	72.44375	77.30625	61.90625	70.55625	282.21250	Start
15:18:03	72.36562	77.22188	62.00938	70.54063	282.13751	
15:18:55	72.04375	76.79375	61.59687	70.21250	280.64687	
15:19:48	70.68437	75.60000	60.32188	68.97500	275.58125	
15-20:40	71.19688	75.95000	60.72500	69.25000	277.12188	
15:21:33	71.40000	76.15625	60.95000	69.58750	278.09375	
15:22:25	71.15312	75.89375	60.49375	69.34375	276.88437	
15:23:18	70.55937	75.43437	59.97187	68.75938	274.72499	
15:24:10	70.54375	75.18125	59.81875	68.63125	274.17500	
15:25:03	70.20625	75.06250	59.77500	68.37500	273.41875	
15:25:55	70.01250	75.04063	59.88125	68.30312	273.23750	
15:26:48	70.57500	75.31563	59.85313	68.65000	274.39376	
15:27:40	71.23125	76.05625	60.65000	69.26563	277.20313	
15:28:32	71.59062	76.43750	61.04375	69.71250	278.78437	
15:29:25	73.24687	78.03438	62.54063	71.08750	284.90938	
15:30:17	71.89375	76.66875	61.40625	69.94063	279.90938	
15:31:10	71.58750	76.53438	61.15313	69.86562	279.14063	
15-32:02	71.06563	76.02812	60.64687	69.36250	277.10312	
15:32:55	70.48125	75.45000	60.06250	68.73125	274.72500	
15:33:47	70.76250	75.68750	60.31562	69.04688	275.81250	

Unit 3
Test Run 1
Coal Feeders
11/2/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
15:34:40	70.06250	75.10938	59.60938	68.24687	273.02813	
15:35:32	71.40000	76.27187	60.99062	69.59688	278.25937	
15:36:25	71.40000	76.26875	60.91875	69.58125	278.16875	
15:37:17	72.29375	77.09062	61.78437	70.44063	281.60937	
15:38:09	72.30312	77.05625	61.68438	70.36562	281.40937	
15:39:02	71.81250	76.70000	61.33437	69.96250	279.80937	
15:39:54	71.65625	76.43750	61.14687	69.76875	279.00937	
15:40:47	72.31563	77.15000	61.78437	70.42812	281.67812	
15:41:39	71.70937	76.57813	61.24062	69.87187	279.39999	
15:42:32	71.29375	76.09688	60.81875	69.37813	277.58751	
15:43:24	71.58437	76.33750	61.06875	69.66563	278.65625	
15:44:17	70.25313	75.18437	59.83125	68.52812	273.79687	
15:45:09	70.21250	75.07813	59.62188	68.38125	273.29376	
15:46:02	70.43125	75.25313	59.95000	68.65000	274.28438	
15:46:54	71.51875	76.42188	61.06562	69.66875	278.67500	End
15:47:47	71.53125	76.38125	61.05938	69.73750	278.70938	
15:48:39	70.97500	75.94688	60.64063	69.25313	276.81564	
15:49:31	71.11875	75.97813	60.61562	69.22500	276.93750	
15:50:24	70.46562	75.44688	60.07188	68.77187	274.75625	
15:51:16	71.08750	76.04375	60.68125	69.66875	277.48125	
15:52:09	70.66250	75.56563	60.25312	68.85000	275.33125	
15:53:01	70.52187	75.42812	60.11562	68.69063	274.75624	
15-53:54	71.70313	76.49062	61.20000	69.82813	279.22188	
15:54:46	71.60938	76.48750	61.20000	69.76563	279.06251	
15:55:39	72.94063	77.84375	62.55938	71.17812	284.52188	
15:56:31	73.21875	78.03750	62.72187	71.36875	285.34687	
15:57:24	72.08437	76.90625	61.63125	70.23438	280.85625	
15:58:16	70.70937	75.78750	60.32813	69.01250	275.83750	
15:59:09	70.08750	75.04375	59.72500	68.41563	273.27188	
16:00:01	71.12500	76.10313	60.63125	69.28438	277.14376	
16:00:53	72.59688	77.40938	62.11562	70.72813	282.85001	
16:01:46	72.68125	77.51250	62.25938	70.79688	283.25001	
16:02:38	72.35313	77.17188	61.90625	70.62813	282.05939	
16:03:31	70.94063	75.92812	60.54063	69.21250	276.62188	
16:04:23	70.30312	75.08437	59.67812	68.31875	273.38436	
16:05:16	70.67188	75.61250	60.28125	68.97500	275.54063	
16:06:08	71.75625	76.64687	61.28750	69.93750	279.62812	

Unit 3
Test Run 1
Coal Feeders
11/2/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
16:07:01	72.59375	77.47813	62.28125	70.79063	283.14376	
16:07:53	72.01875	76.91563	61.61562	70.22500	280.77500	
16:08:46	72.38438	77.21250	61.87500	70.43437	281.90625	
16:09:38	72.32500	77.22813	61.83750	70.50938	281.90001	
16:10:30	71.66563	76.56875	61.34687	70.00000	279.58125	
16:11:23	72.07188	76.92188	61.55000	70.09688	280.64064	
16:12:15	71.05937	76.05000	60.64375	69.25938	277.01250	
16:13:08	70.43125	75.33125	59.99375	68.69688	274.45313	
16:14:00	70.95313	75.80312	60.45937	69.16250	276.37812	
16:14:53	71.66875	76.57813	61.30938	69.95625	279.51251	
16:15:45	71.70000	76.54375	61.23125	69.79063	279.26563	
16:16:38	72.00938	76.88750	61.55000	70.26875	280.71563	
16-17:30	71.78438	76.70313	61.35625	69.90312	279.74688	
16:18:23	71.34688	76.19063	60.83437	69.60938	277.98126	
16:19:15	71.47813	76.38438	60.99375	69.60000	278.45626	
16:20:08	71.53438	76.30000	60.95937	69.61875	278.41250	
16:21:00	71.10000	75.99062	60.60625	69.26250	276.95937	
16:21:52	70.65625	75.54375	60.19688	68.95937	275.35625	
16:22:45	70.64687	75.49062	60.15313	68.86250	275.15312	
16:23:37	71.88438	76.77812	61.40313	70.13750	280.20313	
16:24:30	72.05625	76.90938	61.58437	70.16250	280.71250	
16:25:22	72.64375	77.48750	62.19375	70.76563	283.09063	
16:26:15	73.13125	77.86875	62.57813	71.25000	284.82813	
16:27:07	72.18437	77.03125	61.72187	70.32500	281.26249	
16:28:00	72.57188	77.57500	62.22187	70.80000	283.16875	
16:28:52	72.21875	77.05625	61.70313	70.29375	281.27188	
16:29:45	72.25938	76.96875	61.64063	70.26875	281.13751	
16:30:37	72.14063	76.79375	61.72813	70.30312	280.96563	
16:31:29	71.89063	76.64063	61.42188	70.08125	280.03439	
16:32:22	69.32188	74.24687	58.90313	67.54375	270.01563	
16:33:14	69.36250	74.28125	58.90625	67.49062	270.04062	
16:34:07	70.33437	75.31250	59.87500	68.56563	274.08750	
16:34:59	72.14687	76.88125	61.66875	70.27500	280.97187	
16:35:52	72.26563	77.04688	61.82500	70.40000	281.53751	
16:36:44	72.66875	77.61562	62.29688	71.00938	283.59063	
16:37:37	72.52500	77.32188	62.06250	70.65312	282.56250	
16:38:29	71.47813	76.17812	60.93125	69.58125	278.16875	

Unit 3
Test Run 1
Coal Feeders
11/2/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
16:39:22	71.17812	76.15312	60.75938	69.44688	277.53750	
16:40:14	70.65625	75.54063	60.08750	68.85938	275.14376	
16:41:07	71.84375	76.71562	61.27187	70.06250	279.89374	
16:41:59	72.97188	77.76563	62.48438	71.12813	284.35002	
16:42:51	73.76875	78.55937	63.28750	71.82188	287.43750	
16:43:44	72.25625	77.00000	61.63125	70.33750	281.22500	
16:44:36	70.13438	75.05625	59.62812	68.36250	273.18125	
16:45:29	69.30000	74.33750	58.87812	67.60938	270.12500	
16:46:21	70.04375	74.93750	59.56562	68.21562	272.76249	
16:47:14	71.57188	76.42812	61.09063	69.74375	278.83438	
16:48:06	71.89687	76.71875	61.43125	70.04375	280.09062	
16:48-59	72.37813	77.23438	61.86562	70.52500	282.00313	
16:49:51	72.73750	77.64375	62.24062	70.97188	283.59375	
16:50:44	71.83125	76.65312	61.32188	69.91875	279.72500	
16:51:36	71.99687	76.80000	61.49688	70.11250	280.40625	

Overall Daily Summary

Average	**70.92481**	**76.50922**	**60.93261**	**69.59301**	**277.95965**
Maximum	**74.26250**	**80.05625**	**63.74375**	**72.45937**	**289.43437**
Minimum	**67.42500**	**73.38750**	**58.07500**	**66.73438**	**266.54689**

Unit 2 Test Run 1 Summary

Average	**71.28510**	**76.16087**	**60.81875**	**69.46085**	**277.72557**
Maximum	**73.69375**	**78.45313**	**63.17812**	**71.78438**	**287.10938**
Minimum	**68.34688**	**73.38750**	**58.07813**	**66.73438**	**266.54689**

Unit 3
Process Analog Data Listing
Test Run 1

Point		U3_02_wet_O3	U3_02_dry_O3	U3_Load_O3	U3_Heat Input_07	U3_NOx__ mBtu_07	U3_H20_ %_07	U3_CO2_%_07	U3_SO2m mBtu_07	U3_Flo _Hr_07
Units		%	%	MWatt	mmBtu/hr	#/mmbtu	%	%	SO_2 mmBtu	SCFH
Full Scale	Time	20.00	20.00	350	9000	1.000	100.00	1000.00	1.20	61080000
11/02/99	12:15	5.2	5.7	283	3,030	0.384	8.77	13.39	0.68	44,664,000
11/02/99	12:16	5.2	5.7	283	3,020	0.380	8.77	13.39	0.68	44,514,000
11/02/99	12:17	5.3	5.7	283	3,070	0.384	7.02	13.39	0.68	44,406,000
11/02/99	12:18	5.3	5.7	283	3,075	0.395	7.02	13.39	0.68	44,472,000
11/02/99	12:19	5.3	5.8	283	3,008	0.396	8.62	13.30	0.68	44,556,000
11/02/99	12:20	5.4	5.8	284	3,064	0.392	6.90	13.30	0.67	44,550,000
11/02/99	12:21	5.3	5.8	284	3,007	0.387	8.62	13.30	0.68	44,538,000
11/02/99	12:22	5.4	5.9	283	2,992	0.395	8.47	13.21	0.67	44,538,000
11/02/99	12:23	5.3	5.8	283	3,013	0.389	8.62	13.30	0.67	44,628,000
11/02/99	12:24	5.4	5.8	283	3,069	0.392	6.90	13.30	0.67	44,628,000
11/02/99	12:25	5.2	5.6	283	3,102	0.380	7.14	13.47	0.67	44,628,000
11/02/99	12:26	5.4	5.8	282	3,069	0.391	6.90	13.30	0.67	44,628,000
11/02/99	12:27	5.1	5.6	281	3,042	0.377	8.93	13.47	0.67	44,628,000
11/02/99	12:28	5.2	5.6	281	3,102	0.383	7.14	13.47	0.66	44,622,000
11/02/99	12:29	5.1	5.5	282	3,117	0.374	7.27	13.56	0.67	44,610,000
11/02/99	12:30	5.2	5.6	282	3,103	0.380	7.14	13.47	0.67	44,640,000
11/02/99	12:31	5.3	5.8	283	3,016	0.390	8.62	1,330	0.67	44,682,000
11/02/99	12:32	5.4	5.9	284	3,001	0.399	8.47	13.21	0.67	44,682,000
11/02/99	12:33	5.6	6.1	283	2,974	0.410	8.20	13.03	0.67	44,736,000
11/02/99	12:34	5.5	6.0	282	2,990	0.399	8.33	13.12	0.67	44,742,000
11/02/99	12:35	5.4	5.8	282	3,090	0.388	6.90	13.30	0.67	44,922,000
11/02/99	12:36	5.3	5.8	282	3,033	0.392	8.62	13.30	0.67	44,922,000
11/02/99	12:37	5.3	5.8	282	3,035	0.388	8.62	13.30	0.67	44,964,000
11/02/99	12:38	5.2	5.7	282	3,052	0.382	8.77	13.39	0.67	44,994,000
11/02/99	12:39	5.3	5.8	282	3,033	0.390	8.62	13.30	0.67	44,922,000
11/02/99	12:40	5.3	5.7	282	3,103	0.389	7.02	13.39	0.67	44,880,000
11/02/99	12:41	5.4	5.9	282	3,012	0.403	8.47	13.21	0.67	44,844,000
11/02/99	12:42	5.5	6.0	281	2,938	0.407	8.33	13.12	0.67	44,718,000
11/02/99	12:43	5.5	6.0	280	2,988	0.411	8.33	13.12	0.67	44,718,000
11/02/99	12:44	5.5	5.9	280	3,056	0.401	6.78	13.21	0.66	44,670,000
11/02/99	12:45	5.4	5.8	281	3,072	0.398	6.90	13.30	0.67	44,670,000
11/02/99	12:46	5.2	5.7	282	3,042	0.390	8.77	13.39	0.67	44,844,000
11/02/99	12:47	5.2	5.7	283	3,050	0.387	8.77	13.39	0.67	44,958,000
11/02/99	12:48	5.4	5.8	283	3,092	0.394	6.90	13.30	0.67	44,958,000
11/02/99	12:49	5.4	5.9	283	3,026	0.405	8.47	13.21	0.66	45,048,000
11/02/99	12:50	5.4	5.8	282	3,099	0.396	6.90	13.30	0.66	45,054,000
11/02/99	12:51	5.3	5.8	282	3,035	0.398	8.62	13.30	0.66	44,964,000
11/02/99	12:52	5.1	5.6	283	3,065	0.391	8.93	13.47	0.66	44,958,000
11/02/99	12:53	5.2	5.7	284	3,047	0.401	8.77	13.39	0.66	44,916,000
11/02/99	12:54	5.5	6.0	283	2,998	0.416	8.33	13.12	0.66	44,868,000
11/02/99	12:55	5.50	6.00	283	2999	0.409	8.33	13.12	0.66	44,874,000
11/02/99	12:56	5.60	6.10	282	2978	0.418	8.20	13.03	0.67	44,796,000
11/02/99	12:57	5.70	6.20	281	2962	0.419	8.06	12.95	0.66	44,796,000
11/02/99	12:58	5.50	6.00	280	3003	0.406	8.33	13.12	0.66	44,946,000
11/02/99	12:59	5.40	5.80	280	3095	0.400	6.90	13.30	0.66	45,000,000
11/02/99	13:00	5.20	5.70	280	3057	0.400	8.77	13.39	0.66	45,066,000
11/02/99	13:01	5.40	5.80	281	3107	0.409	6.90	13.30	0.66	45,180,000
11/02/99	13:02	5.41	5.71	282	3184D	0.393D	5.26D	13.39D	0.65D	45,192,000
11/02/99	13:03	5.41	6.01	283	2971D	0.407D	10.00	13.12D	0.67D	45,288,000
11/02/99	13:04	5.60	6.00	283	3078	0.415	6.67	13.12	0.66	45,240,000
11/02/99	13:05	5.50	5.90	282	3081	0.406	6.78	13.21	0.66	45,036,000
11/02/99	13:06	5.50	6.00	282	3009	0.407	8.33	13.12	0.66	45,030,000
11/02/99	13:07	5.50	5.90	281	3073	0.407	6.78	13.21	0.66	44,922,000
11/02/99	13:08	5.20	5.60	281	3122	0.387	7.14	13.47	0.66	44,910,000
11/02/99	13:09	5.20	5.70	281	3039	0.390	8.77	13.39	0.66	44,802,000
11/02/99	13:10	5.20	5.60	282	3107	0.390	7.14	13.47	0.66	44,694,000
11/02/99	13:11	5.30	5.70	282	3091	0.392	7.02	13.39	0.66	44,700,000
11/02/99	13:12	5.40	5.80	282	3073	0.401	6.90	13.30	0.66	44,682,000
11/02/99	13:13	5.40	5.90	282	3001	0.401	8.47	13.21	0.66	44,682,000
11/02/99	13:14	5.40	5.90	282	3004	0.404	8.47	13.21	0.66	44,718,000
11/02/99	13:15	5.40	5.90	282	3004	0.405	8.47	13.21	0.66	44,718,000
11/02/99	13:16	5.30	5.70	283	3087	0.394	7.02	13.39	0.65	44,652,000
11/02/99	13:17	5.30	5.60	284	3160	0.384	5.36	13.47	0.66	44,610,000
11/02/99	13:18	5.50	6.00	284	2995	0.410	8.33	13.12	0.66	44,676,000
11/02/99	13:19	5.60	6.00	284	3045	0.411	6.67	13.12	0.66	44,760,000
11/02/99	13:20	5.50	6.00	282	2991	0.411	8.33	13.12	0.66	44,760,000
11/02/99	13:21	5.40	6.00	281	2935	0.408	10.00	13.12	0.66	44,742,000
11/02/99	13:22	5.30	5.80	281	3020	0.396	8.62	13.30	0.66	44,736,000
11/02/99	13:23	5.20	5.70	281	3040	0.395	8.77	13.39	0.66	44,814,000
11/02/99	13:24	5.20	5.70	282	3042	0.390	8.77	13.39	0.66	44,844,000
11/02/99	13:25	5.40	5.80	283	3084	0.398	6.90	13.30	0.66	44,844,000
11/02/99	13:26	5.50	6.00	283	2997	0.409	8.33	13.12	0.66	44,844,000
11/02/99	13:27	5.70	6.10	283	3034	0.416	6.56	13.03	0.66	44,844,000
11/02/99	13:28	5.60	6.00	281	3052	0.414	6.67	13.12	0.66	44,856,000
11/02/99	13:29	5.30	5.70	282	3103	0.396	7.02	13.39	0.66	44,880,000
11/02/99	13:30	5.10	5.60	282	3060	0.385	8.93	13.47	0.66	44,892,000
11/02/99	13:31	5.20	5.70	282	3037	0.395	8.77	13.39	0.66	44,766,000
11/02/99	13:32	5.30	5.70	283	3094	0.396	7.02	13.39	0.66	44,742,000
11/02/99	13:33	5.10	5.60	283	3054	0.382	8.93	13.47	0.66	44,802,000
11/02/99	13:34	5.20	5.60	284	3117	0.386	7.14	13.47	0.66	44,850,000
11/02/99	13:35	5.20	5.7	283	3044	0.390	8.77	13.39	0.66	44,868,000
11/02/99	13:36	5.30	5.80	283	3030	0.396	8.62	13.30	0.66	44,886,000
11/02/99	13:37	5.20	5.60	283	3119	0.385	7.14	13.47	0.66	44,874,000
11/02/99	13:38	5.30	5.70	282	3094	0.390	7.02	13.39	0.66	44,742,000
11/02/99	13:39	5.10	5.60	282	3050	0.381	8.93	13.47	0.66	44,742,000
11/02/99	13:40	5.20	5.70	282	3029	0.388	8.77	13.39	0.66	44,646,000
11/02/99	13:41	5.30	5.60	283	3162	0.386	5.36	13.47	0.66	44,634,000
11/02/99	13:42	5.40	5.80	283	3073	0.398	6.90	13.30	0.67	44,676,000
11/02/99	13:43	5.50	6.00	283	2986	0.407	8.33	13.12	0.67	44,682,000
11/02/99	13:44	5.40	5.90	283	3001	0.395	8.47	13.21	0.66	44,682,000
11/02/99	13:45	5.40	5.80	283	3073	0.390	6.90	13.30	0.66	44,688,000
11/02/99	13:46	5.50	6.00	283	2988	0.398	8.33	13.12	0.67	44,712,000
11/02/99	13:47	5.30	5.70	283	3104	0.388	7.02	13.39	0.66	44,886,000

Unit 3
Process Analog Data Listing
Test Run 1

Point		U3_02_wet_O3	U3_02_dry_O3	U3_Load_O3	U3_Heat Input_07	U3_NOx__ mBtu_07	U3_H20_ %_07	U3_CO2_%_07	U3_SO2m mBtu_07	U3_Flo _Hr_07
Units		%	%	MWatt	mmBtu/hr	#/mmbtu	%	%	SO_2 mmBtu	SCFH
Full Scale	Time	20.00	20.00	350	9000	1.000	100.00	1000.00	1.20	61080000
11/02/99	13:48	5.50	5.90	282	3070	0.402	6.78	13.21	0.67	44,880,000
11/02/99	13:49	5.50	5.90	282	3067	0.397	6.78	13.21	0.67	44,838,000
11/02/99	13:50	5.40	5.90	283	3009	0.396	8.47	13.21	0.68	44,790,000
11/02/99	13:51	5.60	6.10	282	3000	0.409	8.20	13.03	0.67	45,138,000
11/02/99	13:52	5.60	6.10	281	3016	0.408	8.20	13.03	0.67	45,378,000
11/02/99	13:53	5.70	6.10	280	3070	0.412	6.56	13.03	0.66	45,372,000
11/02/99	13:54	5.60	6.00	279	3084	0.404	6.67	13.12	0.66	45,324,000
11/02/99	13:55	5.30	5.80	280	3061	0.391	8.62	13.30	0.67	45,342,000
11/02/99	13:56	5.40	5.80	281	3121	0.397	6.90	13.30	0.66	45,378,000
11/02/99	13:57	5.40	6.00	281	2972	0.410	10.00	13.12	0.67	45,300,000
11/02/99	13:58	5.50	5.90	281	3088	0.404	6.78	13.21	0.66	45,144,000
11/02/99	13:59	5.40	5.90	281	3032	0.399	8.47	13.21	0.67	45,138,000
11/02/99	14:00	5.40	5.90	281	3034	0.402	8.47	13.21	0.66	45,168,000
11/02/99	14:01	5.60	6.00	280	3075	0.413	6.67	13.12	0.66	45,198,000
11/02/99	14:02	5.4D	5.9D	280	3032D	0.396D	8.47D	13.21D	0.66D	45,138,000
11/02/99	14:03	5.5D	6.0D	280	3007D	0.403D	8.33D	13.12D	0.66D	44,994,000
11/02/99	14:04	5.50	6.00	280	3007	0.405	8.33	13.12	0.66	45,000,000
11/02/99	14:05	5.50	6.00	280	2999	0.406	8.33	13.12	0.66	44,880,000
11/02/99	14:06	5.50	6.00	281	2999	0.402	8.33	13.12	0.66	44,874,000
11/02/99	14:07	5.30	5.80	282	3023	0.388	8.62	13.30	0.66	44,784,000
11/02/99	14:08	5.30	5.80	282	3020	0.396	8.62	13.30	0.66	44,736,000
11/02/99	14:09	5.60	6.10	282	2980	0.414	8.20	13.03	0.66	44,826,000
11/02/99	14:10	5.50	6.00	281	2997	0.404	8.33	13.12	0.66	44,850,000
11/02/99	14:11	5.60	6.00	280	3051	0.409	6.67	13.12	0.66	44,850,000
11/02/99	14:12	5.30	5.80	280	3029	0.395	8.62	13.30	0.66	44,868,000
11/02/99	14:13	5.20	5.60	281	3117	0.382	7.14	13.47	0.66	44,838,000
11/02/99	14:14	5.40	5.80	281	3083	0.394	6.90	13.30	0.66	44,832,000
11/02/99	14:15	5.30	5.80	281	3026	0.394	8.62	13.30	0.66	44,832,000
11/02/99	14:16	5.50	5.90	281	3054	0.399	6.78	13.21	0.66	44,646,000
11/02/99	14:17	5.40	5.90	281	2998	0.404	8.47	13.21	0.66	44,628,000
11/02/99	14:18	5.50	5.90	280	3049	0.407	6.78	13.21	0.66	44,568,000
11/02/99	14:19	5.40	5.80	280	3063	0.400	6.90	13.30	0.66	44,532,000
11/02/99	14:20	5.10	5.60	281	3033	0.388	8.93	13.47	0.66	44,496,000
11/02/99	14:21	5.30	5.80	282	3003	0.397	8.62	13.30	0.66	44,478,000
11/02/99	14:22	5.50	5.90	282	3045	0.403	6.78	13.21	0.66	44,514,000
11/02/99	14:23	5.50	6.00	282	2994	0.409	8.33	13.12	0.66	44,808,000
11/02/99	14:24	5.60	6.10	282	2979	0.412	8.20	13.03	0.66	44,814,000
11/02/99	14:25	5.60	6.00	282	3049	0.406	6.67	13.12	0.66	44,814,000
11/02/99	14:26	5.70	6.20	281	2963	0.417	8.06	12.95	0.66	44,814,000
11/02/99	14:27	5.60	6.00	281	3049	0.407	6.67	13.12	0.66	44,814,000
11/02/99	14:28	5.60	6.00	281	3050	0.404	6.67	13.12	0.66	44,832,000
11/02/99	14:29	5.60	6.00	281	3050	0.405	6.67	13.12	0.66	44,832,000
11/02/99	14:30	5.70	6.10	281	3059	0.415	6.56	13.03	0.66	45,216,000
11/02/99	14:31	5.70	6.10	281	3061	0.418	6.56	13.03	0.65	45,246,000
11/02/99	14:32	5.60	6.10	280	3013	0.411	8.20	13.03	0.66	45,330,000
11/02/99	14:33	5.50	5.90	280	3103	0.402	6.78	13.21	0.66	45,366,000
11/02/99	14:34	5.30	5.70	280	3138	0.390	7.02	13.39	0.66	45,378,000
11/02/99	14:35	5.20	5.70	281	3079	0.390	8.77	13.39	0.66	45,384,000
11/02/99	14:36	5.40	5.80	281	3113	0.404	6.90	13.30	0.66	45,258,000
11/02/99	14:37	5.40	5.80	281	3096	0.395	6.90	13.30	0.66	45,012,000
11/02/99	14:38	5.40	5.80	281	3090	0.398	6.90	13.30	0.66	44,928,000
11/02/99	14:39	5.50	5.90	281	3062	0.408	6.78	13.21	0.66	44,754,000
11/02/99	14:40	5.50	6.00	280	2991	0.412	8.33	13.12	0.66	44,754,000
11/02/99	14:41	5.40	5.80	281	3071	0.401	6.90	13.30	0.66	44,652,000
11/02/99	14:42	5.40	5.80	281	3067	0.402	6.90	13.30	0.66	44,592,000
11/02/99	14:43	5.50	5.90	281	3054	0.408	6.78	13.21	0.66	44,640,000
11/02/99	14:44	5.40	5.90	282	3002	0.399	8.47	13.21	0.66	44,700,000
11/02/99	14:45	5.30	5.80	282	3019	0.396	8.62	13.30	0.67	44,718,000
11/02/99	14:46	5.50	5.90	282	3070	0.405	6.78	13.21	0.66	44,880,000
11/02/99	14:47	5.50	5.90	281	3071	0.398	6.78	13.21	0.66	44,886,000
11/02/99	14:48	5.40	5.90	281	3017	0.397	8.47	13.21	0.66	44,922,000
11/02/99	14:49	5.40	5.80	281	3091	0.400	6.90	13.30	0.66	44,940,000
11/02/99	14:50	5.60	5.90	280	3129	0.407	5.08	13.21	0.66	44,922,000
11/02/99	14:51	5.70	6.10	280	3028	0.418	6.56	13.03	0.66	44,760,000
11/02/99	14:52	5.40	5.70	280	3153	0.400	5.26	13.39	0.65	44,760,000
11/02/99	14:53	5.30	5.80	280	3011	0.402	8.62	13.30	0.66	44,598,000
11/02/99	14:54	5.40	5.80	281	3065	0.401	6.90	13.30	0.66	44,562,000
11/02/99	14:55	5.30	5.80	281	3013	0.401	8.62	13.30	0.66	44,634,000
11/02/99	14:56	5.40	5.80	281	3073	0.402	6.90	13.30	0.66	44,682,000
11/02/99	14:57	5.40	5.80	282	3075	0.402	6.90	13.30	0.66	44,712,000
11/02/99	14:58	5.20	5.70	282	3039	0.395	8.77	13.39	0.66	44,790,000
11/02/99	14:59	5.50	6.00	282	2995	0.411	8.33	13.12	0.66	44,814,000
11/02/99	15:00	5.50	6.00	281	3005	0.412	8.33	13.12	0.66	44,976,000
11/02/99	15:01	5.50	6.00	281	3005	0.408	8.33	13	0.66	44,976,000
11/02/99	15:02	5.5D	6.11	281	2947D	0.417D	9.84D	13.03D	0.67D	45,144,000
11/02/99	15:03	5.5D	6.0D	281	3018D	0.412D	8.33D	13.12D	0.67D	45,168,000
11/02/99	15:04	5.50	6.00	281	3023	0.411	8.33	13.12	0.66	45,234,000
11/02/99	15:05	5.40	5.90	281	3041	0.406	8.47	13.21	0.66	45,270,000
11/02/99	15:06	5.50	6.00	281	3022	0.416	8.33	13.12	0.66	45,222,000
11/02/99	15:07	5.40	5.80	281	3106	0.398	6.90	13.30	0.66	45,162,000
11/02/99	15:08	5.40	5.80	282	3104	0.402	6.90	13.30	0.66	45,126,000
11/02/99	15:09	5.40	5.90	281	3023	0.408	8.47	13.21	0.66	45,012,000
11/02/99	15:10	5.50	5.90	281	3080	0.408	6.78	13.21	0.66	45,018,000
11/02/99	15:11	5.30	5.80	282	3037	0.396	8.62	13.30	0.66	44,988,000
11/02/99	15:12	5.50	5.90	281	3077	0.409	6.78	13.21	0.66	44,982,000
11/02/99	15:13	5.60	6.00	281	3057	0.415	6.67	13.12	0.66	44,934,000
11/02/99	15:14	5.30	5.80	281	3033	0.396	8.62	13.30	0.66	44,922,000
11/02/99	15:15	5.50	6.00	281	3007	0.408	8.33	13.12	0.66	45,000,000
11/02/99	15:16	5.30	5.70	282	3123	0.391	7.02	13.39	0.65	45,162,000
11/02/99	15:17	5.50	5.90	282	3090	0.409	6.78	13.21	0.66	45,168,000
11/02/99	15:18	5.60	6.00	281	3074	0.419	6.67	13.12	0.66	45,180,000
11/02/99	15:19	5.60	6.00	280	3074	0.414	6.67	13.12	0.66	45,180,000
11/02/99	15:20	5.40	5.90	281	3050	0.409	8.47	13.21	0.66	45,408,000

Unit 3
Process Analog Data Listing
Test Run 1

Point		U3_02_wet_O3	U3_02_dry_O3	U3_Load_O3	U3_Heat Input_07	U3_NOx__ mBtu_07	U3_H20_ %_07	U3_CO2_%_07	U3_SO2m mBtu_07	U3_Flo _Hr_07
Units		%	%	MWatt	mmBtu/hr	#/mmbtu	%	%	SO_2 mmBtu	SCFH
Full Scale	Time	20.00	20.00	350	9000	1.000	100.00	1000.00	1.20	61080000
11/02/99	15:21	5.30	5.80	282	3069	0.399	8.62	13.30	0.66	45,456,000
11/02/99	15:22	5.40	5.90	282	3045	0.408	8.47	13.21	0.66	45,336,000
11/02/99	15:23	5.40	5.90	282	3035	0.407	8.47	13.21	0.66	45,180,000
11/02/99	15:24	5.40	5.90	282	3034	0.406	8.47	13.21	0.66	45,174,000
11/02/99	15:25	5.50	5.90	282	3090	0.407	6.78	13.21	0.66	45,174,000
11/02/99	15:26	5.50	5.90	282	3090	0.407	6.78	13.21	0.66	45,174,000
11/02/99	15:27	5.50	6.00	282	3019	0.411	8.33	13.12	0.66	45,180,000
11/02/99	15:28	5.50	6.00	281	3015	0.413	8.33	13.12	0.66	45,126,000
11/02/99	15:29	5.20	5.60	282	3122	0.390	7.14	13.47	0.66	44,922,000
11/02/99	15:30	5.20	5.60	282	3122	0.388	7.14	13.47	0.66	44,922,000
11/02/99	15:31	5.30	5.80	282	3023	0.400	8.62	13.30	0.66	44,778,000
11/02/99	15:32	5.40	5.90	282	3000	0.406	8.47	13.21	0.66	44,664,000
11/02/99	15:33	5.40	5.90	282	3001	0.403	8.47	13.21	0.66	44,676,000
11/02/99	15:34	5.40	5.80	282	3077	0.399	6.90	13.30	0.66	44,736,000
11/02/99	15:35	5.30	5.80	282	3020	0.396	8.62	13.30	0.66	44,730,000
11/02/99	15:36	5.30	5.70	282	3107	0.391	7.02	13.39	0.66	44,934,000
11/02/99	15:37	5.30	5.80	282	3034	0.393	8.62	13.30	0.66	44,940,000
11/02/99	15:38	5.40	5.80	282	3097	0.398	6.90	13.30	0.66	45,030,000
11/02/99	15:39	5.40	5.90	282	3027	0.404	8.47	13.21	0.66	45,060,000
11/02/99	15:40	5.40	5.80	282	3097	0.394	6.90	13.30	0.66	45,024,000
11/02/99	15:41	5.40	5.80	281	3095	0.399	6.90	13.30	0.66	44,994,000
11/02/99	15:42	5.30	5.80	281	3035	0.397	8.62	13.30	0.65	44,958,000
11/02/99	15:43	5.30	5.70	281	3101	0.394	7.02	13.39	0.65	44,850,000
11/02/99	15:44	5.20	5.60	282	3116	0.381	7.14	13.47	0.66	44,826,000
11/02/99	15:45	5.40	5.90	283	3004	0.394	8.47	13.21	0.67	44,718,000
11/02/99	15:46	5.50	6.00	283	2991	0.406	8.33	13.12	0.67	44,760,000
11/02/99	15:47	5.70	6.30	283	2911	0.423	9.52	12.86	0.67	45,036,000
11/02/99	15:48	5.90	6.40	282	2945	0.429	7.81	12.77	0.67	45,036,000
11/02/99	15:49	5.90	6.30	280	3033	0.428	6.35	12.86	0.66	45,336,000
Average		**5.40**	**5.90**	**282**	**3048**	**0.400**	**7.73**	**13.25**	**0.66**	**44,887,535**
Minimum		**5.10**	**5.50**	**279**	**2911**	**0.374**	**5.08**	**12.77**	**0.65**	**44,406,000**
Maximum		**5.90**	**6.40**	**284**	**3162**	**0.429**	**10.00**	**13.56**	**0.68**	**45,456,000**
Missing (%)		**0.00**	**0.00**	**0.00**	**_0**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Invalid (%)		**2.79**	**2.79**	**0.00**	**2.79**	**2.79**	**2.79**	**2.79**	**2.79**	**0.00**
O O Cal (%)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
In Cal (%)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Valid (%)		**97.21**	**97.21**	**100.00**	**97.21**	**97.21**	**97.21**	**97.21**	**97.21**	**100.00**
Available (%)		**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

M	**MissingData**	**F**	**PowerFailure**	**P**	**InPurge**	**f**	**DiscreteMissing**	**D**	**Downed**	**C**	**InCalibration**
O	**Part60-OOC**	**O**	**Part75-OOC**	**B**	**NoSamples**	**<**	**TooFewSamples**	**r**	**Reserved-1**	**u**	**Reserved-2**
A	**HighAlarm**	**a**	**LowAlarm**	**m**	**EPA-MinC02MaxO2**	**G**	**EPA_AppG_C02**	**>**	**EnoughSamples**	**E**	**Edited**
S	**StackOffline**	**!**	**PrimaryMonitor**	**@**	**BackupMonitor**	**#**	**Alternate**	**$**	**ReferenceMethod**	**%**	**Parametric**
^	**Average_HB_HA**	**&**	**Init_QA_Hrs_Avg**	*****	**90thPercentile**	**(**	**95thPercentile**	**)**	**Binmaximum**	**-**	**BinAverage**
+	**MaxPotential**	**|**	**Other**								

Unit 3
11/2/1999
Process Data
Test Run 1

	DRY O_2 UNIT-LOAD				OPACITY WET O_2 FGAS - FLO UNIT - LOAD MN - STM							SO2_1HR_E NO_1HR_E ASH_PR_W ASH_PR_E A - ROW B-ROW C-ROW D-ROW E-ROW F-ROW DRY-02-3 UNIT-LOAD FURN-PRE FW-FLOW U3-02														
TIME	%	MW	Comment	TIME	%	%		MW	°F	Comment	TIME	lb/mmBtu	lb/mmBtu										%	MW		%	Comment
12:20:06	5.8438	283.4781	Start	12:20:31	6.5563	5.3738	742.5938	283.4453	1,000.9688	Start	12:20:06	0.6800	0.3780	4.8000	4.8663	0.3332	0.0000	0.6666	0.0000	0.0000	0.0000	5.8438	283.4781	-0.4373	864.8750	2.4447 Start
12:20:58	5.8180	283.6641		12:21:36	6.6750	5.3456	742.4063	283.8391	999.6094		12:20:59	0.6800	0.3780	4.1663	4.2663	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.8211	283.6094	-0.4920	859.5313	2.4428
12:21:51	5.7742	283.7078		12:22:42	7.5375	5.3281	742.2188	283.3578	997.9219		12:21:51	0.6800	0.3780	2.9331	3.0000	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.7797	283.7625	-0.5688	848.5000	2.4888
12:22:43	5.8141	283.3578		12:23:48	6.6281	5.4069	743.2188	283.1610	996.7031		12:22:43	0.6800	0.3780	2.8663	2.9663	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.8047	283.3797	-0.5078	849.8125	2.5013
12:23:36	5.8805	283.1719		12:24:53	6.4000	5.3863	743.7500	283.0297	996.0000		12:23:36	0.6800	0.3780	2.8000	2.9331	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.8805	283.1828	-0.5568	863.4063	2.4372
12:24:28	5.8578	283.0953		12:25:59	6.2531	5.2975	743.7500	282.6906	996.2344		12:24:28	0.6800	0.3780	2.8663	2.9663	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.8523	283.0953	-0.4790	868.5000	2.3681
12:25:21	5.8039	282.9312		12:27:04	6.4094	5.3281	743.7500	281.9359	996.8906		12:25:21	0.6800	0.3780	2.8000	2.9000	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.8289	282.9531	-0.4888	864.9688	2.2928
12:26:13	5.6648	282.4828		12:28:10	6.6188	5.2075	743.8125	281.4547	997.7813		12:26:13	0.6800	0.3780	2.7331	2.8663	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.6680	282.5484	-0.4515	847.7500	2.4703
12:27:06	5.8594	281.8156		12:29:15	6.4125	5.1819	743.6563	281.4875	998.9063		12:27:06	0.6800	0.3780	3.3663	3.4000	0.0000	0.0000	0.3332	0.6666	0.0000	0.0000	5.8422	281.8813	-0.5248	840.2188	2.2019
12:27:58	5.6516	281.4547		12:30:21	6.5500	5.0431	743.5625	282.1109	1,000.4063		12:27:58	0.6800	0.3780	3.7000	3.6331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.6891	281.4656	-0.4365	854.0625	2.2763
12:28:51	5.5664	281.4547		12:31:27	6.6938	5.1650	744.2188	282.5703	1,001.6250		12:28:51	0.6800	0.3780	3.6331	3.6331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.5563	281.4438	-0.4810	866.3438	2.1531
12:29:43	5.6094	281.6625		12:32:32	6.7125	5.2831	744.7188	283.5547	1,001.3438		12:29:43	0.6800	0.3780	3.6000	3.5663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.6180	281.5750	-0.5190	864.7813	2.1191
12:30:35	5.5539	282.3078		12:33:38	7.0750	5.4769	745.0938	283.5109	999.3281		12:30:36	0.6800	0.3780	5.3663	5.4000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.5508	282.3078	-0.4345	854.5938	2.3166
12:31:28	5.6703	282.6359		12:34:43	7.0031	5.6094	745.6875	282.7453	996.9844		12:31:28	0.6800	0.3780	8.6000	8.6331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.6508	282.5484	-0.4393	848.3438	2.4709
12:32:20	5.8406	283.5328		12:35:49	7.5719	5.5231	747.5000	282.3297	995.8125		12:32:21	0.6800	0.3780	8.2331	8.2331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8438	283.5328	-0.5508	851.0313	2.5403
12:33:13	5.8883	283.7078		12:36:55	7.0469	5.2656	748.6875	282.0344	995.9063		12:33:13	0.6800	0.3780	9.1331	9.1000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8703	283.6859	-0.5193	857.6563	2.6656
12:34:05	6.1258	283.1063		12:38:00	6.8813	5.3213	749.2500	281.7062	996.7500		12:34:05	0.6800	0.3780	8.0663	8.1331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.1023	283.1938	-0.5125	861.0625	2.6572
12:34:58	6.0531	282.5156		12:39:06	6.7031	5.2269	749.8750	282.0234	997.5469		12:34:58	0.6800	0.3780	7.4663	7.5331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.0641	282.5703	-0.5615	858.0313	2.4928
12:35:50	5.9266	282.3297		12:40:11	6.6375	5.2344	748.6875	282.0453	997.8750		12:35:50	0.6800	0.3780	7.2000	7.2000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9508	282.3297	-0.4823	858.9688	2.3769
12:36:43	5.7844	282.0891		12:41:17	7.1406	5.2081	748.0313	282.2531	998.0625		12:36:43	0.6800	0.3780	6.2663	6.2000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.7828	282.1656	-0.4990	866.2813	2.4306
12:37:35	5.8492	281.7172		12:42:22	7.2563	5.4069	746.8750	281.5422	997.8750		12:37:35	0.6800	0.3780	5.9663	5.9331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8477	281.7281	-0.4643	866.8750	2.3113
12:38:28	5.7805	281.7500		12:43:28	7.0250	5.4706	745.2500	280.8094	997.3594		12:38:28	0.6800	0.3780	3.9000	3.9000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.7969	281.7062	-0.3468	849.5313	2.3644
12:39:20	5.6719	282.1766		12:44:34	7.1688	5.5806	744.9375	280.1750	997.0313		12:39:20	0.6800	0.3780	3.5331	3.5331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.6555	282.1766	-0.2590	842.3438	2.4678
12:40:12	5.7742	282.0125		12:45:39	6.8156	5.4044	744.4688	280.3828	997.6875		12:40:13	0.6800	0.3780	3.9000	3.8331	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.7813	282.0234	-0.4660	828.3438	2.3925
12:41:05	5.6906	282.2531		12:46:45	6.8906	5.2594	745.3438	281.2141	999.5156		12:41:05	0.6800	0.3780	3.5663	3.5663	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.6938	282.2203	-0.6435	841.4688	2.5856
12:41:57	5.7438	281.7609		12:47:50	6.7000	5.2156	749.3750	282.6797	1,001.2500		12:41:58	0.6800	0.3780	3.6000	3.5663	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.7250	281.8485	-0.6720	867.7813	2.6584
12:42:50	6.0586	281.1812		12:48:56	6.9000	5.2438	749.2813	283.4234	1,001.6719		12:42:50	0.6800	0.3780	3.5663	3.5331	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	6.0422	281.2359	-0.6093	882.1875	2.7050
12:43:42	5.9742	280.5906		12:50:01	6.9875	5.4250	750.0000	282.7235	1,000.5000	Stop	12:43:42	0.6800	0.3780	3.5331	3.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.9734	280.6781	-0.5170	863.4688	2.6775
12:44:35	6.0500	280.1750		12:51:07	6.8188	5.4100	750.8750	282.0125	998.8125		12:44:35	0.6800	0.3780	3.5331	3.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	6.0625	280.1750	-0.5605	840.6875	2.5028
12:45:27	5.8391	280.2734		12:52:13	6.7875	5.2469	749.5000	282.0781	998.4844		12:45:27	0.6800	0.3780	3.5000	3.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.8633	280.2078	-0.5363	842.4688	2.3525
12:46:20	5.7547	280.8203		12:53:18	7.0250	5.0963	749.2813	283.2813	999.7031		12:46:20	0.6800	0.3780	3.5331	3.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.7594	280.8203	-0.4193	859.2188	2.2966
12:47:12	5.7156	282.1656		12:54:24	6.7844	5.2263	748.3125	283.6969	1,000.0781		12:47:12	0.6800	0.3780	3.2663	3.4000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.7070	281.9797	-0.4498	858.1250	2.3506
12:48:05	5.7203	282.9531		12:55:29	6.9406	5.5381	747.8125	283.4125	998.5313		12:48:05	0.6800	0.3780	5.9000	5.9663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.7438	282.8766	-0.2058	859.3750	2.4741
12:48:57	5.7047	283.4562		12:56:35	6.9969	5.4344	747.3438	283.0297	995.7188		12:48:57	0.6800	0.3780	7.5331	7.6331	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.6813	283.4891	-0.3103	845.9063	2.5731
12:49:50	5.9758	282.8328	Stop	12:57:40	6.7500	5.6031	746.6250	281.3344	992.6250		12:49:50	0.6800	0.3780	7.5663	7.6000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.9602	282.8547	-0.3418	841.8125	2.5309 Stop
12:50:42	5.8680	282.1000		12:58:46	6.6406	5.6400	747.6563	280.1094	991.3594	Start	12:50:42	0.6800	0.3780	7.1331	7.2000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8781	282.1656	-0.7363	854.1875	2.5006
12:51:34	5.8195	282.0234		12:59:52	7.0813	5.4569	749.9688	279.5953	992.4844		12:51:35	0.6800	0.3780	7.3000	7.3331	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8242	282.0234	-0.6430	873.0000	2.5838
12:52:27	5.7602	282.4172		13:00:57	6.9906	5.2394	750.5000	279.7703	995.6719		12:52:27	0.6800	0.3780	6.2000	6.2663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.7742	282.2750	-0.6120	868.6875	2.3553
12:53:19	5.5227	283.2922		13:02:03	6.7375	9.4506	752.9688	280.4047	998.6719		12:53:20	0.6800	0.3780	5.8663	5.8663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.5547	283.2375	-0.3973	854.5938	2.6794
12:54:12	5.7188	283.7625		13:03:08	6.8625	6.0894	753.1875	281.7609	1,000.7813		12:54:12	0.6800	0.3780	4.7000	4.8000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.6852	283.7625	-0.4910	839.9063	2.8441
12:55:04	6.0516	283.4453		13:04:14	6.3813	5.3244	754.8125	282.8438	1,000.7344		12:55:04	0.6800	0.3780	3.4000	3.5000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	6.0266	283.4781	-0.4883	837.5625	2.7253
12:55:57	6.0352	283.3687		13:05:19	6.3781	5.5744	753.1875	282.4391	998.8125		12:55:57	0.6800	0.3780	5.0000	5.0663	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	6.0391	283.3797	-0.4503	844.4688	2.7438
12:56:49	6.0438	282.6031		13:06:25	6.3750	5.5113	750.5938	282.0125	996.9375		12:56:49	0.6800	0.3780	3.5331	3.6331	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	6.0313	282.8000	-0.4875	858.3438	2.8013
12:57:42	6.1313	281.1375	Start	13:07:31	6.4781	5.6113	750.0000	281.3672	995.7656		12:57:42	0.6800	0.3780	3.0331	3.1000	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	6.1273	281.2141	-0.4035	854.2813	2.7553 Start
12:58:34	6.1258	280.2297		13:08:36	6.5625	5.4156	748.4688	281.0500	996.2344		12:58:34	0.6800	0.3780	2.8331	2.9331	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	6.1414	280.2844	-0.4780	854.9688	2.5597
12:59:27	5.8734	279.5953		13:09:42	7.1844	5.2500	748.1563	281.0172	997.8750	Stop	12:59:27	0.6800	0.3780	2.8000	2.9000	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.8977	279.6172	-0.3923	852.9375	2.4831
13:00:19	5.8383	279.5953		13:10:47	6.9125	5.2669	744.9063	281.2578	999.8438		13:00:19	0.6800	0.3780	2.7663	2.8663	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.8570	279.5953	-0.5435	849.3438	2.5503
13:01:12	5.6570	279.9344		13:11:53	7.3281	5.2056	744.9688	281.7281	1,001.4844		13:01:12	0.6700	0.3910	2.7663	2.8663	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.6242	279.8687	-0.5855	856.2813	2.5356
13:02:04	11.2453	280.5360		13:12:58	6.8594	5.3138	744.6875	281.7938	1,002.0469		13:02:04	0.6700	0.3910	2.5663	2.6663	0.0000	0.6666	0.0000	0.3332	0.0000	0.0000	10.7188	280.4484	-0.5883	858.0625	2.3247
13:02:57	5.9508	281.7609		13:14:04	6.9750	5.3881	744.6250	281.7828	1,001.7188		13:02:57	0.6700	0.3910	3.5331	3.5331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.5008	281.6297	-0.4795	856.9688	2.4088
13:03:49	5.7344	282.6141		13:15:10	6.6500	5.4125	745.1875	281.7828	1,001.2969		13:03:49	0.6700	0.3910	3.6000	3.6000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.7281	282.4937	-0.5725	846.0313	2.6578
13:04:42	5.9063	282.6797		13:16:15	6.8406	5.4644	745.2500	281.6078	1,001.1094		13:04:42	0.6700	0.3910	3.6000	3.6000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8828	282.7344	-0.5693	844.0000	2.6950
13:05:34	5.9922	282.3297		13:17:21	6.6688	5.3100	744.0000	282.8875	1,001.5313		13:05:34	0.6700	0.3910	3.5663	3.5663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9875	282.3625	-0.6135	849.6250	2.5800
13:06:27	6.0031	281.9578		13:18:26	6.5875	5.2413	743.4688	283.8937	1,001.7656		13:06:27	0.6700	0.3910	6.7663	6.7663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9945	282.0234	-0.4613	846.6250	2.6938
13:07:19	5.9844	281.4547		13:19:32	6.7500	5.4738	745.4063	284.2109	1,000.6875		13:07:19	0.6700	0.3910	8.5331	8.5331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.0078	281.5203	-0.5150	852.5938	2.5222
13:08:12	5.8891	280.9953		13:20:37	6.6875	5.6200	746.0000	282.9641	998.7656		13:08:12	0.6700	0.3910	8.3331	8.4000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8867	280.9953	-0.4153	847.1563	2.2497
13:09:04	5.6805	281.1594	Stop	13:21:43	6.4063	5.5419	745.8125	281.8485	997.4063		13:09:04	0.6700	0.3910	8.8000	8.8000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.7055	281.1375	-0.4648	838.0313	2.3119 Stop
13:09:57	5.5648	280.9078		13:22:49	6.4094	5.3756	745.6250	281.1594	997.5469		13:09:57	0.6700	0.3910	7.2331	7.3000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.5805	280.9406	-0.4760	832.5938	2.2628
13:10:49	5.6602	281.3672		13:23:54	6.2500	5.2238	746.4063	280.8859	999.0469		13:10:49	0.6700	0.3910	6.9663	7.0000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.6609	281.2797	-0.5308	839.7500	2.2613
13:11:42	5.5383	281.7172		13:25:00	6.3750	5.2844	747.4063	282.1875	1,001.0156		13:11:42	0.6700	0.3910	6.7663	6.7000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.5320	281.6953	-0.5770	846.0938	2.4356
13:12:34	5.7117	281.8047		13:26:05	6.4625	5.2969	747.4688	282.8219	1,002.0469		13:12:34	0.6700	0.3910	5.5331	5.5331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.7047	281.8047	-0.5535	853.6875	2.5291
13:13:26	5.8633	281.7828		13:27:11	6.5719	5.4594	747.3750	282.9750	1,001.5781		13:13:27	0.6700	0.3910	5.8331	5.8331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8445	281.7828	-0.5595	864.0000	2.5309
13:14:19	5.8148	281.7828		13:28:16	6.6313	5.6131	747.4375	282.5047	999.7969		13:14:19	0.6700	0.3910	3.8000	3.7663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8242	281.7828	-0.5233	858.1563	2.5131
13:15:11	5.7930	281.7828		13:29:22	6.7188	5.5369	747.6875	281.3125	998.5313		13:15:12	0.6700	0.3910	3.6331	3.6000	0.0000	0.0000	0.0000	0.6666	0.3332	0.0000	5.7938	281.7828	-0.4328	850.4688	2.5188
13:16:04	5.9242	281.5750		13:30:28	6.7844	5.1869	748.0938	281.9906	999.1875		13:16:04	0.6700	0.3910	3.9663	3.9331	0.0000	0.0000	0.0000	0.0000	0.9999	0.0000	5.9156	281.5969	-0.4963	848.2500	2.3966
13:16:56	5.7977	282.5266		13:31:33	6.7000	5.1400	747.5625	282.4500	1,000.9219		13:16:56	0.6700	0.3910	5.0331	5.0000	0.0000	0.0000	0.0000	0.0000	0.9999	0.0000	5.8133	282.3406	-0.4310	844.3438	2.2688
13:17:49	5.5945	283.4453		13:32:39	6.6031	5.2606	745.6563	282.5266	1,002.3750		13:17:49	0.6700	0.3910	5.7000	5.7331	0.0000	0.0000	0.0000	0.0000	0.9999	0.0000	5.6102	283.3469	-0.4963	851.8750	2.6097
13:18:41	5.8430	284.0797		13:33:44	6.5906	5.1725	745.8750	282.9531	1,002.9844		13:18:41	0.6700	0.3910	4.5000	4.5000	0.0000	0.0000	0.0000	0.0000	0.9999	0.0000	5.8063	284.0578	-0.5280	855.2813	2.5497
13:19:34	5.9000	284.2328		13:34:50	6.3219	5.1500	747.5313	283.5766	1,003.0781		13:19:34	0.6700	0.3910	4.8663	4.8663	0.0000	0.0000	0.0000	0.0000	0.9999	0.0000	5.9023	284.2328	-0.4338	853.2188	2.7491

Unit 3
11/2/1999
Process Data
Test Run 1

	DRY O_2 UNIT-LOAD				OPACITY WET O_2 FGAS - FLO UNIT - LOAD MN - STM							SO2_1HR_E NO_1HR_E ASH_PR_W ASH_PR_E A - ROW B-ROW C-ROW D-ROW E-ROW F-ROW DRY-02-3 UNIT-LOAD FURN-PRE FW-FLOW U3-02															
TIME	%	MW	Comment	TIME	%	%		MW	°F	Comment	TIME	lb/mmBtu	lb/mmBtu										%	MW			%	Comment
13:20:26	6.0469	283.0734		13:35:55	6.5938	5.2306	747.5938	283.5000	1,002.4219		13:20:26	0.6700	0.3910	3.7331	3.7000	0.0000	0.0000	0.0000	0.0000	0.9999	0.0000	6.0227	283.2594	-0.2593	841.8125	2.7091	
13:21:19	5.9500	282.1875		13:37:01	6.2250	5.2806	748.1250	283.2047	1,001.2031		13:21:19	0.6700	0.3910	3.6000	3.5331	0.0000	0.0000	0.0000	0.0000	0.9999	0.0000	5.9500	282.3078	-0.2248	829.1875	2.5694	
13:22:11	5.9719	281.3234		13:38:07	6.2250	5.2044	748.0313	282.6688	999.9375		13:22:11	0.6700	0.3910	3.3331	3.3663	0.6666	0.0000	0.0000	0.0000	0.3332	0.0000	5.9961	281.3453	-0.3965	828.7813	2.3866	
13:23:03	5.7813	281.0500		13:39:12	6.0500	5.2769	745.6875	281.8375	999.4219		13:23:04	0.6700	0.3910	3.0331	3.1000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8055	281.0719	-0.5095	849.5938	2.3966	
13:23:56	5.6836	280.8422		13:40:18	6.4250	5.1769	745.6563	281.8813	1,000.1719		13:23:56	0.6700	0.3910	2.9000	3.0000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.6828	280.8641	-0.6188	869.0313	2.3478	
13:24:48	5.7000	282.0672		13:41:23	6.5344	5.2219	743.8438	282.3406	1,001.8594		13:24:49	0.6700	0.3910	2.8331	3.0000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.6977	281.8266	-0.5100	868.8438	2.4356	
13:25:41	5.7188	282.9094		13:42:29	6.7875	5.1906	743.9688	283.0406	1,003.5000		13:25:41	0.6700	0.3910	3.3000	3.4000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.7156	282.9203	-0.5758	844.0625	2.6225	
13:26:33	5.8766	282.7016		13:43:35	6.8156	5.4238	744.7500	282.8438	1,004.4375		13:26:33	0.6700	0.3910	5.4331	5.5000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8477	282.7125	-0.6013	833.3438	2.6138	
13:27:26	5.9648	283.2047		13:44:40	6.5313	5.5456	744.6875	282.6031	1,004.2969		13:27:26	0.6700	0.3910	8.0331	8.1331	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.9719	283.1610	-0.6588	843.7188	2.7797	
13:28:18	6.0609	282.2531		13:45:46	6.4875	5.4231	744.7500	282.8656	1,003.7813		13:28:18	0.6700	0.3910	8.2331	8.3000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	6.0367	282.3844	-0.5715	861.6563	2.6403	
13:29:11	6.0313	281.3125		13:46:51	6.6125	5.4569	744.7500	282.7016	1,002.5156		13:29:11	0.6700	0.3910	7.5331	7.6000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	6.0484	281.4328	-0.4685	851.0938	2.3584	
13:30:03	5.8219	281.7609		13:47:57	6.7625	5.3913	747.6250	282.7891	1,001.1094		13:30:03	0.6700	0.3910	7.7331	7.7663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8703	281.6625	-0.5598	843.2500	2.1816	
13:30:56	5.5555	282.2531		13:49:02	7.7938	5.3456	748.0000	282.1766	999.1406		13:30:56	0.6700	0.3910	6.2331	6.3331	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.5500	282.2203	-0.4895	843.4375	2.3434	
13:31:48	5.6211	282.4609		13:50:08	7.6375	5.5150	747.3750	282.3188	997.3594		13:31:48	0.6700	0.3910	5.8000	5.8663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.6211	282.4500	-0.5610	855.6875	2.3750	
13:32:41	5.6602	282.5484		13:51:14	7.6000	5.3719	746.5000	282.5266	996.8906		13:32:41	0.6700	0.3910	4.7663	4.8331	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.6555	282.5156	-0.4020	855.3438	2.2394	
13:33:33	5.6313	282.8328		13:52:19	7.9094	5.5475	753.5938	281.9906	997.5000		13:33:33	0.6700	0.3910	3.3331	3.4331	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.6461	282.7453	-0.4770	843.0625	2.2156	
13:34:25	5.5359	283.5328		13:53:25	6.9219	5.6019	756.3125	280.7328	998.6250		13:34:26	0.6700	0.3910	5.1000	5.1663	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.5359	283.5328	-0.4083	835.2500	2.3809	
13:35:18	5.6047	283.6531		13:54:30	7.0000	5.7088	755.8438	279.3000	1,000.3594		13:35:18	0.6700	0.3910	3.3000	3.4000	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.5875	283.6422	-0.4958	837.2500	2.3778	
13:36:10	5.7742	283.3687		13:55:36	7.0000	5.4750	755.4375	279.3547	1,002.9375		13:36:11	0.6700	0.3910	2.8663	2.9663	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.7641	283.4125	-0.5128	841.3438	2.4609	
13:37:03	5.8398	283.1610		13:56:41	6.9313	5.3394	756.1875	280.2953	1,005.7969		13:37:03	0.6700	0.3910	2.8663	3.0000	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.8438	283.1828	-0.5178	858.4063	2.2509	
13:37:55	5.6789	282.7125		13:57:47	7.1750	5.3881	756.3438	280.8641	1,007.0625		13:37:55	0.6700	0.3910	2.8331	2.9331	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.7117	282.7891	-0.4015	867.6250	2.3581	
13:38:48	5.7023	282.0781		13:58:53	6.8969	5.5044	752.4063	281.0063	1,006.9688		13:38:48	0.6700	0.3910	2.9000	3.0331	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.6859	282.1437	-0.3120	850.5000	2.2709	
13:39:40	5.6891	281.6844		13:59:58	6.7094	5.3988	752.3125	281.3344	1,006.0781		13:39:40	0.6700	0.3910	2.8000	2.8663	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.6984	281.6516	-0.2563	840.0000	2.1275	
13:40:33	5.5461	282.0016		14:01:04	6.8125	5.5019	752.7188	281.0938	1,005.1406		13:40:33	0.6700	0.3910	2.9000	3.0000	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.5477	281.9578	-0.3540	836.1250	2.2066	
13:41:25	5.6500	282.3953		14:02:09	7.0750	10.0038	753.2188	280.4703	1,004.3438		13:41:25	0.6700	0.3910	3.8000	3.8331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.6500	282.3953	-0.4470	840.1563	2.3022	
13:42:18	5.6688	283.0625		14:03:15	6.7563	5.7850	752.0313	280.2844	1,004.6250		13:42:18	0.6700	0.3910	3.7000	3.7000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.6602	283.0078	-0.5808	852.4375	2.5013	
13:43:10	5.8156	282.9094		14:04:20	7.0156	5.3425	749.9063	280.2953	1,005.7031		13:43:10	0.6700	0.3910	3.6000	3.5663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8008	282.9422	-0.6918	860.4375	2.6263	
13:44:02	5.9258	282.6359		14:05:26	7.2219	5.5350	749.5313	280.4484	1,006.6406		13:44:03	0.6700	0.3910	3.6000	3.6000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9117	282.6688	-0.7050	851.2188	2.4722	
13:44:55	6.0023	282.7344		14:06:32	7.0281	5.6194	747.9063	280.5578	1,006.7344	Start	13:44:55	0.6700	0.3910	7.0000	7.0000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.0195	282.6906	-0.6008	840.3750	2.4100	
13:45:47	5.8727	282.8438		14:07:37	6.9219	5.4606	747.5313	281.3781	1,006.6875		13:45:48	0.6700	0.3910	9.0000	9.0331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8727	282.8656	-0.5400	838.5938	2.5172	
13:46:40	5.9094	282.7235		14:08:43	6.9781	5.2538	745.6563	282.1328	1,006.6875		13:46:40	0.6700	0.3910	8.8331	8.8331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9031	282.7235	-0.4648	848.7813	2.4328	
13:47:32	5.8977	282.6906		14:09:48	6.8563	5.4988	746.4063	282.2969	1,005.6094		13:47:32	0.6700	0.3910	9.1331	9.1331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9180	282.6578	-0.4468	842.5000	2.3238	
13:48:25	5.7625	282.7235		14:10:54	6.7219	5.5294	747.4688	281.5641	1,003.7344		13:48:25	0.6700	0.3910	7.7331	7.7331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.7688	282.8438	-0.4260	848.6563	2.6478	
13:49:17	5.9336	281.9578		14:11:59	6.6125	5.5069	747.5000	280.1859	1,002.0469		13:49:17	0.6700	0.3910	6.9000	6.9000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9086	281.9250	-0.5065	856.8750	2.5516	
13:50:10	5.9313	282.3953		14:13:05	6.5906	5.3650	747.7188	280.2297	1,001.9063		13:50:10	0.6700	0.3910	6.8331	6.8331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9438	282.3953	-0.4243	850.3438	2.6325	
13:51:02	5.8141	282.5484		14:14:11	6.8438	5.3000	747.3438	280.7437	1,003.6406		13:51:02	0.6700	0.3910	5.9663	5.9663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.7891	282.5266	-0.3868	841.4688	2.7563	
13:51:55	5.9797	282.1766		14:15:16	6.7625	5.2938	747.1875	281.1266	1,005.3281		13:51:55	0.6700	0.3910	7.1000	7.0663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9797	282.2313	-0.3903	842.0625	2.7691	
13:52:47	6.0977	281.5969		14:16:22	6.3781	5.3275	746.7188	281.4110	1,006.0313		13:52:47	0.6700	0.3910	5.6663	5.7000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.0719	281.6844	-0.2675	844.0313	2.8275	
13:53:40	6.1891	280.0766		14:17:27	6.2656	5.4844	743.8750	281.2469	1,005.6094		13:53:40	0.6700	0.3910	5.8331	5.8663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.1930	280.2406	-0.4995	846.5625	2.7506	
13:54:32	6.0313	279.2453		14:18:33	6.2500	5.3900	743.6875	280.6891	1,004.6719		13:54:32	0.6700	0.3910	3.8663	3.8000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.0484	279.2453	-0.6318	846.0625	2.4919	
13:55:24	5.8422	279.2891		14:19:38	6.0625	5.3944	742.2813	280.0875	1,004.1094		13:55:25	0.6700	0.3910	3.5663	3.5331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8664	279.2781	-0.7503	858.1875	2.4009	
13:56:17	5.7266	279.8359		14:20:44	6.3438	5.2819	741.8750	280.5797	1,004.6250		13:56:17	0.6700	0.3910	3.8331	3.8000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.7266	279.7375	-0.6123	857.8125	2.6281	
13:57:09	5.8828	280.9078		14:21:50	6.5063	5.2131	741.3125	281.4875	1,005.7031		13:57:10	0.6700	0.3910	3.6000	3.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.8594	280.8203	-0.5353	838.4063	2.6356	
13:58:02	5.9703	280.8203		14:22:55	6.9563	5.4194	741.2500	282.3297	1,006.1719		13:58:02	0.6700	0.3910	3.6000	3.6000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.9594	280.8312	-0.5050	840.0313	2.6175	
13:58:54	6.0258	281.0719		14:24:01	7.0969	5.4763	746.1563	282.4828	1,005.3750		13:58:54	0.6700	0.3910	3.5663	3.5331	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	6.0453	281.0391	-0.5525	848.9375	2.5444	
13:59:47	5.8961	281.3234		14:25:06	7.2031	5.5175	746.9375	282.1109	1,004.1094	Stop	13:59:47	0.6700	0.3910	3.5331	3.5331	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.9031	281.2906	-0.5073	844.3438	2.5063	
14:00:39	5.8484	281.2250		14:26:12	7.4375	5.5394	746.8750	281.9359	1,003.0313		14:00:39	0.6700	0.3910	3.5331	3.5331	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.8484	281.2797	-0.4378	848.3438	2.7272	
14:01:32	5.9531	280.7984		14:27:17	7.4000	5.6381	746.8438	281.4000	1,002.0000		14:01:32	0.6700	0.3910	3.5000	3.4331	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.9406	280.8531	-0.4295	851.2188	2.6378	
14:02:24	12.0219	280.3609		14:28:23	7.2781	5.6163	746.9688	281.1703	1,001.0625		14:02:24	0.6600	0.3980	3.5331	3.4331	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	12.0250	280.3719	-0.5378	845.5625	2.5219	
14:03:17	5.8430	280.2844		14:29:29	7.3531	5.5981	747.1563	281.0828	1,000.2188		14:03:17	0.6600	0.3980	3.4000	3.5000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8664	280.2844	-0.4938	849.2500	2.5213	
14:04:09	5.8086	280.2844		14:30:34	7.5969	5.5263	749.5000	281.2687	999.1406		14:04:09	0.6600	0.3980	6.0000	6.0663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.7906	280.2844	-0.4410	854.1250	2.6756	
14:05:02	5.9508	280.4484		14:31:40	6.9531	5.7200	754.0938	280.8531	997.3594		14:05:02	0.6600	0.3980	7.7663	7.8331	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.9461	280.4266	-0.3503	848.8438	2.6241	
14:05:54	6.0094	280.4047	Start	14:32:45	6.9281	5.6856	754.7500	280.3937	996.0469		14:05:54	0.6600	0.3980	7.6331	7.7000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	6.0094	280.4047	-0.3448	835.3438	2.6419	Start
14:06:46	6.0711	280.7875		14:33:51	6.5375	5.4856	756.0625	279.8906	996.1406		14:06:47	0.6600	0.3980	7.5331	7.6000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	6.0641	280.7109	-0.2790	834.4688	2.5091	
14:07:39	5.9039	281.4656		14:34:56	6.3031	5.4213	756.1875	280.0219	997.3594		14:07:39	0.6600	0.3980	8.2000	8.3000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.9281	281.3563	-0.3320	842.1250	2.4972	
14:08:31	5.8242	282.0891		14:36:02	6.3656	5.2894	756.3750	280.7875	998.8594	Start	14:08:32	0.6600	0.3980	6.8331	6.9331	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8313	282.0344	-0.3980	854.8438	2.6109	
14:09:24	5.8461	282.3625		14:37:08	6.6594	5.3900	754.4063	280.7547	999.6094		14:09:24	0.6600	0.3980	6.2663	6.3663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8281	282.3734	-0.4740	847.3750	2.7072	
14:10:16	6.0055	282.1766		14:38:13	6.9094	5.4406	750.2188	281.2250	999.1406		14:10:16	0.6600	0.3980	5.3331	5.5000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	6.0320	282.2203	-0.5135	848.3750	2.7131	
14:11:09	5.8688	280.8859		14:39:19	6.7188	5.3431	748.2500	281.2687	998.0156		14:11:09	0.6600	0.3980	3.8331	3.9000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8453	281.0828	-0.6153	850.8125	2.8203	
14:12:01	6.0086	280.1859		14:40:24	6.2969	5.5463	745.8750	280.3828	997.0781		14:12:01	0.6600	0.3980	5.0000	5.0663	0.3332	0.6666	0.0000	0.0000	0.0000	0.0000	6.0086	280.1969	-0.7463	848.6875	2.5200	
14:12:54	5.8594	280.1313		14:41:30	7.0656	5.5400	745.8750	280.1203	997.0313		14:12:54	0.6600	0.3980	4.9663	5.1000	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.8750	280.1203	-0.6385	842.0000	2.4019	
14:13:46	5.7656	280.6453		14:42:35	6.6563	5.4169	743.1250	281.0281	997.9688		14:13:46	0.6600	0.3980	3.5331	3.6331	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.7922	280.6234	-0.5390	843.1563	2.3966	
14:14:39	5.6469	280.9625		14:43:41	6.3063	5.3719	743.1875	280.8859	999.1406		14:14:39	0.6600	0.3980	3.2331	3.2663	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.6227	280.9188	-0.5635	851.1875	2.5194	
14:15:31	5.7961	281.2578		14:44:47	6.5938	5.4363	744.9375	281.2141	999.8906		14:15:31	0.6600	0.3980	3.0331	3.1000	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.7891	281.2141	-0.5463	857.6250	2.4409	
14:16:23	5.8469	281.4328		14:45:52	6.6094	5.3619	745.0000	282.1219	1,000.4063		14:16:24	0.6600	0.3980	2.8663	3.0000	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.8461	281.4110	-0.5200	855.5938	2.5481	
14:17:16	5.8852	281.2906		14:46:58	7.5219	5.4238	747.5000	281.9141	999.8906		14:17:16	0.6600	0.3980	2.8000	2.9000	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.8836	281.3234	-0.4558	854.8750	2.5428	
14:18:08	6.0070	280.8641		14:48:03	7.5031	5.4719	748.0625	281.3563	998.3906		14:18:09	0.6600	0.3980	2.7000	2.9000	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	6.0055	280.9406	-0.4280	852.7813	2.5475	
14:19:01	5.8297	280.3609		14:49:09	7.1281	5.4413	748.5938	281.1375	997.2656		14:19:01	0.6600	0.3980	3.2331	3.2663	0.0000	0.3332	0.0000	0.6666	0.0000	0.0000	5.8375	280.4266	-0.3060	841.3125	2.4597	
14:19:53	5.7992	279.9672		14:50:15	6.9719	5.4319	748.9688	281.1375	996.6563		14:19:53	0.6600	0.3980	3.6000	3.6000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8031	279.9453	-0.4203	830.7813	2.3169	

Unit 3
11/2/1999
Process Data
Test Run 1

	DRY O_2 UNIT-LOAD				OPACITY WET O_2 FGAS - FLO UNIT - LOAD MN - STM								SO_2_1HR_E NO_1HR_E ASH_PR_W ASH_PR_E A - ROW B-ROW C-ROW D-ROW E-ROW F-ROW DRY-02-3 UNIT-LOAD FURN-PRE FW-FLOW U3-02															
TIME	%	MW	Comment	TIME	%	%	MW	°F	Comment	TIME	lb/mmBtu	lb/mmBtu											%	MW			%	Comment
14:20:46	5.6547	280.7219		14:51:20	6.9781	5.5681	748.1250	280.2734	995.9531		14:20:46	0.6600	0.3980	3.6000	3.5663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.6641	280.6891	-0.5435	843.4688	2.4041	
14:21:38	5.6820	281.5094		14:52:26	7.1375	5.6925	746.0313	279.5187	995.5313		14:21:38	0.6600	0.3980	3.6000	3.5663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.6820	281.4110	-0.5990	858.6563	2.4947	
14:22:31	5.8844	282.1328		14:53:31	6.8156	5.3581	745.3438	280.1969	996.2344		14:22:31	0.6600	0.3980	4.9000	4.8663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8609	282.0453	-0.3720	863.3438	2.5372	
14:23:23	5.9141	282.4609		14:54:37	8.1031	5.3819	742.7188	280.2188	997.4531		14:23:23	0.6600	0.3980	8.1331	8.1663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9094	282.4281	-0.2653	842.3438	2.7159	
14:24:16	6.0289	282.3406		14:55:42	7.8906	5.3625	742.9063	280.8969	998.8594		14:24:16	0.6600	0.3980	9.0331	9.0331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.0117	282.3734	-0.3995	836.9063	2.6931	
14:25:08	6.1016	282.1328	Stop	14:56:48	6.8594	5.4438	744.6875	281.1594	999.7500		14:25:08	0.6600	0.3980	9.2331	9.2663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.1164	282.1109	-0.6328	839.4375	2.5897	Stop
14:26:01	6.0273	282.0562		14:57:54	6.6219	5.4219	744.7813	281.4328	999.7500		14:26:01	0.6600	0.3980	8.0663	8.0663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.0211	282.1547	-0.6838	850.0000	2.9466	
14:26:53	6.0742	281.3891		14:58:59	7.0656	5.2919	746.4688	281.8813	999.5156		14:26:53	0.6600	0.3980	8.0331	8.0331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.0711	281.3891	-0.5913	860.9063	2.8138	
14:27:45	6.0836	281.4328		15:00:05	6.6031	5.3813	746.6875	281.7719	998.5313		14:27:46	0.6600	0.3980	7.0663	7.1000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.1039	281.4219	-0.4863	857.9375	2.7494	
14:28:38	5.9484	280.9625		15:01:10	6.5063	5.5325	749.5938	281.2141	996.7969		14:28:38	0.6600	0.3980	6.8331	6.8663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9367	281.0063	-0.4483	848.9375	2.7488	
14:29:30	6.0727	281.1375		15:02:16	6.8031	10.0875	749.7188	280.9953	995.4375		14:29:31	0.6600	0.3980	7.0331	7.0663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.0734	281.1047	-0.4923	834.2500	2.6041	
14:30:23	5.9258	281.2578		15:03:21	6.9344	5.6431	752.7500	280.8094	995.2500		14:30:23	0.6600	0.3980	5.8331	5.8331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9422	281.2578	-0.4870	839.0938	2.8463	
14:31:15	6.1531	281.0281		15:04:27	6.9344	5.5744	752.7500	280.7000	995.8125		14:31:15	0.6600	0.3980	5.6000	5.6331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.1133	281.0938	-0.5108	845.5938	2.8534	
14:32:08	6.1555	280.6016		15:05:33	7.0219	5.4944	754.4688	280.9735	996.5625	Stop	14:32:08	0.6600	0.3980	3.7331	3.7331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.1555	280.6234	-0.5675	858.7188	2.7450	
14:33:00	6.1555	280.2406		15:06:38	7.4031	5.4163	754.5313	281.0609	997.0781		14:33:00	0.6600	0.3980	3.5663	3.5000	0.0000	0.0000	0.0000	0.9999	0.3332	0.0000	6.1805	280.2953	-0.5483	858.3750	2.5731	
14:33:53	6.0203	279.8469		15:07:44	7.6125	5.5700	752.8125	281.1594	997.0781		14:33:53	0.6600	0.3980	4.2331	4.2000	0.0000	0.0000	0.0000	0.0000	0.9999	0.0000	6.0305	279.8469	-0.5288	848.0625	2.4328	
14:34:45	5.9234	279.9453		15:08:49	7.8031	5.3319	752.7188	281.5641	997.0781		14:34:45	0.6600	0.3980	4.3331	4.3331	0.0000	0.0000	0.0000	0.0000	0.9999	0.0000	5.9438	279.9344	-0.5355	838.7188	2.2288	
14:35:38	5.6109	280.7109	Start	15:09:55	7.5813	5.3900	750.4063	281.4438	997.3125		14:35:38	0.6600	0.3980	4.1331	4.1000	0.0000	0.0000	0.0000	0.0000	0.9999	0.0000	5.6266	280.6453	-0.5578	846.6875	2.4281	Start
14:36:30	5.6867	280.6781		15:11:00	7.0125	5.4581	750.2813	281.3453	997.4063		14:36:30	0.6600	0.3980	3.9663	3.9000	0.0000	0.0000	0.0000	0.0000	0.9999	0.0000	5.6719	280.7000	-0.5358	849.8750	2.7047	
14:37:22	5.8781	280.9078		15:12:06	6.8281	5.3281	749.8438	281.6625	997.8750		14:37:23	0.6600	0.3980	3.6000	3.5663	0.0000	0.0000	0.0000	0.0000	0.9999	0.0000	5.8539	280.8641	-0.5018	851.7500	2.4725	
14:38:15	5.7570	281.2687		15:13:12	6.8688	5.4669	749.6563	281.2359	998.2031		14:38:15	0.6600	0.3980	3.6000	3.5663	0.0000	0.0000	0.0000	0.0000	0.9999	0.0000	5.7805	281.2141	-0.4800	843.0625	2.4941	
14:39:07	5.8445	281.3344		15:14:17	7.1563	5.5869	748.8438	280.9844	998.2500		14:39:08	0.6600	0.3980	3.6000	3.5663	0.0000	0.0000	0.0000	0.0000	0.9999	0.0000	5.8250	281.3891	-0.4725	848.9375	2.5953	
14:40:00	5.9227	280.7437		15:15:23	7.1313	5.3700	748.6875	281.1703	998.4844		14:40:00	0.6600	0.3980	3.4663	3.5000	0.3332	0.0000	0.0000	0.0000	0.6666	0.0000	5.9188	280.8312	-0.4218	847.3438	2.6716	
14:40:52	5.9484	279.9672		15:16:28	6.8031	5.4669	751.1875	281.3453	998.8125		14:40:52	0.6600	0.3980	3.1331	3.2331	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.9477	279.9453	-0.5073	850.8438	2.4766	
14:41:45	5.8227	280.2078		15:17:34	7.0375	5.3638	752.6875	281.8047	999.2344	Start	14:41:45	0.6600	0.3980	3.0663	3.1663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8461	280.2078	-0.4515	846.2188	2.4744	
14:42:37	5.7539	281.2578		15:18:39	6.7531	5.5150	752.8750	281.1156	999.1875		14:42:37	0.6600	0.3980	2.9331	3.0663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.7539	281.1266	-0.1258	838.2188	2.5753	
14:43:30	5.7945	280.8859		15:19:45	6.9469	5.5988	753.0000	280.2844	998.5313		14:43:30	0.6600	0.3980	2.8663	2.9000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.7859	280.9188	-0.0808	831.0000	2.5678	
14:44:22	6.0016	281.0063		15:20:51	6.8875	5.5375	755.1250	280.5031	998.3906		14:44:22	0.6600	0.3980	5.8000	5.8663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	6.0023	280.9735	-0.2960	835.4063	2.4650	
14:45:15	5.8602	281.8375		15:21:56	6.7688	5.2750	757.6563	281.3016	999.3281		14:45:15	0.6600	0.3980	7.6663	7.7663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8633	281.7172	-0.5450	845.0938	2.5281	
14:46:07	5.7469	282.1219		15:23:02	6.8313	5.4131	756.0938	281.6734	1,000.1250		14:46:07	0.6600	0.3980	8.4663	8.5000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.7461	282.1219	-0.6793	859.4375	2.6972	
14:47:00	5.8438	281.8594		15:24:07	6.8875	5.3725	753.0000	281.6516	1,000.2656		14:47:00	0.6600	0.3980	7.3000	7.3663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8438	281.9031	-0.6273	864.2813	2.6384	
14:47:52	5.8586	281.4110		15:25:13	6.9688	5.4838	752.9688	281.9906	1,000.3125		14:47:52	0.6600	0.3980	8.4000	8.4331	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8578	281.4438	-0.6070	857.3750	2.5847	
14:48:44	5.9531	281.1375		15:26:18	7.2313	5.4506	752.9063	282.1219	1,000.1250		14:48:45	0.6600	0.3980	7.1331	7.2000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.9414	281.1375	-0.5505	840.9375	2.5403	
14:49:37	5.8953	281.1375		15:27:24	8.2594	5.5319	752.9063	282.1656	999.7031		14:49:37	0.6600	0.3980	6.7000	6.8000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.9055	281.1375	-0.5000	838.3750	2.5291	
14:50:29	5.8453	281.0938		15:28:30	7.3625	5.5331	752.9688	281.5859	999.0938		14:50:30	0.6600	0.3980	5.9331	6.0331	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8516	281.1375	-0.4600	843.5313	2.7984	
14:51:22	5.9758	280.0875		15:29:35	6.7563	5.4475	751.1250	281.2578	998.7188		14:51:22	0.6600	0.3980	4.3331	4.5000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.9594	280.1203	-0.4390	851.5938	2.7309	
14:52:14	6.1547	279.5078		15:30:41	6.7469	5.2238	748.6875	281.9141	999.4219		14:52:14	0.6600	0.3980	5.2663	5.3331	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	6.1641	279.5734	-0.4738	850.2500	2.3841	
14:53:07	5.7492	280.0328		15:31:46	6.4438	5.3381	747.9063	282.0453	1,000.3125		14:53:07	0.6600	0.3980	3.5663	3.6663	0.6666	0.0000	0.3332	0.0000	0.0000	0.0000	5.7977	279.9453	-0.4668	846.5938	2.5363	
14:53:59	5.8016	280.1531		15:32:52	6.5781	5.3963	744.4063	281.8703	1,000.2188		14:53:59	0.6600	0.3980	4.6331	4.7663	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.7781	280.1641	-0.4893	841.6563	2.5238	
14:54:52	5.9023	280.4375		15:33:57	6.8063	5.2838	744.4375	281.7281	999.4688		14:54:52	0.6600	0.3980	3.0331	3.2000	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.9078	280.3828	-0.3408	844.7188	2.4313	
14:55:44	5.7547	280.9297		15:35:03	6.4281	5.3913	745.5000	281.5969	998.7188		14:55:44	0.6600	0.3980	2.8663	3.0000	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.7516	280.8969	-0.1888	839.8750	2.4919	
14:56:37	5.8492	281.1594		15:36:09	6.2188	5.2888	745.5000	281.5969	998.6250		14:56:37	0.6600	0.3980	2.9331	3.0663	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.8414	281.1594	-0.5220	838.9063	2.4791	
14:57:29	5.8938	281.1812		15:37:14	6.2781	5.3344	748.9063	281.9688	999.0469		14:57:29	0.6600	0.3980	2.8331	2.9331	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.8883	281.1594	-0.5635	843.5938	2.3791	
14:58:22	5.7477	281.8266		15:38:20	6.3188	5.3681	749.0000	282.1219	999.6563		14:58:22	0.6600	0.3980	2.8000	2.9663	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.7820	281.7719	-0.5163	839.8438	2.3525	
14:59:14	5.6477	281.9359		15:39:25	6.1625	5.3888	750.9375	281.8922	999.7969		14:59:14	0.6600	0.3980	2.8000	2.9331	0.0000	0.0000	0.9999	0.0000	0.0000	0.0000	5.6242	281.9250	-0.5228	843.2500	2.6641	
15:00:06	5.9125	281.7172		15:40:31	6.1344	5.4369	750.9063	281.8485	999.6563		15:00:07	0.6600	0.3980	3.1000	3.0663	0.0000	0.0000	0.6666	0.3332	0.0000	0.0000	5.9125	281.7500	-0.4485	849.9688	2.6350	
15:00:59	5.9586	281.2469		15:41:36	6.0906	5.4363	750.0000	281.5750	999.4688		15:00:59	0.6600	0.3980	3.6331	3.6000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9391	281.3234	-0.4775	849.4063	2.7147	
15:01:51	9.3477	280.9953		15:42:42	6.1406	5.4413	749.9375	281.2141	999.5156		15:01:52	0.6600	0.3980	3.6000	3.6331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	7.7711	280.9953	-0.3768	846.5938	2.6034	
15:02:44	9.0336	280.9188		15:43:48	6.5438	5.2888	747.7500	281.1703	999.3750		15:02:44	0.6600	0.3980	3.6000	3.6000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	10.1070	280.9406	-0.5500	848.5938	2.7297	
15:03:36	6.0008	280.7547		15:44:53	7.5531	5.2750	747.5313	281.8485	999.5625		15:03:36	0.6600	0.4040	3.4663	3.4331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9984	280.7656	-0.5268	846.1875	2.6438	
15:04:29	6.0203	280.7000		15:45:59	8.3750	5.2456	745.4688	282.6250	999.6563		15:04:29	0.6600	0.4040	6.9663	6.9663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.0148	280.7000	-0.5235	846.6250	2.5356	
15:05:21	5.9844	280.9625	Stop	15:47:04	7.5469	5.5050	745.5625	283.2047	998.7656	End	15:05:21	0.6600	0.4040	9.8331	9.9331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	6.0094	280.9406	-0.4028	839.0625	2.5478	Stop
15:06:14	5.8602	281.0609		15:48:10	7.3313	5.6456	750.5938	283.2703	996.3750		15:06:14	0.6600	0.4040	8.5000	8.5663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8539	281.0500	-0.4930	832.9063	2.7066	
15:07:06	5.9344	281.0063		15:49:15	7.0219	5.8200	750.7188	281.9469	993.1875		15:07:06	0.6600	0.4040	8.2663	8.2331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9266	281.0172	-0.5548	838.5938	2.4847	
15:07:59	5.9250	281.3563		15:50:21	6.8156	5.8794	756.0938	280.1422	990.3750		15:07:59	0.6600	0.4040	7.8331	7.8331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9438	281.2906	-0.7040	847.5625	2.5147	
15:08:51	5.8305	281.5531		15:51:27	6.7844	5.9044	756.0625	279.0812	988.4531		15:08:51	0.6600	0.4040	6.7663	6.7663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8305	281.5641	-0.6870	846.1250	2.6069	
15:09:43	5.8375	281.4656		15:52:32	6.6313	5.6606	756.7188	278.7313	988.0313		15:09:44	0.6600	0.4040	7.5000	7.5331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8328	281.4766	-0.5165	852.7813	2.5578	
15:10:36	5.8750	281.3453		15:53:38	6.8594	5.4394	758.2188	279.0922	988.6406		15:10:36	0.6600	0.4040	5.6663	5.6663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8711	281.3453	-0.4265	847.5625	2.4938	
15:11:28	5.9281	281.3563		15:54:43	6.7250	5.4988	756.7188	279.7703	989.5313		15:11:29	0.6600	0.4040	6.9663	6.9663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9281	281.3453	-0.4750	836.0000	2.4528	
15:12:21	5.7563	281.8703		15:55:49	6.5469	5.6169	753.0000	279.4969	989.1094		15:12:21	0.6600	0.4040	4.7663	4.8000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.7773	281.8266	-0.3840	839.1875	2.6519	
15:13:13	5.9297	281.0609		15:56:55	6.4156	5.7956	753.0625	279.3328	987.4688		15:13:13	0.6600	0.4040	5.6000	5.6331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9063	281.1703	-0.5093	836.0313	2.6884	
15:14:06	5.9375	280.9844		15:58:00	6.5938	5.6938	753.3438	278.3813	985.5000		15:14:06	0.6600	0.4040	3.7663	3.7663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.9391	280.9735	-0.4863	835.6563	2.4081	
15:14:58	5.8313	281.1266		15:59:06	6.4406	5.7350	752.2813	277.6484	984.3750		15:14:58	0.6600	0.4040	3.6000	3.6000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8500	281.1047	-0.4955	841.8750	2.6663	
15:15:51	5.8977	281.2687		16:00:11	6.2781	5.5794	749.6250	277.5500	984.7969		15:15:51	0.6600	0.4040	3.9663	3.9663	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.8719	281.2578	-0.4873	857.5313	2.4650	
15:16:43	5.8391	281.4984	Start	16:01:17	6.4625	5.5488	749.4063	277.4625	985.9688		15:16:43	0.6600	0.4040	3.6331	3.5331	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.8875	281.4438	-0.4235	856.8125	2.5253	Start
15:17:36	5.7023	281.7828		16:02:22	6.8188	10.2375	747.3750	277.3094	987.1406		15:17:36	0.6600	0.4040	3.5000	3.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.6867	281.8266	-0.4095	843.8125	2.6878	
15:18:28	5.9227	281.3016		16:03:28	6.3000	5.5663	746.8750	277.6156	988.1719		15:18:28	0.6600	0.4040	3.5331	3.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.8992	281.3453	-0.2878	839.3125	2.6841	
15:19:21	6.0297	280.2844		16:04:34	6.3406	5.4244	741.6250	278.0203	989.3438		15:19:21	0.6600	0.4040	3.5000	3.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	6.0203	280.3609	-0.3885	825.1875	2.6275	
15:20:13	5.9508	280.2844		16:05:39	6.6375	5.3913	741.8125	278.1953	990.3750		15:20:13	0.6600	0.4040	3.5331	3.5331	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.9742	280.2844	-0.5745	832.6563	2.4913	

Unit 3
11/2/1999
Process Data
Test Run 1

	DRY O_2	UNIT-LOAD			OPACITY	WET O_2	FGAS - FLO	UNIT - LOAD	MN - STM			SO_2_1HR_E	NO_1HR_E	ASH_PR_W	ASH_PR_E	A - ROW	B-ROW	C-ROW	D-ROW	E-ROW	F-ROW	DRY-02-3	UNIT-LOAD	FURN-PRE	FW-FLOW	U3-02	
TIME	%	MW	Comment	TIME	%	%		MW	°F	Comment	TIME	lb/mmBtu	lb/mmBtu									%	MW			%	Comment
15:21:05	5.8422	280.7328		16:06:45	6.8719	5.4844	744.7500	277.9438	990.7969		15:21:06	0.6600	0.4040	3.5000	3.4331	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.8641	280.6672	-0.5875	862.0313	2.3909	
15:21:58	5.7336	281.4110		16:07:50	6.8844	5.4719	744.7813	277.5063	991.0781		15:21:58	0.6600	0.4040	3.5000	3.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9999	5.7172	281.3453	-0.5330	860.0938	2.5791	
15:22:50	5.8906	281.6953		16:08:56	6.9125	5.4119	747.4063	277.6812	991.7813		15:22:51	0.6600	0.4040	4.5000	4.6000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8859	281.7172	-0.5395	850.1563	2.5228	
15:23:43	5.9211	281.6187		16:10:01	6.9344	5.3800	747.5625	278.5453	993.1406		15:23:43	0.6600	0.4040	6.2663	6.3663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.9211	281.6078	-0.5703	836.0313	2.5609	
15:24:35	5.8422	281.7609		16:11:07	6.7469	5.4381	750.5313	278.9281	994.4531		15:24:35	0.6600	0.4040	7.7331	7.8000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8375	281.7062	-0.5203	830.3750	2.5128	
15:25:28	5.9250	282.1219		16:12:13	6.6500	5.4475	750.4063	279.4422	995.2969		15:25:28	0.6600	0.4040	8.8663	8.9663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.9352	282.1219	-0.5723	833.4688	2.5563	
15:26:20	5.8391	282-12189		16:13:18	8.1406	5.5100	747.7500	279.4203	995.5313		15:26:20	0.6600	0.4040	7.2331	7.3000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8320	282.1219	-0.5185	841.1250	2.5734	
15:27:13	5.8906	282.1656		16:14:24	6.8813	5.4363	747.6875	279.7047	995.6719		15:27:13	0.6600	0.4040	7.4663	7.6000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8906	282.1547	-0.5475	851.1563	2.5916	
15:28:05	5.9320	281.7500		16:15:29	6.5031	5.5044	747.4688	279.3328	995.7656		15:28:05	0.6600	0.4040	5.7331	5.8663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.9266	281.8156	-0.4318	849.9063	2.6138	
15:28:58	6.0359	281.3344		16:16:35	6.2969	5.5238	747.5313	278.8734	995.7656		15:28:58	0.6600	0.4040	6.2000	6.2663	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	6.0266	281.3781	-0.4200	841.4688	2.3725	
15:29:50	5.7922	281.4875		16:17:40	6.3156	5.5088	747.7813	278.7422	996.0000		15:29:50	0.6600	0.4040	4.4000	4.5000	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.8398	281.4000	-0.3993	841.4688	2.2534	
15:30:42	5.5734	281.9469		16:18:46	6.2813	5.3606	747.8750	279.0594	996.4219		15:30:43	0.6600	0.4040	3.5331	3.6331	0.9999	0.0000	0.0000	0.0000	0.0000	0.0000	5.5969	281.9141	-0.4393	836.6250	2.4525	
15:31:35	5.7664	282.0781		16:19:52	7.0375	5.3631	747.8125	279.0703	997.4063		15:31:35	0.6600	0.4040	4.6331	4.7331	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.7195	282.1109	-0.4630	831.3438	2.5122	
15:32:27	5.8539	281.8703		16:20:57	6.8844	5.5169	747.7500	278.6328	998.1563		15:32:28	0.6600	0.4040	3.7663	3.8000	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.8539	281.8703	-0.5723	832.2188	2.5222	
15:33:20	5.8328	281.8703		16:22:03	6.8250	5.5344	750.1563	279.2781	998.9063		15:33:20	0.6600	0.4040	3.6000	3.7331	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.8383	281.8703	-0.6190	854.0938	2.5184	
15:34:12	5.8664	281.6187		16:23:08	6.8750	5.4350	750.5625	279.6391	999.7500		15:34:12	0.6600	0.4040	2.9663	3.1331	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.8430	281.6516	-0.5413	866.2188	2.4675	
15:35:05	5.8984	281.5969		16:24:14	6.9000	5.5250	750.2813	279.8250	1,000.5000		15:35:05	0.6600	0.4040	2.9000	3.0000	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.9219	281.5969	-0.5393	847.4063	2.4103	
15:35:57	5.7922	281.5969		16:25:19	7.2344	5.5031	750.2500	279.6063	1,000.4531		15:35:57	0.6600	0.4040	2.7663	2.8331	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.7914	281.5969	-0.4393	841.6875	2.3678	
15:36:50	5.7953	281.8156		16:26:25	7.8688	5.4488	750.2188	278.9609	1,000.1719		15:36:50	0.6600	0.4040	2.8000	2.9000	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.7961	281.7719	-0.4585	854.1875	2.4494	
15:37:42	5.7891	282.1219		16:27:31	7.0594	5.4163	750.2500	278.8188	1,000.4063		15:37:42	0.6600	0.4040	2.7331	2.8663	0.0000	0.9999	0.0000	0.0000	0.0000	0.0000	5.7891	282.1219	-0.4558	849.0000	2.4869	
15:38:35	5.7586	282.0781		16:28:36	6.8188	5.4869	749.3438	279.4203	1,001.3906		15:38:35	0.6600	0.4040	3.6331	3.6000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.7594	282.1109	-0.4463	839.7188	2.5491	
15:39:27	5.8328	281.8703		16:29:42	6.9094	5.3100	747.5000	280.5906	1,002.9844		15:39:27	0.6600	0.4040	3.6331	3.6331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8094	281.8703	-0.4200	841.0000	2.5106	
15:40:20	5.8570	281.8703		16:30:47	6.9938	5.2369	746.3750	281.5094	1,004.3906		15:40:20	0.6600	0.4040	3.6000	3.6000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8727	281.8703	-0.4035	846.4688	2.4109	
15:41:12	5.7906	281.6844		16:31:53	6.6219	5.5063	745.0313	281.7719	1,004.3906		15:41:12	0.6600	0.4040	3.5663	3.5331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.7891	281.6953	-0.3163	839.0313	2.4459	
15:42:04	5.7875	281.3234		16:32:58	7.3969	5.5056	743.6875	281.3016	1,003.0313		15:42:05	0.6600	0.4040	7.0663	7.1331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.7930	281.3781	-0.4285	837.0938	2.4447	
15:42:57	5.7633	281.2141		16:34:04	7.3500	5.5056	741.9688	280.6234	1,001.7188		15:42:57	0.6600	0.4040	8.9331	9.0000	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.7602	281.2141	-0.5305	859.8125	2.4066	
15:43:49	5.7813	281.1484		16:35:10	6.4500	5.3269	742.2500	280.2516	1,001.2969		15:43:50	0.6600	0.4040	8.4663	8.5663	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.7852	281.1703	-0.5118	852.4063	2.3341	
15:44:42	5.6836	281.8156		16:36:15	6.7969	5.3313	742.6250	279.6281	1,001.7188		15:44:42	0.6600	0.4040	7.5663	7.6331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.6875	281.7500	-0.6848	849.0938	2.3156	
15:45:34	5.5883	282.4609		16:37:21	6.4500	5.3844	742.1563	279.7266	1,002.7969		15:45:34	0.6600	0.4040	7.6331	7.6331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.5852	282.3844	-0.6053	852.3750	2.6388	
15:46:27	5.9063	282.9531	End	16:38:26	6.9719	5.3881	740.6875	279.7813	1,004.1563		15:46:27	0.6600	0.4040	6.4663	6.5331	0.0000	0.0000	0.0000	0.9999	0.0000	0.0000	5.8813	282.8984	-0.5565	846.4688	2.7800	End

Overall Summary

Average	5.9279	281.6490		**Average**	6.8401	5.4774	748.1803	281.6527	999.8642		**Average**	0.6669	0.3932	4.9867	5.0263	0.2503	0.0999	0.1013	0.3825	0.0661	0.1013	5.9262	281.6504	-0.4890	848.2786	2.5204	
Maximum	12.0219	284.2328		**Maximum**	8.3750	10.0875	757.6563	284.2109	1,007.0625		**Maximum**	0.6800	0.4040	9.8331	9.9331	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	12.0250	284.2328	-0.0808	882.1875	2.9466	
Minimum	5.5227	279.2453		**Minimum**	6.0500	5.0431	741.2500	279.3000	991.3594		**Minimum**	0.6600	0.3780	2.5663	2.6663	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.5320	279.2453	-0.7503	825.1875	2.1191	

Unit 3 Test Run 1 Summary

Average	5.9317	281.5280		**Average**	6.8136	5.4816	747.8006	281.5425	999.4223		**Average**	0.6662	0.3936	4.8167	4.8662	0.2582	0.1526	0.1127	0.3310	0.0399	0.1056	5.9288	281.5288	-0.4799	848.5713	2.5108	
Maximum	11.2453	283.7078		**Maximum**	8.3750	10.0875	757.6563	283.8391	1,006.7344		**Maximum**	0.6800	0.4040	9.8331	9.9331	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	10.7188	283.7625	-0.0808	882.1875	2.8203	
Minimum	5.5539	279.5078		**Minimum**	6.0625	5.0431	741.2500	279.5187	991.3594		**Minimum**	0.6600	0.3780	2.5663	2.6663	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.5508	279.5734	-0.7463	825.1875	2.1191	

Unit 3
Test Run 3
Coal Feeders
11/03/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
11:14:15	72.63750	77.41250	62.15937	70.85625	283.06562	Start
11:15:08	72.78750	77.51875	62.30312	70.97188	283.58125	
11:16:00	73.13750	77.97813	62.65937	71.34375	285.11875	
11:16:53	75.10625	79.93437	64.57500	73.23750	292.85312	
11:17:45	75.10000	79.87187	64.52187	73.28438	292.77812	
11:18:38	75.30937	80.11562	64.69375	73.44063	293.55937	
11:19:30	74.74062	79.55625	64.27812	72.94688	291.52187	
11:20:23	74.58125	79.65625	64.14063	72.82500	291.20313	
11:21:15	74.53438	79.47188	64.02812	72.76250	290.79688	
11:22:08	74.57188	79.56563	64.24062	72.64375	291.02188	
11:23:00	74.79375	79.56875	64.26250	72.89687	291.52187	
11:23:52	75.51250	80.42812	64.94688	73.59375	294.48125	
11:24:45	76.18437	80.94375	65.59062	74.32188	297.04062	
11:25:37	74.58125	79.42812	64.16250	72.72500	290.89687	
11:26:30	73.89375	78.78750	63.49688	72.10313	288.28126	
11:27:22	73.36875	78.09688	62.72500	71.49687	285.68750	
11:28:15	73.19688	77.99375	62.56562	71.40000	285.15625	
11:29:07	72.85313	77.57188	62.58437	71.23125	284.24063	
11:30:00	73.21562	78.01563	62.76875	71.36250	285.36250	
11:30:52	73.23438	78.10000	62.92188	71.55937	285.81563	
11:31:45	72.99062	77.76563	62.49688	71.11250	284.36563	
11:32:37	73.08125	77.96875	62.67500	71.25625	284.98125	
11:33:30	73.96250	78.53750	63.24688	72.04688	287.79376	
11:34:22	74.25313	79.14063	63.82188	72.39063	289.60627	
11:35:14	74.10938	78.84688	63.60000	72.11875	288.67501	
11:36:07	74.70937	79.48438	64.07188	72.78438	291.05001	
11:36:59	74.94688	79.85000	64.50625	73.07500	292.37813	
11:37:52	75.31563	80.18437	64.87500	73.45000	293.82500	
11:38:44	75.09688	80.04688	64.64063	73.37813	293.16252	
11:39:37	76.25000	81.06250	65.71250	74.27500	297.30000	
11:40:29	76.23125	80.99687	65.52500	74.29375	297.04687	
11:41:22	75.60938	80.44688	65.05937	73.82500	294.94063	
11:42:14	75.34375	80.12813	64.75938	73.54375	293.77501	
11:43:07	75.14063	80.07500	64.83125	73.37813	293.42501	
11:43:59	75.31875	79.93125	64.77500	73.48125	293.50625	Stop
11:49:14	73.67812	78.52500	63.22500	71.79063	287.21875	Start
11:50:06	74.10625	78.84375	63.63750	72.25313	288.84063	

Unit 3
Test Run 3
Coal Feeders
11/03/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
11:50:59	72.69375	77.45937	62.24688	70.93750	283.33750	
11:51:51	71.51250	76.42188	61.09375	69.77187	278.80000	
11:52:44	72.26563	77.09688	61.89687	70.46875	281.72813	
11:53:36	72.35313	77.24375	61.85313	70.43437	281.88438	
11:54:29	73.74687	78.57500	63.25938	71.82188	287.40313	
11:55:21	74.77500	79.71875	64.33437	73.02187	291.84999	
11:56:13	75.38438	80.21875	64.79375	73.54063	293.93751	
11:57:06	75.75000	80.55937	65.26250	74.07500	295.64687	
11:57:58	73.83437	78.73750	63.38438	72.05312	288.00937	
11:58:51	75.12187	79.98438	64.66875	73.28438	293.05938	
11:59:43	75.67500	80.48750	65.14063	73.78438	295.08751	
12:00:36	75.82500	80.62813	65.25313	73.89063	295.59689	
12:01:28	74.80312	79.50313	64.23125	72.91875	291.45625	
12:02:21	75.05625	79.61875	64.30937	73.25938	292.24375	
12:03:13	75.06875	79.75000	64.44063	73.09688	292.35626	
12:04:06	74.47813	79.15312	63.87500	72.55312	290.05937	
12:04:58	73.64375	78.28438	63.08750	71.73750	286.75313	
12:05:51	73.80000	78.57500	63.39687	71.98125	287.75312	
12:06:43	74.91875	79.69688	64.37500	73.02500	292.01563	
12:07:35	73.21250	78.00938	62.74062	71.41875	285.38125	
12:08:28	71.33437	76.27812	60.86250	69.48438	277.95937	
12:09:20	70.92812	75.89063	60.42500	69.16875	276.41250	
12:10:13	71.60938	76.63438	61.21563	69.78125	279.24064	
12:11:05	73.79688	78.67188	63.43125	72.00313	287.90314	
12:11:58	73.32188	78.02500	62.85000	71.43125	285.62813	
12:12:50	72.95937	77.73125	62.24375	71.14063	284.07500	
12:13:43	74.86250	79.68125	64.31250	72.95625	291.81250	
12:14:35	75.39063	80.16563	64.84688	73.60313	294.00627	
12:15:28	75.20937	80.04688	64.59062	73.48125	293.32812	
12:16:20	75.05625	79.86562	64.44375	73.23438	292.60000	
12:17:12	74.32500	79.07500	63.83437	72.44375	289.67812	
12:18:05	74.01875	78.75313	63.55312	72.12187	288.44687	
12:18:57	74.35000	79.12500	63.77500	72.31250	289.56250	Stop
12:25:57	73.96562	78.74062	63.50625	72.21250	288.42499	Start
12:26:50	73.58437	78.30312	63.03750	71.70937	286.63436	
12:27:42	73.21250	78.09688	62.88438	71.39375	285.58751	
12:28:34	73.03750	77.93125	62.71250	71.36875	285.05000	

Unit 3
Test Run 3
Coal Feeders
11/03/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
12:29:27	73.20625	77.93750	62.79063	71.39375	285.32813	
12:30:19	73.38438	78.12813	63.02187	71.40938	285.94376	
12:31:12	74.15312	78.91563	63.69375	72.23438	288.99688	
12:32:04	73.22188	78.11562	62.80312	71.37187	285.51249	
12:32:57	73.18437	78.03125	62.74688	71.31250	285.27500	
12:33:49	73.67500	78.53125	63.13750	71.77187	287.11562	
12:34:42	75.23750	80.06563	64.74687	73.37500	293.42500	
12:35:34	74.78750	79.53125	64.15625	72.87500	291.35000	
12:36:27	73.42500	78.15000	62.86562	71.49687	285.93749	
12:37:19	73.75000	78.61875	63.25312	71.90312	287.52499	
12:38:12	74.05937	78.94688	63.63125	72.28438	288.92188	
12:39:04	75.20625	79.90938	64.56563	73.23750	292.91876	
12:39:56	74.23438	79.18437	63.78750	72.44375	289.65000	
12:40:49	74.04375	78.93125	63.63438	72.24687	288.85625	
12:41:41	73.67500	78.51875	63.16250	71.82188	287.17813	
12:42:34	74.05625	78.86250	63.48438	72.22500	288.62813	
12:43:26	73.83750	78.68437	63.26563	71.95313	287.74063	
12:44:19	73.58437	78.39375	63.09063	71.82188	286.89063	
12:45:11	72.64687	77.58125	62.13750	70.85625	283.22187	
12:46:04	71.48438	76.44375	61.05625	69.68437	278.66875	
12:46:56	72.40938	77.30937	61.98125	70.55312	282.25312	
12:47:49	73.11250	78.03125	62.68438	71.30000	285.12813	
12:48:41	72.37813	77.17500	61.84687	70.46562	281.86562	
12:49:33	73.37187	78.20313	62.98125	71.54688	286.10313	
12:50:26	74.26250	79.12187	63.73125	72.38125	289.49687	
12:51:18	74.24062	79.01875	63.77813	72.30312	289.34062	
12:52:11	74.51875	79.32188	64.06875	72.68125	290.59063	
12:53:03	75.37500	80.20000	64.82813	73.51875	293.92188	
12:53:56	74.15938	78.95313	63.57188	72.22188	288.90627	
12:54:48	75.08125	79.84375	64.49687	73.21250	292.63437	
12:55:41	74.34375	79.19688	63.82188	72.44063	289.80314	Stop
13:07:03	75.04688	79.86562	64.49375	73.17500	292.58125	Start
13:07:55	73.92188	78.76875	63.36875	72.04375	288.10313	
13:08:48	73.97188	78.76563	63.47187	72.12500	288.33438	
13:09:40	75.20313	79.88438	64.66563	73.24375	292.99689	
13:10:32	75.24062	79.98125	64.60000	73.27187	293.09374	
13:11:25	73.75313	78.61250	63.33125	71.86250	287.55938	

Unit 3
Test Run 3
Coal Feeders
11/03/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
13:12:17	74.81875	79.61875	64.24375	72.89375	291.57500	
13:13:10	73.96875	78.81563	63.50000	72.05625	288.34063	
13:14:02	73.65938	78.49062	63.18438	71.75313	287.08751	
13:14:55	74.32500	79.21250	63.86562	72.40000	289.80312	
13:15:47	75.24687	80.07188	64.65312	73.34062	293.31249	
13:16:40	74.05625	78.88750	63.57813	72.27500	288.79688	
13:17:32	72.37813	77.27500	61.99688	70.54688	282.19689	
13:18:25	72.82500	77.70937	62.33125	70.94375	283.80937	
13:19:17	74.46875	79.35000	63.95313	72.53125	290.30313	
13:20:10	74.80312	79.69375	64.30000	72.93437	291.73124	
13:21:02	75.77812	80.46562	65.15625	73.84688	295.24687	
13:21:54	75.70000	80.52812	65.19688	73.77187	295.19687	
13:22:47	75.40312	80.17812	64.87813	73.48125	293.94062	
13:23:39	74.91250	79.73750	64.44688	73.01250	292.10938	
13:24:32	74.80000	79.72188	64.40625	72.94688	291.87501	
13:25:24	75.53750	80.35625	65.10625	73.66250	294.66250	
13:26:17	74.60313	79.42500	64.15625	72.72500	290.90938	
13:27:09	74.44688	79.19688	63.93438	72.54375	290.12189	
13:28:02	74.65000	79.51563	64.19063	72.82188	291.17814	
13:28:54	74.46875	79.35938	63.99375	72.56563	290.38751	
13:29:47	73.93437	78.65000	63.50312	72.02187	288.10936	
13:30:39	72.79063	77.54375	62.25312	70.86562	283.45312	
13:31:32	70.27500	75.23438	59.85313	68.51250	273.87501	
13:32:24	70.29688	75.35938	59.75938	68.48125	273.89689	
13:33:17	70.16250	75.08437	59.85313	68.56563	273.66563	
13:34:09	72.78438	77.68750	62.33125	70.91563	283.71876	
13:35:02	72.51875	77.42188	62.12812	70.75313	282.82188	
13:35:54	72.45625	77.26875	61.98438	70.59688	282.30626	
13:36:47	74.81875	79.65000	64.29063	72.96250	291.72188	End

Unit 3
Test Run 3
Coal Feeders
11/03/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
Overall Daily Summary						
Average	74.05646	78.87464	63.56143	72.19970	288.69223	
Maximum	76.25000	81.06250	65.71250	74.32188	297.30000	
Minimum	70.16250	75.08437	59.75938	68.48125	273.66563	
Unit 2 Test Run 3 Summary						
Average	74.03212	78.85594	63.53596	72.17980	288.60382	
Maximum	76.25000	81.06250	65.71250	74.32188	297.30000	
Minimum	70.16250	75.08437	59.75938	68.48125	273.66563	

Unit 3
Process Analog Data Listing
Test Run 3

Point		U3_02_wet_O3	U3_02_dry_O3	U3_Load_O3	U3_Heat Input_07	U3_NOx__ mBtu_07	U3_H20_ %_07	U3_CO2_%_07	U3_SO2m mBtu_07	U3_Flo _Hr_07
Units		%	%	MWatt	mmBtu/hr	#/mmbtu	%	%	SO_2 mmBtu	SCFH
Full Scale		20.00	20.00	350	9000	1.000	100.00	1000.00	1.20	61080000
11/03/99	11:10	5.20	5.70	283	3004	0.392	8.77	13.39	0.65	44,280,000
11/03/99	11:11	5.00	5.40	284	3109	0.374	7.41	13.65	0.65	44,274,000
11/03/99	11:12	5.20	5.60	284	3101	0.389	7.14	13.47	0.65	44,610,000
11/03/99	11:13	5.20	5.60	284	3102	0.389	7.14	13.47	0.65	44,628,000
11/03/99	11:14	5.10	5.60	285	3045	0.386	8.93	13.47	0.65	44,664,000
11/03/99	11:15	5.20	5.70	285	3033	0.386	8.77	13.39	0.65	44,700,000
11/03/99	11:16	5.00	5.50	285	3062	0.377	9.09	13.56	0.65	44,700,000
11/03/99	11:17	5.20	5.70	285	3033	0.389	8.77	13.39	0.65	44,700,000
11/03/99	11:18	5.30	5.70	284	3090	0.391	7.02	13.39	0.65	44,688,000
11/03/99	11:19	5.30	5.80	284	3007	0.396	8.62	13.30	0.65	44,538,000
11/03/99	11:20	5.20	5.60	284	3096	0.386	7.14	13.47	0.65	44,538,000
11/03/99	11:21	5.20	5.60	284	3093	0.387	7.14	13.47	0.65	44,496,000
11/03/99	11:22	5.20	5.60	284	3092	0.394	7.14	13.47	0.64	44,478,000
11/03/99	11:23	5.20	5.60	285	3092	0.397	7.14	13.47	0.64	44,484,000
11/03/99	11:24	5.20	5.70	286	3018	0.396	8.77	13.39	0.65	44,484,000
11/03/99	11:25	5.30	5.80	286	3003	0.397	8.62	13.30	0.65	44,490,000
11/03/99	11:26	5.60	6.00	284	3026	0.418	6.67	13.12	0.64	44,484,000
11/03/99	11:27	5.50	6.00	283	2972	0.415	8.33	13.12	0.65	44,478,000
11/03/99	11:28	5.20	5.70	283	3018	0.392	8.77	13.39	0.65	44,484,000
11/03/99	11:29	5.00	5.40	284	3123	0.368	7.41	13.65	0.65	44,484,000
11/03/99	11:30	4.90	5.30	284	3139	0.365	7.55	13.74	0.65	44,484,000
11/03/99	11:31	5.00	5.50	285	3046	0.375	9.09	13.56	0.65	44,466,000
11/03/99	11:32	5.10	5.60	284	3030	0.386	8.93	13.47	0.65	44,442,000
11/03/99	11:33	5.30	5.80	284	3000	0.397	8.62	13.30	0.65	44,442,000
11/03/99	11:34	5.20	5.70	284	3014	0.389	8.77	13.39	0.65	44,424,000
11/03/99	11:35	5.20	5.70	283	3014	0.385	8.77	13.39	0.65	44,424,000
11/03/99	11:36	5.30	5.80	283	2996	0.389	8.62	13.30	0.65	44,376,000
11/03/99	11:37	5.20	5.60	283	3084	0.376	7.14	13.47	0.65	44,370,000
11/03/99	11:38	5.20	5.70	283	3013	0.382	8.77	13.39	0.65	44,406,000
11/03/99	11:39	5.20	5.70	284	3015	0.384	8.77	13.39	0.65	44,436,000
11/03/99	11:40	5.30	5.70	284	3076	0.390	7.02	13.39	0.65	44,484,000
11/03/99	11:41	5.20	5.70	284	3023	0.396	8.77	13.39	0.65	44,556,000
11/03/99	11:42	5.20	5.60	283	3096	0.387	7.14	13.47	0.65	44,538,000
11/03/99	11:43	5.00	5.50	284	3049	0.379	9.09	13.56	0.64	44,514,000
11/03/99	11:44	5.10	5.50	284	3110	0.376	7.27	13.56	0.64	44,508,000
11/03/99	11:45	5.20	5.60	285	3090	0.383	7.14	13.47	0.65	44,460,000
11/03/99	11:46	5.10	5.60	286	3031	0.379	8.93	13.47	0.64	44,460,000
11/03/99	11:47	5.40	5.80	286	3053	0.395	6.90	13.30	0.64	44,388,000
11/03/99	11:48	5.40	5.90	284	2982	0.399	8.47	13.21	0.64	44,394,000
11/03/99	11:49	5.40	5.80	283	3069	0.399	6.90	13.30	0.64	44,616,000
11/03/99	11:50	5.30	5.70	282	3087	0.392	7.02	13.39	0.64	44,652,000
11/03/99	11:51	5.00	5.50	281	3057	0.377	9.09	13.56	0.65	44,634,000
11/03/99	11:52	4.80	5.40	282	3007	0.365	11.11	13.65	0.65	44,610,000
11/03/99	11:53	4.90	5.30	282	3148	0.361	7.55	13.74	0.65	44,610,000
11/03/99	11:54	4.80	5.30	284	3077	0.357	9.43	13.74	0.65	44,514,000
11/03/99	11:55	5.10	5.50	284	3110	0.375	7.27	13.56	0.65	44,514,000
11/03/99	11:56	5.20	5.60	285	3101	0.386	7.14	13.47	0.65	44,610,000
11/03/99	11:57	5.20	5.70	287	3029	0.395	8.77	13.39	0.66	44,646,000
11/03/99	11:58	5.40	5.90	286	3015	0.412	8.47	13.21	0.66	44,880,000
11/03/99	11:59	5.60	6.00	284	3063	0.420	6.67	13.12	0.65	45,018,000
11/03/99	12:00	5.50	6.00	282	3011	0.413	8.33	13.12	0.65	45,054,000
11/03/99	12:01	5.40	6.00	282	2959	0.407	10.00	13.12	0.66	45,108,000
11/03/99	12:02	5.2D	5.7D	281	3053D	0.394D	8.77D	13.39D	0.64D	45,006,000
11/03/99	12:03	4.9D	5.5D	281	3010D	0.377D	10.91D	13.56D	0.65D	44,850,000
11/03/99	12:04	4.90	5.40	282	3082	0.370	9.26	13.65	0.65	44,796,000
11/03/99	12:05	4.90	5.30	283	3141	0.366	7.55	13.74	0.65	44,520,000
11/03/99	12:06	5.00	5.40	283	3126	0.372	7.41	13.65	0.65	44,520,000
11/03/99	12:07	5.10	5.50	283	3112	0.381	7.27	13.56	0.64	44,538,000
11/03/99	12:08	5.10	5.50	283	3112	0.380	7.27	13.56	0.64	44,538,000
11/03/99	12:09	5.00	5.40	284	3117	0.373	7.41	13.65	0.64	44,388,000
11/03/99	12:10	5.00	5.40	283	3114	0.370	7.41	13.65	0.64	44,358,000
11/03/99	12:11	4.90	5.30	283	3124	0.367	7.55	13.74	0.64	44,274,000
11/03/99	12:12	4.80	5.20	284	3137	0.360	7.69	13.83	0.64	44,238,000
11/03/99	12:13	5.00	5.40	284	3104	0.371	7.41	13.65	0.64	44,214,000
11/03/99	12:14	5.00	5.40	284	3101	0.372	7.41	13.65	0.64	44,166,000
11/03/99	12:15	5.10	5.60	285	3011	0.387	8.93	13.47	0.64	44,172,000
11/03/99	12:16	5.10	5.50	286	3095	0.385	7.27	13.56	0.65	44,298,000
11/03/99	12:17	5.40	5.90	286	2975	0.402	8.47	13.21	0.65	44,298,000
11/03/99	12:18	5.60	6.10	285	2958	0.424	8.20	13.03	0.65	44,496,000
11/03/99	12:19	5.60	6.10	283	2966	0.419	8.20	13.03	0.65	44,628,000
11/03/99	12:20	5.60	6.10	282	2967	0.419	8.20	13.03	0.65	44,634,000
11/03/99	12:21	5.50	5.90	281	3053	0.404	6.78	13.21	0.65	44,628,000
11/03/99	12:22	5.30	5.70	281	3086	0.390	7.02	13.39	0.65	44,628,000
11/03/99	12:23	5.40	5.80	280	3080	0.398	6.90	13.30	0.65	44,778,000
11/03/99	12:24	5.30	5.80	281	3024	0.393	8.62	13.30	0.65	44,796,000
11/03/99	12:25	5.20	5.60	281	3113	0.387	7.14	13.47	0.64	44,790,000
11/03/99	12:26	5.30	5.70	280	3097	0.394	7.02	13.39	0.64	44,790,000
11/03/99	12:27	5.10	5.60	280	3054	0.386	8.93	13.47	0.64	44,796,000
11/03/99	12:28	5.00	5.40	281	3136	0.373	7.41	13.65	0.64	44,658,000
11/03/99	12:29	5.10	5.50	280	3118	0.381	7.27	13.56	0.64	44,634,000
11/03/99	12:30	5.10	5.50	280	3112	0.382	7.27	13.56	0.64	44,550,000
11/03/99	12:31	4.90	5.40	280	3062	0.378	9.26	13.65	0.64	44,502,000
11/03/99	12:32	5.00	5.40	281	3121	0.374	7.41	13.65	0.63	44,454,000
11/03/99	12:33	4.90	5.30	283	3134	0.364	7.55	13.74	0.64	44,424,000
11/03/99	12:34	5.20	5.60	283	3086	0.388	7.14	13.47	0.64	44,394,000
11/03/99	12:35	5.20	5.60	283	3082	0.389	7.14	13.47	0.64	44,334,000
11/03/99	12:36	5.30	5.70	283	3065	0.397	7.02	13.39	0.64	44,334,000
11/03/99	12:37	5.30	5.70	282	3058	0.398	7.02	13.39	0.65	44,226,000
11/03/99	12:38	5.10	5.50	282	3088	0.387	7.27	13.56	0.64	44,202,000
11/03/99	12:39	5.20	5.60	281	3062	0.392	7.14	13.47	0.65	44,058,000
11/03/99	12:40	5.20	5.60	281	3057	0.390	7.14	13.47	0.65	43,986,000
11/03/99	12:41	5.00	5.40	282	3086	0.373	7.41	13.65	0.65	43,950,000

Unit 3
Process Analog Data Listing
Test Run 3

Point		U3_02_wet_O3	U3_02_dry_O3	U3_Load_O3	U3_Heat Input_07	U3_NOx__ mBtu_07	U3_H20_ %_07	U3_CO2_%_07	U3_SO2m mBtu_07	U3_Flo _Hr_07
Units		%	%	MWatt	mmBtu/hr	#/mmbtu	%	%	SO_2 mmBtu	SCFH
Full Scale		20.00	20.00	350	9000	1.000	100.00	1000.00	1.20	61080000
11/03/99	12:42	5.20	5.60	283	3051	0.392	7.14	13.47	0.65	43,890,000
11/03/99	12:43	5.30	5.80	283	2963	0.401	8.62	13.30	0.65	43,896,000
11/03/99	12:44	5.40	5.80	283	3043	0.405	6.90	13.30	0.65	44,238,000
11/03/99	12:45	5.50	6.00	283	2957	0.419	8.33	13.12	0.65	44,244,000
11/03/99	12:46	5.60	6.00	281	3013	0.420	6.67	13.12	0.65	44,292,000
11/03/99	12:47	5.70	6.10	280	2997	0.432	6.56	13.03	0.65	44,298,000
11/03/99	12:48	5.40	5.80	280	3051	0.414	6.90	13.30	0.65	44,358,000
11/03/99	12:49	5.40	5.80	279	3055	0.405	6.90	13.30	0.65	44,412,000
11/03/99	12:50	5.20	5.70	280	3008	0.394	8.77	13.39	0.65	44,334,000
11/03/99	12:51	5.20	5.60	280	3078	0.390	7.14	13.47	0.65	44,280,000
11/03/99	12:52	5.30	5.70	280	3062	0.393	7.02	13.39	0.64	44,280,000
11/03/99	12:53	5.10	5.50	281	3107	0.382	7.27	13.56	0.64	44,478,000
11/03/99	12:54	5.10	5.60	282	3032	0.390	8.93	13.47	0.64	44,484,000
11/03/99	12:55	5.20	5.60	282	3095	0.397	7.14	13.47	0.64	44,532,000
11/03/99	12:56	5.20	5.70	281	3023	0.399	8.77	13.39	0.64	44,556,000
11/03/99	12:57	5.30	5.70	280	3072	0.401	7.02	13.39	0.64	44,430,000
11/03/99	12:58	5.30	5.80	280	2989	0.400	8.62	13.30	0.64	44,280,000
11/03/99	12:59	5.20	5.60	280	3078	0.391	7.14	13.47	0.64	44,280,000
11/03/99	13:00	5.30	5.70	280	3065	0.394	7.02	13.39	0.65	44,334,000
11/03/99	13:01	5.40	5.90	280	2978	0.407	8.47	13.21	0.65	44,334,000
11/03/99	13:02	5.3D	5.81	281	2988D	0.399D	8.62D	13.30D	0.64D	44,268,000
11/03/99	13:03	5.4D	5.8D	281	3043D	0.420D	6.90D	13.30D	0.64D	44,250,000
11/03/99	13:04	5.40	5.90	281	2979	0.415	8.47	13.21	0.65	44,352,000
11/03/99	13:05	5.30	5.70	281	3091	0.405	7.02	13.39	0.64	44,700,000
11/03/99	13:06	5.40	5.80	281	3074	0.410	6.90	13.30	0.65	44,700,000
11/03/99	13:07	5.30	5.70	281	3087	0.397	7.02	13.39	0.64	44,646,000
11/03/99	13:08	5.30	5.70	281	3087	0.399	7.02	13.39	0.65	44,646,000
11/03/99	13:09	5.40	5.90	281	3008	0.417	8.47	13.21	0.65	44,784,000
11/03/99	13:10	5.40	5.90	281	3012	0.416	8.47	13.21	0.65	44,838,000
11/03/99	13:11	5.50	5.90	281	3057	0.416	6.78	13.21	0.65	44,694,000
11/03/99	13:12	5.40	5.80	280	3064	0.407	6.90	13.30	0.65	44,556,000
11/03/99	13:13	5.40	5.70	281	3134	0.402	5.26	13.39	0.65	44,490,000
11/03/99	13:14	5.20	5.70	281	3015	0.395	8.77	13.39	0.65	44,442,000
11/03/99	13:15	5.50	5.90	281	3039	0.419	6.78	13.21	0.65	44,424,000
11/03/99	13:16	5.60	6.00	280	3014	0.425	6.67	13.12	0.64	44,298,000
11/03/99	13:17	5.50	5.90	279	3030	0.419	6.78	13.21	0.64	44,292,000
11/03/99	13:18	5.50	5.90	279	3051	0.410	6.78	13.21	0.64	44,592,000
11/03/99	13:19	5.40	5.80	279	3074	0.410	6.90	13.30	0.64	44,700,000
11/03/99	13:20	5.20	5.60	281	3109	0.392	7.14	13.47	0.64	44,724,000
11/03/99	13:21	5.10	5.50	281	3125	0.386	7.27	13.56	0.64	44,736,000
11/03/99	13:22	5.50	5.90	281	3062	0.417	6.78	13.21	0.64	44,760,000
11/03/99	13:23	5.50	6.00	280	2996	0.422	8.33	13.12	0.65	44,832,000
11/03/99	13:24	5.40	5.90	280	3012	0.415	8.47	13.21	0.64	44,838,000
11/03/99	13:25	5.30	5.70	281	3100	0.402	7.02	13.39	0.64	44,838,000
11/03/99	13:26	5.10	5.50	281	3132	0.389	7.27	13.56	0.65	44,832,000
11/03/99	13:27	5.20	5.60	282	3116	0.394	7.14	13.47	0.64	44,826,000
11/03/99	13:28	5.30	5.70	282	3093	0.400	7.02	13.39	0.65	44,730,000
11/03/99	13:29	5.20	5.60	282	3105	0.397	7.14	13.47	0.64	44,664,000
11/03/99	13:30	5.40	5.70	282	3146	0.408	5.26	13.39	0.64	44,658,000
11/03/99	13:31	5.30	5.80	281	3012	0.414	8.62	13.30	0.64	44,622,000
11/03/99	13:32	5.10	5.50	282	3117	0.390	7.27	13.56	0.64	44,622,000
11/03/99	13:33	5.20	5.60	281	3092	0.401	7.14	13.47	0.64	44,490,000
11/03/99	13:34	5.30	5.60	281	3151	0.400	5.36	13.47	0.64	44,478,000
11/03/99	13:35	5.10	5.60	281	3030	0.393	8.93	13.47	0.64	44,442,000
11/03/99	13:36	5.10	5.60	281	3020	0.391	8.93	13.47	0.64	44,298,000
11/03/99	13:37	5.20	5.60	281	3079	0.394	7.14	13.47	0.65	44,304,000
11/03/99	13:38	5.20	5.70	281	3007	0.399	8.77	13.39	0.65	44,322,000
11/03/99	13:39	5.20	5.60	281	3080	0.393	7.14	13.47	0.64	44,316,000
Average		**5.20**	**5.70**	**282**	**3061**	**0.393**	**7.71**	**13.41**	**0.65**	**44,505,320**
Minimum		**4.80**	**5.20**	**279**	**2957**	**0.357**	**5.26**	**13.03**	**0.63**	**43,890,000**
Maximum		**5.70**	**6.10**	**287**	**3151**	**0.432**	**11.11**	**13.83**	**0.66**	**45,108,000**
Missing	**(%)**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Invalid	**(%)**	**2.67**	**2.67**	**0.00**	**2.67**	**2.67**	**2.67**	**2.67**	**2.67**	**0.00**
0 0 Cal	**(%)**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
In Cal	**(%)**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Valid	**(%)**	**97.33**	**97.33**	**100.00**	**97.33**	**97.33**	**97.33**	**97.33**	**97.33**	**100.00**
Available	**(%)**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

M	**MissingData**	**F**	**PowerFailure**	**P**	**InPurge**	**f**	**DiscreteMissing**	**D**	**Downed**	**C**	**InCalibration**
O	**Part60-OOC**	**O**	**Part75-OOC**	**B**	**NoSamples**	**<**	**TooFewSamples**	**r**	**Reserved-1**	**u**	**Reserved-2**
A	**HighAlarm**	**a**	**LowAlarm**	**m**	**EPA-MinC02MaxO:**	**G**	**EPA_AppG_C02**	**>**	**EnoughSamples**	**E**	**Edited**
S	**StackOffline**	**!**	**PrimaryMonitor**	**@**	**BackupMonitor**	**#**	**Alternate**	**$**	**ReferenceMethod**	**%**	**Parametric**
^	**Average_HB_HA**	**&**	**Init_QA_Hrs_Avg**	*****	**90thPercentile**	**(**	**95thPercentile**	**)**	**Binmaximum**	**-**	**BinAverage**
+	**MaxPotential**	**|**	**Other**								

Unit 3
11/03/1999
Process Data
Test Run 3

TIME	DRY-02-3 %	WET-02-3 %	BAR-PRES in. Hg	U3-MN-STM °F	OPACITY-3 %	WET-O2-3 %	FGAS-FLO	UNIT-LOAD MW	ASH_PR_W	ASH_PR_E	A - ROW	B-ROW	C-ROW	D-ROW	E-ROW	F-ROW	NO_3HR_E lb/mmBtu	FURN_PRE	FW_FLOW	U3-02 %	Comment
11:14:12	5.53203	5.11625	25.15925	1,002.28125	6.78125	5.10063	743.68750	284.44061	3.50000	3.43313	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.49575	822.68750	2.25750	Start
11:15:05	5.57969	5.08875	25.15550	1,002.04688	7.56875	5.10500	744.71875	284.73593	3.50000	3.43313	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.71300	830.93750	2.06844	
11:15:57	5.73438	5.26687	25.15550	1,001.62500	8.30625	5.25375	744.96875	285.03125	3.50000	3.43313	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.65100	828.18750	2.18688	
11:16:50	5.58984	5.09750	25.15250	1,001.25000	7.61250	5.09750	744.96875	285.50156	4.13312	4.10000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.70700	808.37500	2.04906	
11:17:42	5.68125	5.17438	25.15775	1,000.87500	8.25000	5.18125	745.06250	285.05313	7.56625	7.60000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.62750	788.18750	2.33531	
11:18:35	5.72422	5.18125	25.15700	1,000.59375	7.64375	5.19438	744.93750	284.51718	7.10000	7.06625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.54075	799.21875	2.25406	
11:19:27	5.80703	5.35375	25.15550	1,000.03125	7.86562	5.34937	743.37500	283.90469	8.06625	8.06625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.50850	816.90625	2.19313	
11:20:19	5.78672	5.25688	25.15625	1,000.03125	8.04375	5.25313	742.28125	283.62030	7.20000	7.13312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.33100	816.56250	2.12687	
11:21:12	5.62656	5.19438	25.15250	1,000.59375	7.61562	5.18563	742.34375	283.75156	6.20000	6.13312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.32300	807.06250	2.23031	
11:22:04	5.57578	5.13812	25.15400	1,001.67188	7.69375	5.13375	741.40625	284.02499	6.46625	6.43313	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.12825	815.43750	2.47469	
11:22:57	5.58828	5.17500	25.15400	1,002.51563	7.03438	5.17438	741.31250	284.10156	3.93313	3.86625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.04125	825.15625	2.72875	
11:23:49	5.58750	5.15250	25.15700	1,002.84375	7.57188	5.16437	741.46875	284.44061	3.50000	3.40000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.07375	818.00000	2.23375	
11:24:42	5.71875	5.26125	25.15775	1,002.28125	6.53750	5.25125	741.34375	285.37030	3.56625	3.50000	0.00000	0.00000	0.00000	0.33319	0.66656	0.00000	0.39000	-0.44675	810.06250	2.62531	
11:25:34	5.53359	5.14500	25.15700	1,000.64063	6.63438	5.15125	741.43750	285.91718	3.93313	3.83313	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.39000	-0.51400	815.50000	2.60844	
11:26:27	5.91797	5.42500	25.15250	998.20313	7.26875	5.44750	741.43750	284.79062	3.90000	3.86625	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.39000	-0.64125	822.93750	2.56156	
11:27:19	5.97656	5.52063	25.15250	995.76563	6.91250	5.51937	741.40625	283.55469	3.83313	3.76625	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.39000	-0.27725	826.43750	2.26688	
11:28:12	5.92188	5.49937	25.15250	994.03125	6.64375	5.49563	741.34375	282.85468	3.53312	3.50000	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.39000	-0.38075	822.78125	2.01437	
11:29:04	5.74687	5.25500	25.15250	994.31250	6.69063	5.24687	741.34375	282.66876	3.53312	3.46625	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.39000	-0.22800	815.96875	1.98937	
11:29:56	5.46953	5.08063	25.15250	996.14063	6.37500	5.06437	741.43750	283.68594	3.46625	3.40000	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.39000	-0.40325	806.31250	2.02500	
11:30:49	5.34688	4.90188	25.15250	998.48438	6.75313	4.89375	741.34375	284.40781	3.53312	3.46625	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.39000	-0.69375	795.00000	2.18031	
11:31:41	5.33750	5.03250	25.15025	1,000.12500	6.55625	5.04063	741.28125	284.80157	2.96625	3.03312	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.73900	814.00000	2.29813	
11:32:34	5.55469	5.12313	25.15325	1,000.54688	6.41875	5.13125	740.68750	284.76874	2.90000	3.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.59975	838.18750	2.24469	
11:33:26	5.61016	5.16750	25.15400	999.79688	6.72500	5.17812	740.68750	284.10156	2.86625	2.96625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.56050	831.28125	2.15156	
11:34:19	5.72031	5.27313	25.15400	998.71875	6.95313	5.27063	740.53125	283.78436	2.96625	3.03312	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.45875	805.56250	2.30906	
11:35:11	5.65391	5.24062	25.15250	997.87500	6.72500	5.23812	740.37500	283.47812	3.93313	4.03312	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.48475	793.93750	2.39687	
11:36:04	5.56875	5.21000	25.15025	997.73438	6.85313	5.21000	740.37500	282.94220	6.83313	6.86625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.43200	800.59375	2.31500	
11:36:56	5.77109	5.25063	25.15025	998.01563	6.97500	5.25437	739.53125	282.81094	8.10000	8.16625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.47850	817.87500	2.21438	
11:37:49	5.64844	5.23750	25.15025	998.43750	7.07500	5.23625	739.50000	283.06250	7.03312	7.10000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.51550	807.81250	2.13250	
11:38:41	5.60156	5.23000	25.15025	998.81250	7.38750	5.22437	739.87500	283.33594	7.56625	7.60000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.36325	814.46875	2.17750	
11:39:34	5.63125	5.17875	25.14800	998.95313	7.43125	5.18313	740.53125	283.67499	6.00000	6.03312	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.33200	809.75000	2.44344	
11:40:26	5.73359	5.21812	25.14575	998.67188	7.26250	5.21875	740.46875	284.01407	6.16625	6.23313	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.39600	800.90625	2.33094	
11:41:18	5.74375	5.22437	25.14425	998.34375	7.21250	5.23187	742.43750	283.72968	4.50000	4.56625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.26350	817.31250	2.17250	
11:42:11	5.67344	5.32937	25.14500	998.10938	7.08125	5.32937	742.59375	283.36874	3.46625	3.56625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.38125	817.06250	2.06938	
11:43:03	5.57813	5.17125	25.14725	998.20313	6.70937	5.14937	742.18750	283.51093	4.80000	4.90000	0.33319	0.00000	0.66656	0.00000	0.00000	0.00000	0.39000	-0.26025	818.81250	2.00594	
11:43:56	5.55625	5.05562	25.14725	998.85938	6.77187	5.05937	741.90625	283.74063	3.73312	3.80000	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.39000	-0.20125	816.71875	2.46344	Stop
11:44:48	5.53281	5.08813	25.14725	999.70313	7.26563	5.08625	741.90625	283.97031	3.00000	3.06625	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.39000	-0.34625	811.68750	2.32031	
11:45:41	5.51250	5.15875	25.14275	1,000.12500	7.29063	5.17500	740.93750	284.83438	2.96625	3.06625	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.39000	-0.44575	814.28125	2.28656	
11:46:33	5.57344	5.24563	25.14425	999.79688	6.75938	5.23625	741.06250	286.20157	2.83313	2.93313	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.39000	-0.54725	813.40625	2.53813	
11:47:26	5.59609	5.17625	25.14275	998.62500	6.55625	5.20563	740.43750	286.05939	2.93313	3.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.39000	-0.48200	816.09375	2.49031	
11:48:18	5.83828	5.52875	25.14350	996.51563	6.42188	5.51312	739.81250	285.08594	2.83313	2.90000	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.39000	-0.69075	823.81250	2.37156	
11:49:11	5.92109	5.33563	25.14350	994.35938	6.16563	5.34312	740.21875	283.79532	2.90000	3.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.39000	-0.55875	826.71875	2.32000	Start
11:50:03	5.82188	5.40812	25.14125	992.85938	6.06563	5.40000	744.25000	282.50470	3.50000	3.46625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.72875	797.87500	2.18250	
11:50:56	5.72734	5.29250	25.14125	992.57813	6.15312	5.28562	744.12500	281.68439	3.60000	3.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.58575	794.50000	1.94094	
11:51:48	5.61016	5.15875	25.13825	993.79688	6.28438	5.11750	743.93750	281.34531	3.60000	3.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.60125	817.34375	1.93219	
11:52:40	5.29922	4.81063	25.14050	996.04688	6.40938	4.81063	743.53125	281.52032	3.60000	3.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.55100	831.46875	1.92594	
11:53:33	5.35234	4.82250	25.14200	998.67188	6.25313	4.82375	743.46875	281.97968	6.30000	6.30000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.46925	828.28125	1.86781	
11:54:25	5.33125	4.87813	25.14275	1,001.10938	6.60000	4.88438	742.65625	283.30313	8.66625	8.63313	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.44525	816.84375	2.21625	
11:55:18	5.29219	4.82312	25.14275	1,002.79688	7.19063	4.83875	741.87500	284.01407	8.60000	8.60000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.54525	802.31250	2.28906	
11:56:10	5.54922	5.10938	25.14125	1,003.21875	7.58437	5.10938	741.93750	284.22186	9.33313	9.36625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.45475	800.18750	2.51750	
11:57:03	5.64453	5.16062	25.13675	1,002.56250	8.55937	5.16500	744.00000	285.47968	8.36625	8.36625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.47600	817.62500	2.52875	
11:57:55	5.68516	5.26625	25.13675	1,000.21875	7.79375	5.26625	744.12500	286.61719	7.86625	7.86625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.51850	832.68750	2.71563	
11:58:48	5.79219	5.27250	25.13675	996.89063	7.96562	5.28813	747.12500	285.99374	6.70000	6.70000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.40350	831.03125	2.65656	
11:59:40	6.04609	5.53750	25.13525	992.76563	7.43125	5.55375	750.28125	284.38593	6.46625	6.46625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.39000	-0.27075	820.46875	2.58219	
12:00:33	5.95469	5.52563	25.13600	989.71875	6.99687	5.51937	750.31250	282.83282	3.83313	3.80000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.46400	806.15625	2.23906	
12:01:25	5.95859	5.44000	25.13450	988.40625	6.77812	5.55062	751.78125	282.25311	3.56625	3.50000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.42925	811.81250	2.30625	
12:02:17	11.79297	11.13750	25.13375	989.06250	6.63750	11.00813	751.78125	281.99063	3.63313	3.56625	0.00000	0.00000	0.00000	0.66656	0.00000	0.33319	0.38000	-0.56275	825.06250	2.28906	

Unit 3
11/03/1999
Process Data
Test Run 3

TIME	DRY-02-3 %	WET-02-3 %	BAR-PRES in. Hg	U3-MN-STM °F	OPACITY-3 %	WET-O2-3 %	FGAS-FLO	UNIT-LOAD MW	ASH_PR_W	ASH_PR_E	A - ROW	B-ROW	C-ROW	D-ROW	E-ROW	F-ROW	NO_3HR_E lb/mmBtu	FURN_PRE	FW_FLOW	U3-02 %	Comment
12:03:10	5.59453	5.25187	25.13600	990.84375	7.20625	5.25187	748.71875	281.21405	3.76625	3.70000	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.38000	-0.61700	823.56250	2.13000	
12:04:02	5.59688	5.12437	25.13675	993.23438	7.25938	5.11438	747.43750	281.25781	3.50000	3.46625	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.38000	-0.64375	815.78125	2.05250	
12:04:55	5.44766	4.97625	25.13675	995.57813	6.85938	4.96250	747.00000	281.69531	3.60000	3.53312	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.38000	-0.59525	826.31250	1.96969	
12:05:47	5.39375	4.93563	25.13375	997.82813	6.84062	4.93563	741.93750	282.63593	3.53312	3.46625	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.38000	-0.50075	839.75000	2.07250	
12:06:40	5.45078	4.94500	25.13150	999.60938	6.73125	4.94625	741.87500	283.27032	3.50000	3.46625	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.38000	-0.46850	830.81250	2.17219	
12:07:32	5.46328	4.99312	25.13000	1,000.45313	6.69375	5.01062	742.25000	283.48907	3.50000	3.43313	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.38000	-0.62575	814.00000	2.10781	
12:08:25	5.55937	5.17750	25.13225	1,000.64063	6.94688	5.17750	742.25000	283.42343	3.50000	3.46625	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.38000	-0.50550	801.37500	1.99625	
12:09:17	5.43125	5.04750	25.13075	1,000.45313	6.75625	5.03125	741.81250	283.44531	3.33313	3.33313	0.33319	0.00000	0.00000	0.00000	0.00000	0.66656	0.38000	-0.53200	817.50000	2.03063	
12:10:10	5.40781	4.95750	25.13000	1,000.21875	6.87187	4.95500	739.18750	283.67499	3.80000	3.90000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.50125	835.59375	1.95219	
12:11:02	5.45547	4.88938	25.12625	1,000.40625	6.98750	4.87500	739.28125	283.44531	5.93313	6.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.48350	821.25000	1.91688	
12:11:55	5.27656	4.89000	25.12625	1,001.01563	7.89375	4.90562	737.84375	283.44531	7.80000	7.80000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.51275	812.62500	1.93750	
12:12:47	5.21953	4.88812	25.13150	1,002.23438	7.24062	4.87875	737.31250	283.66406	6.86625	6.90000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.50525	827.75000	2.04594	
12:13:39	5.26719	4.78562	25.12775	1,003.45313	7.05937	4.79313	737.21875	284.00311	7.03312	7.10000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.45700	832.21875	2.05094	
12:14:32	5.40078	5.03312	25.12775	1,004.01563	7.01875	5.04187	736.12500	284.34219	5.60000	5.66625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.48300	813.93750	2.26563	
12:15:24	5.43594	4.98000	25.12925	1,003.92188	7.02187	4.98625	736.09375	284.56094	5.63312	5.63312	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.53700	811.28125	2.25375	
12:16:17	5.66641	5.15875	25.12175	1,002.98438	7.04688	5.15875	736.96875	285.32657	4.60000	4.76625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.48000	820.68750	2.54281	
12:17:09	5.56094	5.12687	25.12175	1,001.57813	7.06250	5.14063	738.28125	285.87344	3.73312	3.83313	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.43125	834.87500	2.74469	
12:18:02	5.88281	5.37250	25.12475	999.14063	6.91563	5.38812	738.25000	285.79688	4.03312	4.10000	0.33319	0.66656	0.00000	0.00000	0.00000	0.00000	0.38000	-0.49525	832.90625	2.81250	
12:18:54	6.10938	5.62313	25.12475	995.57813	6.58437	5.64000	741.68750	284.85626	3.56625	3.66625	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.38000	-0.37875	806.12500	2.83219	Stop
12:19:47	6.12500	5.69187	25.12325	992.01563	7.12500	5.68563	743.81250	283.54376	3.13313	3.16625	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.38000	-0.50375	802.90625	2.72781	
12:20:39	6.17344	5.62875	25.12175	989.01563	6.91563	5.62437	743.84375	282.15469	2.93313	2.96625	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.38000	-0.54500	830.15625	2.55469	
12:21:32	6.09062	5.57750	25.11875	987.18750	6.77500	5.56812	743.81250	281.17032	2.93313	3.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.38000	-0.50775	846.84375	2.42406	
12:22:24	5.79766	5.39375	25.12400	986.67188	6.82813	5.37875	743.81250	281.26874	2.76625	2.93313	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.38000	-0.50975	834.37500	2.45000	
12:23:16	5.71484	5.28188	25.12100	986.95313	7.06250	5.28937	744.46875	280.31720	2.80000	2.90000	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.38000	-0.57100	820.56250	2.47469	
12:24:09	5.88594	5.34500	25.12325	987.75000	7.20000	5.32937	746.50000	280.54688	2.73312	2.86625	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.38000	-0.58625	802.37500	2.41313	
12:25:01	5.80547	5.19875	25.12175	988.17188	7.21250	5.21438	746.53125	280.56876	3.03312	3.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.52875	815.21875	2.44094	
12:25:54	5.71016	5.25375	25.12175	988.73438	6.69375	5.23812	746.50000	280.59064	3.56625	3.46625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.57650	822.03125	2.53562	Start
12:26:46	5.65625	5.20125	25.11800	988.78125	6.53438	5.20937	746.50000	279.84686	3.60000	3.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.55175	819.93750	2.05656	
12:27:39	5.82813	5.25063	25.11800	989.06250	6.49062	5.24000	746.53125	279.84686	3.56625	3.50000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.51475	827.96875	2.18187	
12:28:31	5.41875	4.97937	25.11800	989.90625	6.92188	4.97125	745.34375	280.86407	4.50000	4.50000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.37750	822.90625	2.36750	
12:29:24	5.47031	5.14125	25.11800	990.93750	6.72500	5.15688	743.87500	280.90781	8.10000	8.13313	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.47200	820.18750	2.33406	
12:30:16	5.50234	5.18125	25.11800	991.73438	6.78750	5.17562	743.84375	280.00000	8.70000	8.73312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.45600	821.53125	2.19969	
12:31:09	5.51406	5.10187	25.11725	992.62500	7.10625	5.09250	741.78125	280.08749	7.13312	7.16625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.51475	815.12500	2.30000	
12:32:01	5.34297	5.01062	25.11725	993.70313	7.40000	5.00562	741.65625	280.10938	6.86625	6.86625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.51850	818.87500	1.94094	
12:32:54	5.43281	4.95625	25.11650	995.15625	7.03750	4.95375	740.93750	281.43280	5.33313	5.26625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.50800	823.34375	2.28250	
12:33:46	5.28984	4.80813	25.12025	996.46875	7.25938	4.80875	740.40625	282.48282	4.66625	4.63312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.39350	819.43750	2.35812	
12:34:38	5.44531	5.07500	25.12025	996.65625	7.01250	5.09062	740.40625	283.25937	3.60000	3.56625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.50525	820.62500	2.32531	
12:35:31	5.61484	5.24687	25.11875	995.62500	6.74062	5.24625	738.87500	283.59845	3.50000	3.43313	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.57875	813.12500	2.44906	
12:36:23	5.57422	5.22875	25.11650	994.17188	6.59375	5.24438	738.90625	283.09531	3.90000	3.80000	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.38000	-0.54175	830.12500	2.39438	
12:37:16	5.74766	5.30438	25.11575	992.85938	6.68125	5.29875	738.62500	282.47186	4.26625	4.23313	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.38000	-0.39725	844.87500	2.23281	
12:38:08	5.62734	5.25125	25.11650	992.34375	6.75000	5.24937	736.78125	281.77188	3.63313	3.63313	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.38000	-0.38700	837.56250	2.30906	
12:39:01	5.51094	5.16187	25.11650	992.71875	7.01250	5.14563	736.71875	281.48749	3.70000	3.66625	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.38000	-0.44600	818.06250	2.30562	
12:39:53	5.56016	5.13562	25.11650	993.42188	6.64375	5.15188	734.25000	281.06094	3.50000	3.40000	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.38000	-0.45700	808.00000	2.23500	
12:40:46	5.56172	5.23250	25.11425	994.40625	6.59062	5.23250	733.12500	280.85312	3.53312	3.46625	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.38000	-0.49125	834.28125	2.22344	
12:41:38	5.49141	5.12500	25.11350	995.62500	6.76563	5.10813	732.96875	282.04532	3.43313	3.43313	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.38000	-0.40075	841.37500	2.53594	
12:42:31	5.41875	5.05188	25.11500	996.56250	7.09062	5.06000	731.50000	282.59219	3.26625	3.26625	0.33319	0.00000	0.00000	0.00000	0.66656	0.00000	0.38000	-0.44325	832.06250	2.37906	
12:43:23	5.74687	5.25187	25.11425	996.89063	6.92812	5.26687	731.50000	282.96405	2.96625	3.06625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.45175	828.71875	2.54813	
12:44:16	5.76094	5.35563	25.11275	996.32813	6.49687	5.36125	733.28125	283.24844	2.93313	3.03312	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.46175	823.34375	2.70531	
12:45:08	5.81172	5.39125	25.11350	994.87500	6.65312	5.39125	737.25000	283.25937	2.86625	2.96625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.47650	824.03125	2.61562	
12:46:00	6.02031	5.58375	25.11350	993.09375	7.00938	5.60000	737.34375	282.59219	3.20000	3.30000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.37750	836.06250	2.92500	
12:46:53	5.94219	5.53438	25.11350	991.17188	7.28438	5.53500	738.25000	280.96249	6.16625	6.23313	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.40500	838.21875	2.73219	
12:47:45	6.13359	5.62500	25.10825	989.34375	7.20313	5.62813	738.31250	279.72656	6.83313	6.90000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.57375	824.81250	2.47750	
12:48:38	5.95469	5.53562	25.10675	988.12500	7.32500	5.50437	738.65625	279.59531	5.76625	5.86625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.61275	823.28125	2.54969	
12:49:30	5.84062	5.24563	25.10900	987.56250	6.95625	5.25125	740.12500	279.44220	5.96625	6.06625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.61700	823.56250	2.41469	
12:50:23	5.74609	5.33938	25.11125	988.03125	6.90938	5.33000	740.15625	279.46405	6.56625	6.66625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.54675	827.46875	2.33969	
12:51:15	5.63672	5.20687	25.10975	989.06250	6.87187	5.21313	738.03125	279.79218	5.46625	5.56625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.59950	827.15625	2.39531	

Unit 3
11/03/1999
Process Data
Test Run 3

TIME	DRY-02-3 %	WET-02-3 %	BAR-PRES in. Hg	U3-MN-STM °F	OPACITY-3 %	WET-O2-3 %	FGAS-FLO	UNIT-LOAD MW	ASH_PR_W	ASH_PR_E	A - ROW	B-ROW	C-ROW	D-ROW	E-ROW	F-ROW	NO_3HR_E lb/mmBtu	FURN_PRE	FW_FLOW	U3-02 %	Comment
12:52:08	5.65078	5.28188	25.10750	989.95313	6.98438	5.28125	737.93750	280.04376	3.56625	3.66625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.46100	826.09375	2.20625	
12:53:00	5.67031	5.27437	25.10750	990.89063	7.62500	5.27437	738.06250	280.39374	4.03312	4.10000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.46850	825.75000	2.25969	
12:53:53	5.56797	5.17625	25.10750	991.78125	6.85000	5.16187	741.31250	281.17032	4.26625	4.36625	0.33319	0.00000	0.66656	0.00000	0.00000	0.00000	0.38000	-0.49400	837.00000	2.30813	
12:54:45	5.52891	5.09125	25.10975	992.48438	7.35938	5.09250	741.34375	281.60782	4.03312	4.13312	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.38000	-0.49650	834.15625	2.36000	
12:55:37	5.66641	5.16813	25.10900	992.90625	7.76875	5.18437	741.75000	281.78281	2.96625	3.03312	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.38000	-0.44725	827.06250	2.44031	Stop
12:56:30	5.67031	5.30937	25.10825	992.81250	6.91875	5.30500	742.59375	281.52032	2.83313	2.93313	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.38000	-0.39775	815.84375	2.49656	
12:57:22	5.67891	5.27688	25.10375	992.20313	6.90312	5.28188	742.56250	281.13751	2.83313	2.96625	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.38000	-0.48825	824.87500	2.42313	
12:58:15	5.82734	5.33563	25.10450	991.50000	6.72813	5.33563	738.71875	280.06561	2.76625	2.86625	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.38000	-0.32150	841.40625	2.31469	
12:59:07	5.73750	5.30312	25.10375	991.26563	6.40312	5.29187	738.00000	279.81406	2.73312	2.86625	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.38000	-0.26825	838.28125	2.31250	
13:00:00	5.62031	5.19375	25.10375	991.45313	6.73125	5.19688	738.06250	280.16406	2.76625	2.86625	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.38000	-0.18650	823.90625	2.70563	
13:00:52	5.63125	5.25562	25.10375	992.20313	6.96250	5.27125	738.87500	280.32813	3.36625	3.36625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.30125	824.68750	2.53844	
13:01:45	8.95469	8.57312	25.10525	993.00000	6.67500	9.54875	738.90625	280.38281	3.60000	3.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.53600	827.65625	2.42688	
13:02:37	8.84922	8.14688	25.10225	993.51563	6.71875	7.16875	738.18750	280.59064	3.50000	3.50000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.53100	821.90625	2.51062	
13:03:30	5.74297	5.40188	25.10375	993.84375	7.14687	5.40188	737.53125	280.73282	3.53312	3.50000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.41475	832.50000	2.55687	
13:04:22	5.72891	5.43563	25.10675	994.12500	6.58750	5.43750	737.56250	280.86407	3.36625	3.33313	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.63775	831.43750	2.54531	
13:05:15	5.91172	5.42375	25.10375	993.98438	6.57500	5.42250	741.50000	280.64532	6.33313	6.33313	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.66700	828.59375	2.62906	
13:06:07	5.73672	5.32250	25.10375	993.84375	7.01250	5.31063	744.96875	280.91876	9.16625	9.20000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.43750	830.71875	2.50500	
13:06:59	5.81484	5.34625	25.10375	993.37500	7.23125	5.35813	744.93750	280.92969	8.23312	8.26625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.13225	820.62500	2.39875	Start
13:07:52	5.80156	5.39250	25.10225	993.04688	7.47188	5.38312	744.12500	281.18124	6.60000	6.60000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.28850	829.96875	2.61562	
13:08:44	5.67500	5.35187	25.10450	992.85938	7.30937	5.35687	744.06250	281.35626	6.20000	6.20000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.17250	838.40625	2.58906	
13:09:37	5.85000	5.40438	25.10225	992.71875	7.30937	5.40875	745.53125	281.17032	3.90000	3.83313	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.15475	826.96875	2.64031	
13:10:29	5.83281	5.45563	25.10075	992.39063	7.18750	5.45563	747.21875	280.88593	3.60000	3.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.32725	810.12500	2.52938	
13:11:22	5.94922	5.40312	25.09850	992.01563	7.49687	5.39937	747.25000	280.64532	3.63313	3.63313	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.38000	-0.46650	826.93750	2.49969	
13:12:14	5.90234	5.41375	25.09925	991.78125	7.62500	5.40625	743.15625	280.47031	3.50000	3.46625	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.38000	-0.46225	839.03125	2.55875	
13:13:07	5.77422	5.30875	25.10225	991.73438	7.36875	5.31125	742.53125	280.31720	3.53312	3.46625	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.38000	-0.37325	831.53125	2.46500	
13:13:59	5.70859	5.33250	25.10225	991.87500	7.21562	5.32625	741.37500	281.10468	3.50000	3.43313	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.38000	-0.46250	829.46875	2.61812	
13:14:52	5.65625	5.25875	25.10150	991.92188	7.05625	5.25875	740.65625	281.03906	3.50000	3.46625	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.38000	-0.29875	826.09375	2.70438	
13:15:44	5.83984	5.46688	25.10225	991.45313	7.43125	5.49062	740.71875	280.71094	3.50000	3.50000	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.38000	-0.53200	818.65625	2.81406	
13:16:36	5.95781	5.55188	25.10000	990.56250	6.67500	5.55062	738.53125	280.13126	3.50000	3.46625	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.38000	-0.45850	806.50000	2.61750	
13:17:29	5.99375	5.50437	25.09775	990.23438	7.25625	5.49438	738.21875	279.40936	3.50000	3.50000	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.38000	-0.51625	826.28125	2.52781	
13:18:21	5.95156	5.42875	25.10075	990.37500	6.79375	5.44187	738.96875	279.03751	4.20000	4.30000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.44400	848.28125	2.49437	
13:19:14	5.75234	5.47437	25.10075	990.89063	6.80000	5.45813	744.93750	279.15781	5.46625	5.50000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.47225	836.03125	2.34188	
13:20:06	5.80781	5.37250	25.09925	991.96875	7.17812	5.37250	745.00000	279.50781	8.26625	8.36625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.56050	816.71875	2.23469	
13:20:59	5.63984	5.26125	25.09925	993.56250	7.64375	5.24563	745.46875	281.01718	7.46625	7.50000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.35750	822.71875	2.64438	
13:21:51	5.48203	5.07875	25.09625	995.29688	7.90312	5.06313	745.62500	281.48749	6.96625	7.06625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.55900	821.12500	2.71813	
13:22:44	5.77187	5.36875	25.09625	996.23438	7.89375	5.41687	745.65625	281.30157	5.86625	6.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.56925	814.65625	2.67625	
13:23:36	5.89766	5.58063	25.09700	996.23438	7.67188	5.58000	747.15625	280.64532	3.60000	3.66625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.60550	824.40625	2.51500	
13:24:29	5.93828	5.55250	25.09625	995.67188	7.10625	5.53750	747.28125	280.12030	4.13312	4.23313	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.30975	838.34375	2.37094	
13:25:21	5.84922	5.37500	25.09625	995.48438	7.14063	5.37250	747.25000	280.03281	4.76625	4.80000	0.33319	0.66656	0.00000	0.00000	0.00000	0.00000	0.38000	-0.54675	826.59375	2.25688	
13:26:14	5.68516	5.30312	25.09700	996.04688	7.07500	5.28562	747.28125	280.87500	3.93313	4.03312	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.38000	-0.68175	821.28125	2.32969	
13:27:06	5.44375	5.12250	25.09700	997.03125	6.96875	5.13062	747.18750	281.22501	3.03312	3.10000	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.38000	-0.58675	828.18750	2.38844	
13:27:58	5.63359	5.23313	25.09700	998.06250	6.95937	5.23313	747.12500	281.60782	2.90000	3.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.38000	-0.57950	829.12500	2.41781	
13:28:51	5.60313	5.23375	25.09625	998.43750	7.02187	5.23375	745.62500	281.87030	2.73312	2.83313	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.38000	-0.50225	826.59375	2.41781	
13:29:43	5.72188	5.28500	25.09700	998.57813	7.11875	5.29375	744.34375	281.88126	2.76625	2.90000	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.38000	-0.55300	825.12500	2.53500	
13:30:36	5.64141	5.21438	25.09625	998.62500	6.57188	5.21375	744.43750	281.83749	2.76625	2.86625	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.38000	-0.47300	828.50000	2.45719	
13:31:28	5.76563	5.31625	25.09325	998.34375	6.77187	5.31938	743.87500	281.25781	2.80000	2.86625	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.38000	-0.59700	826.46875	2.18656	
13:32:21	5.74297	5.26312	25.09550	998.34375	6.54375	5.24750	743.68750	281.57501	3.23312	3.26625	0.00000	0.33319	0.00000	0.66656	0.00000	0.00000	0.38000	-0.53125	819.59375	2.41438	
13:33:13	5.43984	5.12563	25.09400	998.57813	6.42500	5.12187	743.25000	281.73907	3.60000	3.56625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.40900	823.00000	2.39125	
13:34:06	5.63359	5.24813	25.09475	998.85938	6.57500	5.27250	741.25000	281.21405	3.60000	3.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.39025	827.03125	2.28938	
13:34:58	5.67969	5.24500	25.09475	998.95313	6.45313	5.23875	741.28125	281.01718	3.60000	3.50000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.57500	828.37500	2.31844	
13:35:51	5.63984	5.17125	25.09250	999.23438	7.25313	5.16437	741.09375	281.03906	3.46625	3.36625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.51750	836.78125	2.19625	
13:36:43	5.62656	5.13500	25.08950	999.70313	7.22813	5.13750	738.21875	281.00626	6.20000	6.26625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.38000	-0.36375	836.25000	2.46500	End

Unit 3
11/03/1999
Process Data
Test Run 3

TIME	DRY-02-3 %	WET-02-3 %	BAR-PRES in. Hg	U3-MN-STM °F	OPACITY-3 %	WET-O2-3 %	FGAS-FLO	UNIT-LOAD MW	ASH_PR_W	ASH_PR_E	A - ROW	B-ROW	C-ROW	D-ROW	E-ROW	F-ROW	NO_3HR_E lb/mmBtu	FURN_PRE	FW_FLOW	U3-02 %	Comment
Overall Summary																					
Average	5.74673	5.31093	25.12368	995.64901	7.02058	5.31092	741.84813	282.32915	4.50529	4.52356	0.26827	0.09552	0.09349	0.35160	0.09349	0.09755	0.38323	-0.47142	821.96456	2.35885	
Maximum	11.79297	11.13750	25.15925	1,004.01563	8.55937	11.00813	751.78125	286.61719	9.33313	9.36625	0.99994	0.99994	0.99994	0.99994	0.99994	0.99994	0.39000	-0.04125	848.28125	2.92500	
Minimum	5.21953	4.78562	25.08950	986.67188	6.06563	4.79313	731.50000	279.03751	2.73312	2.83313	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.73900	788.18750	1.86781	
Unit 3 Test Run 3 Summary																					
Average	5.69805	5.26214	25.12469	996.14398	7.04714	5.26223	741.91920	282.42211	4.69410	4.70573	0.31426	0.06904	0.03809	0.35474	0.10952	0.11428	0.38343	-0.47044	821.63326	2.33853	
Maximum	11.79297	11.13750	25.15925	1,004.01563	8.55937	11.00813	751.78125	286.61719	9.33313	9.36625	0.99994	0.99994	0.99994	0.99994	0.99994	0.99994	0.39000	-0.04125	848.28125	2.92500	
Minimum	5.21953	4.78562	25.08950	987.56250	6.06563	4.79313	731.50000	279.03751	2.73312	2.83313	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.38000	-0.73900	788.18750	1.86781	

Unit 3
Test Run 4
Coal Feeders
11/03/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
14:58:05	75.25625	80.17812	64.94063	73.38125	293.75625	Start
14:58:58	75.26875	80.14375	64.99062	73.42812	293.83124	
14:59:50	74.55312	79.30937	63.93438	72.70313	290.50000	
15:00:43	73.41875	78.26875	63.00312	71.53750	286.22812	
15:01:35	72.41250	77.34375	62.05938	70.64687	282.46250	
15:02:28	72.51875	77.33437	61.71250	70.63125	282.19687	
15:03:20	72.47188	77.18125	61.98438	70.69688	282.33439	
15:04:13	74.06250	78.94063	63.53125	72.15938	288.69376	
15:05:05	75.36562	80.35000	64.88438	73.58750	294.18750	
15:05:58	73.68125	78.43437	63.25000	71.83437	287.19999	
15:06:50	74.26250	79.19375	63.90000	72.48750	289.84375	
15:07:42	74.44375	79.21250	63.98125	72.55625	290.19375	
15:08:35	75.98125	80.83125	65.46875	74.06563	296.34688	
15:09:27	76.05312	80.80625	65.47188	74.14687	296.47812	
15:10:20	77.54688	82.30000	66.96250	75.63125	302.44063	
15:11:12	76.65000	81.37500	66.05000	74.76250	298.83750	
15:12:05	75.88438	80.67188	65.36250	73.97813	295.89689	
15:12:57	76.78438	81.42188	66.05937	74.77500	299.04063	
15:13:50	77.12187	81.86562	66.53438	75.34688	300.86875	
15:14:42	76.90312	81.57813	66.30937	74.87813	299.66875	
15:15:35	73.82813	78.59688	63.37188	71.99687	287.79376	
15:16:27	72.29688	77.24062	61.83750	70.53750	281.91250	
15:17:20	71.44063	76.27187	60.99375	69.50000	278.20625	
15:18:12	72.18125	77.04063	61.79063	70.40625	281.41876	
15:19:04	73.70313	78.55312	63.32500	71.95937	287.54062	
15:19:57	73.02812	77.91875	62.65625	71.19375	284.79687	
15:20:49	73.52500	78.22813	62.99062	71.49062	286.23437	
15:21:42	73.54688	78.10625	62.95625	71.58750	286.19688	
15:22:34	73.86250	78.70625	63.35625	71.92812	287.85312	
15:23:27	74.47500	79.36562	63.97813	72.75938	290.57813	
15:24:19	75.13125	80.05625	64.63750	73.26250	293.08750	
15:25:12	77.23750	81.95937	66.57813	75.22813	301.00313	
15:26:04	76.27500	81.03438	65.74062	74.41563	297.46563	
15:26:57	75.49687	80.27812	64.90312	73.61875	294.29686	
15:27:49	75.07813	79.94063	64.60938	73.17812	292.80626	Stop
15:38:19	75.74062	80.54375	65.26563	73.81250	295.36250	Start
15:39:11	76.42812	81.16563	65.78750	74.49062	297.87187	

Unit 3
Test Run 4
Coal Feeders
11/03/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
15:40:03	73.74687	78.58750	63.24062	71.91563	287.49062	
15:40:56	72.85000	77.56250	62.37500	70.91563	283.70313	
15:41:48	73.22500	77.86562	62.67500	71.17188	284.93750	
15:42:41	72.38750	77.21250	62.01875	70.56563	282.18438	
15:43:33	72.93125	77.78125	62.53125	71.08125	284.32500	
15:44:26	72.95625	77.77812	62.40000	70.97813	284.11250	
15:45:18	73.28438	78.13750	62.87500	71.37500	285.67188	
15:46:11	75.29375	80.04688	64.70000	73.28125	293.32188	
15:47:03	77.63438	82.36875	67.04063	75.70937	302.75313	
15:47:56	75.79063	80.56563	65.17812	73.81875	295.35313	
15:48:48	74.33437	79.23750	63.90313	72.58125	290.05625	
15:49:41	74.37813	79.22188	63.91250	72.55625	290.06876	
15:50:33	72.52812	77.34375	61.89375	70.68750	282.45312	
15:51:25	72.61562	77.43125	62.32188	70.69688	283.06563	
15:52:18	73.15625	77.90625	62.69688	71.31563	285.07501	
15:53:10	73.08437	77.80000	62.67188	71.31563	284.87188	
15:54:03	73.55000	78.38750	63.20313	71.83750	286.97813	
15:54:55	73.69375	78.66875	63.36875	72.01250	287.74375	
15:55:48	73.80625	78.55000	63.24688	71.90938	287.51251	
15:56:40	75.49375	80.30000	65.07813	73.62813	294.50001	
15:57:33	74.55000	79.42500	64.10625	72.73750	290.81875	
15:58:25	74.11875	78.90000	63.56875	72.22500	288.81250	
15:59:18	73.83750	78.60313	63.28125	71.88125	287.60313	
16:00:10	74.33750	79.06563	63.75000	72.50313	289.65626	
16:01:02	75.81250	80.58437	65.24375	73.89375	295.53437	
16:01:55	73.81563	78.64063	63.39063	72.05625	287.90314	
16:02:47	74.17500	78.92500	63.71250	72.22813	289.04063	
16:03:40	73.90000	78.71562	63.50625	72.20937	288.33124	
16:04:32	73.59688	78.31875	63.06875	71.76875	286.75313	
16:05:25	73.67812	78.44063	63.25625	71.72188	287.09688	
16:06:17	73.49062	78.16563	62.72187	71.46250	285.84062	
16:07:10	73.01250	77.89375	62.36562	71.11875	284.39062	
16:08:02	71.92188	76.74687	61.45625	69.94688	280.07188	Stop
16:17:39	74.97813	79.80937	64.34062	73.11562	292.24374	Start
16:18:32	73.92500	78.78438	63.51875	72.08750	288.31563	
16:19:24	73.17188	77.98125	62.79375	71.23125	285.17813	
16:20:17	72.50000	77.45937	62.02500	70.60625	282.59062	

Unit 3
Test Run 4
Coal Feeders
11/03/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
16:21:09	72.25625	77.24687	61.97500	70.65938	282.13750	
16:22:02	72.43125	77.28438	61.87500	70.68750	282.27813	
16:22:54	73.96250	78.64375	63.46875	72.07813	288.15313	
16:23:46	73.68437	78.40312	63.17812	71.74687	287.01248	
16:24:39	73.30625	78.30937	63.00938	71.60000	286.22500	
16:25:31	73.38438	78.20313	62.96875	71.66563	286.22189	
16:26:24	73.78125	78.52812	63.31875	72.03750	287.66562	
16:27:16	73.57500	78.30312	63.23750	71.89687	287.01249	
16:28:09	74.09688	78.90938	63.57500	72.14687	288.72813	
16:29:01	74.57188	79.28750	63.89063	72.50625	290.25626	
16:29:54	74.63750	79.44063	64.06563	72.81875	290.96251	
16:30:46	73.96562	78.75625	63.60938	72.08125	288.41250	
16:31:39	74.26250	79.29688	63.99062	72.67812	290.22812	
16:32:31	74.22813	78.85938	63.72187	72.10000	288.90938	
16:33:23	73.94063	78.67500	63.50312	72.15938	288.27813	
16:34:16	74.22188	79.03750	63.79688	72.45937	289.51563	
16:35:08	74.88750	79.73438	64.37813	72.87500	291.87501	
16:36:01	74.80625	79.75625	64.42812	72.90938	291.90000	
16:36:53	74.53438	79.54063	64.10313	72.75625	290.93439	
16:37:46	74.40625	79.42188	63.88125	72.62500	290.33438	
16:38:38	74.39063	79.20625	63.85313	72.65938	290.10939	
16:39:31	74.45000	79.24375	63.97500	72.66875	290.33750	
16:40:23	74.46875	79.25938	64.09688	72.66875	290.49376	
16:41:16	74.18750	78.95937	63.81562	72.38125	289.34374	
16:42:08	73.61875	78.30000	63.17500	71.78438	286.87813	
16:43:01	73.83125	78.68750	63.43438	72.01875	287.97188	
16:43:53	74.88750	79.62813	64.31563	72.79063	291.62189	
16:44:45	74.54688	79.27187	64.02187	72.72813	290.56875	
16:45:38	73.31875	78.15625	62.85313	71.44063	285.76876	
16:46:30	72.59688	77.50938	62.24688	70.77500	283.12814	
16:47:23	72.95313	77.37813	62.23438	71.05625	283.62189	Stop
16:53:30	73.66250	78.61875	63.20937	71.82188	287.31250	Start
16:54:22	73.71250	78.52812	63.35313	71.90312	287.49687	
16:55:15	73.20937	78.05312	62.85313	71.37187	285.48749	
16:56:07	72.33125	77.21875	61.87812	70.58750	282.01562	
16:57:00	73.49062	78.25313	63.02500	71.61875	286.38750	
16:57:52	73.84375	78.63125	63.28750	72.02812	287.79062	

Unit 3
Test Run 4
Coal Feeders
11/03/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
16:58:45	71.67188	76.47500	61.25938	69.89687	279.30313	
16:59:37	71.07813	75.97813	60.62500	69.28438	276.96564	
17:00:30	72.58750	77.42500	62.14375	70.73438	282.89063	
17:01:22	75.68437	80.47813	65.15938	73.71875	295.04063	
17:02:15	75.87500	80.55000	65.31250	73.93125	295.66875	
17:03:07	75.06875	79.85000	64.64687	73.12813	292.69375	
17:04:00	75.35938	80.06875	64.80000	73.41875	293.64688	
17:04:52	74.80625	79.55937	64.31875	72.83437	291.51874	
17:05:44	76.51563	81.27187	65.98125	74.67500	298.44375	
17:06:37	76.07188	80.83437	65.44063	74.16250	296.50938	
17:07:29	75.10313	79.95000	64.49687	73.13125	292.68125	
17:08:22	74.25000	79.01875	63.78750	72.45313	289.50938	
17:09:14	73.05937	77.88750	62.76875	71.30000	285.01562	
17:10:07	73.94375	78.73750	63.45000	72.02812	288.15937	
17:10:59	74.72813	79.55000	64.26563	72.82500	291.36876	
17:11:52	74.80312	79.53125	64.16875	72.91875	291.42187	
17:12:44	73.11875	77.81250	62.61562	71.14063	284.68750	
17:13:37	72.26563	77.13125	61.75625	70.43437	281.58750	
17:14:29	72.59688	77.44688	62.16875	70.82500	283.03751	
17:15:21	74.48750	79.22188	63.98750	72.56563	290.26251	
17:16:13	75.75313	80.64687	65.29375	73.85938	295.55313	
17:17:06	74.00000	78.77812	63.55625	72.12500	288.45937	
17:17:58	73.29375	78.12500	62.84687	71.50938	285.77500	
17:18:51	72.32500	77.29375	61.91875	70.51250	282.05000	
17:19:43	73.54375	78.40625	63.16250	71.58125	286.69375	
17:20:36	73.75938	78.66875	63.30938	72.07813	287.81564	
17:21:28	74.36875	79.22188	63.94688	72.52500	290.06251	
17:22:21	74.43750	79.24062	63.88750	72.53438	290.10000	
17:23:13	76.37187	81.24062	65.81250	74.52812	297.95311	End

Unit 3
Test Run 4
Coal Feeders
11/03/1999

TIME	A-FEEDER (klb/hr)	B-FEEDER (klb/hr)	C-FEEDER (klb/hr)	D-FEEDER (klb/hr)	Coal Feed (klb/hr)	Comment
Overall Daily Summary						
Average	74.15475	78.95992	63.66785	72.29233	289.07485	
Maximum	77.63438	82.36875	67.04063	75.70937	302.75313	
Minimum	71.07813	75.97813	60.62500	69.28438	276.96564	
Unit 2 Test Run 4 Summary						
Average	74.13462	78.94214	63.65069	72.27284	289.00029	
Maximum	77.63438	82.36875	67.04063	75.70937	302.75313	
Minimum	71.07813	75.97813	60.62500	69.28438	276.96564	

Unit 3
Process Analog Data Listing
Test Run 4

Point		U3_02_wet_O3	U3_02_dry_O3	U3_Load_O3	U3_Heat Input_07	U3_NOx__ mBtu_07	U3_H20_ %_07	U3_CO2_%_07	U3_SO2m mBtu_07	U3_Flo _Hr_07
Units		%	%	MWatt	mmBtu/hr	#/mmbtu	%	%	SO_2 mmBtu	SCFH
Full Scale		20.00	20.00	350	9000	1.000	100.00	1000.00	1.20	61080000
11/03/99	14:50	5.30	5.70	281	3069	0.408	7.02	13.39	0.65	44,388,000
11/03/99	14:51	5.30	5.80	281	3003	0.405	8.62	13.30	0.65	44,478,000
11/03/99	14:52	5.50	5.80	280	3116	0.413	5.17	13.30	0.64	44,478,000
11/03/99	14:53	5.50	5.90	280	3043	0.419	6.78	13.21	0.64	44,484,000
11/03/99	14:54	5.30	5.80	280	3003	0.406	8.62	13.3	0.65	44,478,000
11/03/99	14:55	5.40	5.80	280	3059	0.417	6.90	13.30	0.65	44,478,000
11/03/99	14:56	5.30	5.80	280	3003	0.401	8.62	13.30	0.65	44,478,000
11/03/99	14:57	5.10	5.60	280	3024	0.392	8.93	13.47	0.65	44,358,000
11/03/99	14:58	5.30	5.70	280	3062	0.387	7.02	13.39	0.65	44,280,000
11/03/99	14:59	5.40	5.90	279	2975	0.410	8.47	13.21	0.66	44,298,000
11/03/99	15:00	5.50	6.00	279	2963	0.422	8.33	13.12	0.65	44,334,000
11/03/99	15:01	5.50	6.00	279	2963	0.430	8.33	13.12	0.65	44,334,000
11/03/99	15:02	5.71	6.01	279	3077D	0.419D	5.OOD	13.12D	0.65D	44,430,000
11/03/99	15:03	5.3D	5.9D	279	2930D	0.412D	10.17D	13.12D	0.65D	44,442,000
11/03/99	15:04	5.30	5.70	279	3069	0.403	7.02	13.39	0.65	44,388,000
11/03/99	15:05	5.40	5.90	279	2980	0.417	8.47	13.21	0.65	44,370,000
11/03/99	15:06	5.50	5.90	279	3044	0.422	6.78	13.21	0.65	44,502,000
11/03/99	15:07	5.50	6.00	279	2984	0.430	8.33	13_12	0.66	44,652,000
11/03/99	15:08	5.50	5.90	280	3052	0.421	6.78	13.21	0.66	44,610,000
11/03/99	15:09	5.20	5.70	281	3020	0.403	8.77	13.39	0.65	44,514,000
11/03/99	15:10	5.50	5.90	280	3047	0.414	6.78	13_21	0.66	44,538,000
11/03/99	15:11	5.50	5.90	279	3059	0.416	6.78	13_21	0.65	44,718,000
11/03/99	15:12	5.40	5.80	279	3076	0.411	6.90	13.30	0.65	44,718,000
11/03/99	15:13	5.50	5.80	279	3115	0.411	5.17	13.30	0.64	44,472,000
11/03/99	15:14	5.40	5.80	279	3053	0.415	6.90	13.30	0.64	44,388,000
11/03/99	15:15	5.40	5.90	279	2984	0.427	8.47	13_21	0.65	44,430,000
11/03/99	15:16	5.40	5.80	280	3057	0.426	6.90	13.30	0.64	44,448,000
11/03/99	15 : 17	5.20	5.70	281	3018	0.405	8.77	13.39	0.65	44,484,000
11/03/99	15:18	5.40	5.80	281	3065	0.416	6.90	13.30	0.65	44,568,000
11/03/99	15:19	5.60	6.00	281	3032	0.420	6.67	13.12	0.65	44,568,000
11/03/99	15:20	5.50	5.90	281	3062	0.411	6.78	13.21	0.65	44,754,000
11/03/99	15:21	5.40	5.80	281	3078	0.408	6.90	13.30	0.65	44,754,000
11/03/99	15:22	5.70	6.10	279	3035	0.435	6.56	13_03	0.65	44,856,000
11/03/99	15:23	5.60	6.00	278	3054	0.423	6.67	13.12	0.65	44,886,000
11/03/99	15:24	5.40	5.80	278	3087	0.415	6.90	13.30	0.65	44,886,000
11/03/99	15:25	5.30	5.80	279	3030	0.412	8.62	13_30	0.65	44,886,000
11/03/99	15:26	5.30	5.80	279	3030	0.406	8.62	13.30	0.65	44,886,000
11/03/99	15:27	5.30	5.70	279	3104	0.399	7.02	13_39	0.65	44,886,000
11/03/99	15:28	5.20	5.60	280	3113	0.394	7.14	13_47	0.65	44,784,000
11/03/99	15:29	5.30	5.70	280	3090	0.397	7.02	13.39	0.65	44,694,000
11/03/99	15:30	5.20	5.70	280	3028	0.397	8.77	13.39	0.65	44,640,000
11/03/99	15:31	5.30	5.70	281	3077	0.398	7.02	13.39	0.65	44,496,000
11/03/99	15:32	5.50	5.90	280	3040	0.412	6.78	13.21	0.65	44,436,000
11/03/99	15:33	5.50	5.90	280	3030	0.411	6.78	13.21	0.65	44,298,000
11/03/99	15:34	5.50	5.90	279	3030	0.412	6.78	13.21	0.65	44,298,000
11/03/99	15:35	5.20	5.70	280	3003	0.399	8.77	13.39	0.65	44,268,000
11/03/99	15:36	5.30	5.70	280	3060	0.399	7.02	13.39	0.65	44,256,000
11/03/99	15:37	5.30	5.80	280	3001	0.404	8.62	13.30	0.65	44,448,000
11/03/99	15:38	5.30	5.80	280	3001	0.401	8.62	13.30	0.65	44,448,000
11/03/99	15:39	5.20	5.70	279	3018	0.394	8.77	13.39	0.64	44,490,000
11/03/99	15:40	5.10	5.50	280	3110	0.380	7.27	13.56	0.64	44,520,000
11/03/99	15:41	5.20	5.50	280	3171	0.383	5.45	13.56	0.64	44,508,000
11/03/99	15:42	5.10	5.60	280	3031	0.384	8.93	13.47	0.65	44,460,000
11/03/99	15:43	5.10	5.60	281	3031	0.386	8.93	13.47	0.65	44,460,000
11/03/99	15:44	5.20	5~6	281	3083	0.391	7.14	13.47	0.65	44,358,000
11/03/99	15:45	5.20	5.60	281	3083	0.389	7.14	13.47	0.65	44,352,000
11/03/99	15:46	5.40	5.80	281	3051	0.404	6.90	13.30	0.65	44,358,000
11/03/99	15:47	5.30	5.70	281	3068	0.398	7.02	13.39	0.65	44,370,000
11/03/99	15:48	5.20	5.70	280	3009	0.398	8.77	13.39	0.65	44,358,000
11/03/99	15:49	5.20	5.70	280	3009	0.395	8.77	13.39	0.65	44,352,000
11/03/99	15:50	5.30	5.70	280	3065	0.391	7.02	13.39	0.65	44,322,000
11/03/99	15:51	5.10	5.60	279	3016	0.382	8.93	13.47	0.65	44,244,000
11/03/99	15:52	5.00	5.50	280	3029	0.380	9.09	13.56	0.66	44,226,000
11/03/99	15:53	5.00	5.40	281	3091	0.373	7.41	13.65	0.66	44,028,000
11/03/99	15:54	5.30	5.80	281	2971	0.399	8.62	13.30	0.66	44,016,000
11/03/99	15:55	5.40	5.80	282	3032	0.402	6.90	13.30	0.66	44,088,000
11/03/99	15:56	5.30	5.70	282	3053	0.395	7.02	13.39	0.65	44,148,000
11/03/99	15:57	5.40	5.70	281	3116	0.397	5.26	13.39	0.65	44,226,000
11/03/99	15:58	5.30	5.70	281	3060	0.395	7.02	13.39	0.65	44,256,000
11/03/99	15:59	5.30	5.70	281	3068	0.394	7.02	13.39	0.65	44,376,000
11/03/99	16:00	5.10	5.50	281	3110	0.380	7.27	13.56	0.65	44,520,000
11/03/99	16:01	5.10	5.60	281	3034	0.385	8.93	13.47	0.65	44,514,000
11/03/99	16:02	5.3D	5.8D	281	3004D	0.401D	8.62D	13.30D	0.65D	44,502,000
11/03/99	16:03	5.4D	5.8D	281	3061D	0.395D	6.90D	13.30D	0.66D	44,502,000
11/03/99	16:04	5.30	5.80	281	3026	0.400	8.62	13.30	0.66	44,820,000
11/03/99	16:05	5.30	5.70	280	3099	0.391	7.02	13.39	0.66	44,826,000
11/03/99	16:06	5.10	5.40	280	3211	0.377	5.56	13.65	0.66	44,832,000
11/03/99	16:07	5.20	5.50	282	3182	0.386	5.45	13.56	0.66	44,670,000
11/03/99	16:08	5.40	5.90	282	3000	0.406	8.47	13.21	0.67	44,658,000
11/03/99	16:09	5.40	5.90	281	2991	0.404	8.47	13.21	0.67	44,526,000
11/03/99	16:10	5.50	6.00	281	2971	0.413	8.33	13.12	0.67	44,466,000
11/03/99	16:11	5.30	5.90	281	2919	0.401	10.17	13.21	0.67	44,286,000
11/03/99	16:12	5.40	5.70	280	3105	0.397	5.26	13.39	0.66	44,076,000
11/03/99	16:13	5.30	5.70	280	3048	0.394	7.02	13.39	0.66	44,076,000
11/03/99	16:14	5.10	5.50	280	3079	0.383	7.27	13.56	0.66	44,076,000
11/03/99	16:15	5.10	5.50	281	3081	0.385	7.27	13.56	0.66	44,106,000
11/03/99	16:16	5.20	5.60	282	3072	0.396	7.14	13.47	0.66	44,202,000
11/03/99	16:17	5.40	5.90	282	2969	0.410	8.47	13.21	0.66	44,208,000
11/03/99	16:18	5.60	6.10	282	2942	0.424	8.20	13.03	0.66	44,268,000
11/03/99	16:19	5.40	5.90	281	2982	0.415	8.47	13.21	0.66	44,388,000
11/03/99	16:20	5.40	5.80	280	3053	0.405	6.90	13.30	0.66	44,388,000
11/03/99	16:21	5.20	5.60	279	3087	0.390	7.14	13.47	0.66	44,406,000

Unit 3
Process Analog Data Listing
Test Run 4

Point		U3_02_wet_03	U3_02_dry_03	U3_Load_03	U3_Heat Input_07	U3_NOx__ mBtu_07	U3_H20_ %_07	U3_CO2_%_07	U3_SO2m mBtu_07	U3_Flo _Hr_07
Units		%	%	MWatt	mmBtu/hr	#/mmbtu	%	%	SO_2 mmBtu	SCFH
Full Scale		20.00	20.00	350	9000	1.000	100.00	1000.00	1.20	61080000
11/03/99	16:22	5.30	5.80	279	2998	0.398	8.62	13.30	0.66	44,406,000
11/03/99	16:23	5.00	5.80	279	2827	0.380	13.79	13.30	0.68	44,382,000
11/03/99	16:24	5.10	5.30	280	3259	0.378	3.77	13.74	0.65	44,370,000
11/03/99	16:25	5.10	5.50	281	3100	0.384	7.27	13.56	0.66	44,370,000
11/03/99	16:26	5.30	5.50	282	3221	0.394	3.64	13.56	0.65	44,370,000
11/03/99	16:27	5.50	5.80	282	3108	0.408	5.17	13.30	0.65	44,370,000
11/03/99	16:28	5.30	5.90	281	2919	0.401	10.17	13.21	0.67	44,274,000
11/03/99	16:29	5.30	5.70	281	3060	0.398	7.02	13.39	0.66	44,262,000
11/03/99	16:30	5.20	5.70	281	3003	0.392	8.77	13.39	0.67	44,262,000
11/03/99	16:31	5.30	5.60	281	3136	0.389	5.36	13.47	0.66	44,262,000
11/03/99	16:32	5.40	5.70	281	3119	0.403	5.26	13.39	0.66	44,268,000
11/03/99	16:33	5.40	5.90	281	2990	0.408	8.47	13.21	0.67	44,514,000
11/03/99	16:34	5.30	5.70	281	3079	0.399	7.02	13.39	0.66	44,538,000
11/03/99	16:35	5.50	5.90	281	3043	0.413	6.78	13.21	0.66	44,478,000
11/03/99	16:36	5.20	5.70	280	3017	0.394	8.77	13.39	0.66	44,478,000
11/03/99	16:37	5.10	5.50	280	3110	0.381	7.27	13.56	0.67	44,514,000
11/03/99	16:38	5.20	5.60	281	3097	0.389	7.14	13.47	0.67	44,550,000
11/03/99	16:39	5.40	6.00	282	2915	0.419	10.00	13.12	0.67	44,430,000
11/03/99	16:40	5.50	6.00	280	2969	0.418	8.33	13.12	0.67	44,430,000
11/03/99	16:41	5.40	5.90	280	2984	0.413	8.47	13.21	0.67	44,424,000
11/03/99	16:42	5.30	5.80	280	2998	0.400	8.62	13.30	0.67	44,406,000
11/03/99	16:43	5.30	5.70	280	3070	0.395	7.02	13.39	0.67	44,400,000
11/03/99	16:44	5.10	5.60	280	3025	0.385	8.93	13.47	0.67	44,370,000
11/03/99	16:45	5.10	5.40	280	3176	0.378	5.56	13.65	0.66	44,346,000
11/03/99	16:46	5.10	5.50	281	3089	0.384	7.27	13.56	0.67	44,220,000
11/03/99	16:47	5.40	5.90	282	2970	0.409	8.47	13.21	0.67	44,220,000
11/03/99	16:48	5.40	5.80	281	3047	0.404	6.90	13.30	0.66	44,310,000
11/03/99	16:49	5.30	5.80	281	2993	0.400	8.62	13.30	0.66	44,334,000
11/03/99	16:50	5.40	5.80	281	3057	0.402	6.90	13.30	0.66	44,442,000
11/03/99	16:51	5.30	5.70	281	3085	0.399	7.02	13.39	0.66	44,616,000
11/03/99	16:52	5.40	5.90	281	3003	0.407	8.47	13.21	0.67	44,706,000
11/03/99	16:53	5.50	5.90	281	3066	0.412	6.78	13.21	0.66	44,814,000
11/03/99	16:54	5.40	5.90	281	3012	0.409	8.47	13.21	0.66	44,838,000
11/03/99	16:55	5.40	5.90	281	3019	0.412	8.47	13.21	0.67	44,952,000
11/03/99	16:56	5.40	5.90	281	3020	0.407	8.47	13.21	0.67	44,958,000
11/03/99	16:57	5.50	5.80	281	3155	0.410	5.17	13.30	0.66	45,036,000
11/03/99	16:58	5.40	6.00	280	2956	0.411	10.00	13.12	0.67	45,054,000
11/03/99	16:59	5.40	5.80	280	3093	0.403	6.90	13.30	0.67	44,970,000
11/03/99	17:00	5.40	5.80	279	3088	0.404	6.90	13.30	0.67	44,904,000
11/03/99	17:01	5.40	5.80	279	3080	0.404	6.90	13.30	0.67	44,784,000
11/03/99	17:02	5.2D	5.71	279	3016D	0.388D	8.77D	13 .39D	0.67D	44,460,000
11/03/99	17:03	5.61	5.61	280	3328D	0.403D	O.OOD	13.47D	0.65D	44,460,000
11/03/99	17:04	5.40	6.10	280	2844	0.411	11.48	13.03	0.67	44,370,000
11/03/99	17:05	5.40	5.90	279	2980	0.409	8.47	13.21	0.67	44,370,000
11/03/99	17:06	5.50	5.90	279	3041	0.411	6.78	13.21	0.66	44,454,000
11/03/99	17:07	5.30	5.90	279	2936	0.404	10.17	13.21	0.67	44,538,000
11/03/99	17:08	5.20	5.70	280	3027	0.394	8.77	13.39	0.67	44,622,000
11/03/99	17:09	5.40	5.60	280	3233	0.396	3.57	13.47	0.66	44,796,000
11/03/99	17:10	5.20	5.80	281	2961	0.396	10.34	13.30	0.67	44,706,000
11/03/99	17:11	5.50	5.70	281	3192	0.409	3.51	13.39	0.65	44,484,000
11/03/99	17:12	5.30	5.80	280	3003	0.402	8.62	13.30	0.66	44,478,000
11/03/99	17:13	5.10	5.50	281	3102	0.384	7.27	13.56	0.66	44,406,000
11/03/99	17:14	5.10	5.60	281	3022	0.388	8.93	13.47	0.66	44,334,000
11/03/99	17:15	5.30	5.80	282	2991	0.398	8.62	13.30	0.67	44,304,000
11/03/99	17:16	5.50	5.90	282	3018	0.411	6.78	13.21	0.66	44,118,000
11/03/99	17:17	5.60	5.90	281	3073	0.417	5.08	13.21	0.66	44,118,000
11/03/99	17:18	5.60	6.00	280	3010	0.421	6.67	13.12	0.66	44,244,000
11/03/99	17:19	5.30	6.00	279	2849	0.407	11.67	13.12	0.67	44,244,000
11/03/99	17:20	5.30	5.70	280	3060	0.401	7.02	13.39	0.66	44,262,000
11/03/99	17:21	5.30	5.80	280	2989	0.398	8.62	13.30	0.67	44,280,000
11/03/99	17:22	5.50	5.70	280	3182	0.407	3.51	13.39	0.65	44,352,000
11/03/99	17:23	5.40	5.80	280	3063	0.402	6.90	13.30	0.66	44,538,000
11/03/99	17:24	5.30	5.70	280	3079	0.397	7.02	13.39	0.66	44,538,000
Average		**5.30**	**5.80**	**280**	**3044**	**0.402**	**7.54**	**13.33**	**0.66**	**44,463,910**
Minimum		**5.00**	**5.30**	**278**	**2827**	**0.373**	**3.51**	**13.03**	**0.64**	**44,016,000**
Maximum		**5.70**	**6.10**	**282**	**3259**	**0.435**	**13.79**	**13.74**	**0.68**	**45,054,000**
missing	**(%)**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Invalid	**(%)**	**3.87**	**3.87**	**0.00**	**3.87**	**3.87**	**3.87**	**3.87**	**3.87**	**0.00**
O O Cal	**(%)**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
In Cal	**(%)**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Valid	**(%)**	**96.13**	**96.13**	**100.00**	**96.13**	**96.13**	**96.13**	**96.13**	**96.13**	**100.00**
Available	**(%)**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

M	**MissingData**	**F**	**PowerFailure**	**P**	**InPurge**	**f**	**DiscreteMissing**	**D**	**Downed**	**C**	**InCalibration**
O	**Part60-OOC**	**O**	**Part75-OOC**	**B**	**NoSamples**	**<**	**TooFewSamples**	**r**	**Reserved-1**	**u**	**Reserved-2**
A	**HighAlarm**	**a**	**LowAlarm**	**m**	**EPA-MinC02MaxO2**	**G**	**EPA_AppG_C02**	**>**	**EnoughSamples**	**E**	**Edited**
S	**StackOffline**	**!**	**PrimaryMonitor**	**@**	**BackupMonitor**	**#**	**Alternate**	**$**	**ReferenceMethod**	**%**	**Parametric**
^	**Average_HB_HA**	**&**	**Init_QA_Hrs_Avg**	*****	**90thPercentile**	**(**	**95thPercentile**	**)**	**Binmaximum**	**-**	**BinAverage**
+	**MaxPotential**	**|**	**Other**								

Unit 3
11/03/1999
Process Data
Test Run 4

TIME	DRY-02-3 %	WET-02-3 %	BAR-PRES in. Hg	U3-MN-STM °F	OPACITY-3 %	WET-O2-3 %	FGAS-FLO	UNIT-LOAD MW	ASH_PR_W	ASH_PR_E	A - ROW	B-ROW	C-ROW	D-ROW	E-ROW	F-ROW	NO_3HR_E lb/mmBtu	FURN_PRE	FW_FLOW	U3-02 %	Comment
14:58:02	5.55312	5.14813	25.07150	990.70313	6.31875	5.15938	738.62500	280.32813	2.93313	3.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.30500	824.12500	2.44125	Start
14:58:55	5.71719	5.28562	25.07150	990.37500	7.10625	5.28562	738.00000	280.31720	2.90000	3.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.43175	803.06250	2.45781	
14:59:47	5.82734	5.35687	25.07150	989.25000	7.15625	5.37750	738.12500	279.43124	2.86625	2.93313	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.41350	791.21875	2.70219	
15:00:40	5.97891	5.47312	25.07225	988.03125	6.83125	5.47375	738.90625	278.76407	4.63312	4.73313	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.65050	805.53125	2.79281	
15:01:32	6.67891	6.03937	25.07000	987.84375	7.06875	6.76500	738.90625	278.92813	5.63312	5.73313	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.56175	832.87500	2.46969	
15:02:25	11.96094	10.70313	25.07150	988.12500	7.12187	9.98938	739.59375	278.99374	8.20000	8.26625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.36925	842.56250	2.75938	
15:03:17	5.99453	5.72188	25.07525	988.68750	7.00000	5.71688	740.71875	278.63281	6.76625	6.83313	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.54300	832.18750	2.71250	
15:04:09	5.88281	5.55250	25.07600	989.34375	7.94375	5.52125	740.71875	278.99374	6.83313	6.86625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.46600	813.46875	2.51000	
15:05:02	5.70859	5.25562	25.07075	990.04688	7.79063	5.27125	739.53125	279.55157	5.50000	5.56625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.34425	811.50000	2.73969	
15:05:54	5.86875	5.46187	25.07150	990.75000	7.18750	5.46187	739.50000	279.46405	4.30000	4.40000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.76325	798.59375	2.70719	
15:06:47	5.91484	5.41563	25.07150	991.07813	7.41250	5.41125	740.93750	279.27814	3.93313	3.96625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.68500	822.18750	2.83750	
15:07:39	5.97422	5.48812	25.07300	991.17188	7.31563	5.49687	744.12500	278.95001	3.53312	3.60000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.62525	838.43750	2.99344	
15:08:32	5.94453	5.52875	25.07300	991.21875	7.75313	5.52938	744.15625	279.20157	3.96625	4.10000	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.40000	-0.54375	840.96875	2.68781	
15:09:24	5.83906	5.45313	25.07150	991.12500	8.18750	5.43188	742.28125	280.12030	3.03312	3.13313	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.40000	-0.41875	819.37500	2.40531	
15:10:17	5.66641	5.26000	25.07450	990.93750	7.05000	5.26750	741.93750	280.33905	2.86625	2.93313	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.40000	-0.34175	802.50000	2.59375	
15:11:09	5.87734	5.44812	25.07450	990.75000	6.79063	5.46375	743.06250	279.62811	2.90000	3.03312	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.40000	-0.21300	799.25000	2.65281	
15:12:02	5.87266	5.53687	25.07450	990.37500	6.83437	5.53062	745.28125	279.07031	2.80000	2.93313	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.40000	-0.40225	811.12500	2.58219	
15:12:54	5.77266	5.45437	25.07600	990.32813	6.79688	5.44250	745.31250	279.24530	2.80000	2.96625	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.40000	-0.47550	821.46875	2.60156	
15:13:46	5.81641	5.44875	25.07600	990.46875	6.73750	5.46438	741.75000	279.24530	2.83313	2.96625	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.40000	-0.26550	827.75000	2.56344	
15:14:39	5.87969	5.36125	25.07075	991.03125	6.83125	5.34562	739.78125	279.24530	2.73312	2.86625	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.40000	-0.20050	824.96875	2.81406	
15:15:31	5.90859	5.51750	25.06925	991.73438	6.92500	5.53375	740.06250	279.24530	3.53312	3.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.47875	805.59375	2.86750	
15:16:24	5.87187	5.36500	25.07225	992.25000	6.91250	5.34875	740.81250	279.44220	3.60000	3.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.41950	809.90625	2.90500	
15:17:16	5.86250	5.37187	25.07300	992.95313	6.65625	5.37063	740.81250	280.39374	3.50000	3.46625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.36325	819.31250	2.67156	
15:18:09	5.67500	5.22312	25.07150	993.51563	6.63750	5.22312	741.87500	281.00626	3.46625	3.40000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.41875	828.25000	2.85687	
15:19:01	5.80859	5.32438	25.07225	993.42188	6.83750	5.34062	742.84375	281.07187	5.06625	5.10000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.49625	833.00000	2.80594	
15:19:54	6.03516	5.51875	25.07450	992.39063	7.22813	5.53438	742.81250	280.77655	9.13313	9.16625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.53450	814.28125	2.71688	
15:20:46	5.90234	5.66375	25.07450	990.93750	7.52500	5.64687	745.75000	280.86407	8.43312	8.43312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.69525	801.18750	2.56906	
15:21:39	5.79219	5.36688	25.07450	989.34375	7.45937	5.35125	745.78125	281.00626	6.83313	6.83313	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.68325	811.18750	2.73406	
15:22:31	5.92422	5.56437	25.07600	987.98438	7.30000	5.59688	746.71875	279.61719	6.46625	6.50000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.58850	833.28125	2.89500	
15:23:24	6.16250	5.69063	25.07150	987.14063	7.14375	5.67812	748.03125	278.80780	5.16625	5.16625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.57800	827.75000	2.70438	
15:24:16	6.01875	5.51937	25.07075	987.32813	7.06250	5.49563	748.03125	278.25000	3.93313	3.86625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.52150	811.75000	2.50531	
15:25:08	5.83437	5.36000	25.07225	988.45313	7.03438	5.35938	748.09375	278.11874	3.53312	3.56625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.45325	803.00000	2.52094	
15:26:01	5.77734	5.35563	25.07375	990.23438	7.03750	5.35750	748.06250	278.54532	3.60000	3.56625	0.00000	0.00000	0.00000	0.66656	0.00000	0.33319	0.40000	-0.22475	810.78125	2.50625	
15:26:53	5.72109	5.40875	25.07225	992.06250	7.70937	5.41125	748.12500	278.54532	3.60000	3.60000	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.40000	-0.50325	816.09375	2.45656	
15:27:46	5.70781	5.34562	25.07225	993.75000	7.61562	5.33938	748.06250	279.17969	3.50000	3.46625	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.40000	-0.59475	822.06250	2.38094	Stop
15:28:38	5.68125	5.25688	25.07375	995.15625	7.04688	5.24875	747.34375	279.50781	3.46625	3.46625	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.40000	-0.53800	826.21875	2.44531	
15:29:31	5.68203	5.34250	25.07450	995.85938	6.82500	5.34250	744.90625	279.80313	3.43313	3.46625	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.40000	-0.52825	831.65625	2.45438	
15:30:23	5.67969	5.28813	25.07525	996.23438	6.73438	5.28813	744.87500	280.06561	3.40000	3.40000	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.40000	-0.27400	824.53125	2.40031	
15:31:16	5.66016	5.21812	25.07450	996.32813	6.53750	5.21625	742.75000	280.30624	3.40000	3.43313	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.40000	-0.33725	809.65625	2.32125	
15:32:08	5.71875	5.30062	25.07300	995.67188	6.88125	5.31625	741.53125	280.56876	3.40000	3.40000	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.40000	-0.59100	811.84375	2.62156	
15:33:01	5.96250	5.44812	25.07150	994.92188	6.60938	5.45750	740.21875	279.98907	3.30000	3.33313	0.33319	0.00000	0.00000	0.00000	0.00000	0.66656	0.40000	-0.65850	820.00000	2.62594	
15:33:53	5.86641	5.51375	25.07150	993.89063	6.70000	5.50500	738.31250	279.51874	5.50000	5.60000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.59575	824.31250	2.66687	
15:34:46	5.82578	5.38188	25.07150	992.95313	6.78125	5.38188	738.28125	279.11407	6.36625	6.46625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.59550	815.06250	2.67688	
15:35:38	5.86406	5.36875	25.07225	992.81250	6.77812	5.34875	738.00000	279.82501	7.60000	7.70000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.51725	817.28125	2.36000	
15:36:30	5.70625	5.24250	25.07300	993.42188	6.81250	5.24000	737.62500	280.16406	6.83313	6.90000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.53525	808.46875	2.43531	
15:37:23	5.66641	5.24062	25.07300	994.12500	6.94688	5.25625	738.96875	280.16406	6.53312	6.63312	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.45700	811.90625	2.51375	
15:38:15	5.77891	5.38188	25.07450	994.45313	7.23438	5.38188	741.00000	280.02188	5.40000	5.50000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.26425	831.00000	2.44094	Start
15:39:08	5.68906	5.34750	25.07450	994.45313	6.94688	5.33125	741.00000	279.72656	4.36625	4.50000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.20850	834.59375	2.35844	
15:40:00	5.73984	5.21375	25.07225	994.59375	6.66250	5.21438	741.56250	279.45313	3.56625	3.66625	0.66656	0.33319	0.00000	0.00000	0.00000	0.00000	0.40000	-0.34050	816.18750	2.28531	
15:40:53	5.56563	5.21500	25.07150	995.15625	7.64063	5.20875	741.96875	280.20782	3.66625	3.83313	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.40000	-0.73825	802.18750	2.20594	
15:41:45	5.42266	5.14375	25.07150	996.00000	6.53750	5.14375	741.90625	279.75937	3.03312	3.13313	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.40000	-0.61175	819.25000	2.40281	
15:42:38	5.56016	5.16313	25.07300	996.98438	6.48438	5.16000	741.15625	279.78125	2.76625	2.90000	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.40000	-0.53350	825.40625	2.24844	
15:43:30	5.52578	5.04063	25.07075	997.92188	6.55625	5.03188	741.06250	280.21875	2.80000	2.93313	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.40000	-0.47450	821.06250	2.26500	
15:44:23	5.60156	5.23500	25.07000	998.62500	6.46250	5.25125	740.12500	280.70001	2.70000	2.86625	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.40000	-0.57100	808.12500	2.31844	
15:45:15	5.62031	5.19938	25.07000	998.81250	6.30937	5.20125	739.21875	281.02814	2.73312	2.90000	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.40000	-0.56375	810.59375	2.27375	
15:46:07	5.61406	5.22375	25.07150	998.81250	6.32813	5.22375	739.18750	281.29062	2.70000	2.83313	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.40000	-0.59275	821.43750	2.54844	

Unit 3
11/03/1999
Process Data
Test Run 4

TIME	DRY-02-3 %	WET-02-3 %	BAR-PRES in. Hg	U3-MN-STM °F	OPACITY-3 %	WET-O2-3 %	FGAS-FLO	UNIT-LOAD MW	ASH_PR_W	ASH_PR_E	A - ROW	B-ROW	C-ROW	D-ROW	E-ROW	F-ROW	NO_3HR_E lb/mmBtu	FURN_PRE	FW_FLOW	U3-02 %	Comment
15:47:00	5.79844	5.31000	25.07450	998.57813	6.29063	5.33250	739.34375	280.55780	2.86625	2.93313	0.00000	0.66656	0.00000	0.33319	0.00000	0.00000	0.40000	-0.28125	820.59375	2.42875	
15:47:52	5.79063	5.36250	25.07375	998.39063	6.20625	5.35313	739.43750	280.28436	3.50000	3.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.28875	813.25000	2.33750	
15:48:45	5.57109	5.22375	25.07375	998.20313	6.25000	5.22375	739.40625	279.98907	3.50000	3.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.28650	813.25000	2.44344	
15:49:37	5.75078	5.27000	25.07375	998.20313	6.91250	5.26563	739.12500	279.94531	3.50000	3.50000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.44100	820.46875	2.42531	
15:50:30	5.72656	5.23375	25.07075	998.20313	6.39687	5.23438	739.15625	279.54062	3.50000	3.50000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.48675	824.12500	2.31094	
15:51:22	5.66406	5.23875	25.06925	998.57813	6.52187	5.23562	737.84375	279.55157	7.86625	7.90000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.51325	824.96875	2.12875	
15:52:15	5.51328	5.06375	25.07225	999.37500	6.58750	5.04750	737.40625	279.87970	8.20000	8.23312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.66550	819.81250	2.19906	
15:53:07	5.48047	5.04938	25.07150	1,000.59375	7.53125	5.05813	736.56250	280.89688	7.96625	8.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.64550	812.65625	2.00062	
15:54:00	5.44922	4.97500	25.07300	1,001.81250	6.96562	4.97437	733.75000	281.46564	6.30000	6.26625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.55300	809.28125	2.34969	
15:54:52	5.78047	5.22250	25.07300	1,002.37500	6.94375	5.23875	733.62500	281.61874	4.90000	4.86625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.55800	825.78125	2.47719	
15:55:45	5.87891	5.33125	25.07300	1,002.46875	6.79688	5.33625	734.46875	281.50937	3.73312	3.70000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.49875	826.00000	2.36031	
15:56:37	5.73672	5.32312	25.07450	1,002.46875	6.67812	5.31187	735.78125	281.42188	3.56625	3.46625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.50275	820.87500	2.36969	
15:57:29	5.71406	5.31437	25.07450	1,002.51563	6.64063	5.33063	736.34375	280.96249	3.56625	3.53312	0.00000	0.00000	0.00000	0.33319	0.66656	0.00000	0.40000	-0.45950	806.65625	2.48781	
15:58:22	5.72891	5.37250	25.07825	1,002.65625	6.28750	5.34875	737.59375	280.72186	4.13312	4.13312	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.40000	-0.32850	816.12500	2.47750	
15:59:14	5.83516	5.36062	25.07375	1,002.84375	6.72188	5.36062	737.59375	280.50311	4.06625	4.06625	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.40000	-0.61150	821.40625	2.36000	
16:00:07	5.73906	5.23000	25.07225	1,003.07813	6.54375	5.23000	740.65625	280.88593	3.63313	3.63313	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.40000	-0.32675	824.96875	2.15000	
16:00:59	5.52500	5.09312	25.07525	1,003.78125	6.77187	5.09312	741.96875	281.21405	3.56625	3.50000	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.40000	-0.37775	830.78125	2.32250	
16:01:52	10.95938	9.87750	25.07300	1,004.15625	6.60000	10.49500	741.96875	281.13751	3.50000	3.46625	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.40000	-0.46250	816.81250	2.42812	
16:02:44	6.71953	6.39375	25.07300	1,004.25000	6.68750	5.96125	741.68750	280.78751	3.50000	3.43313	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.40000	-0.61500	817.50000	2.40313	
16:03:37	5.82109	5.33187	25.07525	1,004.39063	6.84375	5.33187	741.71875	280.66718	3.43313	3.43313	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.40000	-0.41400	821.50000	2.48500	
16:04:29	5.81328	5.37000	25.07300	1,004.15625	6.40625	5.37375	744.71875	280.28436	3.16625	3.23312	0.66656	0.00000	0.00000	0.00000	0.33319	0.00000	0.40000	-0.43425	810.93750	2.44969	
16:05:22	5.80078	5.28500	25.07600	1,004.25000	7.12187	5.28438	747.12500	280.12030	2.90000	3.03312	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.51875	824.34375	2.28594	
16:06:14	5.64844	5.19812	25.07450	1,005.00000	6.27812	5.18250	747.15625	280.86407	2.90000	3.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.72000	822.53125	2.11719	
16:07:06	5.48438	5.09562	25.07450	1,006.12500	6.28438	5.08750	746.87500	281.73907	2.86625	2.96625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.58325	820.93750	2.24000	
16:07:59	5.48984	5.18188	25.07525	1,006.92188	6.36875	5.19750	744.37500	281.87030	4.43313	4.53312	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.56350	811.53125	2.47594	Stop
16:08:51	5.81406	5.39375	25.07075	1,006.64063	6.51250	5.41062	744.25000	281.13751	6.06625	6.13312	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.46375	821.03125	2.49000	
16:09:44	5.95000	5.46313	25.07075	1,004.95313	6.68125	5.45062	742.75000	281.27969	7.46625	7.53312	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.51800	822.00000	2.61875	
16:10:36	5.96562	5.48938	25.07150	1,003.17188	6.74375	5.50562	741.03125	280.88593	6.46625	6.56625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.51450	825.56250	2.54906	
16:11:29	5.96641	5.40875	25.07225	1,001.90625	6.60000	5.38812	741.12500	280.45938	6.20000	6.26625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.45100	813.78125	2.37281	
16:12:21	5.88672	5.27500	25.07300	1,001.43750	6.96250	5.28062	734.84375	280.19687	5.16625	5.30000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.43900	799.50000	2.38875	
16:13:14	5.73516	5.31500	25.07000	1,001.95313	6.49687	5.30000	734.59375	280.01093	4.23313	4.30000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.44325	800.09375	2.32375	
16:14:06	5.63984	5.17438	25.06775	1,003.03125	6.75938	5.19063	734.65625	280.02188	3.26625	3.36625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.45900	823.12500	2.15094	
16:14:59	5.58203	5.16313	25.07150	1,004.53125	6.74062	5.14750	734.62500	281.07187	4.43313	4.46625	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.40000	-0.32525	843.18750	2.15000	
16:15:51	5.45937	5.10813	25.07150	1,006.07813	7.03750	5.10500	734.87500	282.01251	3.10000	3.16625	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.40000	-0.23500	841.09375	2.23969	
16:16:44	5.55078	5.10063	25.07300	1,007.01563	7.29688	5.10125	736.71875	282.11093	2.86625	2.96625	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.40000	-0.36400	820.84375	2.42844	
16:17:36	5.77578	5.23750	25.07225	1,006.54688	6.96250	5.26125	736.78125	282.26407	2.90000	2.96625	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.40000	-0.42125	804.06250	2.71719	Start
16:18:28	6.03750	5.59875	25.06775	1,004.53125	7.15312	5.63188	736.71875	281.37811	2.86625	2.90000	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.40000	-0.39750	808.59375	2.64063	
16:19:21	6.00156	5.60063	25.06850	1,002.60938	6.52812	5.58437	739.28125	280.61249	2.86625	2.96625	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.40000	-0.24375	825.90625	2.50250	
16:20:13	5.85078	5.38062	25.06850	1,001.29688	6.15000	5.38125	739.78125	279.64999	2.83313	2.90000	0.00000	0.00000	0.99994	0.00000	0.00000	0.00000	0.40000	-0.49125	828.09375	2.48187	
16:21:06	5.79531	5.47000	25.06775	1,001.10938	6.43437	5.45437	739.81250	279.36563	2.96625	3.00000	0.00000	0.00000	0.66656	0.33319	0.00000	0.00000	0.40000	-0.45350	827.68750	2.28813	
16:21:58	5.64687	5.20500	25.06775	1,001.67188	6.60625	5.20625	740.15625	279.11407	3.70000	3.60000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.56600	826.15625	2.39156	
16:22:51	5.76172	5.33875	25.06775	1,002.79688	6.71562	5.32813	740.09375	278.95001	3.60000	3.56625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.44675	823.84375	2.11906	
16:23:43	5.52969	5.12937	25.06775	1,004.34375	6.73438	5.11250	739.78125	280.17499	3.60000	3.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.56350	816.21875	2.01469	
16:24:36	5.30625	4.88188	25.07000	1,006.07813	6.58125	4.89813	739.46875	280.70001	4.03312	3.96625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.64550	814.25000	2.25938	
16:25:28	5.54844	5.18188	25.06850	1,007.25000	6.71562	5.16625	739.50000	281.87030	7.16625	7.13312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.58875	815.71875	2.15750	
16:26:21	5.45625	5.12437	25.06775	1,007.43750	7.48750	5.14000	739.50000	282.38437	8.16625	8.16625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.58050	818.09375	2.48094	
16:27:13	5.73828	5.33063	25.06625	1,006.59375	7.08437	5.36188	739.50000	281.50937	8.13313	8.13313	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.56975	820.87500	2.62156	
16:28:06	5.97188	5.55250	25.06700	1,005.46875	7.30000	5.54437	739.50000	281.43280	6.93313	6.86625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.47750	828.56250	2.35875	
16:28:58	5.65469	5.32125	25.06625	1,004.71875	6.97500	5.29688	737.65625	281.13751	5.50000	5.46625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.57600	823.71875	2.37219	
16:29:50	5.77031	5.36312	25.06625	1,004.29688	7.15625	5.37063	737.75000	280.95157	4.60000	4.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.47725	817.53125	2.33594	
16:30:43	5.68594	5.30813	25.06850	1,004.71875	6.81563	5.28687	737.68750	281.10468	3.60000	3.50000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.51200	807.46875	2.20438	
16:31:35	5.59531	5.20625	25.06775	1,004.85938	6.76875	5.22188	737.75000	281.42188	3.46625	3.43313	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.50825	812.15625	2.49875	
16:32:28	5.82422	5.34625	25.06550	1,004.67188	6.80000	5.35313	737.75000	281.15936	3.73312	3.63313	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.40000	-0.54900	813.81250	2.59063	
16:33:20	5.90469	5.41625	25.06625	1,004.06250	6.97500	5.41937	739.21875	281.15936	3.60000	3.56625	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.40000	-0.52725	824.34375	2.56031	
16:34:13	5.87656	5.44875	25.06700	1,003.45313	7.02187	5.43500	742.18750	281.15936	3.60000	3.53312	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.40000	-0.54050	829.40625	2.35687	
16:35:05	5.64531	5.27375	25.06850	1,002.93750	6.70000	5.29000	742.09375	280.55780	3.56625	3.50000	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.40000	-0.49650	825.96875	2.59562	

Unit 3
11/03/1999
Process Data
Test Run 4

TIME	DRY-02-3 %	WET-02-3 %	BAR-PRES in. Hg	U3-MN-STM °F	OPACITY-3 %	WET-O2-3 %	FGAS-FLO	UNIT-LOAD MW	ASH_PR_W	ASH_PR_E	A - ROW	B-ROW	C-ROW	D-ROW	E-ROW	F-ROW	NO_3HR_E lb/mmBtu	FURN_PRE	FW_FLOW	U3-02 %	Comment
16:35:58	5.84297	5.48500	25.06775	1,002.28125	6.66563	5.47687	741.28125	279.94531	3.50000	3.43313	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.40000	-0.46600	804.46875	2.40875	
16:36:50	5.73125	5.18687	25.06775	1,002.04688	6.53750	5.17063	741.37500	280.07657	3.56625	3.50000	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.40000	-0.46125	801.06250	2.15469	
16:37:43	5.55469	5.09062	25.06625	1,002.46875	6.67500	5.09438	741.65625	281.20313	3.50000	3.43313	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.40000	-0.50550	812.03125	2.34094	
16:38:35	5.56484	5.12813	25.06700	1,003.12500	6.83437	5.12875	742.50000	281.82657	3.50000	3.50000	0.00000	0.00000	0.00000	0.00000	0.00000	0.99994	0.40000	-0.38925	832.46875	2.44406	
16:39:27	5.71953	5.27875	25.06475	1,003.21875	6.82813	5.29437	742.46875	281.75000	4.66625	4.73313	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.48225	839.43750	2.67719	
16:40:20	5.98594	5.47625	25.06475	1,002.60938	7.15625	5.49937	740.53125	280.66718	6.86625	6.93313	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.48650	819.46875	2.53688	
16:41:12	5.94219	5.42250	25.06475	1,001.53125	6.87813	5.40688	740.50000	280.16406	7.60000	7.60000	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.45075	799.28125	2.51563	
16:42:05	5.85781	5.33875	25.06625	1,000.64063	6.74687	5.34812	740.28125	279.94531	7.86625	7.86625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.56925	809.96875	2.43062	
16:42:57	5.84688	5.35938	25.06625	1,000.40625	7.09062	5.34250	740.09375	279.72656	6.13312	6.16625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.56425	827.78125	2.36812	
16:43:50	5.73594	5.26687	25.06625	1,000.59375	6.95313	5.27250	740.09375	279.50781	5.90000	5.96625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.54575	841.06250	2.34281	
16:44:42	5.73672	5.27938	25.06625	1,001.34375	7.05937	5.26438	739.46875	279.68280	4.13312	4.16625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.52200	836.75000	2.16344	
16:45:35	5.58516	5.11562	25.06550	1,002.65625	7.05937	5.10625	739.34375	280.45938	3.20000	3.33313	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.57825	807.59375	2.10406	
16:46:27	5.34922	4.99813	25.06475	1,004.01563	6.61250	4.99813	737.68750	281.52032	5.20000	5.20000	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.40000	-0.48600	803.65625	2.37344	
16:47:20	5.59531	5.18813	25.06175	1,004.81250	6.78125	5.21750	737.00000	281.58594	3.56625	3.60000	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.40000	-0.60000	811.81250	2.59406	Stop
16:48:12	5.92734	5.37500	25.06325	1,004.67188	6.84688	5.37625	737.03125	281.18124	2.96625	3.03312	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.40000	-0.61250	824.90625	2.47187	
16:49:05	5.85547	5.38688	25.06025	1,004.15625	6.93125	5.38688	738.87500	280.62344	2.86625	2.93313	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.40000	-0.56075	819.68750	2.42719	
16:49:57	5.83906	5.31250	25.06325	1,003.78125	6.64687	5.30688	738.87500	280.60156	2.76625	2.86625	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.40000	-0.47950	822.59375	2.48938	
16:50:49	5.75078	5.37875	25.06325	1,003.64063	6.51875	5.38562	740.15625	280.75470	2.80000	2.86625	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.40000	-0.49050	818.12500	2.39625	
16:51:42	5.75625	5.36812	25.06250	1,003.54688	6.70625	5.36188	743.50000	280.90781	2.80000	2.83313	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.40000	-0.41900	808.09375	2.29344	
16:52:34	5.68047	5.35500	25.06400	1,003.07813	6.85000	5.35563	743.90625	281.59686	2.73312	2.83313	0.00000	0.99994	0.00000	0.00000	0.00000	0.00000	0.40000	-0.47025	800.68750	2.74187	
16:53:27	5.87813	5.52938	25.06325	1,002.37500	7.41563	5.54500	746.84375	281.25781	3.56625	3.50000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.49900	818.28125	2.66781	Start
16:54:19	5.85313	5.55000	25.06400	1,001.57813	6.71562	5.54812	746.78125	281.33438	3.60000	3.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.43550	831.31250	2.54000	
16:55:12	5.87109	5.50938	25.06325	1,000.87500	6.80312	5.50437	747.93750	280.36093	3.60000	3.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.45075	826.62500	2.81031	
16:56:04	5.86328	5.40000	25.05875	999.98438	7.02187	5.38438	749.21875	281.34531	3.56625	3.53312	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.49625	815.43750	2.62438	
16:56:57	5.75547	5.37625	25.06175	999.00000	7.17188	5.39125	749.25000	281.01718	6.76625	6.76625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.51900	815.75000	2.78187	
16:57:49	6.06328	5.50938	25.06175	998.01563	7.15625	5.51687	750.59375	280.41562	8.13313	8.10000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.42700	824.53125	2.61750	
16:58:42	5.88281	5.44625	25.06250	996.93750	6.77812	5.43062	750.84375	280.00000	8.36625	8.33313	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.50400	816.65625	2.62687	
16:59:34	5.92188	5.38375	25.06250	996.04688	7.07813	5.38625	750.28125	279.54062	7.26625	7.26625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.50075	823.96875	2.50250	
17:00:26	5.86172	5.39750	25.06250	995.67188	7.26875	5.39687	748.40625	279.17969	6.36625	6.36625	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.62700	831.15625	2.57344	
17:01:19	5.83906	5.38688	25.06025	995.62500	7.10625	5.38438	748.43750	279.02655	4.83313	4.80000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.55825	835.53125	2.46094	
17:02:11	12.12344	11.00313	25.06325	996.18750	6.87813	11.01875	744.12500	279.35468	3.63313	3.60000	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.48075	804.21875	2.27219	
17:03:04	5.59219	5.37687	25.06475	996.98438	6.84375	5.36062	740.96875	279.94531	3.53312	3.43313	0.00000	0.00000	0.00000	0.99994	0.00000	0.00000	0.40000	-0.54875	795.87500	2.59938	
17:03:56	5.76328	5.37750	25.06475	997.54688	6.88438	5.39875	741.00000	279.83594	3.90000	3.83313	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.40000	-0.52200	822.21875	2.76031	
17:04:49	6.04688	5.55500	25.06475	997.73438	7.09688	5.54000	739.50000	279.40936	4.26625	4.23313	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.40000	-0.52425	837.87500	2.52063	
17:05:41	5.76875	5.41937	25.06025	997.78125	6.72500	5.41687	739.50000	279.59531	3.63313	3.60000	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.40000	-0.46975	841.96875	2.71062	
17:06:34	5.96328	5.50125	25.05875	997.82813	7.03438	5.50125	739.75000	279.12500	3.70000	3.66625	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.40000	-0.41750	824.65625	2.60875	
17:07:26	5.89609	5.40250	25.06250	998.10938	7.14687	5.40250	742.28125	279.20157	3.56625	3.50000	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.40000	-0.56625	795.43750	2.34344	
17:08:19	5.66094	5.17375	25.06175	999.09375	7.18125	5.14125	742.28125	280.25156	3.60000	3.53312	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.40000	-0.55150	806.43750	2.38906	
17:09:11	5.66641	5.15312	25.06475	999.98438	7.10000	5.18375	744.93750	280.36093	3.46625	3.43313	0.00000	0.00000	0.00000	0.00000	0.99994	0.00000	0.40000	-0.51350	829.65625	2.52031	
17:10:04	5.85938	5.35500	25.06250	1,000.59375	6.73125	5.33938	746.62500	280.70001	3.30000	3.33313	0.33319	0.00000	0.00000	0.00000	0.66656	0.00000	0.40000	-0.51950	847.25000	2.33375	
17:10:56	5.63125	5.17812	25.06325	1,001.06250	7.02187	5.18750	745.00000	280.82031	2.96625	3.03312	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.45725	833.53125	2.67594	
17:11:48	5.83047	5.41437	25.06325	1,000.82813	6.81875	5.43000	741.37500	280.53595	2.90000	2.96625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.47725	812.65625	2.61969	
17:12:41	5.95547	5.43500	25.06250	1,000.45313	6.93437	5.41437	741.31250	280.41562	2.90000	2.93313	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.51325	797.34375	2.34437	
17:13:33	5.60547	5.22188	25.06475	1,000.59375	6.52500	5.19625	741.03125	281.03906	2.96625	3.06625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.55250	816.31250	2.26187	
17:14:26	5.54375	5.05625	25.06175	1,001.20313	6.51563	5.05500	738.87500	281.59686	6.10000	6.16625	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.50500	839.12500	2.38875	
17:15:18	5.59375	5.23875	25.06025	1,001.67188	6.76875	5.27125	738.87500	281.69531	6.96625	7.03312	0.99994	0.00000	0.00000	0.00000	0.00000	0.00000	0.40000	-0.51050	842.68750	2.62344	
17:16:11	5.71875	5.32625	25.06325	1,001.29688	6.85313	5.32625	737.46875	281.53125									0.40000	-0.43475	826.37500	2.63406	
17:17:03	5.86250	5.45563	25.06025	1,000.45313	7.10313	5.46313	735.25000	280.50311									0.40000	-0.44550	810.34375	2.76781	
17:17:56	5.97656	5.53312	25.06175	999.00000	6.95000	5.53062	735.31250	279.74844									0.40000	-0.57825	802.25000	2.84656	
17:18:48	6.04219	5.51125	25.06175	997.87500	7.38750	5.51125	737.40625	279.07031									0.40000	-0.51125	822.59375	2.67812	
17:19:41	5.90234	5.51125	25.06025	997.64063	6.86562	5.49750	737.40625	279.39844									0.40000	-0.50700	846.53125	2.38250	
17:20:33	5.62422	5.17938	25.06250	998.06250	6.91250	5.17938	737.46875	279.95624									0.40000	-0.50200	835.62500	2.50375	
17:21:25	5.47813	5.15562	25.09025	999.14063	6.84688	5.39937	738.00000	280.16406									0.40000	-0.55850	815.53125	2.45375	
17:22:17	5.63984	5.16313	25.08950	999.89063	6.89687	5.30188	737.96875	280.25156									0.40000	-0.46250	813.09375	2.72094	
17:23:10	5.65625	5.20437	25.08950	1,000.31250	7.03750	5.53188	740.43750	280.12030									0.40000	-0.55425	821.78125	2.49469	End

Unit 3
11/03/1999
Process Data
Test Run 4

TIME	DRY-02-3 %	WET-02-3 %	BAR-PRES in. Hg	U3-MN-STM °F	OPACITY-3 %	WET-O2-3 %	FGAS-FLO	UNIT-LOAD MW	ASH_PR_W	ASH_PR_E	A - ROW	B-ROW	C-ROW	D-ROW	E-ROW	F-ROW	NO_3HR_E lb/mmBtu	FURN_PRE	FW_FLOW	U3-02 %	Comment
Overall Summary																					
Average	5.87760	5.43264	25.06951	998.68226	6.88157	5.43794	741.04566	280.30723	4.37744	4.40569	0.29112	0.10126	0.09915	0.30800	0.09915	0.10126	0.39976	-0.49055	819.29772	2.48323	
Maximum	12.12344	11.00313	25.09025	1,007.43750	8.18750	11.01875	750.84375	282.38437	9.13313	9.16625	0.99994	0.99994	0.99994	0.99994	0.99994	0.99994	0.40000	-0.20050	847.25000	2.99344	
Minimum	5.30625	4.88188	25.05875	987.14063	6.15000	4.89813	733.62500	278.11874	2.70000	2.83313	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.76325	791.21875	2.00062	
Unit 3 Test Run 4 Summary																					
Average	5.89919	5.45415	25.06939	998.39264	6.90170	5.46059	741.28571	280.26734	4.36800	4.38834	0.25698	0.07633	0.09669	0.37148	0.11958	0.07887	0.39971	-0.49320	819.41049	2.49033	
Maximum	12.12344	11.00313	25.09025	1,007.43750	8.18750	11.01875	750.84375	282.38437	9.13313	9.16625	0.99994	0.99994	0.99994	0.99994	0.99994	0.99994	0.40000	-0.20050	847.25000	2.99344	
Minimum	5.30625	4.88188	25.05875	987.14063	6.15000	4.89813	733.62500	278.11874	2.70000	2.83313	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.39000	-0.76325	791.21875	2.00062	

APPENDIX C
Sampling Logs and Chain-of-Custody Records

Appendix C - Section 1
Exhaust Gas Streams

Sample Train
Custody Form

Client: APS

Location: Hoobart, Az

Source: Unit 3 inlet

Sample Train ID: #1

Relinquished By: [illegible]

Received By: B. D. S. Date/Time: 11/1/99 6:21 Location: Unit 3 inlet Condition: Normal

Relinquished By: B. D. S.

Received By: [illegible] Date/Time: 11/1/99 8:52 Location: Unit 3 inlet Condition: Back flushed

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

Sample Train
Custody Form

Client: APS

Location: Hoolbert, AZ

Source: Unite 3 inlet

Sample Train ID: #2 - Run 1

Relinquished By: Bill Slayton

Received By: B. D. S Date/Time: 2pm 11/2 11/1/99 6:21 Location: Lab Unit 3 inlet Condition: Normal

Relinquished By: B. D. S

Received By: Bill Slayton Date/Time: 11/2/99 Location: Stack Condition: good

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

Sample Train
Custody Form

Client: APS

Location: Unit #3 Stack

Source: Unit #7

Sample Train ID: #~~3~~ 4 - Run #1

Relinquished By: Bill Dayton

Received By: [illegible] Date/Time: 11/2 620 Location: Unit #3 Stack Condition: Good - Unused

Relinquished By: [illegible]

Received By: Bill Dayton Date/Time: 11/2 1615 Location: Lab #4 Condition: Good - Used

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

Sample Train
Custody Form

Client: APS

Location: Cholla PowerPlant

Source: Unit 3 Inlet

Sample Train ID: 1; Run 2

Relinquished By: Bill Ingram

Received By: B. S. Date/Time: 11/3 6:05 Location: lab Condition: good

Relinquished By: B. S.

Received By: Bill Ingram Date/Time: 11/3 14:22 Location: Unit 3 inlet Condition: good

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

Sample Train
Custody Form

Client: APS

Location: Cholla power plant

Source: Unit 3 outlet

Sample Train ID: 4; Run 2

Relinquished By: Bill Ingram

Received By: Roman Schroda Date/Time: 11/3 0605 Location: lab Condition: good

Relinquished By: [illegible]

Received By: Bill Ingram Date/Time: 11/3 1746 Location: lab Condition: ~~(good)~~ GD VOID RUN

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

Sample Train
Custody Form

Client: APS

Location: Unit #3 Stack

Source: Unit #3

Sample Train ID: #~~4~~ 3 - Run #2

Relinquished By: [illegible]

Received By: [illegible] Date/Time: 11/2 620 Location: Unit #3 Condition: good - unused

Relinquished By: [illegible]

Received By: [illegible] Date/Time: 11/2 1615 Location: Lab #4 Condition: good - unused

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

Sample Train
Custody Form

Client: APS

Location: Cholla power plant

Source: Unit 3 Inlet

Sample Train ID: 2 ; Run 3

Relinquished By: Bill Dryton

Received By: [illegible] Date/Time: 11/3 6:05 Location: lab Condition: good

Relinquished By: [illegible]

Received By: Bill Dryton Date/Time: 11/3 17:46 Location: unit 3 inlet Condition: good

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

Sample Train
Custody Form

Client: APS

Location: Cholla Power plant

Source: Unit 3 outlet

Sample Train ID: 5; Run 3

Relinquished By: Bill Seyfors

Received By: Roman Sikoda Date/Time: 11/3 0605 Location: lab Condition: good

Relinquished By: [illegible]

Received By: Bill Seyfors Date/Time: 11/3 1422 Location: lab Condition: good

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

Sample Train
Custody Form

Client: APS

Location: Cholla power plant

Source: Unit 3 Inlet

Sample Train ID: #1, Run 4

Relinquished By: Bill Ingles

Received By: B. S. Date/Time: 11/3 14:25 Location: Stack unit 3 inlet Condition: good

Relinquished By: B. S.

Received By: Bill Ingles Date/Time: 11/3 18:40 Location: Lab Condition: good

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

Sample Train
Custody Form

Client: APS

Location: Cholla Power Plant

Source: Unit 3 outlet

Sample Train ID: 4; Run 4

Relinquished By: Bill Ingston

Received By: [signature] Date/Time: 11/3 14:00 Location: Stack outlet Condition: good

Relinquished By: [signature]

Received By: Bill Ingston Date/Time: 11/3 17:40 Location: Lab Condition: good - used

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

Sample Train
Custody Form

Client: APS

Location: Cholla Power Plant

Source: Unit 2 Inlet

Sample Train ID: 1 iRun1

Relinquished By: Bill Lyster

Received By: [illegible] Date/Time: 11/4 8:10 Location: Lab Condition: good

Relinquished By: [illegible]

Received By: Bill Lyster Date/Time: 11/4 19:46 Location: Lab Condition: good

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

Sample Train
Custody Form

Client: APS

Location: Cholla Power Plant

Source: unit 2 outlet

Sample Train ID: 4; Run 1

Relinquished By: Bill Dayton

Received By: [illegible] Date/Time: 11/4; Location: Lab Condition: good

Relinquished By: [illegible]

Received By: Bill Dayton Date/Time: 11/4 1930 Location: Stack Condition: Good used

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

Sample Train
Custody Form

Client: APS

Location: Cholla Power Plant

Source: Unit 2 Inlet

Sample Train ID: #2, Run 2

Relinquished By: Bill Neyters

Received By: B. S. Date/Time: 11/5 0700 Location: Lab Condition: Good

Relinquished By: B. S.

Received By: Bill Neyters Date/Time: 11/5/99 13:25 Location: unit 2 inlet Condition: good

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

Sample Train
Custody Form

Client: APS

Location: Cholla Powerplant

Source: Un.42 Outlet

Sample Train ID: #5; Run2

Relinquished By: Bill Gropton

Received By: [illegible] Date/Time: 11/5 0700 Location: Lab Condition: Good

Relinquished By: [illegible]

Received By: Bill Gropton Date/Time: 11/5 1244 Location: Stack Condition: good - closed

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

Sample Train
Custody Form

Client: APS

Location: Cholla power plant

Source: Unit 2 outlet

Sample Train ID: #4; Run 3

Relinquished By: Bill Dayton

Received By: [illegible] Date/Time: 11/5 Location: U2 outlet test location Condition: good

Relinquished By: [illegible]

Received By: Bill Dayton Date/Time: 11/5 1630 Location: Steel Condition: Good

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

Sample Train
Custody Form

Client: APS

Location: Cholla Powerplant

Source: Unit 2 Inlet

Sample Train ID: 1; Run 3

Relinquished By: Bill Dryton

Received By: B. S. Date/Time: 11/5 12:47 Location: U2 Inlet location Condition: good

Relinquished By: B. S.

Received By: Bill Dryton Date/Time: 11/5 17:00 Location: Lab Condition: good

Relinquished By:

Received By: Date/Time: Location: Condition:

Relinquished By:

Received By: Date/Time: Location: Condition:

TRC

LAB RECOVERY DATA SHEET
IMPINGER TRAIN SETUP AND RECOVERY RECORD

Client: APS
Site: Cholla Power Plant
Proj. #: 25938

Sample Method: Ontario Hydro
Dates: 11/2/94 –
Location: Unit 3 Inlet

IMPINGER BOX ID	DATE	INITIALS	TRAIN SETUP	FIRST IMPINGER KCl	SECOND IMPINGER KCl	THIRD IMPINGER KCl	FOURTH IMPINGER H_2O_2/HNO_3	FIFTH IMPINGER $KMnO_4$	SIXTH IMPINGER $KMnO_4$	SEVENTH IMPINGER $KMnO_4$	EIGHTH IMPINGER Silica Gel	TOTAL (g)	NET GAIN (g)	Filter/Cyclone SAMPLE BOTTLE WEIGHTS (g) & ID	KCl SAMPLE BOTTLE WEIGHTS (g) & ID	H_2O_2/HNO_3 SAMPLE BOTTLE WEIGHTS (g) & ID	$KMnO_4$ SAMPLE BOTTLE WEIGHTS (g) & ID	COMMENTS / NOTES
#1	11/2	PR	INITIAL	621.6	706.1	690.7	621.4	703.8	778.8	691.4	872.6			~~282~~ RS	~~204~~ RS	~~205~~ RS	~~206~~ RS	Sample train void $H_2SO_4/KMnO_4$ solution carried over to silica gel during leak check. Impingers connected backwards
														~~742.2g~~ RS	~~706.9g~~ RS	~~455.1g~~ RS	~~726.9g~~ RS	
			FINAL															
#2	11/2	PR	INITIAL	704.4	695.4	696.5	709.7	711.5	712.8	696.5	849.3	5776.1		202	204	205	206	Unit 3 Inlet Run 1 Filter #208
														742.2g	706.9g	455.1g	726.9g	
	11/2	PR	FINAL	~~8~~ #1/2 782.1	705.3	698.4	711.8	712.7	PR 11/2 ~~712.7~~ 707.5	PR 11/2 ~~707.5~~ 701.0	861.6	5880.4	104.3					recorded weights in wrong space
#1 ~~#2~~ 11/3	11/3	PR	INITIAL	621.6	706.1	690.7	621.4	704.5	742.4	698.3	783.2							Run 2 void due to a sample train break during sample run. Filter ~~#218~~ PR 11/3
			FINAL															
#2	11/3	BR	INITIAL	697.0	708.2	694.3	713.4	716.7	715.0	702.1	861.3	5808.0		213	214	215	216	Run 3 Filter ~~#228~~ 218 PR 11/3
														656.5g	745.2g	425.6g	736.8g	
			FINAL	776.0	718.4	695.7	715.1	717.2	715.6	702.4	~~870.4~~ 870.4 11/3 PR	5910.8	102.8					

TRC

LAB RECOVERY DATA SHEET
IMPINGER TRAIN SETUP AND RECOVERY RECORD

Client: APS
Site: Cholla Power Plant
Proj. #: 25938

Sample Method: Ontario Hydro
Dates: 11/3
Location: Unit 3 Inlet

IMPINGER BOX ID	DATE	INITIALS	TRAIN SETUP	FIRST IMPINGER KCl	SECOND IMPINGER KCl	THIRD IMPINGER KCl	FOURTH IMPINGER H_2O_2/HNO_3	FIFTH IMPINGER $KMnO_4$	SIXTH IMPINGER $KMnO_4$	SEVENTH IMPINGER $KMnO_4$	EIGHTH IMPINGER Silica Gel	TOTAL (g)	NET GAIN (g)	Filter/Cyclone SAMPLE BOTTLE WEIGHTS (g) & ID	KCl SAMPLE BOTTLE WEIGHTS (g) & ID	H_2O_2/HNO_3 SAMPLE BOTTLE WEIGHTS (g) & ID	$KMnO_4$ SAMPLE BOTTLE WEIGHTS (g) & ID	COMMENTS / NOTES
#1	11/3	BS	INITIAL	706.1	624.4	640.9	622.1	745.0	705.6	694.8	788.0	5576.9		222	224	225	226	Run 4
														744.7g	767.0g	409.4g	730.5g	Filter #228
1	11/3	BC	FINAL	774.9	638.1	691.8	623.0	745.7	705.7	~~6~~ 95.7 BC 11/3	800.5	5675.4	98.5					
			INITIAL															
			FINAL															
			INITIAL															
			FINAL															
			INITIAL															
			FINAL															

TRC

LAB RECOVERY DATA SHEET
IMPINGER TRAIN SETUP AND RECOVERY RECORD

Client: APS
Site: Cholla Power Plant
Proj. #: 25938

Sample Method: Ontario Hydro
Dates: 11/2/99 –
Location: Unit 3 outlet

IMPINGER BOX ID	DATE	INITIALS	TRAIN SETUP	FIRST IMPINGER KCl	SECOND INPINGER KCl	THIRD IMPINGER KCl	FOURTH IMPINGER H_2O_2/HNO_3	FIFTH IMPINGER $KMnO_4$	SIXTH IMPINGER $KMnO_4$	SEVENTH IMPINGER $KMnO_4$	EIGHTH IMPINGER Silica Gel	TOTAL (g)	NET GAIN (g)	Filter/Cyclone SAMPLE BOTTLE WEIGHTS (g) & ID	KCl SAMPLE BOTTLE WEIGHTS (g) & ID	H_2O_2/HNO_3 SAMPLE BOTTLE WEIGHTS (g) & ID	$KMnO_4$ SAMPLE BOTTLE WEIGHTS (g) & ID	COMMENTS / NOTES
#4	11/2	PR	INITIAL	694.9	698.5	PR 11/2 ~~595.7~~ 604.9	698.5	708.0	716.8	694.4	778.0	5594.0		207	209	210	211	imp #3 to full, replaced
														515.1g	743.7g	421.1g	690.4g	Unit 3 outlet Run 1
	11/2	PR	FINAL	773.5	726.0	611.5 ~~701.1~~ 11/2 PR	701.1	708.3	716.7	695.4	792.1	5724.6	130.6					Filter # 203
#5	11/2	PR	INITIAL	683.3	701.7	695.6	642.9	706.6	743.1	705.4	859.4							sample train not used
			FINAL															
#4	11/3	PR	INITIAL	699.0	700.2	604.4	703.9	718.3	711.5	696.4	11/3 PR ~~778.0~~ 792.1							Run 2 Void due to a break in sample train during run @ inlet test location
			FINAL															
#5	11/3	PR	INITIAL	PR 11/3 ~~641.4~~ 613.3	PR 11/3 ~~645.5~~ 701.7	PR 11/3 ~~604.4~~ 645.6	PR 11/3 ~~648.5~~ 642.9	742.7	709.5	705.4	859.4	5670.6		217	219	220	221	$H_2SO_4/KMnO_4$ replaced with fresh solution Run 3
														428.1g	742.4g	396.6g	755.3g	
	11/3	PR	FINAL	691.0	729.5	702.7	645.6	743.4	708.9	706.5	874.5	5802.1	131.5					Filter # 212

TRC

LAB RECOVERY DATA SHEET
IMPINGER TRAIN SETUP AND RECOVERY RECORD

Client: APS
Site: Cholla Powerplant
Proj. # 25938

Sample Method: Ontario Hydro
Dates: 11/3 –
Location Unit 3 Outlet

IMPINGER BOX ID	DATE	INITIALS	TRAIN SETUP	FIRST IMPINGER KCl	SECOND IMPINGER KCl	THIRD IMPINGER KCl	FOURTH IMPINGER H_2O_2/HNO_3	FIFTH IMPINGER $KMnO_4$	SIXTH IMPINGER $KMnO_4$	SEVENTH IMPINGER $KMnO_4$	EIGHTH IMPINGER Silica Gel	TOTAL (g)	NET GAIN (g)	Filter/Cyclone SAMPLE BOTTLE WEIGHTS (g) & ID	KCl SAMPLE BOTTLE WEIGHTS (g) & ID	H_2O_2/HNO_3 SAMPLE BOTTLE WEIGHTS (g) & ID	$KMnO_4$ SAMPLE BOTTLE WEIGHTS (g) & ID	COMMENTS / NOTES
#4	11/3	[illegible]	INITIAL	700.8	700.7	605.6	707.1	717.1	710.0	676.3	772.9	5586.5		227	229	230	231	Run 4
														412.3g	761.2g	430.9g	704.1g	Filter # 223
	11/3	[illegible]	FINAL	777.4	728.1	612.8	705.4	717.8	709.3	677.8	787.9	5716.5	130.0					
			INITIAL															
			FINAL															
			INITIAL															
			FINAL															
			INITIAL															
			FINAL															

TRC

LAB RECOVERY DATA SHEET
IMPINGER TRAIN SETUP AND RECOVERY RECORD

Client: APS
Site: Cholla Power Plant
Proj. #: 25078

Sample Method: Ontario Hydro
Dates: 11/4
Location: Unit 2 Inlet

IMPINGER BOX ID	DATE	INITIALS	TRAIN SETUP	FIRST IMPINGER KCl	SECOND IMPINGER KCl	THIRD IMPINGER KCl	FOURTH IMPINGER H_2O_2/HNO_3	FIFTH IMPINGER $KMnO_4$	SIXTH IMPINGER $KMnO_4$	SEVENTH IMPINGER $KMnO_4$	EIGHTH IMPINGER Silica Gel	TOTAL (g)	NET GAIN (g)	Filter/Cyclone SAMPLE BOTTLE WEIGHTS (g) & ID	KCl SAMPLE BOTTLE WEIGHTS (g) & ID	H_2O_2/HNO_3 SAMPLE BOTTLE WEIGHTS (g) & ID	$KMnO_4$ SAMPLE BOTTLE WEIGHTS (g) & ID	COMMENTS / NOTES
#1	11/4	BR	INITIAL	706.2	622.7	688.9	735.8	630.2	704.7	693.9	778.5	5560.9		232	234	235	236	2nd Bottle PROBE RINSE: 272 — ID WEIGHT OF KCL SAMPLE: 412.6g
														713.9g	743.6g	492.5g	735.6g	Run 1
	11/4	BR	FINAL	781.7	640.5	692.6	737.7	630.2	759.3	637.6	793.7	5673.3	112.4					Filter #: 233
#2	11/5	BR	INITIAL	697.7	705.4	693.3	710.6	11/5 BR ~~712.6~~ 717.3	11/5 BR ~~715.1~~ 712.0	11/5 BR ~~694.4~~ 701.4	854.2	5791.9		243	245	246	247	2nd Bottle PROBE RINSE: 273 — ID WEIGHT OF KCL Sample: 499.8g
														724.4g	765.2g	429.1g	760.8	Run 2
	11/5	BR	FINAL	729.0	764.5	704.8	713.0	717.9	711.4	701.7	870.7	5913.0	121.1					Filter #: 244
#1	11/5	BR	INITIAL	709.0	623.3	688.6	735.3	630.2	707.6	691.9	745.3	5531.2		254	256	235	258	2nd Bottle OF HNO_3/H_2O_2 ID: 257 WEIGHT: 419g
														725.3g	751.3g	492.5g	730.7g	Run 3
	11/5	BR	FINAL	770.5	646.4	740.0	742.4	695.4	648.3	633.3	764.7	5646	112.4					Imp #3 contained HNO_3/H_2O_2 could not obtain pink color with $KMnO_4$ i recovered in a separate bottle with HNO_3 (0.1N)
			INITIAL															↑ Train was found "backed up" on recovery up to Imp #3. Imp #1 & 2 were found with original solution only.
			FINAL															Filter #: 255

TRC

LAB RECOVERY DATA SHEET
IMPINGER TRAIN SETUP AND RECOVERY RECORD

Client: APS
Site: Challa Power Plant
Proj. #: 25428

Sample Method: Ontario Hydro
Dates: 11/14
Location: Unit 2 outlet

IMPINGER BOX ID	DATE	INITIALS	TRAIN SETUP	FIRST IMPINGER KCl	SECOND IMPINGER KCl	THIRD IMPINGER KCl	FOURTH IMPINGER H_2O_2/HNO_3	FIFTH IMPINGER $KMnO_4$	SIXTH IMPINGER $KMnO_4$	SEVENTH IMPINGER $KMnO_4$	EIGHTH IMPINGER Silica Gel	TOTAL (g)	NET GAIN (g)	Filter/Cyclone SAMPLE BOTTLE WEIGHTS (g) & ID	KCl SAMPLE BOTTLE WEIGHTS (g) & ID	H_2O_2/HNO_3 SAMPLE BOTTLE WEIGHTS (g) & ID	$KMnO_4$ SAMPLE BOTTLE WEIGHTS (g) & ID	COMMENTS / NOTES
#4	11/4	[illegible]	INITIAL	696.5	699.7	604.8	703.6	716.4	710.1	696.3	782.7	5610.1		237	239	241	242	Run 1
														537.1g	685.6g	412.2g	737.2g	2nd Probe Rinse: 240
																		Weight of Sample: 576g
	11/4	[illegible]	FINAL	866.9	737.6	611.0	705.2	716.1	708.9	698.2	801.4	5845.3	235.2					Filter # 238
#5	11/5	[illegible]	INITIAL	614.3	702.2	696.1	647.1	742.5	710.4	705.7 (145 [illegible])	856.6	5675.0		248	250	252	253	Run 2
									709.7 (145 [illegible])	706.5				414.1g	499.5g	418.2g	753.9g	2nd ~~Probe Rinse Jar~~ KCl: 251 RS
																		Weight of Sample 681.8g
	11/5	[illegible]	FINAL	780.4	747.4	705.0	651.2	742.8	708.8	707.3	876.5	5919.4	244.4					~~2nd Probe Rinse Jar 259~~ RS ~~Weight of Sample 383.2g~~ RS
																		Filter # 249
#4	11/5	[illegible]	INITIAL	700.3	696.9	604.1	705.0	715.3	709.9	695.8	724.9	5557.2		259	261	263	264	Run 3
														383.2g	681.6g	421.0g	727.0g	2nd Bottle of KCl: 262
																		Weight: 653g
	11/5	[illegible]	FINAL	865.7	746.4	613.8	709.3	714.6	709.1	696.7	747.4	5797.0	239.8					Filter # 260
			INITIAL															
			FINAL															

TRC

LAB RECOVERY DATA SHEET
IMPINGER TRAIN SETUP AND RECOVERY RECORD

Client: APS - CHOLLA
Site: JOSEPH CITY, AZ
Proj. # 25938

Sample Method: Ontario Hydro
Dates: 11-5-99
Location SITE

IMPINGER BOX ID	DATE	INITIALS	TRAIN SETUP	FIRST IMPINGER KCl	SECOND IMPINGER KCl	THIRD IMPINGER KCl	FOURTH IMPINGER H_2O_2/HNO_3	FIFTH IMPINGER $KMnO_4$	SIXTH IMPINGER $KMnO_4$	SEVENTH IMPINGER $KMnO_4$	EIGHTH IMPINGER Silica Gel	TOTAL (g)	NET GAIN (g)	Filter/Cyclone SAMPLE BOTTLE WEIGHTS (g) & ID	KCl SAMPLE BOTTLE WEIGHTS (g) & ID	H_2O_2/HNO_3 SAMPLE BOTTLE WEIGHTS (g) & ID	$KMnO_4$ SAMPLE BOTTLE WEIGHTS (g) & ID	COMMENTS / NOTES
SITE - BLANKS	11/5	[illegible]	INITIAL											265	266	267	268	Filter # 275
														616.3g	589.8g	372.3g	612.2g	
	11/5	[illegible]	FINAL															
SITE - BLANKS	11/5	[illegible]	INITIAL											10% H_2SO_4	10% HNO_3	$KMnO_4/H_2O$	$(NH_2OH)_2$ H_2SO_4	
														269	270	271	274	
			FINAL											443.2g	435.0g	291.1g	418.5g	
			INITIAL															
			FINAL															
			INITIAL															
			FINAL															

TRC

LAB RECOVERY DATA SHEET
IMPINGER TRAIN SETUP AND RECOVERY RECORD

Client: APS

Site: Cholla Power Plant

Proj. # 25938

Sample Method: Ontario Hydro

Location: Unit 2 Inlet

Run No.	TRAIN SETUP	FIRST IMPINGER KCl; 100 ml	SECOND INPINGER KCl; 100 ml	THIRD IMPINGER KCl; 100 ml	FOURTH IMPINGER H_2O_2/HNO_3; 100 ml	FIFTH IMPINGER $KMnO_4$; 100 ml	SIXTH IMPINGER $KMnO_4$; 100 ml	SEVENTH IMPINGER $KMnO_4$; 100 ml	EIGHTH IMPINGER Silica Gel	TOTAL (g)	NET GAIN (g)	Filter/Cyclone SAMPLE BOTTLE WEIGHTS (g) & ID	KCl SAMPLE BOTTLE WEIGHTS (g) & ID	H_2O_2/HNO_3 SAMPLE BOTTLE WEIGHTS (g) & ID	$KMnO_4$ SAMPLE BOTTLE WEIGHTS (g) & ID	COMMENTS / NOTES
1	INITIAL	706.2	622.7	688.9	735.8	630.2	704.7	693.9	778.5	5560.9		713.9/412.6	743.6	492.5	735.6	Accurate Rinse Volumes are determined by the final volume measured in the lab minus the net gains/sample and the charge volumes
												232/272	234	235	236	
	FINAL	781.7	640.5	692.6	737.7	630.2	759.3	637.6	793.7	5673.3	112.4	APS-2-OHM I-R1-PR-HNO_3-HG	APS-2-OHM I-R1-KCl-HG	APS-2-OHM-I-R1-HNO_3/H_2O_2-HG	APS-2-OHM I-R1-$H_2SO_4/KMnO_4$-HG	
2	INITIAL	697.7	705.4	693.3	710.6	717.3	712.0	701.4	854.2	5791.9		724.4/499.8	765.2	429.1	760.8	Accurate Rinse Volumes are determined by the final volume measured in the lab minus the net gains/sample and the charge volumes
												243/273	245	246	247	
	FINAL	729.0	764.5	704.8	713.0	717.9	711.4	701.7	870.7	5913.0	121.1	APS-2-OHM I-R2-PR-HNO_3-HG	APS-2-OHM I-R2-KCl-HG	APS-2-OHM-I-R2-HNO_3/H_2O_2-HG	APS-2-OHM I-R2-$H_2SO_4/KMnO_4$-HG	
3	INITIAL	709.0	623.3	688.6	735.3	630.2	707.6	691.9	745.3	5531.2		725.3	751.3	492.5/419	730.7	Accurate Rinse Volumes are determined by the final volume measured in the lab minus the net gains/sample and the charge volumes
												254	256	235/257	258	
	FINAL	770.5	646.4	743.0	742.4	695.4	648.3	633.3	764.7	5644.0	112.8	APS-2-OHM I-R3-PR-HNO_3-HG	APS-2-OHM I-R3-KCl-HG	APS-2-OHM-I-R3-HNO_3/H_2O_2-HG	APS-2-OHM I-R3-$H_2SO_4/KMnO_4$-HG	

TRC

LAB RECOVERY DATA SHEET
IMPINGER TRAIN SETUP AND RECOVERY RECORD

Client: APS
Site: Cholla Power Plant
Proj. # 25938

Sample Method: Ontario Hydro
Location: Unit 2 Outlet

Run No.	TRAIN SETUP	FIRST IMPINGER KCl; 100 ml	SECOND INPINGER KCl; 100 ml	THIRD IMPINGER KCl; 100 ml	FOURTH IMPINGER H_2O_2/HNO_3; 100 ml	FIFTH IMPINGER $KMnO_4$; 100 ml	SIXTH IMPINGER $KMnO_4$; 100 ml	SEVENTH IMPINGER $KMnO_4$; 100 ml	EIGHTH IMPINGER Silica Gel	TOTAL (g)	NET GAIN (g)	Filter/Cyclone SAMPLE BOTTLE WEIGHTS (g) & ID	KCl SAMPLE BOTTLE WEIGHTS (g) & ID	H_2O_2/HNO_3 SAMPLE BOTTLE WEIGHTS (g) & ID	$KMnO_4$ SAMPLE BOTTLE WEIGHTS (g) & ID	COMMENTS / NOTES
1	INITIAL	696.5	699.7	604.8	703.6	716.4	710.1	696.3	782.7	5610.1		537	685.6/576	412.2	737.2	Accurate Rinse Volumes are determined by the final volume measured in the lab minus the net gains/sample and the charge volumes
												237	239/240	241	242	
	FINAL	866.9	737.6	611.0	705.2	716.1	708.9	698.2	801.4	5845.3	235.2	APS-2-OHMO-R1-PR-HNO_3-HG	APS-2-OHMO-R1-KCl-HG	APS-2-OHM-O-R1-HNO_3/H_2O_2-HG	APS-2-OHMO-R1-$H_2SO_4/KMnO_4$-HG	
3	INITIAL	614.3	702.2	696.1	647.1	742.5	709.7	706.5	856.6	5675.0		414.1	499.5/681.8	418.2	753.9	Accurate Rinse Volumes are determined by the final volume measured in the lab minus the net gains/sample and the charge volumes
												248	250/251	252	253	
	FINAL	780.4	747.4	705.0	651.2	742.8	708.8	707.3	876.5	5919.4	244.4	APS-2-OHMO-R2-PR-HNO_3	APS-2-OHMO-R2-KCl-HG	APS-2-OHM-O-R2-HNO_3/H_2O_2-HG	APS-2-OHMO-R2-$H_2SO_4/KMnO_4$-HG	
4	INITIAL	700.3	696.9	604.1	705.0	715.3	709.9	695.8	729.9	5557.2		383.2	681.6/653	421	727	Accurate Rinse Volumes are determined by the final volume measured in the lab minus the net gains/sample and the charge volumes
												259	261/262	263	264	
	FINAL	865.7	740.4	613.8	709.3	714.6	709.1	696.7	747.4	5797.0	239.8	APS-2-OHMO-R3-PR-HNO_3	APS-2-OHMO-R3-KCl-HG	APS-2-OHM-O-R3-HNO_3/H_2O_2-HG	APS-2-OHMO-R3-$H_2SO_4/KMnO_4$-HG	

TRC

LAB RECOVERY DATA SHEET
IMPINGER TRAIN SETUP AND RECOVERY RECORD

Client: APS

Site: Cholla Power Plant

Proj. # 25938

Sample Method: Ontario Hydro

Location: Unit 3 Inlet

Run No.	TRAIN SETUP	FIRST IMPINGER KCl; 100 ml	SECOND INPINGER KCl; 100 ml	THIRD IMPINGER KCl; 100 ml	FOURTH IMPINGER H_2O_2/HNO_3; 100 ml	FIFTH IMPINGER $KMnO_4$; 100 ml	SIXTH IMPINGER $KMnO_4$; 100 ml	SEVENTH IMPINGER $KMnO_4$; 100 ml	EIGHTH IMPINGER Silica Gel	TOTAL (g)	NET GAIN (g)	Filter/Cyclone SAMPLE BOTTLE WEIGHTS (g) & ID	KCl SAMPLE BOTTLE WEIGHTS (g) & ID	H_2O_2/HNO_3 SAMPLE BOTTLE WEIGHTS (g) & ID	$KMnO_4$ SAMPLE BOTTLE WEIGHTS (g) & ID	COMMENTS / NOTES
1	INITIAL	704.4	695.4	696.5	709.7	711.5	712.8	696.5	849.3	5776.1		742.2	706.9	455.1	726.9	Accurate Rinse Volumes are determined by the final volume measured in the lab minus the net gains/sample and the charge volumes
												202	204	205	206	
	FINAL	782.1	705.3	698.4	711.8	712.7	707.5	701.0	861.6	5880.4	104.3	APS-3-OHM I-R1-PR-HNO_3-HG	APS-3-OHM I-R1-KCl-HG	APS-3-OHM-I-R1-HNO_3/H_2O_2-HG	APS-3-OHM I-R1-$H_2SO_4/KMnO_4$-HG	
3	INITIAL	697.0	708.2	694.3	713.4	716.7	715.0	702.1	861.3	5808.0		656.5	745.2	425.6	736.8	Accurate Rinse Volumes are determined by the final volume measured in the lab minus the net gains/sample and the charge volumes
												213	214	215	216	
	FINAL	776.0	718.4	695.7	715.1	717.2	715.6	702.4	870.4	5910.8	102.8	APS-3-OHM I-R3-PR-HNO_3-HG	APS-3-OHM I-R3-KCl-HG	APS-3-OHM-I-R3-HNO_3/H_2O_2-HG	APS-3-OHM I-R3-$H_2SO_4/KMnO_4$-HG	
4	INITIAL	706.1	624.4	690.9	622.1	745.0	705.6	694.8	788.0	5576.9		744.7	767	409.4	730.5	Accurate Rinse Volumes are determined by the final volume measured in the lab minus the net gains/sample and the charge volumes
												222	224	225	226	
	FINAL	774.9	638.1	691.8	623.0	745.7	705.7	695.7	800.5	5675.4	98.5	APS-3-OHM I-R4-PR-HNO_3-HG	APS-3-OHM I-R4-KCl-HG	APS-3-OHM-I-R4-HNO_3/H_2O_2-HG	APS-3-OHM I-R4-$H_2SO_4/KMnO_4$-HG	

TRC

LAB RECOVERY DATA SHEET
IMPINGER TRAIN SETUP AND RECOVERY RECORD

Client: APS

Site: Cholla Power Plant

Proj. # 25938

Sample Method: Ontario Hydro

Location: Unit 3 Outlet

Run No.	TRAIN SETUP	FIRST IMPINGER KCl; 100 ml	SECOND IMPINGER KCl; 100 ml	THIRD IMPINGER KCl; 100 ml	FOURTH IMPINGER H_2O_2/HNO_3; 100 ml	FIFTH IMPINGER $KMnO_4$; 100 ml	SIXTH IMPINGER $KMnO_4$; 100 ml	SEVENTH IMPINGER $KMnO_4$; 100 ml	EIGHTH IMPINGER Silica Gel	TOTAL (g)	NET GAIN (g)	Filter/Cyclone SAMPLE BOTTLE WEIGHTS (g) & ID	KCl SAMPLE BOTTLE WEIGHTS (g) & ID	H_2O_2/HNO_3 SAMPLE BOTTLE WEIGHTS (g) & ID	$KMnO_4$ SAMPLE BOTTLE WEIGHTS (g) & ID	COMMENTS / NOTES
1	INITIAL	694.9	698.5	604.9	698.5	708.0	716.8	694.4	778.0	5594.0		515.1	743.7	421.1	690.4	Accurate Rinse Volumes are determined by the final volume measured in the lab minus the net gains/sample and the charge volumes
												207	209	210	211	
	FINAL	773.5	726.0	611.5	701.1	708.3	716.7	695.4	792.1	5724.6	130.6	APS-3-OHMO-R1-PR-HNO_3-HG	APS-3-OHMO-R1-KCl-HG	APS-3-OHM-O-R1-HNO_3/H_2O_2-HG	APS-3-OHMO-R1-$H_2SO_4/KMnO_4$-HG	
3	INITIAL	613.3	701.7	695.6	642.9	742.7	709.5	705.4	859.4	5670.5		428.1	742.4	396.6	755.3	Accurate Rinse Volumes are determined by the final volume measured in the lab minus the net gains/sample and the charge volumes
												217	219	220	221	
	FINAL	691.0	729.5	702.7	645.6	743.4	708.9	706.5	874.5	5802.1	131.6	APS-3-OHMO-R3-PR-HNO_3-HG	APS-3-OHMO-R3-KCl-HG	APS-3-OHM-O-R3-HNO_3/H_2O_2-HG	APS-3-OHMO-R3-$H_2SO_4/KMnO_4$-HG	
4	INITIAL	700.8	700.7	605.6	703.1	717.1	710.0	676.3	772.9	5586.5		412.3	761.2	430.9	704.1	Accurate Rinse Volumes are determined by the final volume measured in the lab minus the net gains/sample and the charge volumes
												227	229	230	231	
	FINAL	777.4	728.1	612.8	705.4	717.8	709.3	677.8	787.9	5716.5	130.0	APS-3-OHMO-R4-PR-HNO_3-HG	APS-3-OHMO-R4-KCl-HG	APS-3-OHM-O-R4-HNO_3/H_2O_2-HG	APS-3-OHMO-R4-$H_2SO_4/KMnO_4$-HG	

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LAB RECOVERY DATA SHEET
IMPINGER TRAIN SETUP AND RECOVERY RECORD

Client: APS

Site: Cholla Power Plant

Proj. # 25938

Sample Method: Ontario Hydro

Location: Site

Run No.		Filter/Cyclone SAMPLE BOTTLE WEIGHTS (g) & ID	KCl SAMPLE BOTTLE WEIGHTS (g) & ID	H_2O_2/HNO_3 SAMPLE BOTTLE WEIGHTS (g) & ID	$KMnO_4$ SAMPLE BOTTLE WEIGHTS (g) & ID	COMMENTS / NOTES
Blank		616.3	589.8	372.3	612.2	
		265	266	267	268	
		APS-Site-OHM-Blank HNO_3-HG	APS-Site-OHM-Blank KC-HGI	APS-Site-OHM-Blank-HNO_3/H_2O_2-HG	APS-Site-OHM-Blank $H_2SO_4/KMnO_4$-HG	
Blank		443.2	435	291.1	418.5	
		269	270	271	274	
		APS-Site-OHM-Blank 10%-H_2SO_4 HG	APS-Site-OHM-Blank 10% HNO_3-HG	APS-Site-OHM-Blank-$KMnO_4/H_2O$-HG	APS-Site-OHM-Blank $(NH_2OH)_2/H_2SO_4$-HG	

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CHAIN OF CUSTODY RECORD

11 INVERNESS DRIVE EAST
ENGLEWOOD, CO. 80112

PROJECT NO.	PROJECT NAME
[illegible]	[illegible]

SAMPLERS: *(Signature)* *(Printed)*

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE OF DESCRIPTION	NO. OF CONTAINERS									REMARKS
[illegible]	[illegible]				[illegible]	1	[illegible]								
[illegible]	[illegible]				[illegible]	1									
[illegible]	[illegible]				[illegible]	1									
0265	[illegible]				[illegible]	1									
[illegible]	[illegible]				[illegible]	1									
[illegible]	[illegible]				[illegible]	1									[illegible]
[illegible]	[illegible]				[illegible]	1	[illegible]								
[illegible]	[illegible]				[illegible]	1	100								
					[illegible]		[illegible]								

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
[illegible]	11-10-99				
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	Remarks	
		[illegible] TRC	09/11/19 11:30		

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CHAIN OF CUSTODY RECORD

11 INVERNESS DRIVE EAST
ENGLEWOOD, CO. 80112

PROJECT NO.	PROJECT NAME
	[illegible]

SAMPLERS: *(Signature)* *(Printed)*

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE OF DESCRIPTION	NO. OF CONTAINERS									REMARKS
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0244	[illegible]				[illegible]	1			[illegible]	[illegible]	[illegible]				
0245	[illegible]				[illegible]	1			[illegible]	[illegible]	[illegible]				
0246	[illegible]				[illegible]	1									
0247	[illegible]				[illegible]	1									
0248	[illegible]	[illegible]			[illegible]	1									
[illegible]	[illegible]				[illegible]	1									
[illegible]	[illegible]				[illegible]	1			[illegible]	[illegible]					
[illegible]	[illegible]				[illegible]										
[illegible]	[illegible]				[illegible]										
[illegible]	[illegible]				[illegible]										
[illegible]	[illegible]				[illegible]	1									2nd Bottle of [illegible] Rinse - Inlet
[illegible]	[illegible]				[illegible]	1			[illegible]						2nd Bottle of KCl - Rinse Outlet

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
[illegible]	[illegible]				
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
	[illegible]				
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	Remarks	
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ENGLEWOOD, CO. 80112

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
[illegible]	[illegible]

SAMPLERS: *(Signature)* *(Printed)*

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE OF DESCRIPTION	NO. OF CONTAINERS									REMARKS
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[illegible]	[illegible]				[illegible]	1		[illegible]	[illegible]						
[illegible]	[illegible]				[illegible]	1									
[illegible]	[illegible]				[illegible]	1									
[illegible]	[illegible]	[illegible]			[illegible]	1									
[illegible]	[illegible]				[illegible]	1									
[illegible]	[illegible]				[illegible]	1		[illegible]	[illegible]						
[illegible]	[illegible]				[illegible]	1									
[illegible]	[illegible]				[illegible]	1									
[illegible]	[illegible]				[illegible]	1									
[illegible]	[illegible]				[illegible]	1									[illegible]

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Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
[illegible]	[illegible]				
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	Remarks	
		[illegible]	[illegible] 11:30		

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ENGLEWOOD, CO. 80112

PROJECT NO.	PROJECT NAME
[illegible]	[illegible]

SAMPLERS: *(Signature)* *(Printed)*

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE OF DESCRIPTION	NO. OF CONTAINERS									REMARKS
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	[illegible]				[illegible]										[illegible]
[illegible]	[illegible]				[illegible]	1									↓
[illegible]	[illegible]				[illegible]	1									↓
[illegible]	[illegible]				[illegible]	1									↓
[illegible]	[illegible]	[illegible]			[illegible]	1									[illegible]
	[illegible]				[illegible]	1									[illegible]
	[illegible]				[illegible]	1									↓
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[illegible]	[illegible]				[illegible]	1									↓

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Relinquished by: *(Signature)*	**Date/Time**	**Received by:** *(Signature)*	**Relinquished by:** *(Signature)*	**Date/Time**	**Received by:** *(Signature)*
	[illegible]				
Relinquished by: *(Signature)*	**Date/Time**	**Received for Laboratory by:** *(Signature)*	**Date/Time**	**Remarks**	
		[illegible]	[illegible] 11:30		

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ENGLEWOOD, CO. 80112

PROJECT NO.: [illegible]

PROJECT NAME: APS - CHOLLA

SAMPLERS: *(Signature)* *(Printed)*

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE OF DESCRIPTION	NO. OF CONTAINERS									REMARKS
[illegible]	[illegible]	[illegible]			AP-3-OHM-1-R3-FE-Hg ✓	1									
[illegible]	[illegible]				AP-3-OHM-1-R3-PB-HNO3-Hg ✓	1									[illegible]
[illegible]	[illegible]				AP-3-OHM-1-R3-KCl-Hg	1									[illegible]
[illegible]	[illegible]				AP-3-OHM-1-R3-HNO/HCl-Hg	1									
[illegible]	[illegible]				AP-3-OHM-1-R3-H2SO4/KMnO4-Hg	1									
[illegible]	[illegible]	[illegible]			AP-3-OHM-0-R3-PB-HNO3-Hg	1									
[illegible]	[illegible]				AP-3-OHM-0-R3-FE-Hg	1									[illegible]
[illegible]	[illegible]				AP-3-OHM-0-R3-KCl-Hg	1	[illegible]								
[illegible]	[illegible]				AP-3-OHM-0-R3-HNO/HCl-Hg	1									[illegible]
[illegible]	[illegible]				AP-3-OHM-0-R3-H2SO4/KMnO4-Hg	1									

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
[illegible]	[illegible]				
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
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11 INVERNESS DRIVE EAST
ENGLEWOOD, CO. 80112

PROJECT NO.	PROJECT NAME
[illegible]	[illegible]

SAMPLERS: *(Signature)* *(Printed)*

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE OF DESCRIPTION	NO. OF CONTAINERS									REMARKS
[illegible]	[illegible]	[illegible]			[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]					
[illegible]	[illegible]				[illegible]	1									
[illegible]	[illegible]				[illegible]	1									
[illegible]	[illegible]				[illegible]	1									
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[illegible]	[illegible]				[illegible]	1									
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[illegible]	[illegible]				[illegible]	1		[illegible]	[illegible]	[illegible]					[illegible]
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	[illegible]				
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	Remarks	
		[illegible]	[illegible] / 1130		

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11 INVERNESS DRIVE EAST
ENGLEWOOD, CO. 80112

PROJECT NO.	PROJECT NAME
25958	[illegible]

SAMPLERS: *(Signature)* *(Printed)*

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE OF DESCRIPTION	NO. OF CONTAINERS									REMARKS
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[illegible]	[illegible]				[illegible] ✓	1									[illegible]
[illegible]	[illegible]				[illegible] ✓	1									
[illegible]	[illegible]				[illegible] ✓	1									
[illegible]	[illegible]				[illegible] ✓	1									
[illegible]	[illegible]	[illegible]			[illegible] ✓	1									[illegible]
[illegible]	[illegible]				[illegible] ✓	1									
[illegible]	[illegible]				[illegible] ✓	1									
[illegible]	[illegible]				[illegible] ✓	1									
[illegible]	[illegible]				[illegible] ✓	1									✓

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
[illegible]	[illegible]				
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
[illegible]	[illegible]				
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	Remarks	
		[illegible]	06/11/19 1130		

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NOTICE OF SAMPLE RECEIPT-PHILIP ANALYTICAL SERVICES

Attention: Bill Guyton
Client: TRC Environmental Corporation
Re Client Project: 25938
FAX #: 303-792-0122
Phone #: 303-792-5555

Samples for: Hg via 'OH' method.
were received in good condition unless indicated below.

SAMPLE LISTING

Philip ID #	Sample ID	Date Sampled	Date Received
069905	APS-Site-OHM-Blank	99/11/05	99/11/19
** 069906	APS-2-OHM-Outlet-R1	99/11/05	99/11/19
069907	APS-2-OHM-Outlet-R2	99/11/05	99/11/19
069908	APS-2-OHM-Outlet-R3	99/11/05	99/11/19
069909	APS-3-OHM-Outlet-R1	99/11/02	99/11/19
* 069910	APS-3-OHM-Outlet-R3	99/11/03	99/11/19
069911	APS-3-OHM-Outlet-R4	99/11/03	99/11/19
069912	APS-2-OHM-Inlet-R1	99/11/04	99/11/19
* 069913	APS-2-OHM-Inlet-R2	99/11/05	99/11/19
*** 069914	APS-2-OHM-Inlet-R3	99/11/05	99/11/19
069915	APS-3-OHM-Inlet-R1	99/11/02	99/11/19
069916	APS-3-OHM-Inlet-R3	99/11/03	99/11/19
069917	APS-3-OHM-Inlet-R4	99/11/03	99/11/19

* KCl portion not received, arrived at fedex broken

** KCl portion: Bottle received cracked but minimal sample lost

*** HNO_3 received broken.

Comments: _____

Date 99/11/24

Appendix C – Section 2
Process Streams

Appendix C.2
Process Streams

Hg testing ①

Unit Operating Parameters: from → ① Ci-tech System
② CEMS 1 minute data
③ Recorded info on these pages

Coal Feed Rate (A,B,C,D,E Feeders)
Lime Slurry Feed Rate ~~(Source: liquor flow rate)~~ ABS FLOW SCRB FLOW
MW, load (MWATT) Gross
Main steam, flow, temp., press. (STM Flow) by Unit U2 MN STM TEMP. U3
RH steam, flow (Steam flow 2,3)
FW flow (FW Flow)
~~Furnace draft~~
Furnace pressure (Furn Press)
~~AFH temp. (HTT TMP 3)~~
Pre-test
Intspare → 4 # of mills in operation (Go by feeders) or by graphics & record manually
all, normal → # of burners in operation (?) Go by graphics & record manually
Burner tilts recorded, normal
Combustion air flow (Air Flow) ~~(Gas Flow)~~
Furnace O_2 ~~(Total Air)~~ UO_2 U2 O_2, U3 O_2

U-2: also
flue gas flow rate (F Gas Flow) SO_2 CEMS (inlet/outlet)
liquor flow rate (U2 ABS/A flow, etc) other CEMS
Pressure drop (U2 FLOW) U2 DEM/A Flow, etc
Outlet air temp. (FGas Temp) → U2 East Gas 1A, etc
U2 Scrub DEM
U2 Scrub Flow
U2 Scrub INT
201A 005 → 3 for normal full-load, 1 in mtspare

U-3: also
Flue gas flow rate (F Gas Flow)
TR's in/out of service → Ash PRW, E, A-F ROW when ESP ROW RUNS
Pressure across ESP, both banks ↓ ↓
SO_2 CEMS outlet
other CEMS
F Gas Temp

U-3
Run 1
11-2-99
@1220 -
1547

{ start : 1220
{ stop : 1547

11-2-99
U-3 running @ full load,
normal op. conditions
ESP running normal, good.
No hi-hoppers
No TR problems
P(W) = } ≈ 9.0
P(E) = }
" = 4 mill operation
B coal mill is off
other 4 running
Burner tilts normal
All burners in operation

stayed above 280 gross MW for entire test
Fgas flow > 740 KSCFM
Fgas temp > 280 °F
-305 °F

low sulfur coal for P&M McKinley fuel. ≈ .7 #SO2/mmBTU

ESP running excellent, normal operating condition

✓ U311299A thru
x
3 "A" APH diff press same as 3 "B" APH.

collect as-fired coal samples

11-2-99 U-2 offline for Boiler tube repair & economizer section repair by 11-4-99 (est.)

U-3 void
Run 2
11-3-99
@0741

{ start: 0741
{ stop : scratch run - Void

11-3-99 286 MW @ 0653
U-3 running @ full load
normal operating condition
ESP running normal
Boiler good condition
low sulfur coal from P&M McKinley fuel. ≈ .7 #SO2/mmBTU,
collect as-fired coal samples
ESP running good @ 0653
Burner tilts normal
: RF = -16.9°
RR = -19.6°
LF = -20.0°
LR = -20.6°
Furn. Press = -0.6
Furn. O2 = 2.1

No hi-hoppers,
No TR problems

→ ESP running normal

U311399A thru
x

Fgas flow > 740 KSCFM
Fgas T > 270 °F -

B Coal mill off

normal op.
@ 08:39

SO2 }
NOx } CEMS OOC
@ ≈ 0800 - 0900

3 "A" APH same
Diff. Press as 3 "B" APH

Boiler temps normal = 999,985, 689,481 RH

U-3 Run #2 11-3-99 @ 1114	Start: 1114 Stop: 1337	Andre supporting on coal sampling	U-3 still @ full load, normal op. conditions. ESP Normal Boiler Normal same as Run 2 0.65 #SO_2/mmBTU Unit 3 still @ full load, normal op's @ 1340.
U-3 Run 4 11-3-99 @ 1458	Start: 1458 Stop: 1723	Evan supporting on coal sampling	U-3 still @ full load, normal op. conditions. ESP Normal - TR's good - Hopper good Boiler Normal same as Run 3 0.65 #SO_2/mmBTU
Finish			Unit check @ 1615 everything normal Unit check @ 1720 everything normal
U-2 Run 1 11-4-99 @ 1218 continue @ 1813 735 KSCFM 275 MW Scrubber Normal Boiler Normal APH Banks Clean	Start: 1218 Stop: 1905 mill trip @1320. Status? Operating Parameters the same at 1218 as 0610. Load up slightly, Flow up slightly, FGas temp up slightly.	Amb. temp = 57°F Inlet SO_2 0.83 ~~scrubber data:~~ 201A Tower OOS 201B, ok normal 2.2 RHDiff 160°F exit Fld Dsk 19.6 (OVER)	U-2 back on-line and close to full load @ 0610. 268 gr MW 701 KSCFM Flow 165°F FGas temp 0.08 #SO2/mmBTU 0.34 NO_x #/mmBTU

* Continued

11-4-99 am

202A TWR 92°/6, 20.3 Diff, 2.0 RHDIFF, 160°F
202B TWR 22°/1, 20.4, 2.2 RHDIFF, 159°F
fully scrubbed gas flow

2D Coal Mill out, the rest running Normal

Boiler Temp HP 1009, MP 992, LP 693, ECON 471 °F

all Burner tilts: RF = -16.0°, RR = -15.9°, LF = -15.8, LR = -16.0°. all normal

Furnace Press = -0.6, Furn exit O_2 = 2.6%

2"A" APH = 2.0, 2"B" APH = 1.9
equal flow thru Banks A & B
(during run =)

RH = Reheat bundle

FW Flow = 813.5 STM Flow = 813.25
MN STM TEMP = 990.28

F GAS TEMP = 165.67°F Flue Gas Flow = 597.56

U2 DEM 2B Flow 0.99375
U2 DEM 2A Flow 4.9969
U2 FLD DSK 1B 99 %
U2 FLD DSK 2A 92 %
U2 FLD DSK 2B 22 %
U2 SCRUB DEN 1B 1.085
" " 2A 1.069
" " 2B 1.064
U2 SCRUB FLOW 1B 496.78 gpm
" " 2A 600.59
" " 2B 426.00

Normal

OK

U2 scrub inlet = -0.5

@1850
Furnace tilts -15.5 all
-0.6 Furnace Press
3.3 exit O_2 (Furn)
2.2 & 2.2 air APH banks
scrubber: 201B 99%, 21.
202A 99%, 21.6
OK 202B 22%, 22.
Boiler ok

Hg Testing Project

1133

U-2
Run 2
11-5-99
@ ≈ 0845
restart @ 1112
restart @ 1150

start: 0828
Stop: 1229

712 @ 1149

U2 MW: 269.5 Flow: 683.2 KSCFM FGAS TEMP: 1
0.14 #SO_2/mmBTU 0.26 # NO_x/mmBTU inlet SO_2: 1.0
201A Tower OOS (not spare)
@0845 201B: 18.9 Diff 2.0 RH Diff 99% 161 exit temp @121
202A: 19.3 Diff 2.0 RH Diff 98% 161 exit temp 22.
202B: 19.7 Diff 2.1 RH Diff 22% 159 exit temp 22.
2"D" mill OOS; 4 mills

2"D" mill start @ ≈ 1115
Furnace Press: -0.7 Furnace exit O_2: 2.3
APH "A" = 2.1 APH "B" = 2.1
16 Burners: normal Tilts: -19.4 RR -19.5 RF -19.4 LF -19.5 R

2"A" mill off @ ≈ 1115
FW Flow: 818.25 STM Flow: 812.75 MN STM Temp: 9
Scrubber Densities: 1.098 1B, 1.082 2A, 1.068 2
ABS Dens: 0.012 a 0.011 b
Scrubber flows: 514 1B, 612 2A, 443 2B
Demister flows: 1.996 a, 4.998 b, 174 → 2B Den Diff: 2.4 1B, 0.7 2A, 2
Scrubber inlet: -0.5 diff
Boiler temps: 988 HP 977 MP 677 LP 472 Econ

202B to 99% @ 1207

pH's ≈ 7.6 to 8.0, pH set point = 8.0
RH = Re-heat bundle

U2 Normal, Boiler OK, normal, Furnace OK
SCRUBBER, OK, normal

U-2 Start: 1314 Hg Testing Project (6)
RUN3 stop: 1540
11-5-99
@ 1314

U2 MW: 272 Flow: 728 kscfm FGA TEMP: 172 °F
SO_2/mmBTU 0.07 # Hg/mmBTU 0.41
inlet SO_2: 0.90 #/mmBTU

201A: Tower OOS (mt Spare)
201B: 20.0 Diff 1.6 RH Diff 99 %, 160 out °F
202A: 20.4 Diff 2.1 RH Diff 100 %, 159 out °F
202B: 20.7 Diff 2.4 RH Diff 99 %, 159 out °F
2 "A" mill OOS, 4 mills, the 2 "D" mill OOS, Ao
Furn Press: -0.5 Furn exit O_2: 2.8
APH "A": 2.1 APH "B": 2.1
Normal 16 Burners: normal TiHt: -18.9 RR -19.0 RF -18.9 LF -19.0 LR
FWFLOW: 833.53 STM FLOW: 839.97 mn STM: 997
SCB DEN: 1.103 1.099 1.06
ABS DEN: "A" .006 "B" .006
SCB FLW 512.38 gpm 618 446.38
DEM FLW 1.9989 260 0.9938
DEM Diff 2.7699 0.57994 0.39
SCB Inlet: -0.5
Boiler Temps: 1019 H 1005 M 699 L 473 Ec

pH: 8.0 - 8.1 pH set point = 8.0
RH = reheat bundle

U2 Normal, Both, Furnace normal
SCRUBBER, OK, normal

Appendix D – Section 2
Process Streams

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 630-953-9300 FAX: 630-953-4306
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ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS STREET
SUITE B-200
DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

November 18, 1999

ARIZONA PUBLIC SERVICE CO.
CHOLLA POWER PLANT
P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO

UNIT 2
RUN 1
SAMPLE TIME: 12:18
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 4, 1999

Date received November 11, 1999

Analysis report no. 72-415890

PROXIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	5.86	xxxxxx
% Ash	17.34	18.42
% Volatile	36.81	39.10
% Fixed Carbon	39.99	42.48
	100.00	100.00
Btu/lb	10620	11281
% Sulfur	0.46	0.49
MAF Btu/lb		13828
% MAF Volatile		47.93
% MAF Fixed Carbon		52.07
lb SO_2/mm Btu		0.87

ULTIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	5.86	xxxxx
% Carbon	60.36	64.12
% Hydrogen	4.49	4.77
% Nitrogen	1.06	1.13
% Sulfur	0.46	0.49
% Ash	17.34	18.42
% Oxygen (diff)	10.43	11.07
	100.00	100.00
lb Sulfur/mm Btu		0.43
As Received Net Sample Wt.		1212.60 g

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

MEMBER ACIL

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P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO.

UNIT 2
RUN 1
SAMPLE TIME: 12:18
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 4, 1999

Date received November 11, 1999

Analysis report no. 72-415890

PARAMETER	RESULTS	DATE ANALYZED
Mercury, Hg	0.05	11-29-1999
Chloride, Cl	<100	11-19-1999

Procedure: Mercury analysis by Double Gold Amalgamation Cold Vapor Atomic Absorption.

Chloride per ASTM Volume 05.05, Method D4208.

Results: Results are reported in parts per million (ppm), on a dry basis.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cash

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November 18, 1999

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CHOLLA POWER PLANT
P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO.

UNIT 2
RUN 1
SAMPLE TIME: 18:13
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 4, 1999

Date received November 11, 1999

Analysis report no. 72-415891

PROXIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	5.50	xxxxxx
% Ash	18.13	19.19
% Volatile	36.84	38.98
% Fixed Carbon	39.53	41.83
	100.00	100.00
Btu/lb	10550	11164
% Sulfur	0.47	0.50
MAF Btu/lb		13815
% MAF Volatile		48.24
% MAF Fixed Carbon		51.76
lb SO_2/mm Btu		0.89

ULTIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	5.50	xxxxx
% Carbon	60.25	63.76
% Hydrogen	4.46	4.72
% Nitrogen	1.06	1.12
% Sulfur	0.47	0.50
% Ash	18.13	19.19
% Oxygen (diff)	10.13	10.71
	100.00	100.00
lb Sulfur/mm Btu		0.45
As Received Net Sample Wt.		1035.50 g

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

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November 29, 1999

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CHOLLA POWER PLANT
P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO.

UNIT 2
RUN 1
SAMPLE TIME: 18:13
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 4, 1999

Date received November 11, 1999

Analysis report no. 72-415891

PARAMETER	RESULTS	DATE ANALYZED
Mercury, Hg	0.04	11-29-1999
Chloride, Cl	<100	11-19-1999

Procedure: Mercury analysis by Double Gold Amalgamation Cold Vapor Atomic Absorption.

Chloride per ASTM Volume 05.05, Method D4208.

Results: Results are reported in parts per million (ppm), on a dry basis.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cat

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November 29, 1999

ARIZONA PUBLIC SERVICE CO.
CHOLLA POWER PLANT
P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO.

UNIT 2
RUN 2
SAMPLE TIME: 08:28
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 5, 1999

Date received November 11, 1999

Analysis report no. 72-415892

PROXIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	6.13	xxxxxx
% Ash	19.23	20.49
% Volatile	36.14	38.50
% Fixed Carbon	38.50	41.01
	100.00	100.00
Btu/lb	10283	10955
% Sulfur	0.48	0.51
MAF Btu/lb		13778
% MAF Volatile		48.42
% MAF Fixed Carbon		51.58
lb SO_2/mm Btu		0.93

ULTIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	6.13	xxxxx
% Carbon	58.85	62.69
% Hydrogen	4.38	4.67
% Nitrogen	1.03	1.10
% Sulfur	0.48	0.51
% Ash	19.23	20.49
% Oxygen (diff)	9.90	10.54
	100.00	100.00
lb Sulfur/mm Btu		0.47
As Received Net Sample Wt.		2315.90 g

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

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November 29, 1999

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CHOLLA POWER PLANT
P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO.

UNIT 2
RUN 2
SAMPLE TIME: 08:28
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 5, 1999

Date received November 11, 1999

Analysis report no. 72-415892

PARAMETER	RESULTS	DATE ANALYZED
Mercury, Hg	0.04	11-29-1999
Chloride, Cl	<100	11-19-1999

Procedure: Mercury analysis by Double Gold Amalgamation Cold Vapor Atomic Absorption.

Chloride per ASTM Volume 05.05, Method D4208.

Results: Results are reported in parts per million (ppm), on a dry basis.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cat

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November 18, 1999

ARIZONA PUBLIC SERVICE CO.
CHOLLA POWER PLANT
P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO.

UNIT 2
RUN 3
SAMPLE TIME: 13:14
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 5, 1999

Date received November 11, 1999

Analysis report no. 72-415893

PROXIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	5.76	xxxxxx
% Ash	18.51	19.64
% Volatile	36.45	38.68
% Fixed Carbon	39.28	41.68
	100.00	100.00
Btu/lb	10466	11106
% Sulfur	0.49	0.52
MAF Btu/lb		13820
% MAF Volatile		48.13
% MAF Fixed Carbon		51.87
lb SO_2/mm Btu		0.94

ULTIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	5.76	xxxxx
% Carbon	59.69	63.34
% Hydrogen	4.45	4.72
% Nitrogen	1.04	1.10
% Sulfur	0.49	0.52
% Ash	18.51	19.64
% Oxygen (diff)	10.06	10.68
	100.00	100.00
lb Sulfur/mm Btu		0.47
As Received Net Sample Wt.		1166.30 g

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

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November 29, 1999

ARIZONA PUBLIC SERVICE CO.
CHOLLA POWER PLANT
P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO.

UNIT 2
RUN 3
SAMPLE TIME: 13:14
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 5, 1999

Date received November 11, 1999

Analysis report no. 72-415893

PARAMETER	RESULTS	DATE ANALYZED
Mercury, Hg	0.04	11-29-1999
Chloride, Cl	<100	11-19-1999

Procedure: Mercury analysis by Double Gold Amalgamation Cold Vapor Atomic Absorption.

Chloride per ASTM Volume 05.05, Method D4208.

Results: Results are reported in parts per million (ppm), on a dry basis.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cat

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FAX: (303) 373-4791

November 18, 1999

ARIZONA PUBLIC SERVICE CO.
CHOLLA POWER PLANT
P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO

UNIT 2
RUN 3
SAMPLE TIME: 15:15
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 5, 1999

Date received November 11, 1999

Analysis report no. 72-415894

PROXIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	5.76	xxxxxx
% Ash	18.12	19.23
% Volatile	36.59	38.83
% Fixed Carbon	39.53	41.94
	100.00	100.00
Btu/lb	10520	11163
% Sulfur	0.50	0.53
MAF Btu/lb		13821
% MAF Volatile		48.07
% MAF Fixed Carbon		51.93
lb SO_2/mm Btu		0.95

ULTIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	5.76	xxxxx
% Carbon	60.07	63.74
% Hydrogen	4.48	4.75
% Nitrogen	1.05	1.11
% Sulfur	0.50	0.53
% Ash	18.12	19.23
% Oxygen (diff)	10.02	10.64
	100.00	100.00
lb Sulfur/mm Btu		0.48
As Received Net Sample Wt.		1054.00 g

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

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November 29, 1999

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CHOLLA POWER PLANT
P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO.

UNIT 2
RUN 3
SAMPLE TIME: 15:15
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 5, 1999

Date received November 11, 1999

Analysis report no. 72-415894

PARAMETER	RESULTS	DATE ANALYZED
Mercury, Hg	0.03	11-29-1999
Chloride, Cl	<100	11-19-1999

Procedure: Mercury analysis by Double Gold Amalgamation Cold Vapor Atomic Absorption.

Chloride per ASTM Volume 05.05, Method D4208.

Results: Results are reported in parts per million (ppm), on a dry basis.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cat

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November 18, 1999

ARIZONA PUBLIC SERVICE CO.
CHOLLA POWER PLANT
P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO.

UNIT 3
RUN 1
SAMPLE TIME: 12:20
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 2, 1999

Date received November 11, 1999

Analysis report no. 72-415895

PROXIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	7.49	xxxxxx
% Ash	11.05	11.94
% Volatile	36.21	39.14
% Fixed Carbon	45.25	48.92
	100.00	100.00
Btu/lb	10974	11863
% Sulfur	0.40	0.43
MAF Btu/lb		13471
% MAF Volatile		44.45
% MAF Fixed Carbon		55.55
lb SO_2/mm Btu		0.73

ULTIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	7.49	xxxxx
% Carbon	63.76	68.92
% Hydrogen	4.44	4.80
% Nitrogen	1.28	1.38
% Sulfur	0.40	0.43
% Ash	11.05	11.94
% Oxygen (diff)	11.58	12.53
	100.00	100.00
lb Sulfur/mm Btu		0.36
As Received Net Sample Wt.		223.80 g

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

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November 29, 1999

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CHOLLA POWER PLANT
P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO.

UNIT 3
RUN 1
SAMPLE TIME: 12:20
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 2, 1999

Date received November 11, 1999

Analysis report no. 72-415895

PARAMETER	RESULTS	DATE ANALYZED
Mercury, Hg	0.04	11-29-1999
Chloride, Cl	<100	11-19-1999

Procedure: Mercury analysis by Double Gold Amalgamation Cold Vapor Atomic Absorption.

Chloride per ASTM Volume 05.05, Method D4208.

Results: Results are reported in parts per million (ppm), on a dry basis.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cat

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FAX: (303) 373-4791

November 18, 1999

ARIZONA PUBLIC SERVICE CO.
CHOLLA POWER PLANT
P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO.

UNIT 3
RUN 3
SAMPLE TIME: 11:41
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 3, 1999

Date received November 11, 1999

Analysis report no. 72-415896

PROXIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	7.74	xxxxxx
% Ash	8.36	9.06
% Volatile	36.12	39.15
% Fixed Carbon	47.78	51.79
	100.00	100.00
Btu/lb	11230	12172
% Sulfur	0.39	0.42
MAF Btu/lb		13385
% MAF Volatile		43.05
% MAF Fixed Carbon		56.95
lb SO_2/mm Btu		0.69

ULTIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	7.74	xxxxx
% Carbon	63.50	68.83
% Hydrogen	4.46	4.83
% Nitrogen	1.42	1.54
% Sulfur	0.39	0.42
% Ash	8.36	9.06
% Oxygen (diff)	14.13	15.32
	100.00	100.00
lb Sulfur/mm Btu		0.35
As Received Net Sample Wt.		2549.60 g

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

MEMBER ACIL

COMMERCIAL TESTING & ENGINEERING CO.
GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 630-953-9300 FAX: 630-953-6306
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ADDRESS ALL CORRESPONDENCE TO:
4665 PARIS STREET
SUITE B-200
DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

November 29, 1999

ARIZONA PUBLIC SERVICE CO.
CHOLLA POWER PLANT
P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO.

UNIT 3
RUN 3
SAMPLE TIME: 11:41
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 3, 1999

Date received November 11, 1999

Analysis report no. 72-415896

PARAMETER	RESULTS	DATE ANALYZED
Mercury, Hg	0.04	11-29-1999
Chloride, Cl	<100	11-19-1999

Procedure: Mercury analysis by Double Gold Amalgamation Cold Vapor Atomic Absorption.

Chloride per ASTM Volume 05.05, Method D4208.

Results: Results are reported in parts per million (ppm), on a dry basis.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cat

Denver Laboratory

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ADDRESS ALL CORRESPONDENCE TO:
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SUITE B-200
DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

November 18, 1999

ARIZONA PUBLIC SERVICE CO.
CHOLLA POWER PLANT
P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO.

UNIT 3
RUN 4
SAMPLE TIME: 14:58
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 3, 1999

Date received November 11, 1999

Analysis report no. 72-415897

PROXIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	7.46	xxxxxx
% Ash	9.17	9.91
% Volatile	36.22	39.14
% Fixed Carbon	47.15	50.95
	100.00	100.00
Btu/lb	11230	12135
% Sulfur	0.39	0.42
MAF Btu/lb		13470
% MAF Volatile		43.45
% MAF Fixed Carbon		56.55
lb SO_2/mm Btu		0.69

ULTIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	7.46	xxxxx
% Carbon	65.16	70.41
% Hydrogen	4.47	4.83
% Nitrogen	1.39	1.50
% Sulfur	0.39	0.42
% Ash	9.17	9.91
% Oxygen (diff)	11.96	12.93
	100.00	100.00
lb Sulfur/mm Btu		0.35
As Received Net Sample Wt.		2327.50 g

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

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COMMERCIAL TESTING & ENGINEERING CO.
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DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791

November 29, 1999

ARIZONA PUBLIC SERVICE CO.
CHOLLA POWER PLANT
P.O. BOX 188
JOSEPH CITY AZ 86032

Sample identification by
ARIZONA PUBLIC SERVICE CO.

UNIT 3
RUN 4
SAMPLE TIME: 14:58
PO #: 300208096

Kind of sample COAL

Sample taken at CHOLLA PLANT

Sample taken by ARIZONA PUBLIC SERVICE CO.

Date sampled November 3, 1999

Date received November 11, 1999

Analysis report no. 72-415897

PARAMETER	RESULTS	DATE ANALYZED
Mercury, Hg	0.03	11-29-1999
Chloride, Cl	<100	11-19-1999

Procedure: Mercury analysis by Double Gold Amalgamation Cold Vapor Atomic Absorption.

Chloride per ASTM Volume 05.05, Method D4208.

Results: Results are reported in parts per million (ppm), on a dry basis.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cate

Denver Laboratory

MEMBER ACIL

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FAX: (303) 373-4791

November 29, 1999

QUALITY CONTROL REPORT: MERCURY

Sample Identification:	72-HG991129
Standard Identification:	NIST 1630a
Certified Value:	0.106
First Analyzed Value:	0.10
Second Analyzed:	0.09

Procedure: Mercury analysis by Double Gold Amalgamation Cold Vapor Atomic Absorption.

Results: Results are reported in parts per million (ppm), on a dry basis.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cat

Denver Laboratory

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FAX: (303) 373-4791

November 29, 1999

QUALITY CONTROL REPORT: CHLORIDE

Sample Identification:	72-CL991119
Standard Identification:	NIST 1630a
Certified Value:	1144
First Analyzed Value:	1160
Second Analyzed:	1140

Procedure: Chlorine per ASTM Volume 05.05, Method D4208.

Results: Results are reported in parts per million (ppm), on a dry basis.

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Byron C. Cat

Denver Laboratory

MEMBER ACIL

Page ___ of ___

00085

US SAMPLE LOG IN SHEET

TRC

Lab Name:	Philip Analytical Services Corporation, Burlington Laboratory
Received By (Print Name):	K. Carano
Received By (Signature):	
Client Project ID:	

REMARKS:		Condition of Samples/Sample Shipment:
Custody Seal(s)	Present ___ Absent ✓	Some bottles broken/missing see chains for details.
Chain of Custody Records	Present ✓ Absent ___	
Airbill	Present ✓ Absent ___	
Airbill No.	8135240350 63	1 Box ~~tea~~ BROKE
	8091 8384 1537	
	FedEx. 8091 8384 1526 FedEx Tracking Number for Customer	811050495987
	267 6330 763	5076
	268 7076 192	5965
		5060
Does Information on Custody Records and Samples Agree?	Yes ✓ No ___	5932
		5050
		5108
Date Received at Lab	19-11-99	5082
		5974
Time Received	11:30 a.	5954
		5921
Temperature of Coolers		5093
Cooler ID:	Temperature	5943
18 boxes.	not taken	

Relinquished By: _____

Date: _____

Logbook No: _____

Logbook Page No. _____

TRC
TRC Environmental Corporation

CHAIN OF CUSTODY RECORD

11 INVERNESS DRIVE EAST
ENGLEWOOD, CO. 80112

PROJECT NO.	PROJECT NAME
25938	APS-CHOLLA

SAMPLERS: *(Signature)* *(Printed)*

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE OF DESCRIPTION	NO. OF CONTAINERS									REMARKS
0222	11.3.99	0917			APS-3-OHM-I-R4-PR-HNO_3-Hg ✓	1									
0223	11.3.99				APS-3-OHM-I-R4-PF-Hg ✓	1									PPP, 500Ab+4.
0224	11.3.99				APS-3-OHM-I-R4-KCl-Hg ✓	1									
0225	11.3.99				APS-3-OHM-I-R4-HNO_3/H_2O_2-Hg ✓	1									
0226	11.3.99				APS-3-OHM-I-R4-H_2SO_4/$KMnO_4$-Hg ✓	1									
0227	11.3.99	0911			APS-3-OHM-O-R4-PR-HNO_3-Hg ✓	1									PPP 500Ab
0228	11.3.99				APS-3-OHM-O-R4-PF-Hg ✓	1									↓
0229	11.3.99				APS-3-OHM-O-R4-KCl-Hg ✓	1									
0230	11.3.99				APS-3-OHM-O-R4-HNO_3/H_2O_2-Hg ✓	1									
0231	11.3.99				APS-3-OHM-O-R4-H_2SO_4/$KMnO_4$-Hg ✓	1									

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Bill Smyters	11/13/99 0930				
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Roman Schodda	11-13-99 13:35				
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	Remarks	
		JASL	991119 11:30		

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TRC Environmental Corporation

CHAIN OF CUSTODY RECORD

11 INVERNESS DRIVE EAST
ENGLEWOOD, CO. 80112

PROJECT NO.	PROJECT NAME
25938	APS - CHOLLA

SAMPLERS: *(Signature)* *(Printed)*

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE OF DESCRIPTION	NO. OF CONTAINERS									REMARKS
0212	11·3·99	1609 16.			APS-3-OHM-I-R3-PF-Hg ✓	1									ppd
0213	11·3·99				APS-3-OHM-I-R3-PR-HNO3-Hg ✓	1									500AG
0214	11·3·99				APS-3-OHM-I-R3-KCl-Hg ✓	1									↓
0215	11·3·99				APS-3-OHM-I-R3-HNO3/H2O2-Hg ✓	1									↓
0216	11·3·99				APS-3-OHM-I-R3-H2SO4/KMnO4-Hg ✓	1									↓
0217	11·3·99	1691 10.			APS-3-OHM-O-R3-PR-HNO3-Hg ✓	1									500AG
0218	11·3·99				APS-3-OHM-O-R3-PF-Hg ✓	1									ppd
0219	11·3·99				APS-3-OHM-O-R3-KCl-Hg	1	not rec'd								"
0220	11·3·99				APS-3-OHM-O-R3-HNO3/H2O2-Hg ✓	1									500AG
0221	11·3·99				APS-3-OHM-O-R3-H2SO4/KMnO4-Hg ✓	1									"

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Bill Clifton	11/13/99 0930				
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Roman Schroder	11-13-99 13:35				
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	Remarks	
		PASL	99 11 19 11:30		

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11 INVERNESS DRIVE EAST
ENGLEWOOD, CO. 80112

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
25938	APS - CHOLLA

SAMPLERS: *(Signature)* *(Printed)*

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE OF DESCRIPTION	NO. OF CONTAINERS	REMARKS
0202	11-2-99	0915.			APS-3-OHM-I-R1-PR-HNO3-Hg ✓	1	PPD.
0203	11-2-99				APS-3-OHM-I-R1-PF-Hg ✓	1	500AL
0204	11-2-99				APS-3-OHM-I-R1-KCl-Hg ✓	1	↓
0205	11-2-99				APS-3-OHM-I-R1-HNO3/H2O2-Hg ✓	1	↓
0206	11-2-99				APS-3-OHM-I-R1-H2SO4/KMnO4-Hg ✓	1	↓
0207	11-2-99	0909.			APS-3-OHM-O-R1-PR-HNO3-Hg ✓	1	PPD
0208	11-2-99				APS-3-OHM-O-R1-PF-Hg ✓	1	500AL
0209	11-2-99				APS-3-OHM-O-R1-KCl-Hg ✓	1	↓
0210	11-2-99				APS-3-OHM-O-R1-HNO3/H2O2-Hg ✓	1	↓
0211	11-2-99				APS-3-OHM-O-R1-H2SO4/KMnO4-Hg ✓	1	↓

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
[signature]	11/1/99 0930				
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
[signature]	11-13-99 13:35				
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	Remarks	
		[signature] PASL	991119 11:30		

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TRC Environmental Corporation

11 INVERNESS DRIVE EAST
ENGLEWOOD, CO. 80112

CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME
25938	APS - CHOLLA

SAMPLERS: *(Signature)* *(Printed)*

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE OF DESCRIPTION	NO. OF CONTAINERS									REMARKS
0254	11.5.99	1091 4			APS-2-OHM-I-R3-PR-HNO3-Hg	1		rec'd broken.							
0255	11.5.99				APS-2-OHM-I-R3-PF-Hg	1									
0256	11.5.99				APS-2-OHM-I-R3-KCl-Hg	1		ppd, 500AG x 3							
0257	11.5.99				APS-2-OHM-I-R3-HNO3/H2O2-Hg	1									
0258	11.5.99				APS-2-OHM-I-R3-KMnO4/H2SO4-Hg	1									
0259	11.5.99	09 06			APS-2-OHM-O-R3-PR-HNO3-Hg	1									
0260	11.5.99				APS-2-OHM-O-R3-PF-Hg	1									
0261	11.5.99				APS-2-OHM-O-R3-KCl-Hg	1		ppd, 500AG x 5.							
0263	11.5.99				APS-2-OHM-O-R3-HNO3/H2O2-Hg	1									
0264	11.5.99				APS-2-OHM-O-R3-KMnO4/H2SO4-Hg	1									
0262	11.5.99				APS-2-OHM-O-R3-KCl-Hg	1									2ND BOTTLE OF KCl RUN #3 - OUTLET

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Bill Guyton	11/10/99 0930				
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Roman Schoda	11-13-99 13:35				
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	Remarks	
		PASL	991119 11:30		

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CHAIN OF CUSTODY RECORD

11 INVERNESS DRIVE EAST
ENGLEWOOD, CO. 80112

PROJECT NO.	PROJECT NAME
25938	APS - CHOLLA

SAMPLERS: *(Signature)* *(Printed)*

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE OF DESCRIPTION	NO. OF CONTAINERS									REMARKS
0243	11.5.99	1669 93			APS-2-OHM-I-R2-PR-HNO3-Hg ✓	1									
0244	11.5.99				APS-2-OHM-I-R2-PF-Hg ✓	1				500MG-P3, PPR					
0245	11.5.99				APS-2-OHM-I-R2-KCl-Hg	1				not rec'd					
0246	11.5.99				APS-2-OHM-I-R2-HNO3/H2O2-Hg ✓	1									
0247	11.5.99				APS-2-OHM-I-R2-KMnO4/H2SO4-Hg ✓	1									
0248	11.5.99	1990 7			APS-2-OHM-O-R2-PR-HNO3-Hg ✓	1									
0249	11.5.99				APS-2-OHM-O-R2-PF-Hg ✓	1									
0250	11.5.99				APS-2-OHM-O-R2-KCl-Hg ✓	1				PPR, 500MG-P3					
0252	11.5.99				APS-2-OHM-O-R2-HNO3/H2O2-Hg ✓	1									
0253	11.5.99				APS-2-OHM-O-R2-KMnO4/H2SO4-Hg ✓	1									
0273	11.5.99				APS-2-OHM-I-R2-~~KCl~~ PR-HNO3 RS 11-11-99 -Hg ✓	1				500MG					PROBE RINSE RS 11-11-99 2ND BOTTLE OF ~~KCl~~ RUN#2 - INLET
0251	11.5.99				APS-2-OHM-O-R2-KCl-Hg ✓	1				500MG					2ND BOTTLE OF KCl - RUN # 2 - OUTLET

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
[signature]	11/1/99 0930				
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
[signature]	11-13-99 13:35				
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	Remarks	
		[signature] PASC.	991119 11:30		

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CHAIN OF CUSTODY RECORD

11 INVERNESS DRIVE EAST
ENGLEWOOD, CO. 80112

PROJECT NO.	PROJECT NAME
25938	APS - CHOLLA

SAMPLERS: *(Signature)* *(Printed)*

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE OF DESCRIPTION	NO. OF CONTAINERS		REMARKS
0232	11·4·99	6991.			APS-2-OHM-I-R1-PR-HNO_3-Hg ✓	1	PPD, 500Ab ×5	
0233	11·4·99				APS-2-OHM-I-R1-PF-Hg ✓	1		
0234	11·4·99				APS-2-OHM-I-R1-KCl-Hg ✓	1		
0235	11·4·99				APS-2-OHM-I-R1-HNO_3/H_2O_2-Hg ✓	1		
0236	11·4·99				APS-2-OHM-I-R1-$H_2SO_4/KMnO_4$-Hg ✓	1		
0272	11·4·99				APS-2-OHM-I-R1-PR-HNO_3-Hg ✓	1		2nd BOTTLE PROBE RINSE - INLET
0237	11·4·99				APS-2-OHM-O-R1-PR-HNO_3-Hg ✓	1		
0238	11·4·99				APS-2-OHM-O-R1-PF-Hg ✓	1		
0239	11·4·99	6990.			APS-2-OHM-O-R1-KCl-Hg ✓	1	rec'd cracked - transferred to new bottle - minimum volume lost	
0240	11·4·99				APS-2-OHM-O-R1-KCl-Hg ✓	1	500Ab ×4, PPD, 1LAb.	2nd BOTTLE OF KCl - RUN 1 - OUTLET
0241	11·4·99				APS-2-OHM-O-R1-HNO_3/H_2O_2-Hg ✓	1		
0242	11·4·99				APS-2-OHM-O-R1-$H_2SO_4/KMnO_4$-Hg ✓	1		

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Bill Dayton	11/10/99 0930				
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Roman Schoda	11-13-99 13:35				
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	Remarks	
		[signature] TASC	991119 11:30		

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TRC
TRC Environmental Corporation

MB-69904

CHAIN OF CUSTODY RECORD

11 INVERNESS DRIVE EAST
ENGLEWOOD, CO. 80112

PROJECT NO.	PROJECT NAME
25938	APS-CHOLLA

SAMPLERS: *(Signature)* *(Printed)*

FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	SAMPLE OF DESCRIPTION	NO. OF CONTAINERS									REMARKS
0265	11.5.99				APS-SITE-OHM-BLANK-HNO3-Hg ✓	1	580AG								
0266	11.5.99				APS-SITE-OHM-BLANK-KCl-Hg ✓	1									
0267	11.5.99				APS-SITE-OHM-BLANK-HNO3/H2O2-Hg ✓	1									
0268	11.5.99				APS-SITE-OHM-BLANK-H2SO4/KMnO4-Hg ✓	1									
0269	11.5.99				APS-SITE-OHM-BLANK-10% H2SO4-Hg ✓	1									
0270	11.5.99				APS-SITE-OHM-BLANK-10% HNO3-Hg ✓	1				on hold - fridge 2					69905
0271	11.5.99				APS-SITE-OHM-BLANK-KMnO4/H2O-Hg ✓	1									
0275	11.5.99				APS-SITE-OHM-BLANK-PF-Hg ✓	1	PP								
0274					also acid hydroxylamine sulphate.		500mL			on hold - fridge 2					

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Rowan Schodt	11-10-99				
Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date/Time	Received for Laboratory by: *(Signature)*	Date/Time	Remarks	
		PABC	991119 11:50		

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Date 11/18/99 Sender's FedEx Account Number [redacted]

Sender's Name Darren Lane Phone (303) 792-5555

Company TRC Environmental Corporation

Address 11 Inverness Drive East Dept/Floor/Suite/Room

City Englewood State CO ZIP 80112

2 Your Internal Billing Reference Information 25938

3 To

Recipient's Name Ron McLeod Phone (800) 663-8639

Company Philip Analytical Services

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For WEEKEND Delivery check here (Extra Charge. Not available at all locations)
☐ Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only) ☐ NEW Sunday Delivery (Available for FedEx Priority Overnight only)

4a Express Package Service *Packages under 150 lbs.* Delivery commitment may be later in some areas.
☒ FedEx Priority Overnight (Next business morning) ☐ FedEx Standard Overnight (Next business afternoon)
☐ FedEx 2Day (Second business day) ☐ FedEx Express Saver (Third business day)

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.
☐ FedEx Overnight Freight (Next business day) ☐ FedEx 2Day Freight (Second business day) ☐ FedEx Express Saver Freight (Up to 3 business days)
(Call for delivery schedule. Some restrictions apply. See back for detailed descriptions of freight services.)

5 Packaging
☒ Other Packaging
Dangerous Goods cannot be shipped in FedEx packaging.

6 Special Handling
☒ Dangerous Goods as per attached Shipper's Declaration ☐ Cargo Aircraft Only

7 Payment
Bill to: ☒ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check
(Enter FedEx Account No. or Credit Card No. below)

Total Packages	Total Weight	Total Declared Value*	Total Charges
1	5	$ [illegible].00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY section for further information.

Credit Card Auth.

Signature Release Unavailable

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FedEx Tracking Number 811050495987 Form I.D. No. 0204 355

Page 1 of 1 Pages

Two completed and signed copies of this Declaration must be handed to the operator.

WARNING
Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non-applicable)
PASSENGER AND CARGO AIRCRAFT | CARGO AIRCRAFT ONLY

Airport of Departure:

Airport of Destination

Shipment type: *(delete non-applicable)*
NON-RADIOACTIVE | RADIOACTIVE ☒

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification

Proper Shipping Name	Class or Division	UN or I.D. No.	Packing Group	Subsidiary Risk	Quantity and Type of Packaging	Packing Inst.	Authorization
[illegible] Liquid, [illegible] N.O.S. [illegible]	6.1	UN 3082	II	9	1 [illegible] Box 100 mL	912	

Additional Handling Information
CARGO AIRCRAFT ONLY

Prepared for AIR TRANSPORT according to: (Customer MUST check one)
☐ 49 CFR ☒ ICAO / IATA

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Name/Title of Signatory Darren M. Lane / P.M.
Place and Date Englewood, CO 11-18-99
Signature (see warning above) Darren M. Lane

Emergency Telephone Number (Required for US Origin or Destination Shipments) [illegible]

ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

FedEx Dangerous Goods Airbill

Recipient's Copy

811050495943

Questions? Call 1•800•Go•FedEx® (800)463-3339

1 From

Date 11/18/99 Sender's FedEx Account Number [redacted]

Sender's Name Darren Lane Phone (303) 792-5555

Company TRC Environmental Corp.

Address 11 Inverness Drive East Dept./Floor/Suite/Room

City Englewood State CO ZIP 80112

2 Your Internal Billing Reference Information 25938

3 To

Recipient's Name Ron McLeod Phone (800) 669-0639

Company Philip Analytical Services

Address 299 Cayuga Road Dept./Floor/Suite/Room
(To "HOLD" at FedEx location, print FedEx address here)

☐ Check here if residence (Extra charge applies for FedEx Express Saver)

City Cheektowaga State NY ZIP 14225

For HOLD at FedEx Location check here
☐ Hold Weekday ☐ Hold Saturday (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

For WEEKEND Delivery check here (Extra Charge. Not available at all locations)
☐ Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only) ☐ NEW Sunday Delivery (Available for FedEx Priority Overnight only)

a Express Package Service *Packages under 150 lbs.* Delivery commitment may be later in some areas.
☒ FedEx Priority Overnight (Next business morning) ☐ FedEx Standard Overnight (Next business afternoon)
☐ FedEx 2Day (Second business day) ☐ FedEx Express Saver (Third business day)

b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.
☐ FedEx Overnight Freight (Next business day) ☐ FedEx 2Day Freight (Second business day) ☐ FedEx Express Saver Freight (Up to 3 business days)
(Call for delivery schedule. Some restrictions apply. See back for detailed descriptions of freight services.)

5 Packaging
☒ Other Packaging
Dangerous Goods cannot be shipped in FedEx packaging.

6 Special Handling
☒ Dangerous Goods as per attached Shipper's Declaration ☐ Cargo Aircraft Only

7 Payment
Bill to: ☒ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check
(Enter FedEx Account No. or Credit Card No. below)

[redacted]

Total Packages	Total Weight	Total Declared Value*	Total Charges
1		$ .00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY section for further information.

Credit Card Auth.

Signature Release Unavailable

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Page 1 of 1 Pages

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WARNING
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TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non-applicable)
PASSENGER AND CARGO AIRCRAFT | CARGO AIRCRAFT ONLY

Airport of Departure:

Airport of Destination

Shipment type: *(delete non-applicable)*
NON-RADIOACTIVE | RADIOACTIVE

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification

Proper Shipping Name	Class or Division	UN or I.D. No.	Packing Group	Subsidiary Risk	Quantity and Type of Packaging	Packing Inst.	Authorization
[illegible]	5.1	UN 2002	II		1 [illegible] 100ml	506	

Additional Handling Information
CARGO AIRCRAFT ONLY

Prepared for AIR TRANSPORT according to: (Customer MUST check one)
☐ 49 CFR ☒ ICAO / IATA

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Emergency Telephone Number (Required for US Origin or Destination Shipments) [illegible]

Name/Title of Signatory [illegible] Lane
Place and Date Darren [illegible]
Signature (see warning above) [illegible]

ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

fedex. Dangerous Goods Airbill

Recipient's Copy

81105049507 1

Questions? Call 1•800•Go•FedEx® (800)463-3339

1 From

Date 11-18-99 Sender's FedEx Account Number [redacted]

Sender's Name Darren M. Lane Phone (303) 792-5555

Company TRC Environmental Corp.

Address 11 Inverness Drive East

Dept./Floor/Suite/Room

City Englewood State CO ZIP 80112

2 Your Internal Billing Reference Information 25938

3 To

Recipient's Name Ron McLeod Phone (800) 669-0639

Company Philip Analytical Services

Address 299 Cayuga Road (To "HOLD" at FedEx location, print FedEx address here)

☐ Check here if residence (Extra charge applies for FedEx Express Saver)

Dept./Floor/Suite/Room

City Cheektowaga State NY ZIP 14225

For HOLD at FedEx Location check here

☐ Hold Weekday ☐ Hold Saturday (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

For WEEKEND Delivery check here (Extra Charge. Not available at all locations)

☐ Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only) ☐ NEW Sunday Delivery (Available for FedEx Priority Overnight only)

4a Express Package Service *Packages under 150 lbs.* Delivery commitment may be later in some areas.

☒ FedEx Priority Overnight (Next business morning) ☐ FedEx Standard Overnight (Next business afternoon)

☐ FedEx 2Day (Second business day) ☐ FedEx Express Saver (Third business day)

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.

☐ FedEx Overnight Freight (Next business day) ☐ FedEx 2Day Freight (Second business day) ☐ FedEx Express Saver Freight (Up to 3 business days)

(Call for delivery schedule. Some restrictions apply. See back for detailed descriptions of freight services.)

5 Packaging

☒ Other Packaging

Dangerous Goods cannot be shipped in FedEx packaging.

6 Special Handling

☒ Dangerous Goods as per attached Shipper's Declaration ☐ Cargo Aircraft Only

7 Payment

Bill to: ☒ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

(Enter FedEx Account No. or Credit Card No. below)

[redacted]

Total Packages	Total Weight	Total Declared Value*	Total Charges
1	5	$ 40,000 .00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY section for further information.

Credit Card Auth.

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Page 1 of 1 Pages

Two completed and signed copies of this Declaration must be handed to the operator.

WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non-applicable) PASSENGER AND CARGO AIRCRAFT / CARGO AIRCRAFT ONLY

Airport of Departure: PIA

Airport of Destination NY

Shipment type: (delete non-applicable) NON-RADIOACTIVE / RADIOACTIVE

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification

Proper Shipping Name	Class or Division	UN or I.D. No.	Packing Group	Subsidiary Risk	Quantity and Type of Packaging	Packing Inst.	Authorization
Oxidizing Liquid, Corrosive, N.O.S. 5% Potassium Permanganate/10% Sulfuric Acid Solution	5.1	UN 3098	II	8	1 cardboard box 1100 mL	812	

Additional Handling Information

CARGO AIRCRAFT ONLY

Prepared for AIR TRANSPORT according to: (Customer MUST check one) ☐ 49 CFR ☒ ICAO / IATA

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Emergency Telephone Number (Required for US Origin or Destination Shipments) Chemtrec 1-800-424-9300

Name/Title of Signatory Darren M. Lane / PM

Place and Date Englewood, CO 11-18-99

Signature (see warning above) Darren M. Lane

ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

FedEx® *Dangerous Goods Airbill* **Recipient's Copy**

1 From

Date 11/13/99 Sender's FedEx Account Number [redacted]

Sender's Name Darren Lane Phone (303) 792-5555

Company TRC Environmental Corp.

Address 11 Inverness Drive East Dept./Floor/Suite/Room

City Englewood State CO ZIP 80112

2 Your Internal Billing Reference Information 25938

3 To

Recipient's Name Ron McLeod Phone (800) 669-9539

Company Philip Analytical Services

Address 299 Cayuga Road (To "HOLD" at FedEx location, print FedEx address here) Dept./Floor/Suite/Room

☐ Check here if residence (Extra charge applies for FedEx Express Saver)

City Cheektowaga State NY ZIP 14225

For HOLD at FedEx Location check here
☐ Hold Weekday ☐ Hold Saturday (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

For WEEKEND Delivery check here (Extra Charge. Not available at all locations)
☐ Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only) ☐ NEW Sunday Delivery (Available for FedEx Priority Overnight only)

a Express Package Service *Packages under 150 lbs.* Delivery commitment may be later in some areas.
☒ FedEx Priority Overnight (Next business morning) ☐ FedEx Standard Overnight (Next business afternoon)
☐ FedEx 2Day (Second business day) ☐ FedEx Express Saver (Third business day)

b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.
☐ FedEx Overnight Freight (Next business day) ☐ FedEx 2Day Freight (Second business day) ☐ FedEx Express Saver Freight (Up to 3 business days)
(Call for delivery schedule. Some restrictions apply. See back for detailed descriptions of freight services.)

81105049596 5

Questions? Call 1•800•Go•FedEx® (800)463-3339

5 Packaging
☒ Other Packaging
Dangerous Goods cannot be shipped in FedEx packaging.

6 Special Handling
☒ Dangerous Goods as per attached Shipper's Declaration ☐ Cargo Aircraft Only

7 Payment
Bill to: ☒ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check
(Enter FedEx Account No. or Credit Card No. below)

[redacted]

Total Packages	Total Weight	Total Declared Value*	Total Charges
1	5	$ 45,000.00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY section for further information.

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Page 1 of 1 Pages

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TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non-applicable)
PASSENGER AND CARGO AIRCRAFT ✓ | CARGO AIRCRAFT ONLY

Airport of Departure: PIA

Airport of Destination NY

Shipment type: *(delete non-applicable)*
NON-RADIOACTIVE | RADIOACTIVE ✓

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification							
Proper Shipping Name	Class or Division	UN or I.D. No.	Packing Group	Subsidiary Risk	Quantity and Type of Packaging	Packing Inst.	Authorization
Corrosive Liquid, N.O.S.	7	UN 1760	II		1 Cardboard Box 50 mL	912	

Additional Handling Information
CARGO AIRCRAFT ONLY

Prepared for AIR TRANSPORT according to: (Customer MUST check one)
☐ 49 CFR ☒ ICAO / IATA

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Name/Title of Signatory Darren Lane / PM
Place and Date Englewood, CO 11-18-99
Signature (see warning above) Darren M. Lane

Emergency Telephone Number (Required for US Origin or Destination Shipments) [illegible]

ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

fedEx® *Dangerous Goods Airbill* **Recipient's Copy**

00073

811050495932

Questions? Call 1•800•Go•FedEx® (800)463-3339

1 From

ate 11/12/99 Sender's FedEx Account Number [redacted]

ender's ame Darren Lane Phone (303) 792-5555

ompany TRC Environmental Corp.

ddress 17 Inverness Drive East Dept./Floor/Suite/Room

ity Englewood State CO ZIP 80112

2 Your Internal Billing Reference Information [redacted]

3 To

ecipient's ame Ron McLeod Phone (800) 669-0639

ompany Philip Analytical Services

ddress 299 Cayuga Road Dept./Floor/Suite/Room

(Check here if residence — Extra charge applies for FedEx Express Saver)

o "HOLD" at FedEx location, print FedEx address here)

ity Cheektowaga State NY ZIP 14225

For HOLD at FedEx Location check here
- [ ] Hold Weekday
- [ ] Hold Saturday (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

For WEEKEND Delivery check here (Extra Charge. Not available at all locations)
- [ ] Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only)
- [ ] NEW Sunday Delivery (Available for FedEx Priority Overnight only)

a Express Package Service *Packages under 150 lbs.* Delivery commitment may be later in some areas.
- [x] FedEx Priority Overnight (Next business morning)
- [ ] FedEx Standard Overnight (Next business afternoon)
- [ ] FedEx 2Day (Second business day)
- [ ] FedEx Express Saver (Third business day)

b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.
- [ ] FedEx Overnight Freight (Next business day)
- [ ] FedEx 2Day Freight (Second business day)
- [ ] FedEx Express Saver Freight (Up to 3 business days)

(Call for delivery schedule. Some restrictions apply. See back for detailed descriptions of freight services.)

5 Packaging
- [x] Other Packaging

Dangerous Goods cannot be shipped in FedEx packaging.

6 Special Handling
- [x] Dangerous Goods as per attached Shipper's Declaration
- [ ] Cargo Aircraft Only

7 Payment

Bill to:
- [x] Sender (Account No. in Section 1 will be billed)
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

(Enter FedEx Account No. or Credit Card No. below)

[redacted]

Total Packages	Total Weight	Total Declared Value*	Total Charges
1		$ [illegible] .00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY section for further information.

Credit Card Auth.

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WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non-applicable)
- PASSENGER AND CARGO AIRCRAFT
- CARGO AIRCRAFT ONLY

Airport of Departure:

Airport of Destination

Shipment type: *(delete non-applicable)*
- NON-RADIOACTIVE
- RADIOACTIVE

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification							
Proper Shipping Name	Class or Division	UN or I.D. No.	Packing Group	Subsidiary Risk	Quantity and Type of Packaging	Packing Inst.	Authorization
[illegible]	5.1	UN [illegible]	II	7	1 [illegible] 50 mL	506	

Additional Handling Information

CARGO AIRCRAFT ONLY

Prepared for AIR TRANSPORT according to: (Customer MUST check one)
- [ ] 49 CFR
- [x] ICAO / IATA

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Name/Title of Signatory Darren M. Lane / P.M.
Place and Date Englewood, CO 11/12/99
Signature (see warning above) Darren M. Lane

Emergency Telephone Number (Required for US Origin or Destination Shipments)

ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

FedEx® *Dangerous Goods Airbill* **Recipient's Copy**

811050495050

Questions? Call 1•800•Go•FedEx® (800)463-3339

1 From

Date 11/17/99 Sender's FedEx Account Number [redacted]

Sender's Name Darren M. Lane Phone (303) 792-5555

Company TRC Environmental Corp.

Address 11 Inverness Drive East Dept./Floor/Suite/Room

City Englewood State CO ZIP 80112

2 Your Internal Billing Reference Information 25738

3 To

Recipient's Name Ron McLeod Phone (800) 669-0639

Company Phi-D Analytical Services

Address 299 Cayuga Road Dept./Floor/Suite/Room
(If "HOLD" at FedEx location, print FedEx address here)

☐ Check here if residence (Extra charge applies for FedEx Express Saver)

City Cheektowaga State NY ZIP 14225

For HOLD at FedEx Location check here
☐ Hold Weekday ☐ Hold Saturday (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

For WEEKEND Delivery check here (Extra Charge. Not available at all locations)
☐ Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only) ☐ NEW Sunday Delivery (Available for FedEx Priority Overnight only)

4a Express Package Service *Packages under 150 lbs.* Delivery commitment may be later in some areas.
☒ FedEx Priority Overnight (Next business morning) ☐ FedEx Standard Overnight (Next business afternoon)
☐ FedEx 2Day (Second business day) ☐ FedEx Express Saver (Third business day)

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.
☐ FedEx Overnight Freight (Next business day) ☐ FedEx 2Day Freight (Second business day) ☐ FedEx Express Saver Freight (Up to 3 business days)
(Call for delivery schedule. Some restrictions apply. See back for detailed descriptions of freight services.)

5 Packaging
☒ Other Packaging
Dangerous Goods cannot be shipped in FedEx packaging.

6 Special Handling
☒ Dangerous Goods as per attached Shipper's Declaration ☐ Cargo Aircraft Only

7 Payment
Bill to: ☒ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check
(Enter FedEx Account No. or Credit Card No. below)

[redacted]

Total Packages	Total Weight	Total Declared Value*	Total Charges
1	5	$ 40,000.00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY section for further information.

Credit Card Auth.

Signature Release Unavailable

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WARNING
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TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non-applicable)
~~PASSENGER AND CARGO AIRCRAFT~~ ✓ CARGO AIRCRAFT ONLY

Airport of Departure:

Airport of Destination

Shipment type: *(delete non-applicable)*
NON-RADIOACTIVE ~~RADIOACTIVE~~

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification

Proper Shipping Name	Class or Division	UN or I.D. No.	Packing Group	Subsidiary Risk	Quantity and Type of Packaging	Packing Inst.	Authorization
Oxidizing Liquid, Corrosive, N.O.S. (Potassium Permanganate Sulfuric Acid Solution)	5.1	UN 3098	II	8	1 Cardboard Box 475 ml	812	

Additional Handling Information
CARGO AIRCRAFT ONLY

Prepared for AIR TRANSPORT according to: (Customer MUST check one)
☐ 49 CFR ☒ ICAO / IATA

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Name/Title of Signatory [illegible]
Place and Date [illegible]
Signature (see warning above) [illegible]

Emergency Telephone Number (Required for US Origin or Destination Shipments) (800) 424-9300

ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

FedEx Dangerous Goods Airbill — Recipient's Copy

81105049510 8

Questions? Call 1•800•Go•FedEx® (800)463-3339

1 From

Date [illegible] Sender's FedEx Account Number [redacted]

Sender's Name [illegible] Phone [illegible]

Company TRC Environmental Corp.

Address 11 Tower Drive East

Dept./Floor/Suite/Room

City Englewood State Co ZIP [illegible]

2 Your Internal Billing Reference Information [illegible]

3 To

Recipient's Name Ron McLeod Phone (508) 665-0130

Company Philip Analytical Services

Address 299 Cornell Road

("HOLD" at FedEx location, print FedEx address here) Dept./Floor/Suite/Room

☐ Check here if residence (Extra charge applies for FedEx Express Saver)

City Cheektowaga State NY ZIP 14225

For HOLD at FedEx Location check here
☐ Hold Weekday ☐ Hold Saturday (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

For WEEKEND Delivery check here (Extra Charge. Not available at all locations)
☐ Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only) ☐ NEW Sunday Delivery (Available for FedEx Priority Overnight only)

4 Express Package Service *Packages under 150 lbs.* Delivery commitment may be later in some areas.
☒ FedEx Priority Overnight (Next business morning) ☐ FedEx Standard Overnight (Next business afternoon)
☐ FedEx 2Day (Second business day) ☐ FedEx Express Saver (Third business day)

5 Packaging
☒ Other Packaging
Dangerous Goods cannot be shipped in FedEx packaging.

6 Special Handling
☒ Dangerous Goods as per attached Shipper's Declaration ☐ Cargo Aircraft Only

7 Payment
Bill to: ☒ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check
(Enter FedEx Account No. or Credit Card No. below)

[redacted]

Total Packages	Total Weight	Total Declared Value*	Total Charges
1	5	$ 40,000.00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY section for further information.

Credit Card Auth.

Signature Release Unavailable

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SRC 99

8 Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.
☐ FedEx Overnight Freight (Next business day) ☐ FedEx 2Day Freight (Second business day) ☐ FedEx Express Saver Freight (Up to 3 business days)
(Call for delivery schedule. Some restrictions apply. See back for detailed descriptions of freight services.)

FedEx Tracking Number 81105049510 8 Form I.D. No. 0204 355

Page 1 of 1 Pages

Two completed and signed copies of this Declaration must be handed to the operator.

WARNING
Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non-applicable)
PASSENGER AND CARGO AIRCRAFT / CARGO AIRCRAFT ONLY

Airport of Departure:

Airport of Destination

Shipment type: *(delete non-applicable)*
NON-RADIOACTIVE / RADIOACTIVE

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification: Proper Shipping Name	Class or Division	UN or I.D. No.	Packing Group	Subsidiary Risk	Quantity and Type of Packaging	Packing Inst.	Authorization
Oxidizing liquid, corrosive, n.o.s. (Potassium Permanganate)	5.1	UN 3377	II	8	1 x [illegible] 300 mL	506	

Additional Handling Information
Cargo aircraft only

Prepared for AIR TRANSPORT according to: (Customer MUST check one)
☐ 49 CFR ☒ ICAO / IATA

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Name/Title of Signatory [illegible]
Place and Date [illegible]
Signature (see warning above) [illegible]

Emergency Telephone Number (Required for US Origin or Destination Shipments) [illegible]

ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

FedEx *Dangerous Goods Airbill* **Recipient's Copy**

To

81105049506 0

Questions? Call 1•800•Go•FedEx® (800)463-3339

1 From

Date 11/18/99 Sender's FedEx Account Number [redacted]

Sender's Name Darren M. Lane Phone (303) 792-5555

Company TRC Environmental Corp.

Address 11 Inverness Drive East

Dept./Floor/Suite/Room

City Englewood State CO ZIP 80112

2 Your Internal Billing Reference Information 25938

3 To

Recipient's Name Ron McLeod Phone (800) 669-0639

Company Philip Analytical Services

Address 299 Cayuga Road

(To "HOLD" at FedEx location, print FedEx address here)

☐ Check here if residence (Extra charge applies for FedEx Express Saver)

Dept./Floor/Suite/Room

City Cheektowaga State NY ZIP 14225

For HOLD at FedEx Location check here

☐ Hold Weekday ☐ Hold Saturday (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

For WEEKEND Delivery check here (Extra Charge. Not available at all locations)

☐ Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only) ☐ NEW Sunday Delivery (Available for FedEx Priority Overnight only)

4a Express Package Service *Packages under 150 lbs.* Delivery commitment may be later in some areas.

☒ FedEx Priority Overnight (Next business morning) ☐ FedEx Standard Overnight (Next business afternoon)

☐ FedEx 2Day (Second business day) ☐ FedEx Express Saver (Third business day)

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.

☐ FedEx Overnight Freight (Next business day) ☐ FedEx 2Day Freight (Second business day) ☐ FedEx Express Saver Freight (Up to 3 business days)

(Call for delivery schedule. Some restrictions apply. See back for detailed descriptions of freight services.)

5 Packaging

☒ Other Packaging

Dangerous Goods cannot be shipped in FedEx packaging.

6 Special Handling

☒ Dangerous Goods as per attached Shipper's Declaration ☐ Cargo Aircraft Only

7 Payment

Bill to: ☒ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

(Enter FedEx Account No. or Credit Card No. below)

[redacted]

Total Packages	Total Weight	Total Declared Value*	Total Charges
1	5	$ 40,000.00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY section for further information.

Credit Card Auth.

Signature Release Unavailable

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Page 1 of 1 Pages

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WARNING

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TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non-applicable)

~~PASSENGER AND CARGO AIRCRAFT~~ ✓ CARGO AIRCRAFT ONLY

Airport of Departure:

Airport of Destination

Shipment type: *(delete non-applicable)*

NON-RADIOACTIVE ~~RADIOACTIVE~~ ✓

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification

Proper Shipping Name	Class or Division	UN or I.D. No.	Packing Group	Subsidiary Risk	Quantity and Type of Packaging	Packing Inst.	Authorization
Oxidizing Liquid, Corrosive, N.O.S. 5% Potassium Permanganate/ Sulfuric Acid 10% Solution	5.1	UN 3098	II	8	1 Cardboard Box 300 mL	812	

Additional Handling Information

CARGO AIRCRAFT ONLY

Prepared for AIR TRANSPORT according to: (Customer MUST check one)

☐ 49 CFR ☒ ICAO / IATA

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Name/Title of Signatory Darren Lane → P.M.

Place and Date Englewood, CO 11-18-99

Signature (see warning above) Darren M. Lane

Emergency Telephone Number (Required for US Origin or Destination Shipments) CHEMTREC 1-800-424-9300

ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

FedEx® *Dangerous Goods Airbill* **Recipient's Copy**

811050495082

Questions? Call 1•800•Go•FedEx® (800)463-3339

1 From

Date 11-12-98 Sender's FedEx Account Number [redacted]

Sender's Name [illegible] Lane Phone (203) [illegible]

Company TRC Environmental Corp.

Address 11 Industrial Drive East

Dept./Floor/Suite/Room

City [illegible] State CT ZIP 06112

2 Your Internal Billing Reference Information [illegible]

3 To

Recipient's Name [illegible] Phone (801) 165-0635

Company Phelps Industrial Services

Address 79 Cayuga Road

Check here if residence (Extra charge applies for FedEx Express Saver)

"HOLD" at FedEx location, print FedEx address here)

Dept./Floor/Suite/Room

City Cheektowaga State NY ZIP 14225

For HOLD at FedEx Location check here

☐ Hold Weekday ☐ Hold Saturday (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

For WEEKEND Delivery check here (Extra Charge. Not available at all locations)

☐ Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only) ☐ NEW Sunday Delivery (Available for FedEx Priority Overnight only)

4a Express Package Service *Packages under 150 lbs.* Delivery commitment may be later in some areas.

☐ FedEx Priority Overnight (Next business morning) ☐ FedEx Standard Overnight (Next business afternoon)

☐ FedEx 2Day (Second business day) ☐ FedEx Express Saver (Third business day)

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.

☐ FedEx Overnight Freight (Next business day) ☐ FedEx 2Day Freight (Second business day) ☐ FedEx Express Saver Freight (Up to 3 business days)

(Call for delivery schedule. Some restrictions apply. See back for detailed descriptions of freight services.)

5 Packaging

☒ Other Packaging

Dangerous Goods cannot be shipped in FedEx packaging.

6 Special Handling

☒ Dangerous Goods as per attached Shipper's Declaration ☐ Cargo Aircraft Only

7 Payment

Bill to: ☐ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

(Enter FedEx Account No. or Credit Card No. below)

Total Packages	Total Weight	Total Declared Value*	Total Charges
1	5	$ 42,000.00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY section for further information.

Credit Card Auth.

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Page 1 of 1 Pages

Two completed and signed copies of this Declaration must be handed to the operator.

WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non-applicable)

PASSENGER AND CARGO AIRCRAFT ✓ | CARGO AIRCRAFT ONLY

Airport of Departure:

Airport of Destination

Shipment type: *(delete non-applicable)* NON-RADIOACTIVE | RADIOACTIVE ✓

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification							
Proper Shipping Name	Class or Division	UN or I.D. No.	Packing Group	Subsidiary Risk	Quantity and Type of Packaging	Packing Inst.	Authorization
[illegible] Liquid, corrosive, n.o.s. (contains [illegible])	8	UN 2027	II		1 Cardboard Box 100 mL	506	

Additional Handling Information

Cargo Aircraft Only

Prepared for AIR TRANSPORT according to: (Customer MUST check one)

☐ 49 CFR ☒ ICAO / IATA

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Name/Title of Signatory [illegible] Lane / [illegible]

Place and Date [illegible], CT

Signature (see warning above) [illegible] Lane

Emergency Telephone Number (Required for US Origin or Destination Shipments) [illegible]

ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

FedEx *Dangerous Goods Airbill* **Recipient's Copy**

00067

81105049597 6

Questions? Call 1•800•Go•FedEx® (800)463-3339

1 From

Date 11/19/99 Sender's FedEx Account Number [redacted]

Sender's Name Darren Lane Phone (303) 792-5555

Company TRC Environmental Corp.

Address 11 Inverness Drive East Dept./Floor/Suite/Room

City Englewood State CO ZIP 80112

2 Your Internal Billing Reference Information 25938

3 To

Recipient's Name Ron McLeod Phone (800) 669-0639

Company Phillip Analytical Services

Address 299 Cayuga Road (To "HOLD" at FedEx location, print FedEx address here) Dept./Floor/Suite/Room

☐ Check here if residence (Extra charge applies for FedEx Express Saver)

City Cheektowaga State NY ZIP 14225

For HOLD at FedEx Location check here
☐ Hold Weekday ☐ Hold Saturday (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

For WEEKEND Delivery check here (Extra Charge. Not available at all locations)
☐ Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only) ☐ NEW Sunday Delivery (Available for FedEx Priority Overnight only)

4a Express Package Service *Packages under 150 lbs.* Delivery commitment may be later in some areas.
☒ FedEx Priority Overnight (Next business morning) ☐ FedEx Standard Overnight (Next business afternoon)
☐ FedEx 2Day (Second business day) ☐ FedEx Express Saver (Third business day)

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.
☐ FedEx Overnight Freight (Next business day) ☐ FedEx 2Day Freight (Second business day) ☐ FedEx Express Saver Freight (Up to 3 business days)
(Call for delivery schedule. Some restrictions apply. See back for detailed descriptions of freight services.)

5 Packaging
☒ Other Packaging
Dangerous Goods cannot be shipped in FedEx packaging.

6 Special Handling
☒ Dangerous Goods as per attached Shipper's Declaration ☐ Cargo Aircraft Only

7 Payment
Bill to: ☒ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check
(Enter FedEx Account No. or Credit Card No. below)

Total Packages	Total Weight	Total Declared Value*	Total Charges
1	4	$ [illegible] .00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY section for further information.

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WARNING
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TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non-applicable)
PASSENGER AND CARGO AIRCRAFT / CARGO AIRCRAFT ONLY

Airport of Departure: VIA

Airport of Destination NY

Shipment type: (delete non-applicable)
NON-RADIOACTIVE / RADIOACTIVE

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification

Proper Shipping Name	Class or Division	UN or I.D. No.	Packing Group	Subsidiary Risk	Quantity and Type of Packaging	Packing Inst.	Authorization
Corrosive liquid, acidic, N.O.S. (Potassium Dichromate/Sulfuric Acid Solution)	8	UN 3264	II		1 cardboard box 400 mL	5.0L	

Additional Handling Information

CARGO AIRCRAFT ONLY

Prepared for AIR TRANSPORT according to: (Customer MUST check one)
☐ 49 CFR ☒ ICAO / IATA

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Name/Title of Signatory Darren M. Lane / P.M.
Place and Date Englewood, CO
Signature (see warning above) Darren M. Lane 11-18-99

Emergency Telephone Number (Required for US Origin or Destination Shipments) [illegible]

ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

FedEx® *Dangerous Goods Airbill* **Recipient's Copy**

811050495954

Questions? Call 1•800•Go•FedEx• (800)463-3339

1 From

ate 11/18/99 Sender's FedEx Account Number [redacted]

ender's ame Darren Lane Phone (303) 792-5555

ompany TRC Environmental Corp.

ddress 11 Inverness Drive East Dept./Floor/Suite/Room

ity Englewood State CO ZIP 80112

2 Your Internal Billing Reference Information 25939

3 To

ecipient's ame Ron McLeod Phone (800) 669-0639

ompany Philip Analytical Services

ddress 299 Cayuga Road Dept./Floor/Suite/Room

(HOLD" at FedEx location, print FedEx address here)

☐ Check here if residence (Extra charge applies for FedEx Express Saver)

ity Cheektowaga State NY ZIP 14225

For HOLD at FedEx Location check here
☐ Hold Weekday ☐ Hold Saturday (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

For WEEKEND Delivery check here (Extra Charge. Not available at all locations)
☐ Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only) ☐ NEW Sunday Delivery (Available for FedEx Priority Overnight only)

a Express Package Service *Packages under 150 lbs.* Delivery commitment may be later in some areas.
☒ FedEx Priority Overnight (Next business morning) ☐ FedEx Standard Overnight (Next business afternoon)
☐ FedEx 2Day (Second business day) ☐ FedEx Express Saver (Third business day)

b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.
☐ FedEx Overnight Freight (Next business day) ☐ FedEx 2Day Freight (Second business day) ☐ FedEx Express Saver Freight (Up to 3 business days)
(Call for delivery schedule. Some restrictions apply. See back for detailed descriptions of freight services.)

5 Packaging
☒ Other Packaging
Dangerous Goods cannot be shipped in FedEx packaging.

6 Special Handling
☒ Dangerous Goods as per attached Shipper's Declaration ☐ Cargo Aircraft Only

7 Payment
Bill to: ☒ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check
(Enter FedEx Account No. or Credit Card No. below)

Total Packages	Total Weight	Total Declared Value*	Total Charges
1	[illegible]	$ [illegible].00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY section for further information.

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Page 1 of 1 Pages

Two completed and signed copies of this Declaration must be handed to the operator.

TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non-applicable)
☒ PASSENGER AND CARGO AIRCRAFT ☐ CARGO AIRCRAFT ONLY

Airport of Departure:

Airport of Destination

WARNING
Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

Shipment type: *(delete non-applicable)* NON-RADIOACTIVE RADIOACTIVE

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification							
Proper Shipping Name	Class or Division	UN or I.D. No.	Packing Group	Subsidiary Risk	Quantity and Type of Packaging	Packing Inst.	Authorization
[illegible]	5.1	UN 3100	II		1 Box [illegible] 10 [illegible]	505	

Additional Handling Information

(PASSENGER AIRCRAFT ONLY)

Prepared for AIR TRANSPORT according to: (Customer MUST check one)
☐ 49 CFR ☒ ICAO / IATA

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Emergency Telephone Number (Required for US Origin or Destination Shipments)

Name/Title of Signatory [illegible]
Place and Date [illegible]
Signature (see warning above) [illegible]

ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

FedEx® *Dangerous Goods Airbill* **Recipient's Copy**

0006

811050495921

Questions? Call 1•800•Go•FedEx® (800)463-3339

1 From

Date 11/18/99 Sender's FedEx Account Number [redacted]

Sender's Name Darren Lane Phone (303) 792-5555

Company TRC Environmental Corp.

Address 11 Inverness Drive East Dept./Floor/Suite/Room

City Englewood State CO ZIP 80112

2 Your Internal Billing Reference Information 25528

3 To

Recipient's Name Ron McLeod Phone (800) 563-0639

Company Phillip Analytical Services

Address 299 Cayuga Road (To "HOLD" at FedEx location, print FedEx address here) Dept./Floor/Suite/Room

☐ Check here if residence (Extra charge applies for FedEx Express Saver)

City Cheektowaga State NY ZIP 14225

For HOLD at FedEx Location check here
☐ Hold Weekday ☐ Hold Saturday (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

For WEEKEND Delivery check here (Extra Charge. Not available at all locations)
☐ Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only) ☐ NEW Sunday Delivery (Available for FedEx Priority Overnight only)

4a Express Package Service *Packages under 150 lbs.* Delivery commitment may be later in some areas.
☒ FedEx Priority Overnight (Next business morning) ☐ FedEx Standard Overnight (Next business afternoon)
☐ FedEx 2Day (Second business day) ☐ FedEx Express Saver (Third business day)

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.
☐ FedEx Overnight Freight (Next business day) ☐ FedEx 2Day Freight (Second business day) ☐ FedEx Express Saver Freight (Up to 3 business days)
(Call for delivery schedule. Some restrictions apply. See back for detailed descriptions of freight services.)

5 Packaging
☒ Other Packaging
Dangerous Goods cannot be shipped in FedEx packaging.

6 Special Handling
☒ Dangerous Goods as per attached Shipper's Declaration ☐ Cargo Aircraft Only

7 Payment
Bill to: ☒ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check
(Enter FedEx Account No. or Credit Card No. below)

[redacted]

Total Packages	Total Weight	Total Declared Value*	Total Charges
1	4	$ 40,000.00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY section for further information.

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TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non-applicable)
PASSENGER AND CARGO AIRCRAFT / CARGO AIRCRAFT ONLY

Airport of Departure: NYC

Airport of Destination: NY

Shipment type: *(delete non-applicable)* NON-RADIOACTIVE / RADIOACTIVE

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification: Proper Shipping Name	Class or Division	UN or I.D. No.	Packing Group	Subsidiary Risk	Quantity and Type of Packaging	Packing Inst.	Authorization
Toxic liquid, organic, n.o.s. (contains methanol)	6.1	UN 3018	II		1 box containing 4 L	606	

Additional Handling Information: CARGO AIRCRAFT ONLY

Prepared for AIR TRANSPORT according to: (Customer MUST check one)
☐ 49 CFR ☒ ICAO / IATA

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Name/Title of Signatory
Place and Date
Signature *(see warning above)*

Emergency Telephone Number (Required for US Origin or Destination Shipments) (800) 563-0639

ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

FedEx. *Dangerous Goods Airbill* **Recipient's Copy**

00084

811050495093

Questions? Call 1•800•Go•FedEx® (800)463-3339

1 From

Date 11-1-99 Sender's FedEx Account Number [redacted]

Sender's Name Daniel Lane Phone (3) 372-5555

Company TRC Environmental Corp.

Address 11 Technology Drive Dept./Floor/Suite/Room

City Farmington State CT ZIP 06032

2 Your Internal Billing Reference Information 25532

3 To

Recipient's Name Ron McLeod Phone (201) 665-0639

Company Plus Analytical Services

Address 395 Central Road (If "HOLD" at FedEx location, print FedEx address here) Dept./Floor/Suite/Room

☐ Check here if residence (Extra charge applies for FedEx Express Saver)

City Cheektowaga State NY ZIP 14225

For HOLD at FedEx Location check here
☐ Hold Weekday ☐ Hold Saturday (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

For WEEKEND Delivery check here (Extra Charge. Not available at all locations)
☐ Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only) ☐ NEW Sunday Delivery (Available for FedEx Priority Overnight only)

4 Express Package Service *Packages under 150 lbs.* Delivery commitment may be later in some areas.
☒ FedEx Priority Overnight (Next business morning) ☐ FedEx Standard Overnight (Next business afternoon)
☐ FedEx 2Day (Second business day) ☐ FedEx Express Saver (Third business day)

5 Packaging
☒ Other Packaging
Dangerous Goods cannot be shipped in FedEx packaging.

6 Special Handling
☒ Dangerous Goods as per attached Shipper's Declaration ☐ Cargo Aircraft Only

7 Payment
Bill to: ☒ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check
(Enter FedEx Account No. or Credit Card No. below)

Total Packages	Total Weight	Total Declared Value*	Total Charges
1	5	$ 46 000.00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY section for further information.

Credit Card Auth.

Signature Release Unavailable

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5 Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas.
☐ FedEx Overnight Freight (Next business day) ☐ FedEx 2Day Freight (Second business day) ☐ FedEx Express Saver Freight (Up to 3 business days)
(Call for delivery schedule. Some restrictions apply. See back for detailed descriptions of freight services.)

FedEx Tracking Number 811050495093 Form I.D. No. 0204

Page 1 of 1 Pages

Two completed and signed copies of this Declaration must be handed to the operator.

WARNING
Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non-applicable)
PASSENGER AND CARGO AIRCRAFT / CARGO AIRCRAFT ONLY

Airport of Departure: N/A

Airport of Destination: N/A

Shipment type: *(delete non-applicable)* NON-RADIOACTIVE / RADIOACTIVE

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification: Proper Shipping Name	Class or Division	UN or I.D. No.	Packing Group	Subsidiary Risk	Quantity and Type of Packaging	Packing Inst.	Authorization
Organic peroxide, solid, N.O.S. (Benzoyl peroxide / water) Technical	5.1	UN 2122	II	2	1 cardboard Box 5 kg net	506	

Additional Handling Information: CARGO AIRCRAFT ONLY

Prepared for AIR TRANSPORT according to: (Customer MUST check one) ☐ 49 CFR ☒ ICAO / IATA

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Name/Title of Signatory [illegible]
Place and Date [illegible]
Signature (see warning above) [illegible]

Emergency Telephone Number (Required for US Origin or Destination Shipments) [illegible]

ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

FedEx *USA Airbill* FedEx Tracking Number 813524035063

0200 **Recipients Copy**

1 From

Date

Sender's Name Darren Lane Phone

Company TRC Environmental

Address

Dept./Floor/Suite/Room

City Englewood State CO ZIP 80112

2 Your Internal Billing Reference

3 To

Recipient's Name Phone

Company

Address 279

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

To "HOLD" at FedEx location, print FedEx address here.

City Cheektowaga State NY ZIP 14225

813524035063

4a Express Package Service

Packages up to 150 lbs. Delivery commitment may be later in some areas.

- ☐ FedEx Priority Overnight — Next business morning
- ☐ FedEx Standard Overnight — Next business afternoon
- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations
- ☐ FedEx 2Day* — Second business day
- ☐ FedEx Express Saver* — Third business day

* FedEx Letter Rate not available. Minimum charge: One-pound rate

4b Express Freight Service

Packages over 150 lbs. Delivery commitment may be later in some areas.

- ☐ FedEx 1Day Freight* — Next business day
- ☐ FedEx 2Day Freight — Second business day
- ☐ FedEx 3Day Freight — Third business day

* Call for Confirmation: _____

5 Packaging

* Declared value limit $500

- ☐ FedEx Letter*
- ☐ FedEx Pak*
- ☐ Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg

6 Special Handling

- ☐ **Saturday Delivery** — Available for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- ☐ **Sunday Delivery** — Available for FedEx Priority Overnight to select ZIP codes
- ☐ **HOLD Weekday** at FedEx Location — Not available with FedEx First Overnight
- ☐ **HOLD Saturday** at FedEx Location — Available for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- ☐ No
- ☐ Yes — As per attached Shipper's Declaration
- ☐ Yes — Shipper's Declaration not required
- ☐ Dry Ice — Dry Ice, 9, UN 1845 _____ x _____ kg

Dangerous Goods cannot be shipped in FedEx packaging.

☐ Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- ☐ Sender — Acct. No. in Section 1 will be billed.
- ☐ Recipient
- ☐ Third Party
- ☐ Credit Card
- ☐ Obtain Recip. Acct. No.
- ☐ Cash/Check

Total Packages	Total Weight	Total Declared Value†	Total Charges
3	43	$ .00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Call 1·800·Go·FedEx® (800-463-3339)

Visit our Web site at www.fedex.com

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360

00063

4. SHIPPING/RECEIVING DOCUMENTS

Airbills (No. of shipments)
Chain-of-Custody Records
Sample Log-In Sheets
Miscellaneous Shipping/Receiving Records (describe or list)

_____
_____
_____
_____
_____
_____
_____

55	CCV	1	1	10.3		0.977	98%	
56	B	1	1	0.0		-0.008		b
57	D4	1	1	15.7		1.485		d
58	69912D	10	1	12.9	6.139	12.197		
59	69912D	10	1	13.0		12.360		s
60	69912S	10	1	22.1	10.455	20.980	85%	
61	69912S	10	1	21.9		20.840		
62	69913DS	10	1	22.1	10.385	20.980	84%	
63	69913DS	10	1	21.6		20.560		
64	69916	1	1	12.1	0.574	1.147		
65	69916	1	1	12.1		1.150		
66	69917 VOID MS	1	1	15.9		1.513		
67	69917	1	1	0.0		-0.008	CUP MISSED RERUN @ END	
68	RODI BOT. A	1	1	0.0		-0.008		I
69	"B"	1	1	0.0		-0.008		I
70	C	1	1	0.4		0.027		I
71	1	1	1	0.0		-0.008		I
72	2	1	1	0.0		-0.008		I
73	3	1	1	0.0		-0.008		I
74	4	1	1	0.0		-0.008		s
75	5	1	1	0.0		-0.008		I
76	69917	1	1	16.3		1.548		
77	69917	1	1	15.6	0.757	1.481		
78	CCV	1	1	10.3		0.977	98%	
79	B	1	1	0.0		-0.008		b
80	D4	1	1	15.7		1.485		d

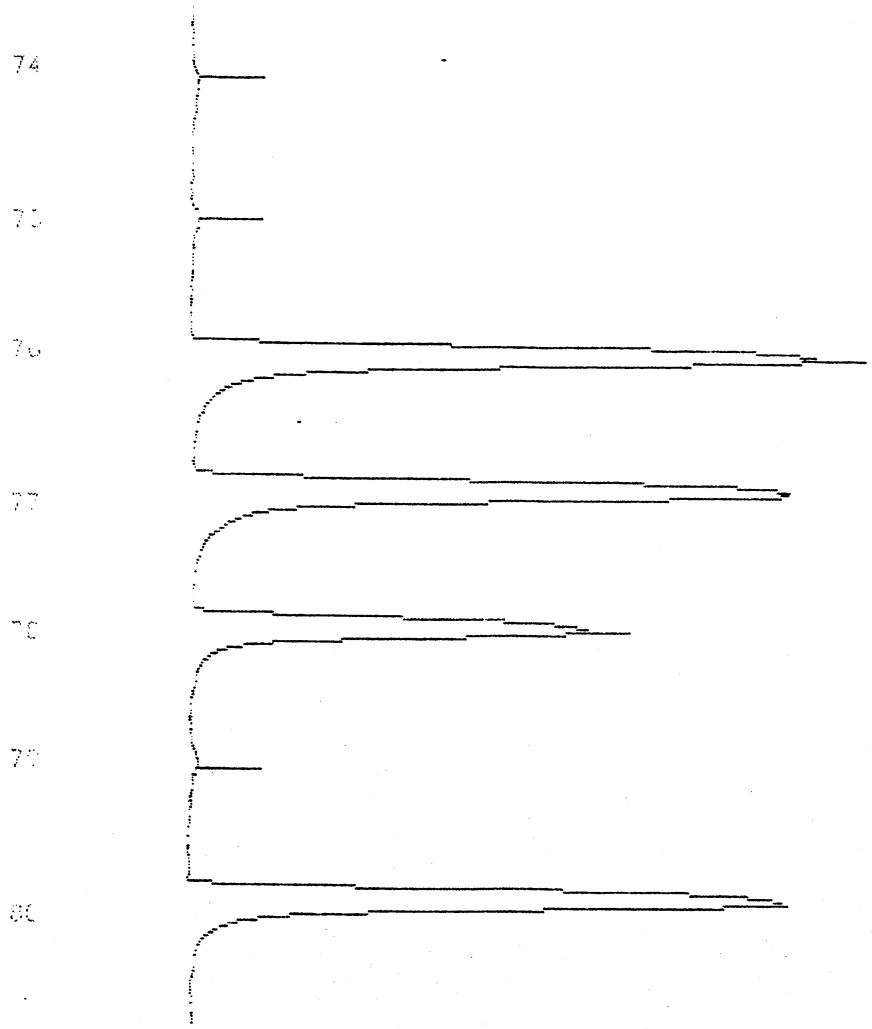
00069

INTERCEPT: 0.08 LINEAR COEF: 10.48247

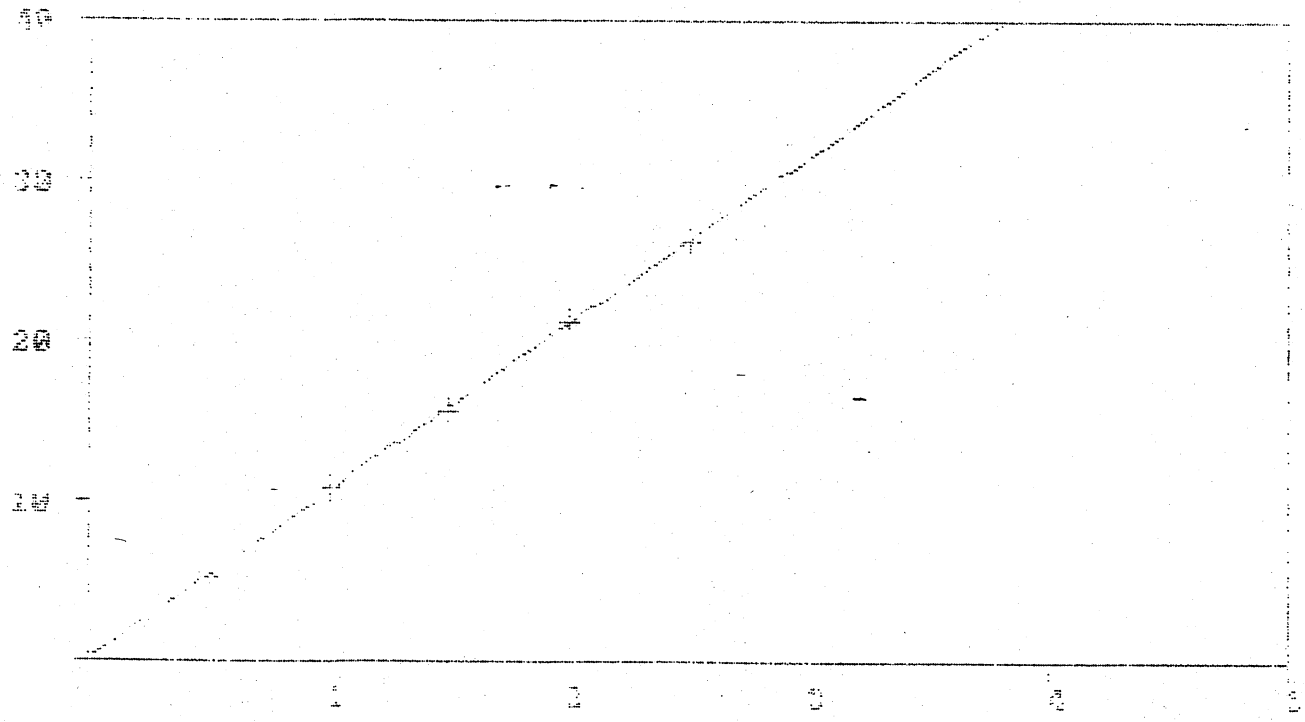
CORRELATION COEF: .9999038

CHANNEL NAME: LDC
RUN DATE: 12-14-1999
SAMPLE TABLE NAME: 991214W
METHOD NAME: HG-W-20

CUP#	SAMPLE ID	DIL	WGT	HEIGHT/AREA	Tot. µg	CONCENTRATION µg/L		EF
1	PRIMER	1	1	15.5		1.474		s
2	DUMMY	1	1	0.1		-0.001		I
3	S1: 0	1	1	0.1		-0.001		I
4	S2: .5	1	1	5.2		0.491		
5	S3: 1	1	1	10.8		1.022		
6	S4: 1.5	1	1	15.7		1.485		
7	S5: 2	1	1	21.1		2.007		
8	S6: 2.5	1	1	26.3		2.496		
9	ICV	1	1	15.7		1.485	99%	
10	B	1	1	0.0		-0.008		b
11	D4	1	1	15.7		1.485		d
12	BL1214-1NM4 69904	1	1	0.0	<0.03	-0.003		I
13	BL1214-1NM4	1	1	0.0		-0.008		I
14	BL1214S	1	1	10.8	0.304	1.022	101%	
15	BL1214S	1	1	10.6		1.001		
16	BL1214DS	1	1	10.8	0.302	1.024	101%	
17	BL1214DS	1	1	10.5		0.989		
18	69909	5	1	12.2	2.872	5.796		
19	69909	5	1	12.0		5.691		
20	69909D	5	1	11.8	2.805	5.609		
21	69909D	5	1	11.8		5.609		
22	69909S	5	1	21.6	5.067	10.245	89%	
23	69909S	5	1	21.1		10.024		
24	69909DS	5	1	21.4	5.082	10.164	90%	
25	69909DS	5	1	21.4		10.164		
26	69905	1	1	0.0	<0.05	-0.008		I
27	69905	1	1	0.0		-0.006		I
28	69906	20	1	7.3	6.793	13.771		
29	69906	20	1	7.1		13.399		s
30	69907	20	1	8.7	8.179	16.520		
31	69907	20	1	8.6		16.194		
32	CCV	1	1	10.4		0.980	98%	
33	B	1	1	0.0		-0.008		b
34	D4	1	1	15.7		1.485		d
35	69908	20	1	8.1	7.643	15.355		
36	69908	20	1	8.1		15.216		
37	69910	2	1	16.4	1.563	3.115		
38	69910	2	1	16.5		3.138		
39	69911	4	1	10.3	1.957	3.900		
40	69911	4	1	10.4		3.928		
41	69913	4	1	20.9	4.021	7.945		
42	69913	4	1	21.4		8.140		
43	69914	4	1	17.0	3.274	6.463		
44	69914	4	1	17.5		6.631		s
45	69915	4	1	12.8	2.428	4.842		
46	69915	4	1	12.8		4.870		
47	BL1214-2NM4	1	1	0.0	<0.03	-0.008		I
48	BL1214-2NM4	1	1	0.0		-0.006		I
49	BL1214S	1	1	10.6	0.303	1.005	101%	
50	BL1214S	1	1	10.7		1.015		
51	BL1214DS	1	1	10.7	0.300	1.010	100%	
52	BL1214DS	1	1	10.5		0.989		
53	69912	10	1	12.9		12.267		

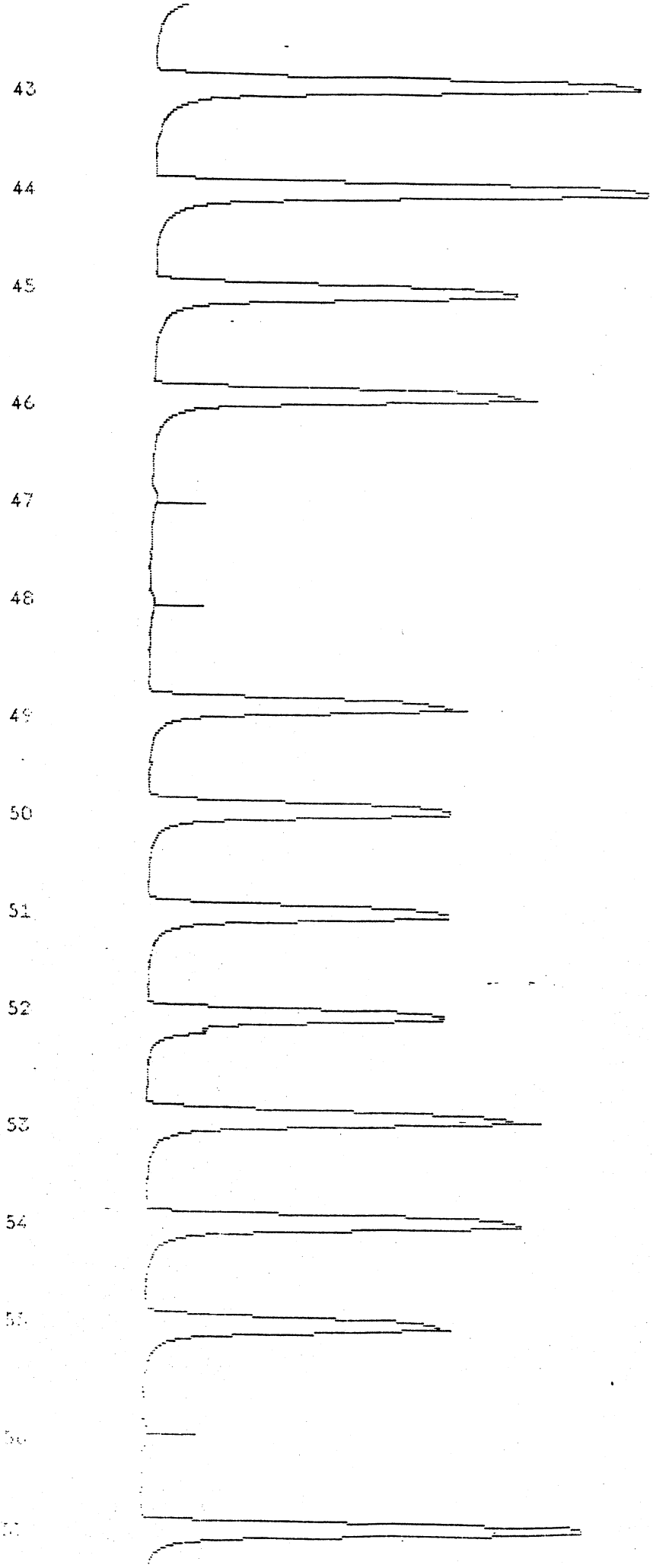


CHANNEL NAME: LOC
RUN NAME: 991C1aW



DATA TYPE: FIX
INTERCEPT: [illegible]
CALIBRATION CURVE: 1
SLOPE: 10.40247

CORRELATION: [illegible]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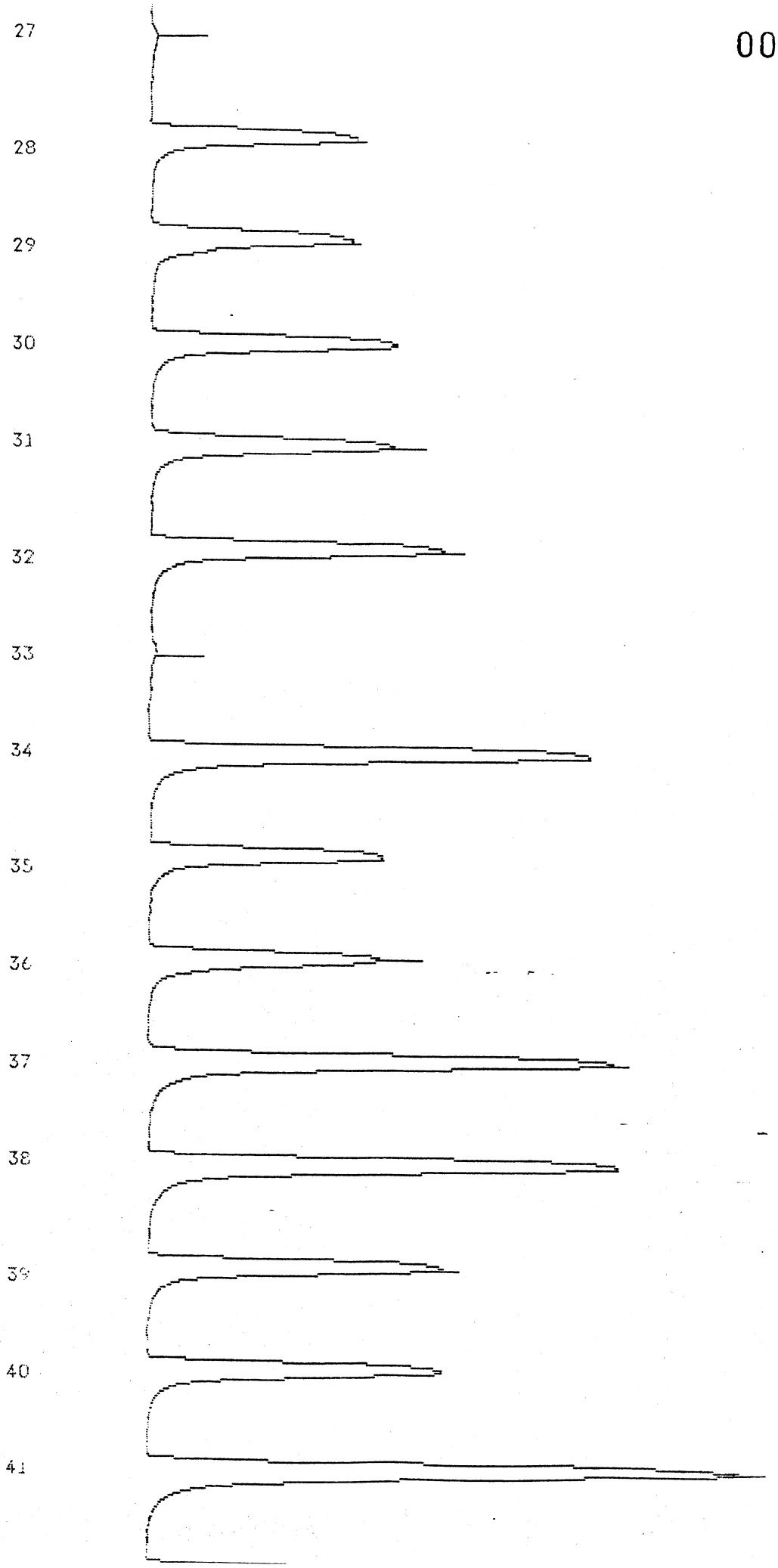
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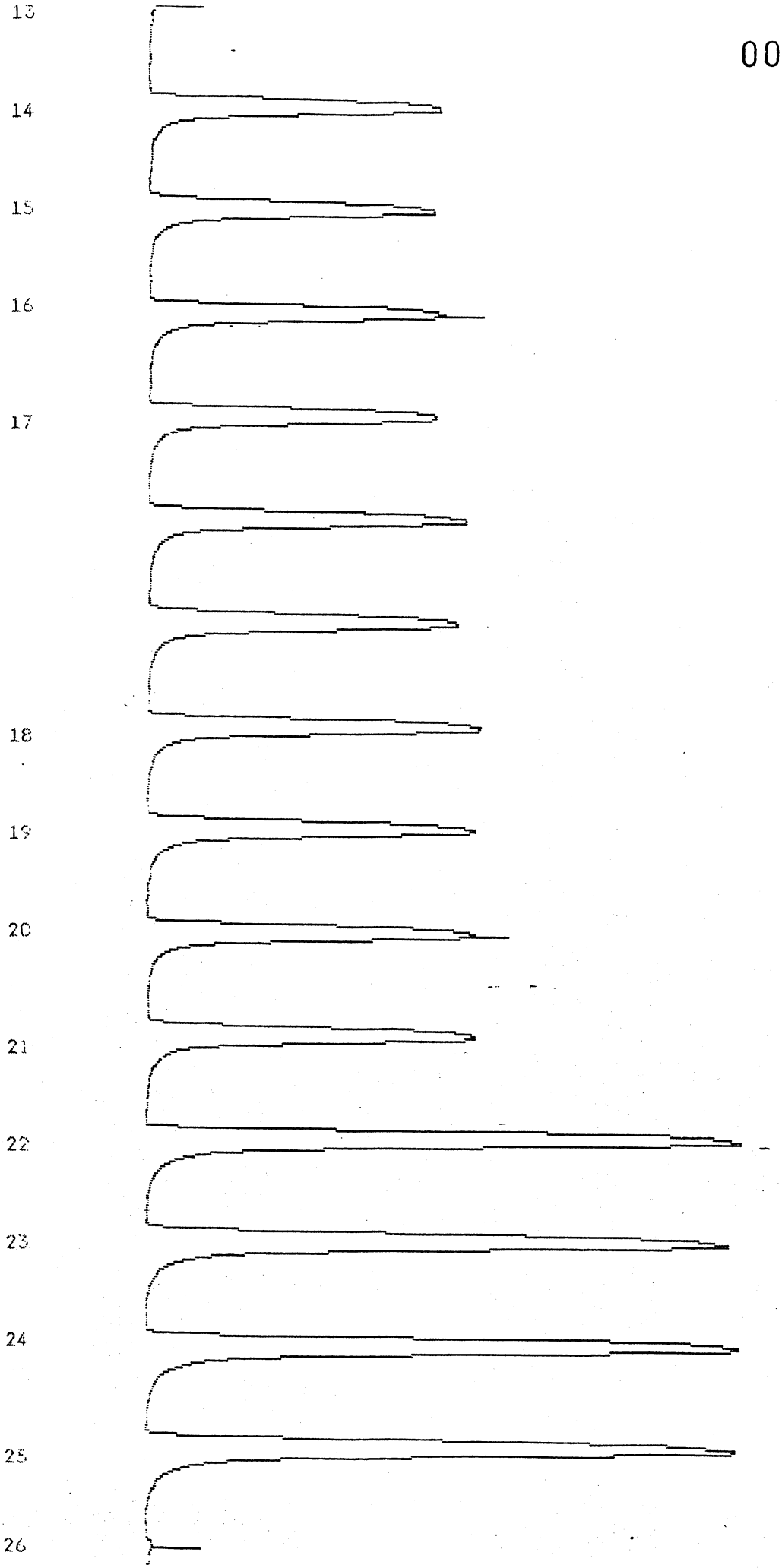
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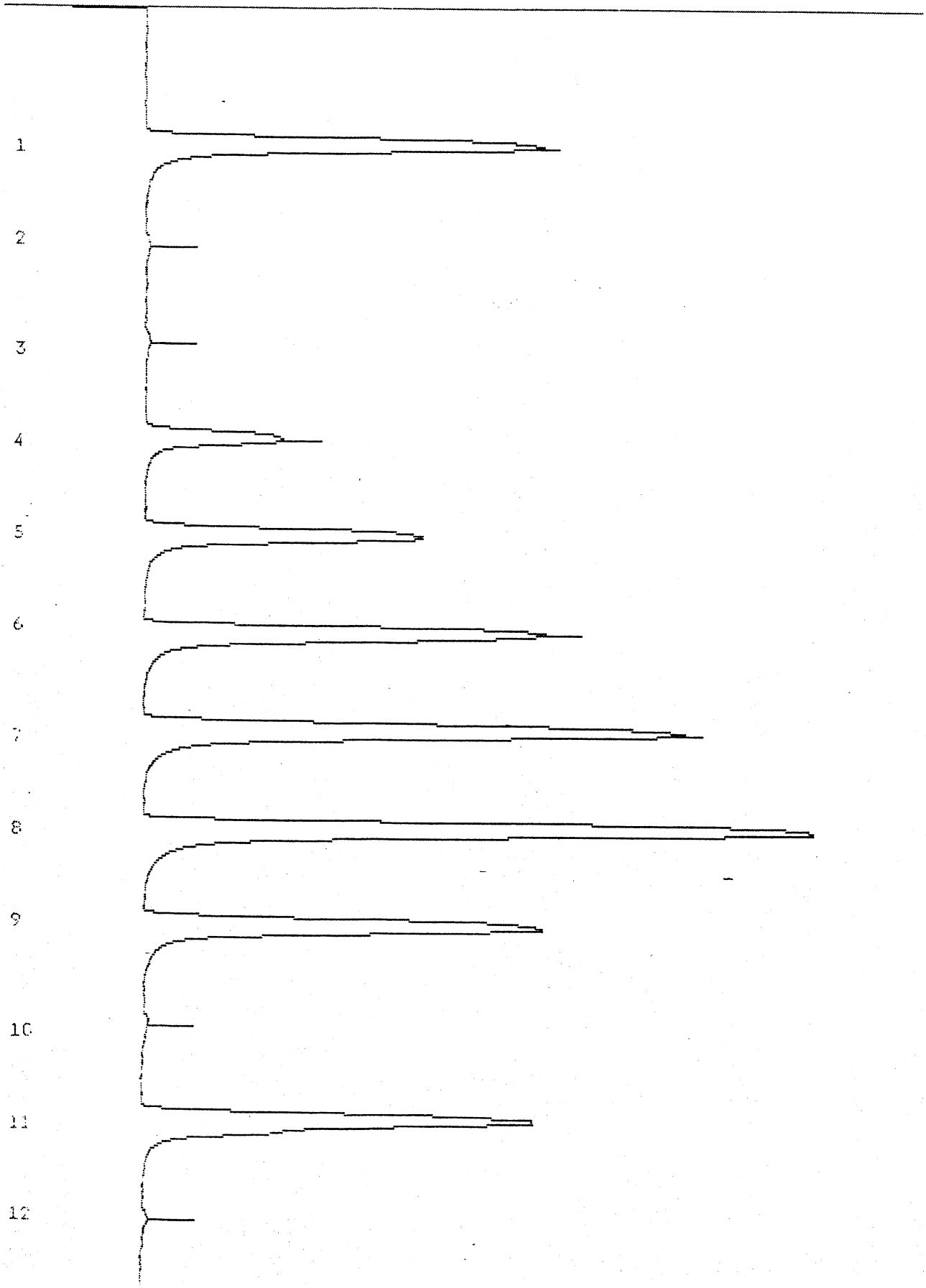
RUN DATE: 12-14-1999
CHART DATE: 12-14-1999
CHART SPEED: 30
DATA FILE NAME: C:\DP4\DATA\991214W.DAT



EPA 7470 WATER PREPARATION LOG - MERCURY

00053 DG7470HG
DGHGLEACH, DG29HG***

Calibration Solutions:

#	I.D.	*Conc.	Spike	**Conc. Entered
1	Blank/Dummy	0 ppb	None	0.0
2	Standard 1	0 ppb	None	0.0
3	Standard 2	0.33	200 ul of 0.05 ppm IV working standard	0.5
4	Standard 3	0.67	400 ul of 0.05 ppm IV working standard	1.0
5	Standard 4	1.0	600 ul of 0.05 ppm IV working standard	1.5
6	Standard 4	1.0	600 ul of 0.05 ppm IV working standard	1.5
7	Standard 5	1.33	800 ul of 0.05 ppm IV working standard	2.0
7	Standard 6	1.67	1000 ul of 0.05 ppm IV working standard	2.5

Check List
- ✓ Digest Code/labels
- ✓ Samples poured out
- ~~Acids added~~
- ~~Reagents added~~
- ~~Samples spiked~~
- ~~Bath at 95 degrees~~ C
- ~~Samples digested~~
- ~~Hydroxylamine HCl added~~
- ~~Samples bulked and mixed~~
- ✓ Rack order checked

	#	Sample I.D.	B.Code	Init.Vol.	F. Vol.	Dil	Comment
	9	ICV (Init. Calib. Verif.)	MN/MN	20 ml	30 ml	1 X	1.5 ppb = 600 ul. of 0.05 ppm HP MESS-ZENO 30/QCA Std.
	10	BL 1214	"	"	"	"	(Processed Blank)
	11	BL 1214 S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	12	69909	"	"	"	"	500 ml
1	13	69909 D	"	"	"	"	(Duplicate sample)
1	14	/ S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	15	/ DS	"	"	"	"	(Duplicate Spiked sample)
2	16	69905	"	"	"	"	
3	17	06	"	"	"	"	
4	18	07	"	"	"	"	
5	19	08	"	"	"	"	
6	20	10	"	"	"	"	
7	21	MN 10 11	"	"	"	"	
8	22	13	"	"	"	"	
9	23	14	"	"	"	"	
10	24	15	"	"	"	"	
	25	CCV (Cont. Calib. Verif.)	MN/MN	20 ml	30 ml	1 X	1.0 ppb = 400 ul. of 0.05 ppm HP MESS-ZENO 30/QCA Std.
	26	BL 1214	"	"	"	"	(Processed Blank)
	27	BL 1214 S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	28	69912	"	"	"	"	500 ml
1	29	69912 D	"	"	"	"	(Duplicate sample)
1	30	/ S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	31	/ DS	"	"	"	"	(Duplicate Spiked sample)
2	32	69916	"	"	"	"	
3	33	17	"	"	"	"	
4	34		"	"	"	"	–
5	35	~~69905 MB~~	"	"	"	"	~~HYDROXYLAMINE FRACTION~~ MB
6	36		"	"	"	"	
7	37		"	"	"	"	
8	38		"	"	"	"	
9	39		"	"	"	"	
10	40		"	"	"	"	

Notes: Other Applicable Test Codes: DG29HG-1B, DG29HG-2B, DG29HG-3A, DG29HG-3B, DG29HG-3C
DG29HGI, DG29HGF, DG101AA1, DG101AA2

Include External Reference Material (EPA WS 378 or SPEX CertiPrep TM - WS) per run

Prepare 0.05 ppm standards daily

HNO3 Lot. No. 11 MN | H2SO4 Lot. No. ——— | Bath Temps. / ~~+~~ °C

Prepared By: [illegible] Date: 99/2/12 Checked by: [illegible]

LDC AUTOSAMPLER RUN LOG (MERCURY)

Date: 99.12.14 Run Code: MG01 Matrix: IMP

Analyst: MG Units: µg (see comments) MDL: 0.03

Cup	Dig. F.	Dil. F.	Zenon ID	Init. Conc.	F. Conc.	% R
1			Primer (ICV)			
2			Dummy (Blk)			
3			Std 1 (S1)	0.0		
4			Std 2 (S2)	0.5		
5			Std 3 (S3)	1.0		
6			Std 4 (S4)	1.5		
7			Std 5 (S5)	2.0		
8			Std 6 (S6)	2.5		
9			ICV	~~2.0~~ NA		
10			B (Std 1)			
11			D4 (Std 4)			
12			BL1214	INM4.		
13			"			
14			BL1214 S			
15			"			
16			BL1214 DS			
17			"			
18		1/5	69909			
19		↓	"			
20		1/5	69909 D			
21			"			
22			69909 S			
23			"			
24			69909 DS			
25			"			
26			69905			
27			"			
28		1/20	69906			
29			"			
30			69907			
31			"			
32			CCV			
33			B			
34			D4			
35		1/20	69908			
36		↓	"			
37		1/2	69910			
38		↓	"			
39		1/4	69911			
40		↓	"			
41		1/4	69913			
42			"			
43			69914			
44			"			
45			69915			
46			"			
47			BL1214	2NM4		
48			"			
49			BL1214 S			
50			"			
51			BL1214 DS			
52			"			
53		1/10	69912			
54		↓	"			
55			CCV			
56			B			
57			D4			
58		1/10	69912 D			
59		↓	"			
60		1/10	69912 S			
61			"			
62			69912 DS			
63			"			
64			69916			
65			"			
66			69917			
67			"	(cup missed) rerun @ end		
68			Rodi bottle "A"			
69			"B"			
70			"C"			
71			1			
72			2			
73			3			
74			4			
75			5			
76			69917			
77			"			
78			CCV			
79			B			
80			D4			

Comments: *** "HG-347" and "MISA12" units are expressed in mg/L not ug/L

ICV = 1.5 ug/L, CCV = 1.0 ug/L, Blank Spike = 1.0 ug/L for liquid samples.

Blank Spike = 1.0 mg/kg for solid samples.

ion ber	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
)904	TRC-CO	MB R456	Mercury -	PV	-0.030	-99999.0	0.304	101.	0.302	101.	99/12/14	1NMN	99/12/14	MG01	39.	25.	
)905	TRC-CO	APS-Site-OHM-Blank	Mercury -	PV	-0.050						99/12/14	1NMN	99/12/14	MG01	39.	25.	
)906	TRC-CO	APS-2-OHM-Outlet-R1	Mercury -	PV	6.793						99/12/14	1NMN	99/12/14	MG01	39.	25.	
)907	TRC-CO	APS-2-OHM-Outlet-R2	Mercury -	PV	8.179						99/12/14	1NMN	99/12/14	MG01	39.	25.	
)908	TRC-CO	APS-2-OHM-Outlet-R3	Mercury -	PV	7.643						99/12/14	1NMN	99/12/14	MG01	39.	25.	
)909	TRC-CO	APS-3-OHM-Outlet-R1	Mercury -	PV	2.872	2.805	5.067	87.	5.082	90.	99/12/14	1NMN	99/12/14	MG01	42.	25.	
)910	TRC-CO	APS-3-OHM-Outlet-R3	Mercury -	PV	1.563						99/12/14	1NMN	99/12/14	MG01	41.	25.	
)911	TRC-CO	APS-3-OHM-Outlet-R4	Mercury -	PV	1.957						99/12/14	1NMN	99/12/14	MG01	41.	25.	
)913	TRC-CO	APS-2-OHM-Inlet-R2	Mercury -	PV	4.021						99/12/14	1NMN	99/12/14	MG01	39.	25.	
)914	TRC-CO	APS-2-OHM-Inlet-R3	Mercury -	PV	3.274						99/12/14	1NMN	99/12/14	MG01	39.	25.	
)915	TRC-CO	APS-3-OHM-Inlet-R1	Mercury -	PV	2.428						99/12/14	1NMN	99/12/14	MG01	42.	25.	
214	INTERNAL		Mercury -	PV	-0.030	-99999.0	0.304	101.	0.302	101.	99/12/14	1NMN	99/12/14	MG01	$$$	$$$	
)912	TRC-CO	APS-2-OHM-Inlet-R1	Mercury -	PV	6.192	6.139	10.455	85.	10.385	84.	99/12/14	2NMN	99/12/14	MG01	40.	25.	
)916	TRC-CO	APS-3-OHM-Inlet-R3	Mercury -	PV	0.574						99/12/14	2NMN	99/12/14	MG01	41.	25.	
)917	TRC-CO	APS-3-OHM-Inlet-R4	Mercury -	PV	0.757						99/12/14	2NMN	99/12/14	MG01	41.	25.	
214	INTERNAL		Mercury -	PV	-0.030	-99999.0	0.303	101.	0.300	100.	99/12/14	2NMN	99/12/14	MG01	$$$	$$$	

16 Tests for OHMN4 with an MDL of 0.030 ug Validated By CMS Control Chart Updated N/A IO Requirements met N/A

00051

116	69912D	10	1	1.4	0.434	1.747	
117	69912S	10	1	8.3	3.070	12.241	105%
118	69912S	10	1	8.4		12.315	
119	69912DS	10	1	8.2	3.014	12.020	103%
120	69912DS	10	1	8.2		12.094	
121	69916	10	1	0.1	<0.250	-0.211	s
122	69916	10	1	0.1		-0.211	I
123	69917	10	1	0.1	<0.250	-0.174	I
124	69917	10	1	0.1		-0.174	I
125	CCV	1	1	6.6		0.965	97%
126	B	1	1	0.0		-0.032	b
127	D4	1	1	10.2		1.512	d
128	BL1210-STB1 73175, 73316	1	1	0.0		-0.032	I
129	BL1210S	1	1	6.9		1.017	101%
130	73365	1	1	0.0		-0.029	I
131	73365D	1	1	0.0		-0.029	I
132	73365S	1	1	7.1		1.036	103%
133	73874	1	1	0.2		0.001	I
134	73318	1	1	0.6		0.056	
135	73177	1	1	0.0		-0.029	I
136	73179	1	1	0.3		0.020	s
137	73181	1	1	0.1		-0.017	I
138	73183	1	1	0.2		-0.003	I
139	73185	1	1	0.0		-0.025	I
140	73792	1	1	0.1		-0.021	I
141	BL1210	160	1	7.6		179.307	
142	WS 378	1	1	12.6		1.867	93%
143	ORG REF	1	1	14.2		2.115	105%
144	CCV	1	1	6.6		0.973	97%
145	B	1	1	0.0		-0.032	b
146	D4	1	1	10.2		1.512	d

INTERCEPT: 0.21 LINEAR COEF: 6.608756

CORRELATION COEF: .9997882

00049

50	BL1211S	1	1	6.7	0.296	0.984	99%	
51	BL1211S	1	1	6.7		0.988		
52	BL1211DS	1	1	6.7	0.296	0.988	99%	
53	BL1211DS	1	1	6.7		0.988		
54	69912	1	1	6.5	0.954	0.954		
55	69912	1	1	6.5		0.954		
56	69912D	1	1	6.5	0.955	0.958		
57	69912D	1	1	6.5		0.951		
58	69912S	1	1	13.1	1.954	1.952	100%	
59	69912S	1	1	13.1		1.956		
60	CCV	1	1	6.6		0.965	97%	
61	B	1	1	0.0		-0.032	b	
62	D4	1	1	10.2		1.512	d	
63	69912DS	1	1	13.1	1.943	1.945	99%	
64	69912DS	1	1	13.0		1.941		
65	69916	1	1	2.8	0.393	0.389		
66	69916	1	1	2.8		0.396		
67	69917	1	1	3.7	0.526	0.529		
68	69917	1	1	3.7		0.522		
69	BL1211-3NPO 69904	1	1	0.0	<0.01	-0.032	I	
70	BL1211-3NPO	1	1	0.0		-0.032	I	
71	BL1111S	1	1	6.9	0.101	1.017	101%	
72	BL1111S	1	1	6.9		1.017		
73	BL1211DS	1	1	6.9	0.101	1.006	101%	
74	BL1211DS	1	1	6.9		1.010		
75	69909	10	1	0.1	<0.250	-0.137	I	
76	69909	10	1	0.1		-0.137	s	
77	69909D	10	1	0.1	<0.250	-0.137	I	
78	69909D	10	1	0.1		-0.137	I	
79	69909S	10	1	7.1	2.580	10.394	103%	
80	69909S	10	1	7.0		10.246		
81	69909DS	10	1	6.9	2.543	10.172	101%	
82	69909DS	10	1	6.9		10.172		
83	CCV	1	1	6.6		0.973	97%	
84	B	1	1	0.0		-0.032	b	
85	D4	1	1	10.2		1.512	d	
86	69905	10	1	0.1	<0.250	-0.211	I	
87	69905	10	1	0.1		-0.174	I	
88	66906	10	1	0.1	<0.250	-0.174	I	
89	66906	10	1	0.1		-0.211	I	
90	69907	10	1	0.1	<0.250	-0.100	I	
91	69907	10	1	0.1		-0.137	s	
92	69908	10	1	0.1	<0.250	-0.137	I	
93	69908	10	1	0.1		-0.137	I	
94	69910	10	1	0.1	<0.250	-0.100	I	
95	69910	10	1	0.1		-0.100	I	
96	69911	10	1	0.1	<0.250	-0.100	I	
97	69911	10	1	0.1		-0.174	I	
98	69913	10	1	0.1	<0.250	-0.100	I	
99	69913	10	1	0.1		-0.137	I	
100	69914	10	1	3.4	1.231	4.888		
101	69914	10	1	3.5		4.962		
102	69915	10	1	0.1	<0.250	-0.211	I	
103	69915	10	1	0.1		-0.137	I	
104	BL1211-4NPO	1	1	0.0	<0.01	-0.032	I	
105	BL1211-4NPO	1	1	0.0		-0.032	I	
106	CCV	1	1	6.5		0.951	95%	
107	B	1	1	0.0		-0.032	b	
108	D4	1	1	10.2		1.512	d	
109	BL1211S	1	1	6.7	0.099	0.988	99%	
110	BL1211S	1	1	6.7		0.988		
111	BL1211DS	1	1	6.8	0.100	0.991	100%	
112	BL1211DS	1	1	6.8		0.999		
113	69912	10	1	1.4	[illegible]	1.747		

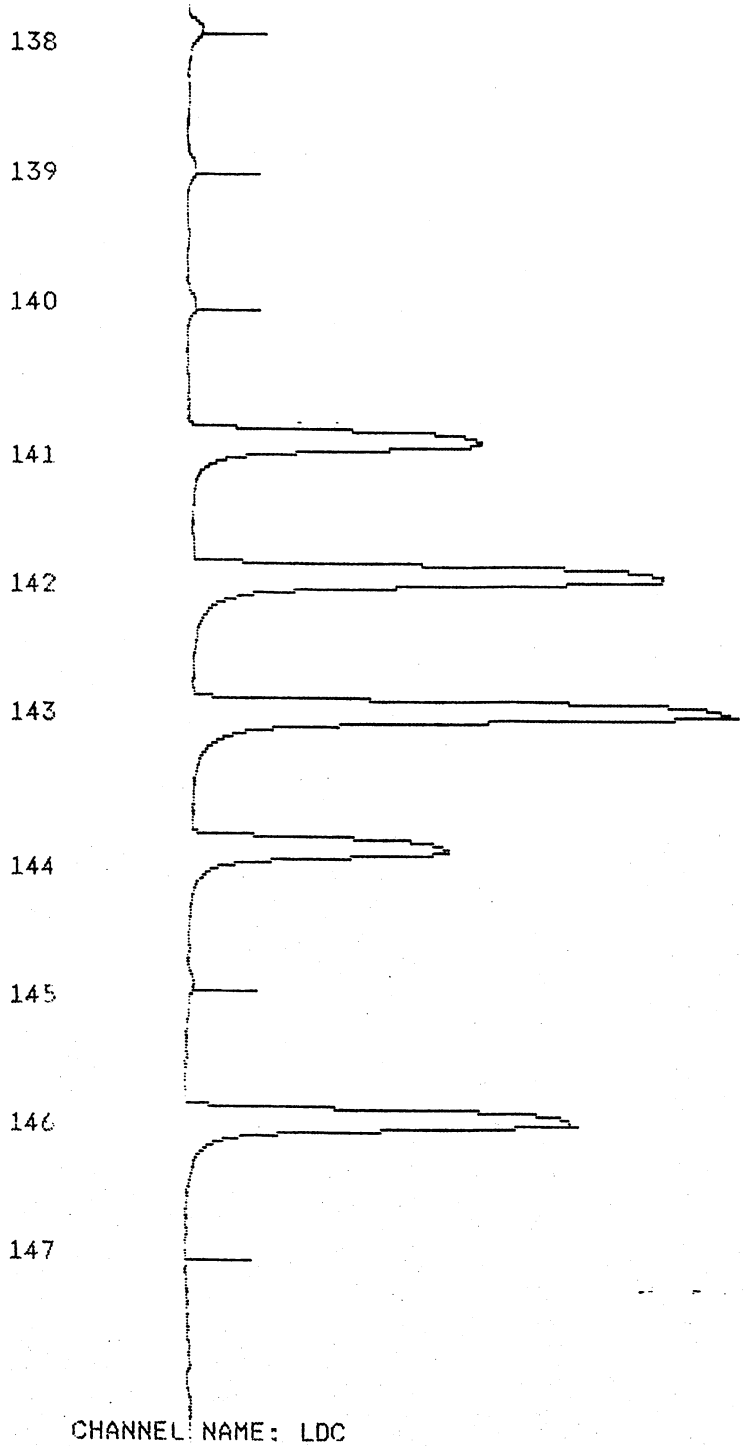
DATA TYPE: FIA
INTERCEPT = 0.21

CALIBRATION ORDER: 1
SLOPE = 6.608756

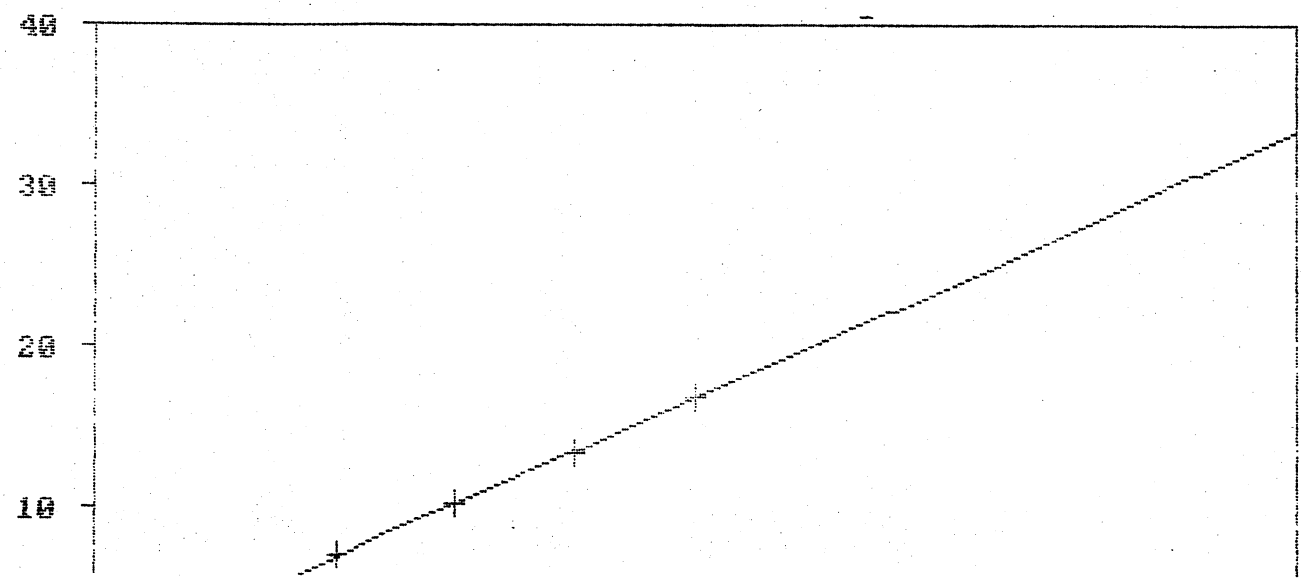
CORRELATION: .9997882

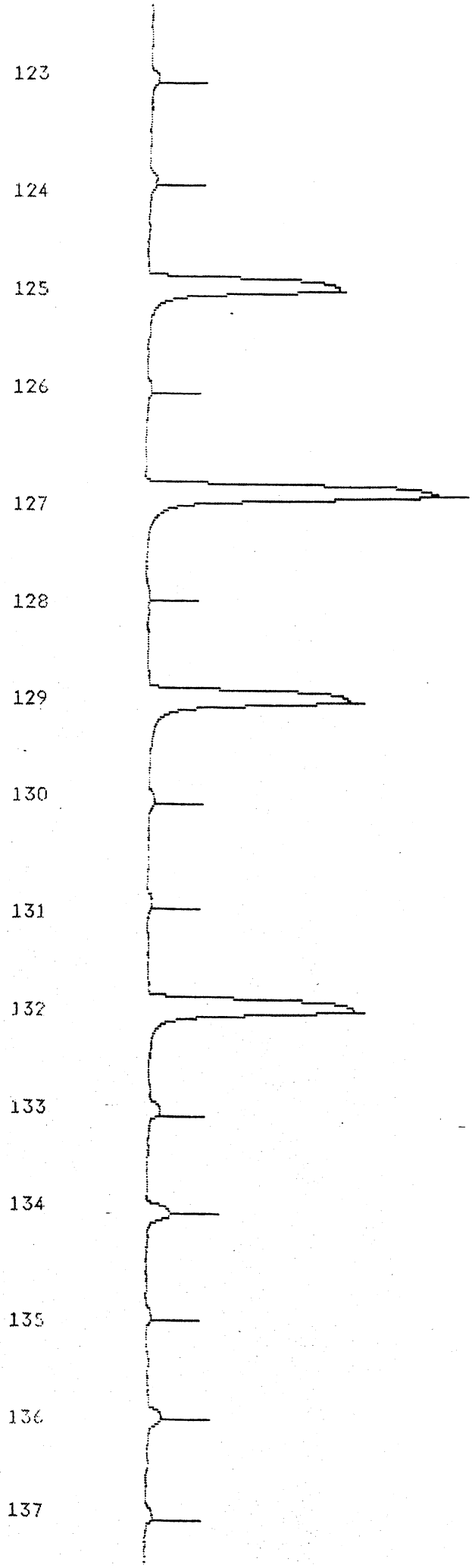
CHANNEL NAME: LDC
RUN DATE: 12-11-1999
SAMPLE TABLE NAME: 991211W
METHOD NAME: HGWATER

CUP#	SAMPLE ID	DIL	WGT	HEIGHT/AREA	TUG	CONCENTRATION (ppb)		EF
1	PRIMER	1	1	9.7		1.438		s
2	DUMMY	1	1	0.1		-0.017		I
3	S1: 0	1	1	0.0		-0.025		I
4	S2: .5	1	1	3.6		0.511		
5	STD3	1	1	8.7		1.287		
6	S4: 1.5	1	1	10.2		1.512		
7	S5: 2	1	1	13.3		1.982		
8	S6: 2.5	1	1	16.7		2.495		
9	S3: 1	1	1	7.0		1.025		
10	ICV	1	1	9.7		1.442	96%	
11	B	1	1	0.0		-0.032		b
12	D4	1	1	10.2		1.512		d
13	WS 378	1	1	12.6		1.867	93%	
14	ORG REF	1	1	14.2		2.115	105%	
15	BL1211-1NKC 69904	1	1	0.0	<0.03	-0.032		I
16	BL1211-1NKC	1	1	0.0		-0.025		s
17	BL1211S	1	1	6.7	0.294	0.984	97%	
18	BL1211S	1	1	6.6		0.973		
19	BL1211DS	1	1	6.8	0.301	0.999	101%	
20	BL1211DS	1	1	6.9		1.010		
21	69909	1	1	5.4	0.794	0.792		
22	69909	1	1	5.5		0.796		
23	69909D	1	1	5.5	0.803	0.807		
24	69909D	1	1	5.5		0.799		
25	69909S	1	1	12.2	1.808	1.808	101%	
26	69909S	1	1	12.2		1.808		
27	69909DS	1	1	12.2	1.810	1.815	101%	
28	69909DS	1	1	12.1		1.804		
29	69905	1	1	0.0	nb <0.033	-0.029		I
30	69905	1	1	0.0		-0.029		I
31	69906 A	1	1	0.5	0.047	0.045		s
32	69906 A	1	1	0.5		0.049		I
33	69906 B	1	1	2.3	0.315	0.319	0.362 µg	
34	69906 B	1	1	2.3		0.311		
35	69907	1	1	1.9	0.258	0.256		
36	69907	1	1	1.9		0.260		
37	CCV	1	1	6.5		0.958	95%	
38	B	1	1	0.0		-0.032		b
39	D4	1	1	10.2		1.512		d
40	69908	1	1	1.9	0.249	0.249		
41	69908	1	1	1.9		0.249		
42	69911	1	1	4.2	0.607	0.611		
43	69911	1	1	4.2		0.603		
44	69914	1	1	12.9	1.919	1.919		
45	69914	1	1	12.9		1.919		
46	69915	1	1	0.6	<0.100	0.053		s
47	69915	1	1	0.5		0.049		I
48	BL1211-2NKC	1	1	0.0		-0.025		I



CHANNEL NAME: LDC
RUN NAME: 991211W

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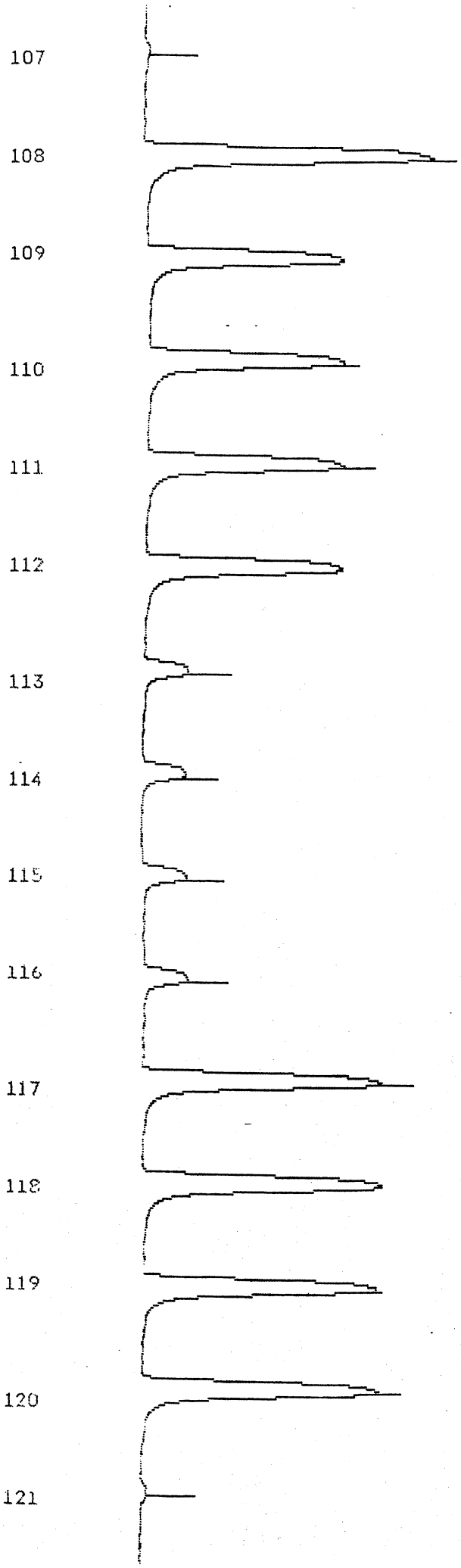
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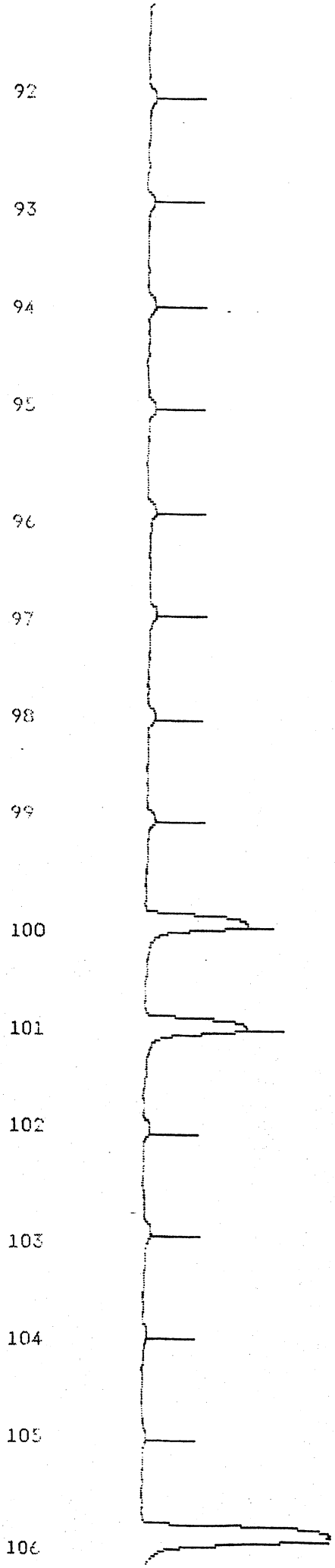
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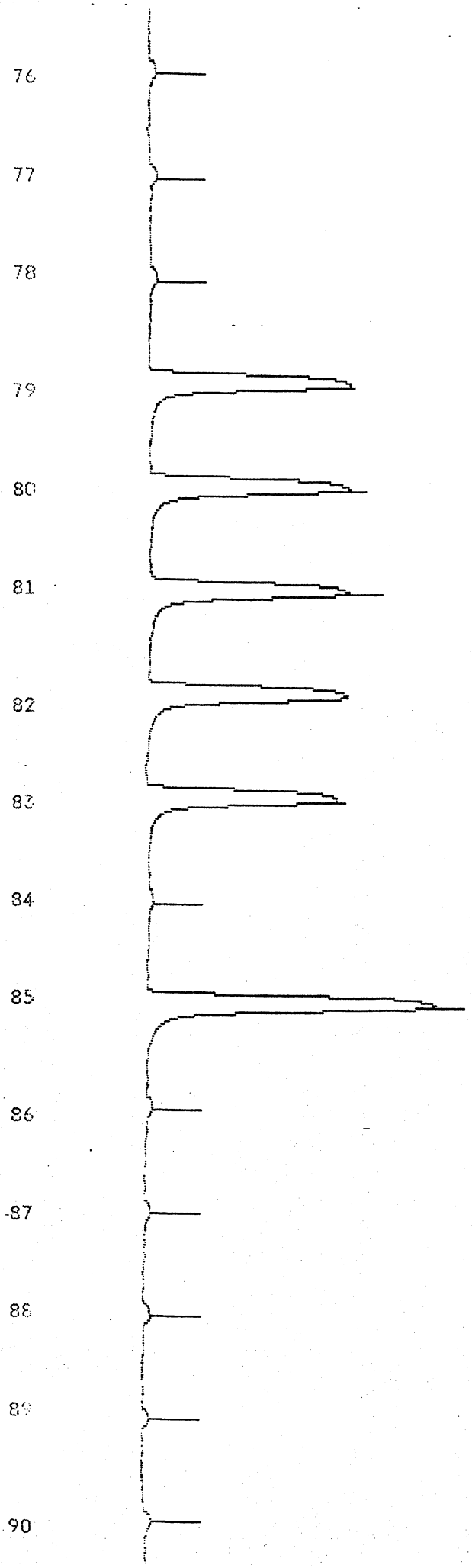
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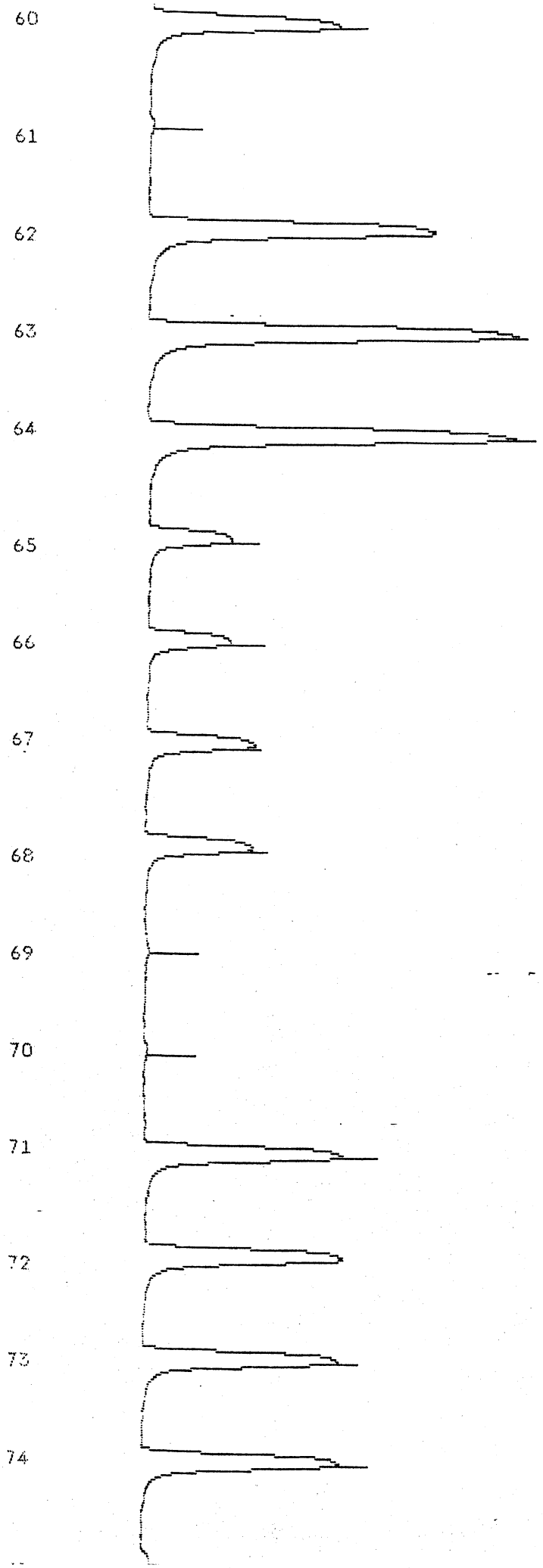
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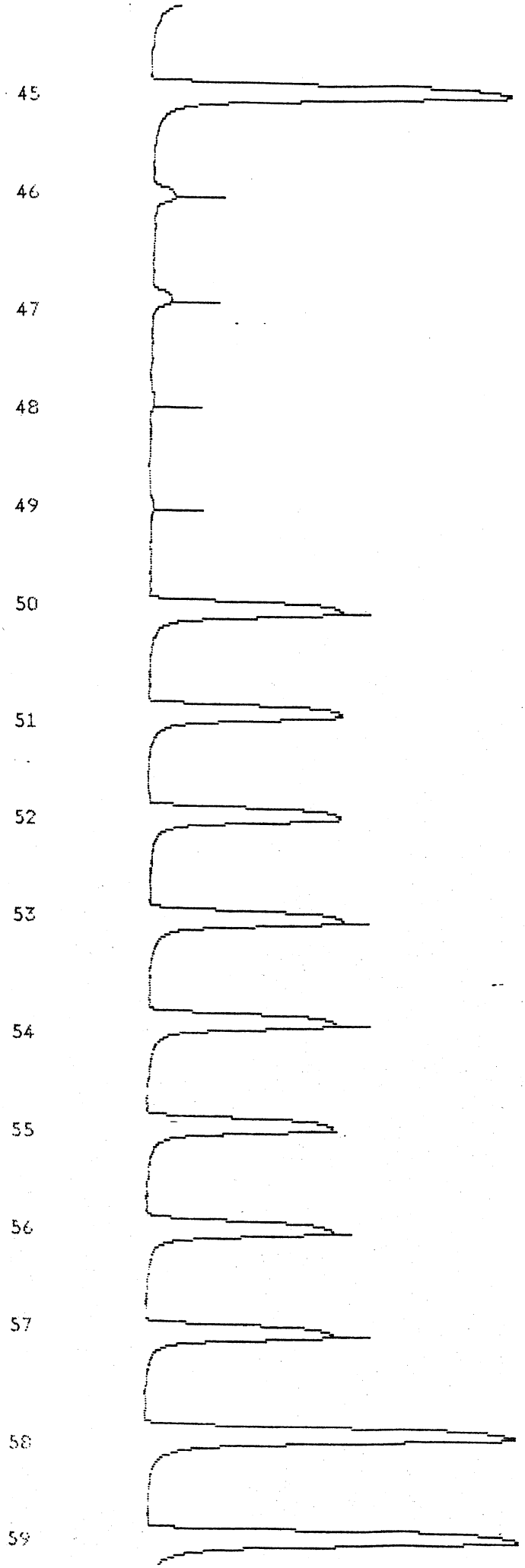
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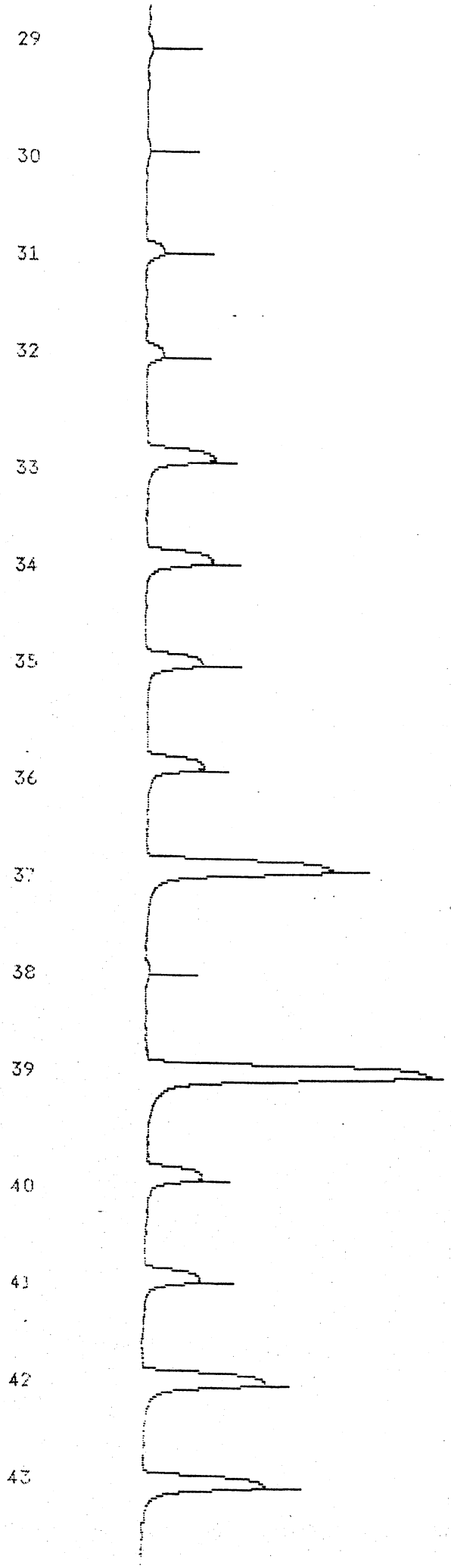
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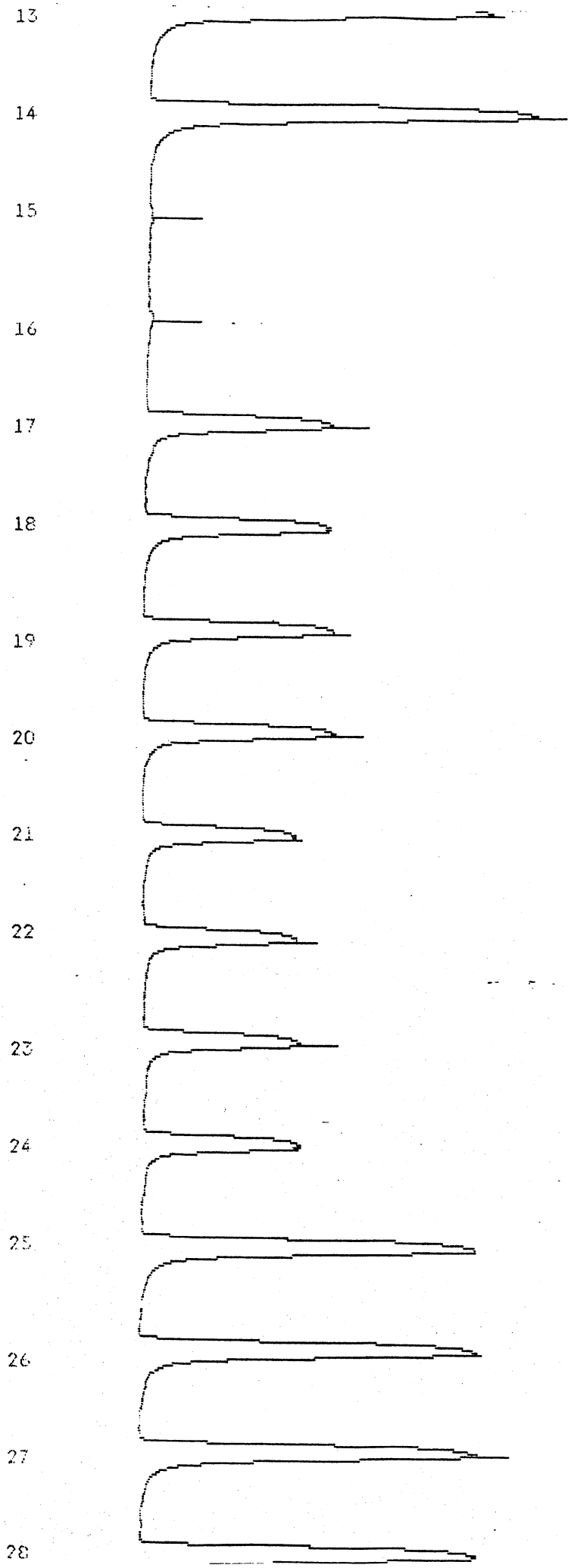
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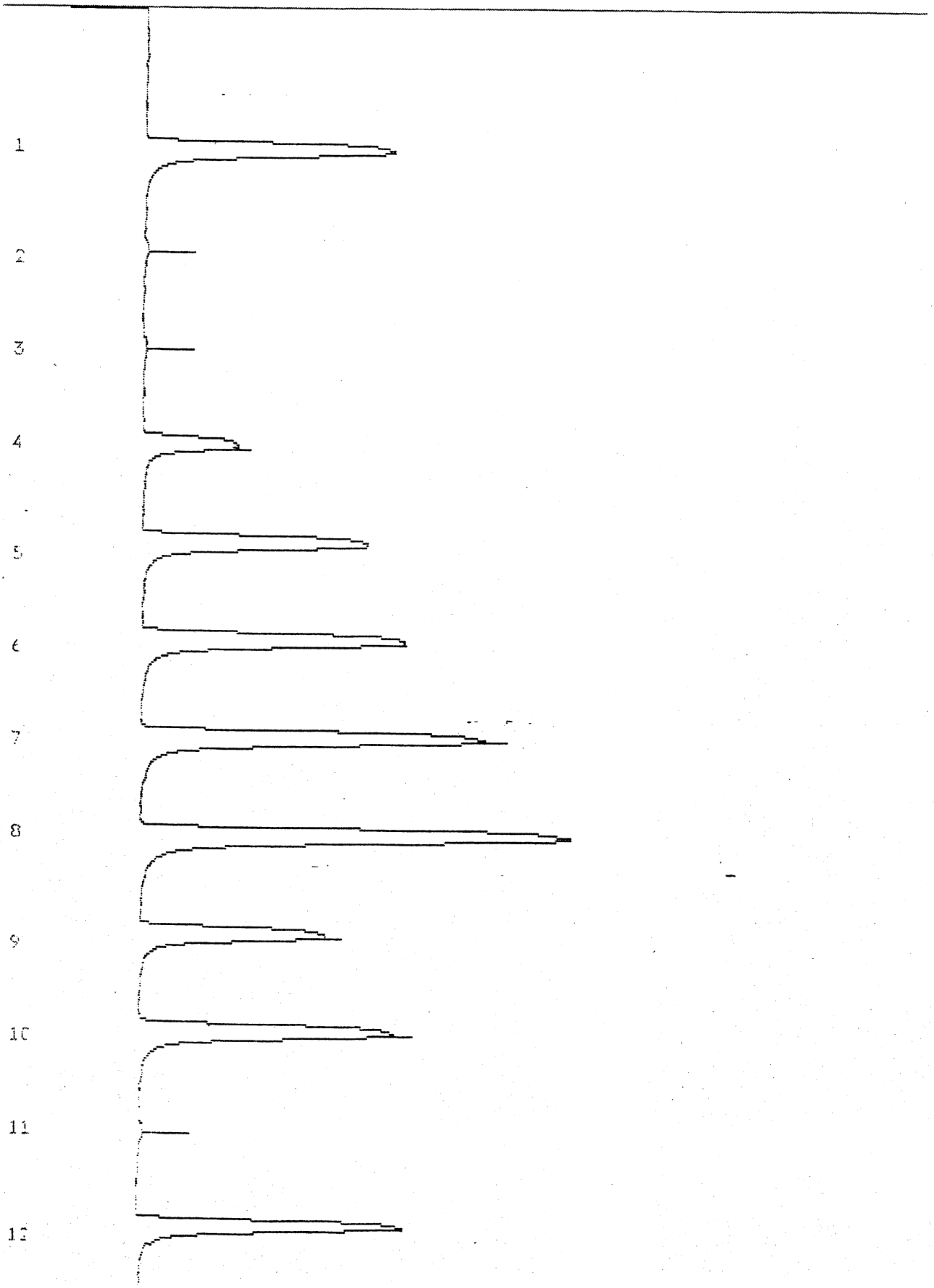
RUN DATE: 12-11-1999
CHART SPEED: 30
DATA FILE NAME: C:\DP4\DATA\991211W.DAT

CHART DATE: 12-13-1999



EPA 7470 WATER PREPARATION LOG - MERCURY

00037 DG7470HG
DGHGLEACH, DG29HG***

Calibration Solutions:

#	I.D.	*Conc.	Spike	**Conc. Entered
1	Blank/Dummy	0 ppb	None	0.0
2	Standard 1	0 ppb	None	0.0
3	Standard 2	0.33	200 ul of 0.05 ppm IV working standard	0.5
4	Standard 3	0.67	400 ul of 0.05 ppm IV working standard	1.0
5	Standard 4	1.0	600 ul of 0.05 ppm IV working standard	1.5
6	Standard 4	1.0	600 ul of 0.05 ppm IV working standard	1.5
7	Standard 5	1.33	800 ul of 0.05 ppm IV working standard	2.0
7	Standard 6	1.67	1000 ul of 0.05 ppm IV working standard	2.5

Check List
- Digest Code/labels
- Samples poured out
- Acids added
- Reagents added
- Samples spiked
- Bath at 95 degrees C
- Samples digested
- Hydroxylamine HCl added
- Samples bulked and mixed
- Rack order checked

	#	Sample I.D.	B.Code	Init.Vol.	F. Vol.	Dil	Comment
	9	ICV (Init. Calib. Verif.)	4NPO	20 ml	30 ml	1 X	1.5 ppb = 600 ul. of 0.05 ppm HP MESS-ZENO 30/QCA Std.
	10	BL 1211	"	"	"	"	(Processed Blank)
	11	BL 1211 S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	12	69712	"	"	"	"	F.V. 250 ml
1	13	D	"	"	"	"	(Duplicate sample)
1	14	S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	15	DS	"	"	"	"	(Duplicate Spiked sample)
2	16	69716	"	"	"	"	
3	17	17	"	"	"	"	
4	18		"	"	"	"	
5	19		"	"	"	"	
6	20		"	"	"	"	
7	21		"	"	"	"	
8	22		"	"	"	"	
9	23		"	"	"	"	
10	24		"	"	"	"	
	25	CCV (Cont. Calib. Verif.)		20 ml	30 ml	1 X	1.0 ppb = 400 ul. of 0.05 ppm HP MESS-ZENO 30/QCA Std.
	26	BL	"	"	"	"	(Processed Blank)
	27	BL S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	28		"	"	"	"	
1	29	D	"	"	"	"	(Duplicate sample)
1	30	S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	31	DS	"	"	"	"	(Duplicate Spiked sample)
2	32		"	"	"	"	
3	33		"	"	"	"	
4	34		"	"	"	"	
5	35		"	"	"	"	
6	36		"	"	"	"	
7	37		"	"	"	"	
8	38		"	"	"	"	
9	39		"	"	"	"	
10	40		"	"	"	"	

Notes: Other Applicable Test Codes: DG29HG-1B, DG29HG-2B, DG29HG-3A, DG29HG-3B, DG29HG-3C
DG29HGI, DG29HGF, DG101AA1, DG101AA2

Include External Reference Material (EPA WS 378 or SPEX CertiPrep TM - WS) per run — Prepare 0.05 ppm standards daily

HNO3 Lot. No. 112090 | H2SO4 Lot. No. 315064 | Bath Temps. 1 195°C

Prepared By: [illegible] Date: 9/12/11 Checked by: [illegible]

	#	Sample I.D.	B.Code	Init.Vol.	F. Vol.	Dil	Comment
	41	CCV (Cont. Calib. Verif.)	SNPD	20 ml	30 ml	1 X	1.0 ppb = 400 ul. of 0.05 ppm HP MESS-ZENO 30/QCA Std.
	42	BL 1211	"	"	"	"	(Processed Blank) 69904 MB
	43	BL 1211 S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	44	69909	"	"	"	"	F.V. 250 ml
1	45	D	"	"	"	"	(Duplicate sample)
1	46	S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	47	DS	"	"	"	"	(Duplicate Spiked sample)
2	48	69905	"	"	"	"	
3	49	07	"	"	"	"	
4	50	08	"	"	"	"	
5	51	09	"	"	"	"	
6	52	10	"	"	"	"	
7	53	11	"	"	"	"	
8	54	13	"	"	"	"	
9	55	14	"	"	"	"	
10	56	15	"	"	"	"	

Comments

* concentration based on 30 ml final volume, ** concentration based on 20 ml final volume

*** group of several Method 29 testcodes

Dilution factor of 1.5 is corrected by entering the calibration concentrations listed above

Procedure/Methodology:

1 Prepare 25 ppm Intermediate stock (if required) by pipetting 625 ul., of 1000 ppm Stock to 25 ml final volume of 2% HNO3
2 Prepare 0.05 ppm Working stock daily by pipetting 200 ul., of 25 ppm Stock to 100 ml final volume of 2% HNO3
3 Using the LIMS Screen "SCNDIG" enter the required samples into LIMS
4 Using the labeling program, "DIGLBL", retreive the "SCNDIG" list and create labels for the required samples.
5 Label the falcon tubes appropriately
6 Transfer a 20 ml. aliquot of well mixed sample into the designated falcon tube
7 Spike the tubes as indicated in the comment sector of the digestion sheet
8 Add 0.5 ml. of conc. Nitric Acid (HNO3), and 1 ml. of conc. Sulphuric acid, (H2SO4), to each tube
9 Add 3 ml. Potassium Permanganate (KMnO4), colour should remain for at least 15 minutes
10 Add 1.5 ml. of Potassium persulphate, (K2S2O8), to each tube
11 Mix samples, cap loosely and place in a water bath @ 95 degrees C for 2 hours
12 Remove tubes and allow to cool to room temperature
13 Add 1.0 ml. 20% Hydroxylamine Hydrochloride to each tube
14 Recap tubes and shake until the Potassium Permanganate (KMnO4) is destroyed and sample becomes colourless
15 Dilute the sample to a final volume of 30 ml., cap and mix well

REFERENCE STANDARDS/SPIKING SOLUTIONS:
Source: Inorganic Ventures Standard, see standard tracking binder for current lot and expiry date information

ICV/CCV STANDARDS:
Source: High Purity MESS-ZENO 30/QCA Standard, see standard tracking binder for current lot

INTERNAL REFERENCE STANDARD: (2 ppb in 10% HNO3)
Source: EPA WS 378 or SPEX CertiPrep Trace Metal - Water Supply, see standard tracking binder for current source, lot and expiry date information.

All reagents used are of a grade suitable for mercury analyses

EPA 7470 WATER PREPARATION LOG - MERCURY

00035 DG7470HG
DGHGLEACH, DG29HG***

Calibration Solutions:

#	I.D.	*Conc.	Spike	**Conc. Entered
1	Blank/Dummy	0 ppb	None	0.0
2	Standard 1	0 ppb	None	0.0
3	Standard 2	0.33	200 ul of 0.05 ppm IV working standard	0.5
4	Standard 3	0.67	400 ul of 0.05 ppm IV working standard	1.0
5	Standard 4	1.0	600 ul of 0.05 ppm IV working standard	1.5
6	Standard 4	1.0	600 ul of 0.05 ppm IV working standard	1.5
7	Standard 5	1.33	800 ul of 0.05 ppm IV working standard	2.0
7	Standard 6	1.67	1000 ul of 0.05 ppm IV working standard	2.5

Check List
- ✓ Digest Code/labels
- ✓ Samples poured out
- ✓ Acids added
- ✓ Reagents added
- ✓ Samples spiked
- ✓ Bath at 95 degrees C
- ✓ Samples digested
- ✓ Hydroxylamine HCl added
- ✓ Samples bulked and mixed
- ✓ Rack order checked

	#	Sample I.D.	B.Code	Init.Vol.	F. Vol.	Dil	Comment
	9	ICV (Init. Calib. Verif.)	INKC	20 ml	30 ml	1 X	1.5 ppb = 600 ul. of 0.05 ppm HP MESS-ZENO 30/QCA Std.
	10	BL 1211	"	"	"	"	(Processed Blank) 69904 MB
	11	BL 1211 S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	12	69909	"	"	"	"	1000 ml
1	13	D	"	"	"	"	(Duplicate sample)
1	14	S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	15	DS	"	"	"	"	(Duplicate Spiked sample)
2	16	69905	"	"	"	"	330 ml
3	17	07	"	"	"	"	1000 ml
4	18	08	"	"	"	"	
5	19	09	"	"	"	"	combine data of 69906 'A' + 69906 'B'
6	20	~~10~~ MN	"	"	"	"	KCl BOTTLE NOT REC'D
7	21	11	"	"	"	"	1000 ml
8	22	~~12~~ MN	"	"	"	"	KCl BOTTLE NOT REC'D
9	23	14	"	"	"	"	1000 ml
10	24	15	"	"	"	"	1000 ml
	25	CCV (Cont. Calib. Verif.)	2NKC	20 ml	30 ml	1 X	1.0 ppb = 400 ul. of 0.05 ppm HP MESS-ZENO 30/QCA Std.
	26	BL 1211	"	"	"	"	(Processed Blank)
	27	BL 1211 S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	28	69912	"	"	"	"	1000 ml
1	29	D	"	"	"	"	(Duplicate sample)
1	30	S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	31	DS	"	"	"	"	(Duplicate Spiked sample)
2	32	16	"	"	"	"	1000 ml
3	33	17	"	"	"	"	1000 ml
4	34		"	"	"	"	
5	35		"	"	"	"	
6	36		"	"	"	"	
7	37		"	"	"	"	
8	38		"	"	"	"	
9	39		"	"	"	"	
10	40		"	"	"	"	

Notes: Other Applicable Test Codes: DG29HG-1B, DG29HG-2B, DG29HG-3A, DG29HG-3B, DG29HG-3C
DG29HGI, DG29HGF, DG101AA1, DG101AA2

Include External Reference Material (EPA WS 378 or SPEX CertiPrep TM - WS) per run

Prepare 0.05 ppm standards daily

HNO3 Lot. No. 119090 | H2SO4 Lot. No. 315061 | Bath Temps. 1 195°C

Prepared By: [illegible] Date: 9/12/11 Checked by: [illegible]

LDC AUTOSAMPLER RUN LOG (MERCURY)

Date: 99.12.11 Run Code: MG01 Matrix: IMP

Analyst: MG Units: µg (see comments) MDL: 0.01

Cup	Dig. F.	Dil. F.	Zenon ID	Init. Conc.	F. Conc.	% R
1			Primer (ICV)			
2			Dummy (Blk)			
3			Std 1 (S1)	0.0		
4			Std 2 (S2)	0.5		
5			Std 3 (S3)	1.0		
6			Std 4 (S4)	1.5		
7			Std 5 (S5)	2.0		
8			Std 6 (S6)	2.5		
9			ICV ~~MS~~ MS			
10			B (Std 1)			
11			D4 (Std 4)			
12						
13						
14						
15						
16						
17						
18						
19						
20						
21			B			
22			D4			
23	10		69905			
24			"			
25			69906			
26			"			
27			69907			
28			"			
29			69908			
30			"			
31			69910			
32			"			
33			69911			
34			"			
35			69913			
36			"			
37			69914			
38			"			
39			69915			
40			"			

Cup	Dig. F.	Dil. F.	Zenon ID	Init. Conc.	F. Conc.	% R
41			BL1211	4NPO		
42			"			
43			CCV			
44			B			
45			D4			
46			BL1211 S			
47			"			
48			BL1211 DS			
49			"			
50	10		69912			
51			"			
52			69912 D			
53			"			
54			69912 S			
55			"			
56			69916			
57			"			
58			69917			
59			"			
60			CCV			
61			B			
62			D4			
63			BL1209	STB1		
64			BL1209 S			
65			73365			
66			365 D			
67			365 S			
68			73874			
69			73318			
70			73177			
71			73179			
72			73181			
73			183			
74			185			
75			73792			
76		1/160	BL1209			
77			WS 378			
78			ORG. REF			
79			CCV			
80			B			
81			D4			

Comments: *** "HG-347" and "MISA12" units are expressed in mg/L not ug/L

ICV = 1.5 ug/L, CCV = 1.0 ug/L, Blank Spike = 1.0 ug/L for liquid samples.

Blank Spike = 1.0 mg/kg for solid samples.

LDC AUTOSAMPLER RUN LOG (MERCURY)

Date: 99:12.11 Run Code: MG01 Matrix: IMP

Analyst: MG Units: µg (see comments) MDL: 0.03/0.01

Cup	Dig. F.	Dil. F.	Zenon ID	Init. Conc.	F. Conc.	% R
1			Primer (ICV)			
2			Dummy (Blk)			
3			Std 1 (S1)	0.0		
4			Std 2 (S2)	0.5		
5			Std 3 (S3)	1.0		
6			Std 4 (S4)	1.5		
7			Std 5 (S5)	2.0		
8			Std 6 (S6)	2.5 ← 3		
9			ICV			
10			B (Std 1)			
11			D4 (Std 4)			
12			WS 378			
13			ORG - REF.			
14			BL1211	1NKC		
15			"			
16			BL1211 S			
17			"			
18			BL1211 DS			
19			"			
20			69909			
21			" ← 69909D	"		
22			69909 S			
23			"			
24			69909 DS			
25			"			
26			69905			
27			"			
28			69906 (A)			
29			"			
30			69906 (B)			
31			"			
32			69907			
33			"			
34			CCV			
35			B			
36			D4			
37			69908			
38			"			
39			69911			
40			"			

Cup	Dig. F.	Dil. F.	Zenon ID	Init. Conc.	F. Conc.	% R
41			69914			
42			"			
43			69915			
44			"			
45			BL1211	2NKC		
46			"			
47			BL1211 S			
48			"			
49			BL1211 DS			
50			"			
51			69912			
52			"			
53			69912 D			
54			"			
55			69912 S			
56			"			
57			CCV			
58			B			
59			D4			
60			69912 DS			
61			"			
62			69916			
63			"			
64			69917			
65			"			
66			BL1211	3NPO		
67			"			
68			BL1211 S			
69			"			
70			BL1211 DS			
71			"			
72	10		69909			
73			"			
74			69909 D			
75			"			
76			69909 S			
77			"			
78			69909 DS			
79			"			
80			CCV			

Comments: *** "HG-347" and "MISA12" units are expressed in mg/L not ug/L

ICV = 1.5 ug/L, CCV = 1.0 ug/L, Blank Spike = 1.0 ug/L for liquid samples.

99/12/13 10:17:45 Printed by MGAS LDCA DATA TO BE VALIDATED (METVAL') Analyzed by MGAS

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
069904	TRC-CO	MB R456	Mercury -	PV	-0.0100	-99999.0	0.1010	101.	0.1010	101.	99/12/11	3NPO	99/12/11	MG01	36.	22.	*BLKIMP*
069905	TRC-CO	APS-Site-OHM-Blank	Mercury -	PV	-0.2500						99/12/11	3NPO	99/12/11	MG01	36.	22.	
069906	TRC-CO	APS-2-OHM-Outlet-R1	Mercury -	PV	-0.2500						99/12/11	3NPO	99/12/11	MG01	36.	22.	
069907	TRC-CO	APS-2-OHM-Outlet-R2	Mercury -	PV	-0.2500						99/12/11	3NPO	99/12/11	MG01	36.	22.	
069908	TRC-CO	APS-2-OHM-Outlet-R3	Mercury -	PV	-0.2500						99/12/11	3NPO	99/12/11	MG01	36.	22.	
069909	TRC-CO	APS-3-OHM-Outlet-R1	Mercury -	PV	-0.2500	-0.2500	2.5800	103.	2.5430	101.	99/12/11	3NPO	99/12/11	MG01	39.	22.	
069910	TRC-CO	APS-3-OHM-Outlet-R3	Mercury -	PV	-0.2500						99/12/11	3NPO	99/12/11	MG01	38.	22.	
069911	TRC-CO	APS-3-OHM-Outlet-R4	Mercury -	PV	-0.2500						99/12/11	3NPO	99/12/11	MG01	38.	22.	
069913	TRC-CO	APS-2-OHM-Inlet-R2	Mercury -	PV	-0.2500						99/12/11	3NPO	99/12/11	MG01	36.	22.	
069914	TRC-CO	APS-2-OHM-Inlet-R3	Mercury -	PV	1.2310						99/12/11	3NPO	99/12/11	MG01	36.	22.	
069915	TRC-CO	APS-3-OHM-Inlet-R1	Mercury -	PV	-0.2500						99/12/11	3NPO	99/12/11	MG01	39.	22.	
BL1211	INTERNAL		Mercury -	PV	-0.0100	-99999.0	0.1010	101.	0.1010	101.	99/12/11	3NPO	99/12/11	MG01	$$$	$$$	*BLKIMP*
069912	TRC-CO	APS-2-OHM-Inlet-R1	Mercury -	PV	0.4320	0.4370	3.0700	105.	3.0140	103.	99/12/11	4NPO	99/12/11	MG01	37.	22.	
069916	TRC-CO	APS-3-OHM-Inlet-R3	Mercury -	PV	-0.2500						99/12/11	4NPO	99/12/11	MG01	38.	22.	
069917	TRC-CO	APS-3-OHM-Inlet-R4	Mercury -	PV	-0.2500						99/12/11	4NPO	99/12/11	MG01	38.	22.	
BL1211	INTERNAL		Mercury -	PV	-0.0100	-99999.0	0.0990	99.	0.1000	100.	99/12/11	4NPO	99/12/11	MG01	$$$	$$$	*BLKIMP*

16 Tests for OHPOX with an MDL of 0.010 ug Validated By CMA Control Chart Updated N/A IO Requirements met N/A

00032

99/12/13 10:17:26 Printed by MGAS LDCA DATA TO BE VALIDATED (METVAL') Analyzed by MGAS

Zenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
069904	TRC-CO	MB R456	Mercury -	PV	-0.030	-99999.0	0.294	97.	0.301	101.	99/12/11	1NKC	99/12/11	MG01	36.	22.	
069905	TRC-CO	APS-Site-OHM-Blank	Mercury -	PV	-0.033						99/12/11	1NKC	99/12/11	MG01	36.	22.	
069906	TRC-CO	APS-2-OHM-Outlet-R1	Mercury -	PV	0.362						99/12/11	1NKC	99/12/11	MG01	36.	22.	
069907	TRC-CO	APS-2-OHM-Outlet-R2	Mercury -	PV	0.258						99/12/11	1NKC	99/12/11	MG01	36.	22.	
069908	TRC-CO	APS-2-OHM-Outlet-R3	Mercury -	PV	0.249						99/12/11	1NKC	99/12/11	MG01	36.	22.	
069909	TRC-CO	APS-3-OHM-Outlet-R1	Mercury -	PV	0.794	0.803	1.808	101.	1.810	101.	99/12/11	1NKC	99/12/11	MG01	39.	22.	
069910	TRC-CO	APS-3-OHM-Outlet-R3	Mercury -	PV	-99999.0						99/12/11	1NKC	99/12/11	MG01	38.	22.	*BOTTLE NOT REC'D*
069911	TRC-CO	APS-3-OHM-Outlet-R4	Mercury -	PV	0.607						99/12/11	1NKC	99/12/11	MG01	38.	22.	
069913	TRC-CO	APS-2-OHM-Inlet-R2	Mercury -	PV	-99999.0						99/12/11	1NKC	99/12/11	MG01	36.	22.	*BOTTLE NOT REC'D*
069914	TRC-CO	APS-2-OHM-Inlet-R3	Mercury -	PV	1.919						99/12/11	1NKC	99/12/11	MG01	36.	22.	
069915	TRC-CO	APS-3-OHM-Inlet-R1	Mercury -	PV	-0.100						99/12/11	1NKC	99/12/11	MG01	39.	22.	
BL1211	INTERNAL		Mercury -	PV	-0.030	-99999.0	0.294	97.	0.301	101.	99/12/11	1NKC	99/12/11	MG01	$$$	$$$	
069912	TRC-CO	APS-2-OHM-Inlet-R1	Mercury -	PV	0.954	0.955	1.954	100.	1.943	99.	99/12/11	2NKC	99/12/11	MG01	37.	22.	
069916	TRC-CO	APS-3-OHM-Inlet-R3	Mercury -	PV	0.393						99/12/11	2NKC	99/12/11	MG01	38.	22.	
069917	TRC-CO	APS-3-OHM-Inlet-R4	Mercury -	PV	0.526						99/12/11	2NKC	99/12/11	MG01	38.	22.	
BL1211	INTERNAL		Mercury -	PV	-0.030	-99999.0	0.296	99.	0.296	99.	99/12/11	2NKC	99/12/11	MG01	$$$	$$$	

16 Tests for OHKCL with an MDL of 0.030 ug Validated By CMB Control Chart Updated N/A IO Requirements met N/A

00031

188	69912	1	1	2.9	0.585	0.312	
189	69912D	1	1	2.9	0.575	0.310	
190	69912D	1	1	2.7		0.293	
191	CCV	1	1	8.8		0.977	97%
192	B	1	1	0.0		-0.013	b
193	D4	1	1	13.9		1.545	d
194	69912S	1	1	12.0	2.440	1.329	97%
195	69912S	1	1	11.2		1.239	
196	69912DS	1	1	11.2	2.364	1.236	93%
197	69912DS	1	1	11.3		1.253	
198	69915	1	1	1.7	0.085	0.173	
199	69915	1	1	1.6		0.168	
200	69916	1	1	11.5	0.621	1.275	
201	69916	1	1	10.9		1.209	
202	69917	1	1	10.1	0.549	1.116	
203	69917	1	1	9.8		1.081	
204	CCV	1	1	9.4		1.042	104%
205	B	1	1	0.0		-0.013	b
206	D4	1	1	13.9		1.545	d

INTERCEPT: 0.12 LINEAR COEF: 8.933543

CORRELATION COEF: .999613

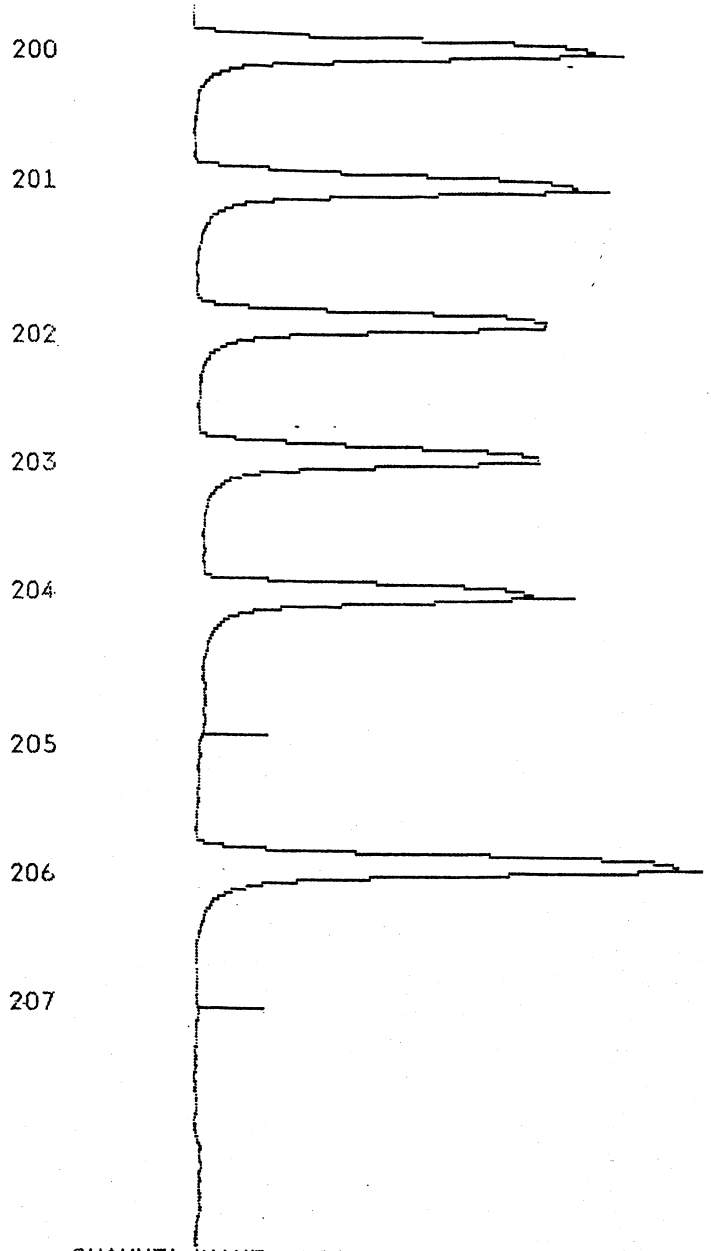
00028

121	66556D	1	1	8.5		0.944	s	
122	66556S	1	1	8.2		0.906		NOT SPIKED; RERUN
123	66556S	1	1	8.2		0.908		
124	CCV	1	1	9.0		0.990		99%
125	B	1	1	0.0		-0.013	b	
126	D4	1	1	13.9		1.545	d	
127	66556DS	1	1	8.3		0.911		NOT SPIKED; RERUN
128	66556DS	1	1	8.1		0.889		
129	66553	1	1	0.0	<0.01	-0.013	I	
130	66553	1	1	0.0		-0.013	I	
131	66554	1	1	0.2	<0.01	0.014	I	
132	66554	1	1	0.3		0.017	I	
133	66555	1	1	2.6	0.029	0.280		
134	66555	1	1	2.7		0.291		
135	66557	1	1	14.0	0.156	1.551		
136	66557	1	1	14.2		1.575	s	
137	66558	1	1	7.7	0.086	0.851		
138	66558	1	1	7.9		0.870		
139	66554-THIMBL	1	1	1.6	0.017	0.165		
140	66554-THIMBL	1	1	1.7		0.173		
141	66554-PROBE	1	1	0.0		-0.010	I	
142	66554-PROBE	1	1	0.1		-0.005	I	
143	BL1217-2NFT	1	1	0.0	<0.01	-0.007	I	
144	BL1217-2NFT	1	1	0.0		-0.007	I	
145	BL1217S 69904	1	1	9.4	0.105	1.040		105%
146	BL1217S	1	1	9.5		1.053		
147	CCV	1	1	8.8		0.977		97%
148	B	1	1	0.0		-0.013	b	
149	D4	1	1	13.9		1.545	d	
150	BL1217DS	1	1	9.4	0.101	1.042		101%
151	BL1217DS	1	1	8.9		0.985	s	
152	69909	1	1	2.5	0.027	0.269		
153	69909	1	1	2.6		0.274		
154	69909D	1	1	2.4	0.026	0.258		
155	69909D	1	1	2.5		0.269		
156	69909S	1	1	11.6	0.127	1.288		101%
157	69909S	1	1	11.4		1.258		
158	69909DS	1	1	11.0	0.123	1.223		96%
159	69909DS	1	1	11.1		1.231		
160	69904	1	1	0.0	<0.01	-0.013	I	
161	69904	1	1	0.0		-0.010	I	
162	69905	1	1	17.0	0.189	1.895		
163	69905	1	1	16.9		1.876		
164	69906	2	1	12.3	0.272	2.724		
165	69906	2	1	12.2		2.713		
166	69907	2	1	14.8	0.331	3.298	s	
167	69907	2	1	14.9		3.315		
168	69908	1	1	17.2	0.188	1.909		
169	69908	1	1	16.6		1.849		
170	CCV	1	1	8.8		0.974		97%
171	B	1	1	0.0		-0.013	b	
172	D4	1	1	13.9		1.545	d	
173	69910	1	1	1.7	0.020	0.181		
174	69910	1	1	2.0		0.211		
175	69911	1	1	2.2	0.024	0.233		
176	69911	1	1	2.3		0.244		
177	69913	1	1	6.5	1.651	0.714		
178	69913	1	1	6.6		0.722		
179	69914	1	1	3.0	0.612	0.326		
180	69914	1	1	3.0		0.318		
181	BL1217-3NFT	1	1	0.0	<0.01	-0.013	s	
182	BL1217-3NFT	1	1	0.0		-0.013	I	
183	BL1217S	1	1	9.3	0.101	1.023		101%
184	BL1217S	1	1	9.2		1.015		
185	BL1217DS	1	1	9.2		1.020		

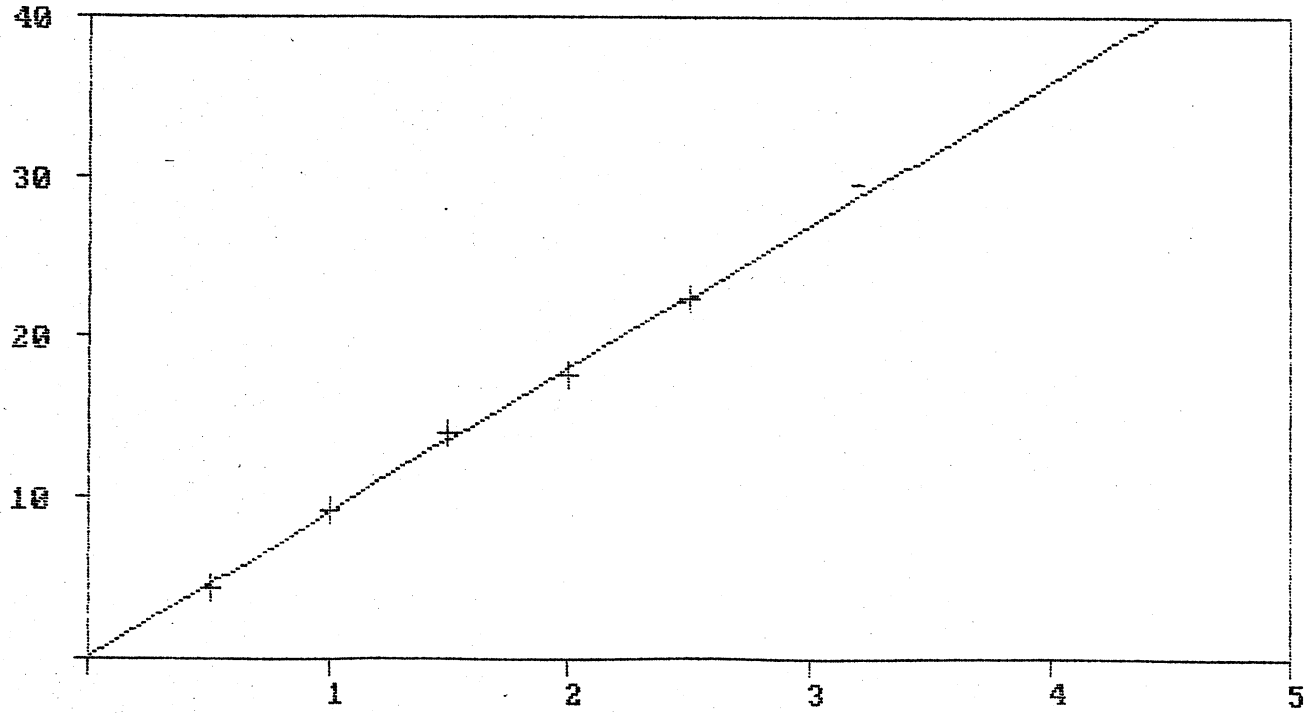
CORRELATION: .999613

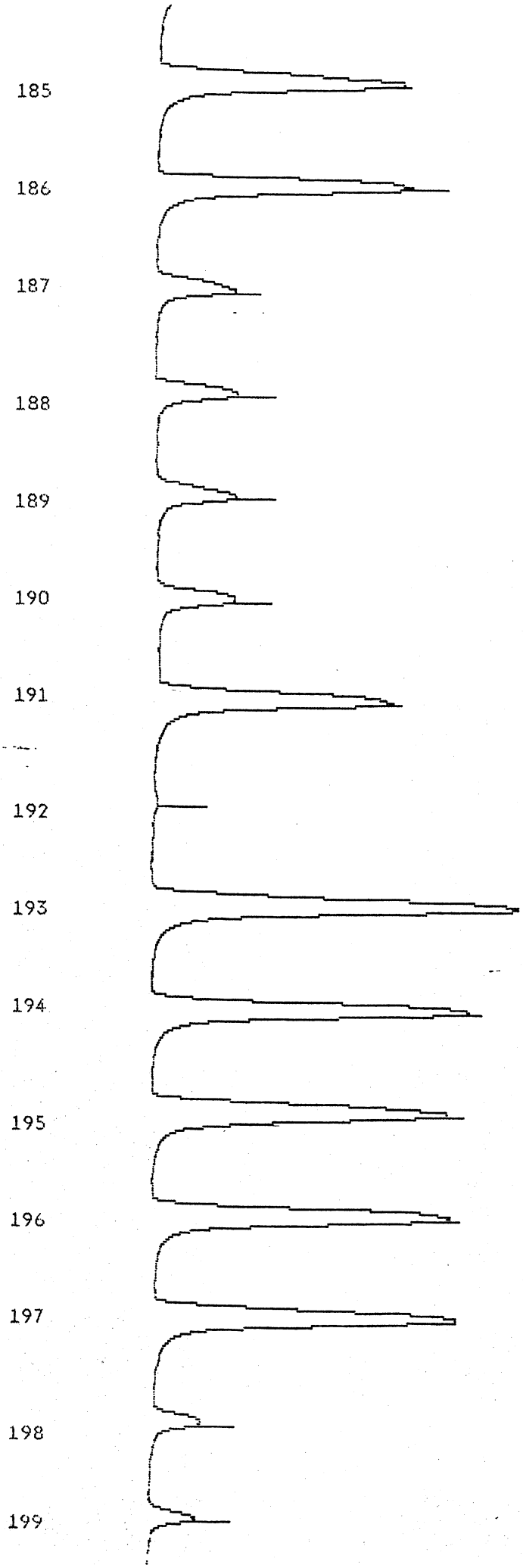
CHANNEL NAME: LDC
RUN DATE: 12-17-1999
SAMPLE TABLE NAME: 991217W
METHOD NAME: HG-W-20

CUP#	SAMPLE ID	DIL	WGT	HEIGHT/AREA		CONCENTRATION (ppb)		EF
1	PRIMER	1	1	12.5		1.389		s
2	DUMMY	1	1	0.1		-0.005		I
3	S1: 0	1	1	0.0		-0.007		I
4	S2: .5	1	1	4.5		0.490		
5	S3: 1	1	1	9.1		1.007		
6	S4: 1.5	1	1	13.9		1.545		
7	S5: 2	1	1	17.7		1.966		
8	S6: 2.5	1	1	22.4		2.499		
9	ICV	1	1	12.9		1.433	96%	
10	B	1	1	0.0	TLG	-0.013		b
11	D4	1	1	13.9		1.545		d
12	BL1217-4NFB 65763,65781	1	1	0.0	<0.01	-0.013		I
13	BL1217-4NFB	1	1	0.0		-0.013		I
14	BL1217S	1	1	8.9	0.099	0.982	99%	
15	BL1217S	1	1	9.0		0.996		
16	BL1217DS	1	1	9.3	0.101	1.031	101%	
17	BL1217DS	1	1	9.1		1.001		
18	65767	1	1	0.2	<0.07	0.012		I
19	65767	1	1	0.2		0.012		I
20	65767D	1	1	0.3	<0.07	0.017		I
21	65767D	1	1	0.2		0.012		I
22	65767S	1	1	9.2	0.701	1.015	99%	
23	65767S	1	1	8.9		0.988		
24	65767DS	1	1	9.1	0.689	1.001	97%	
25	65767DS	1	1	8.8		0.968		
26	65763	1	1	0.0	<0.01	-0.010		I
27	65763	1	1	0.0		-0.013		I
28	65764	1	1	0.3	<0.07	0.017		I
29	65764	1	1	0.3		0.017		I
30	65765	1	1	0.3	<0.07	0.020		I
31	65765	1	1	0.3		0.023		s
32	CCV	1	1	9.0		0.996	100%	
33	B	1	1	0.0		-0.013		b
34	D4	1	1	13.9		1.545		d
35	65766	1	1	0.4	<0.07	0.028		I
36	65766	1	1	0.5		0.039		I
37	65768	1	1	1.4	0.115	0.140		
38	65768	1	1	1.4		0.148		
39	65769	1	1	1.9	0.164	0.200		
40	65769	1	1	2.0		0.211		
41	65770	1	1	0.2	<0.07	0.009		I
42	65770	1	1	0.2		0.012		I
43	65772	1	1	0.2	<0.07	0.012		I
44	65772	1	1	0.2		0.012		I
45	BL1217-5NFB 65781	1	1	0.0	<0.01	-0.013		I
46	BL1217-5NFB	1	1	0.0		-0.010		s
47	BL1217S	1	1	9.4	0.106	1.042	106%	
48	BL1217S	1	1	9.7		1.075		
49	BL1217DS	1	1	9.2	0.099	1.012	99%	
50	BL1217DS	1	1	8.8		0.974		
51	65771	1	1	0.2	<0.07	0.012		I
52	65771	1	1	0.3		0.017		I
53	65771D	1	1	0.2	<0.07	0.012		I



CHANNEL NAME: LDC
RUN NAME: 991217W

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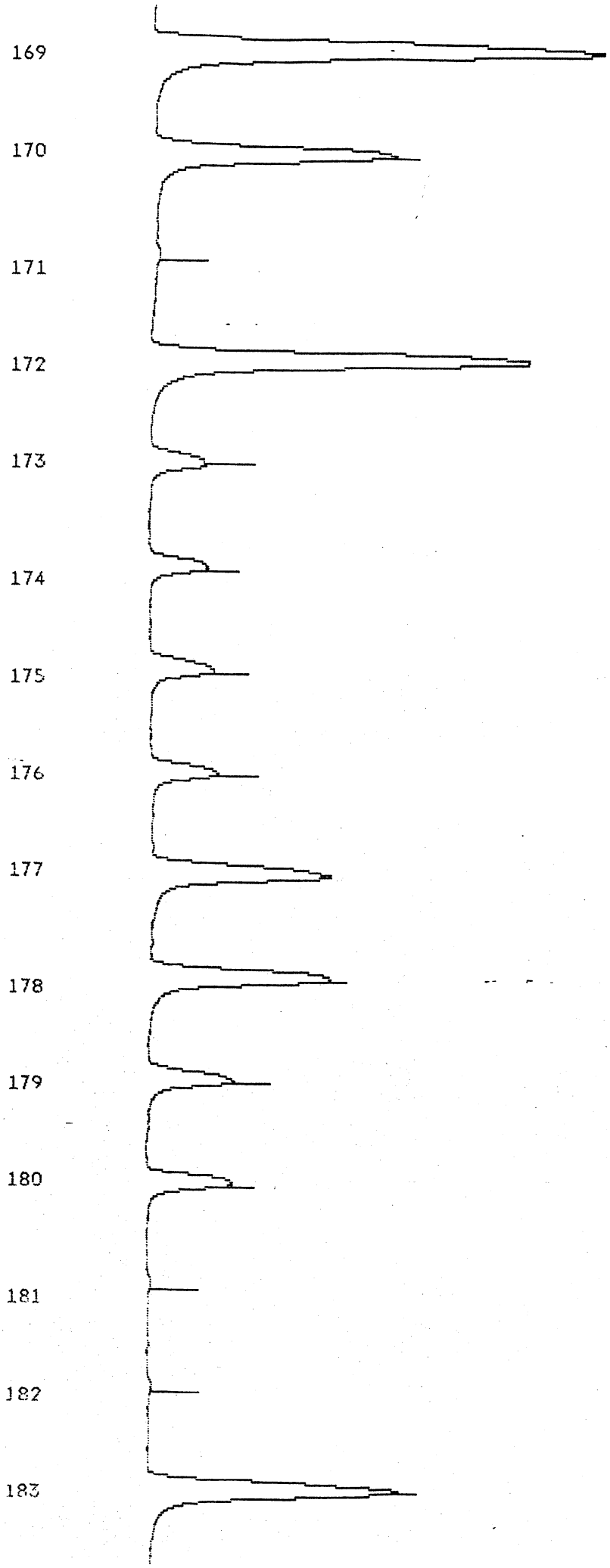
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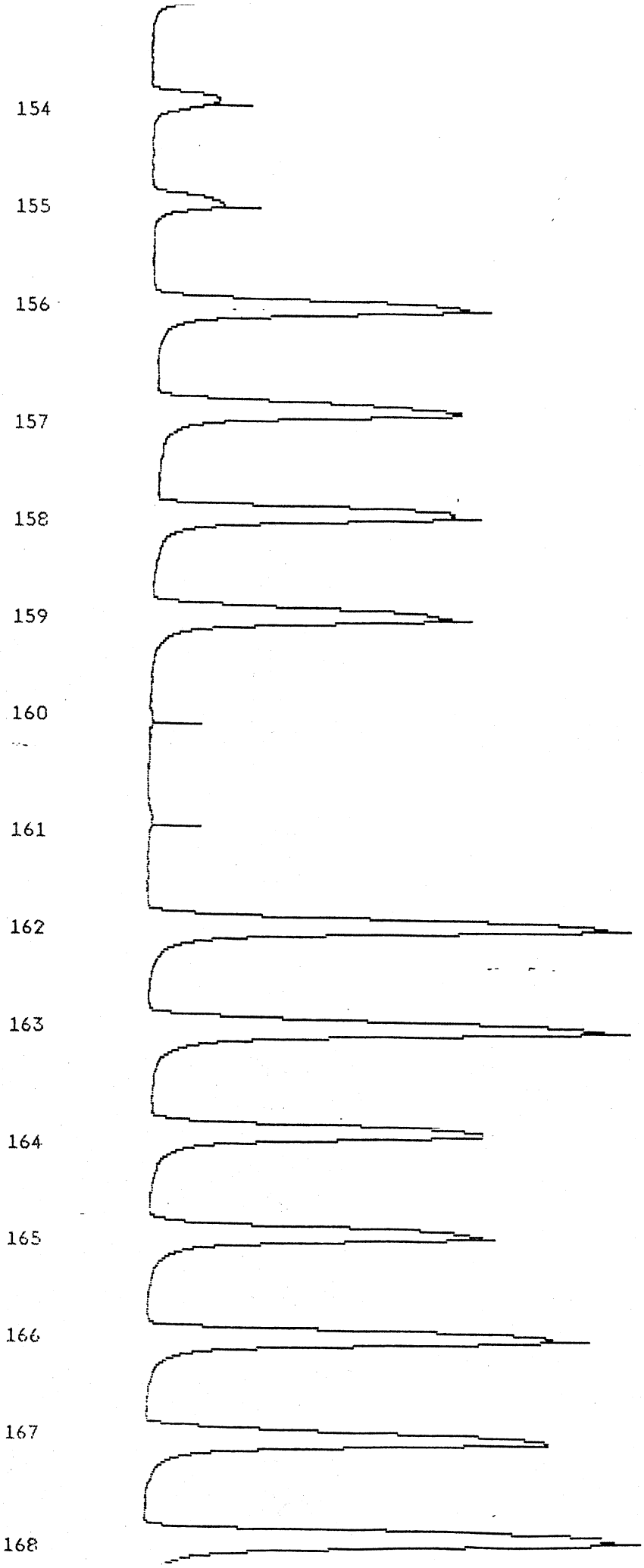
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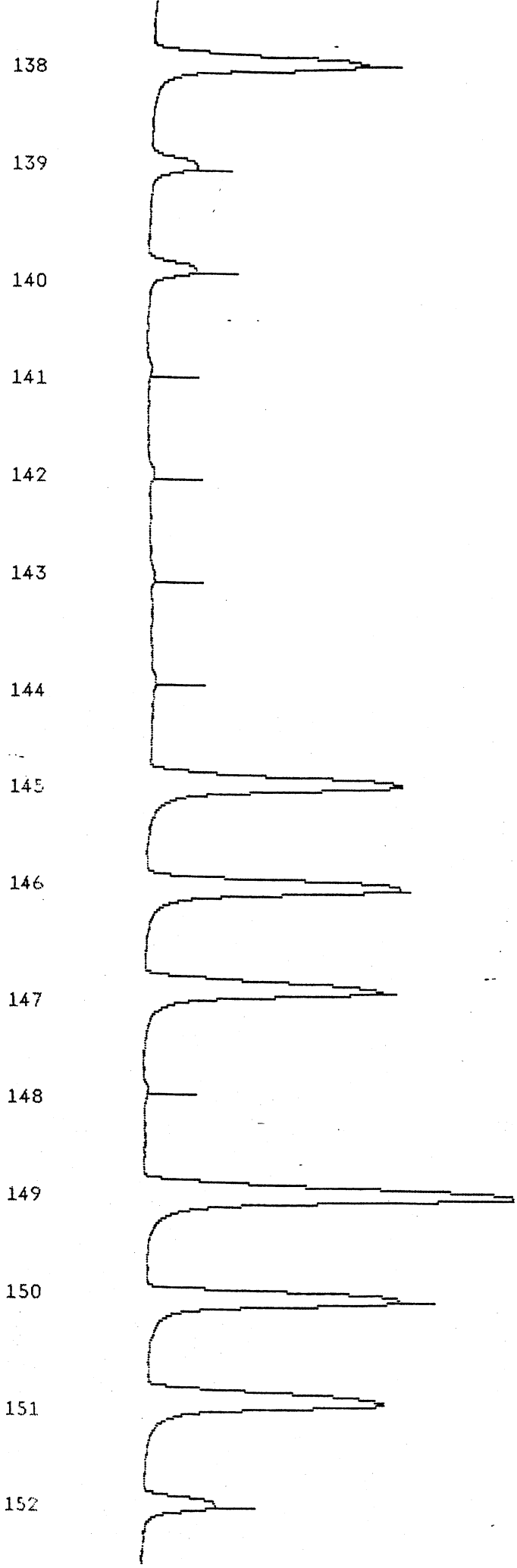
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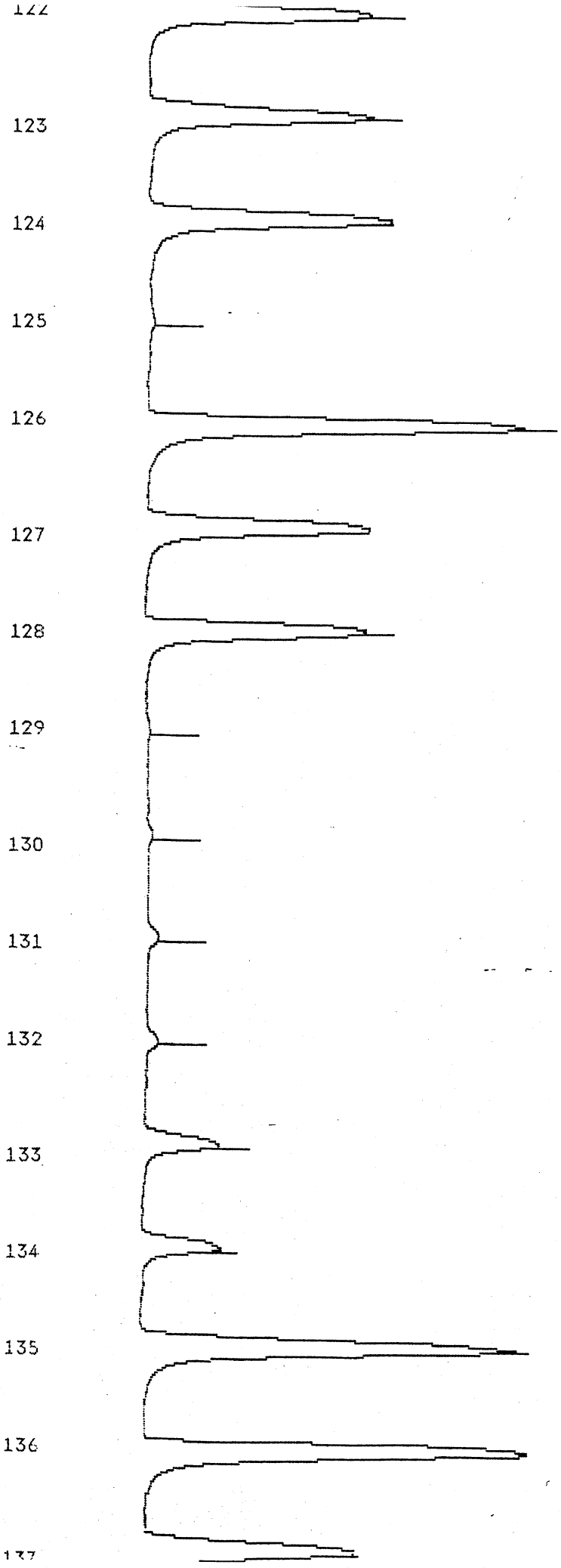
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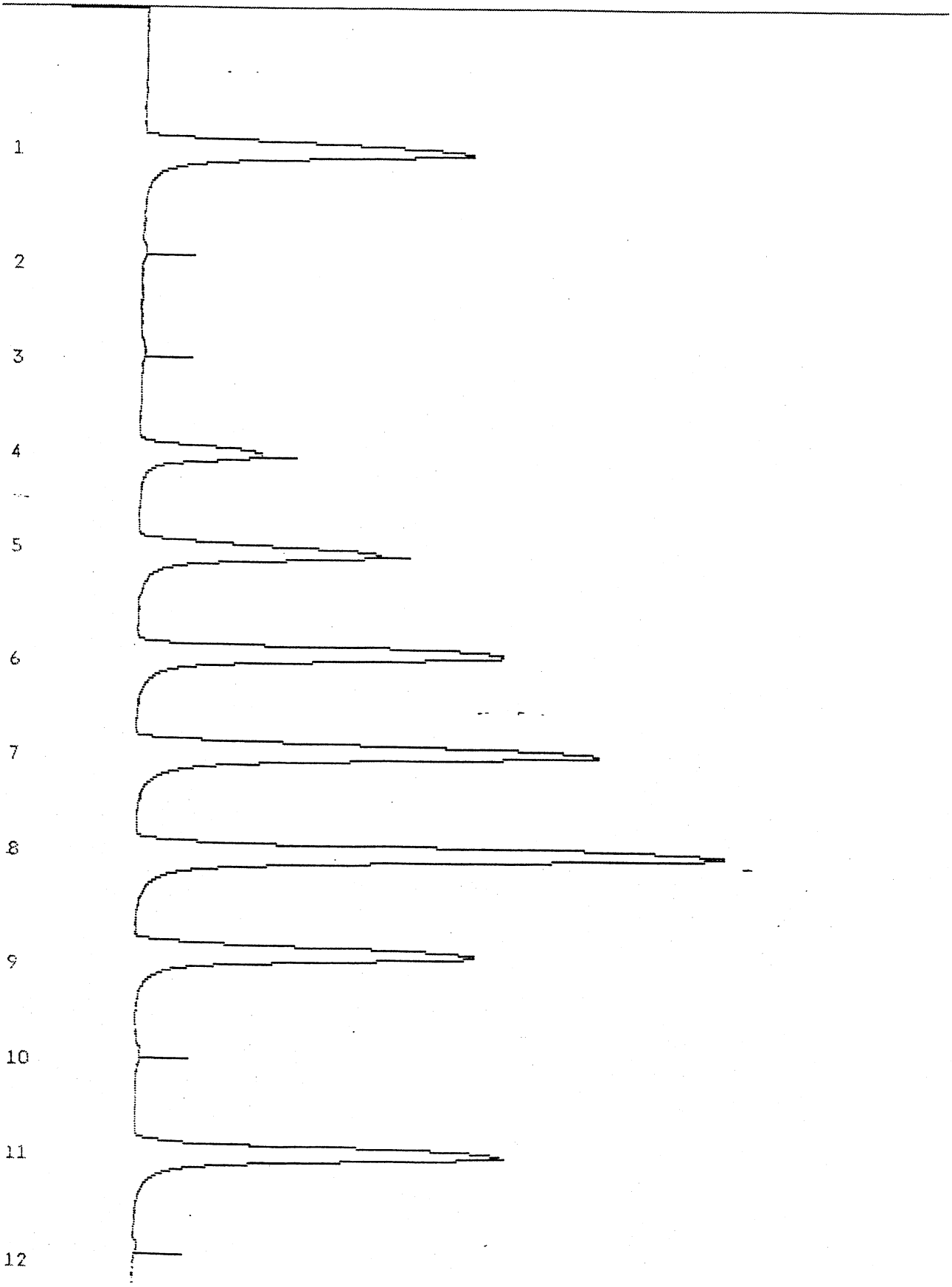
RUN DATE: 12-17-1999
CHART SPEED: 30
DATA FILE NAME: C:\DP4\DATA\991217W.DAT

CHART DATE: 12-18-1999



EPA 7470 WATER PREPARATION LOG - MERCURY

00020 DG7470HG
DGHGLEACH, DG29HG***

Calibration Solutions:

#	I.D.	*Conc.	Spike	**Conc. Entered
1	Blank/Dummy	0 ppb	None	0.0
2	Standard 1	0 ppb	None	0.0
3	Standard 2	0.33	200 ul of 0.05 ppm IV working standard	0.5
4	Standard 3	0.67	400 ul of 0.05 ppm IV working standard	1.0
5	Standard 4	1.0	600 ul of 0.05 ppm IV working standard	1.5
6	Standard 4	1.0	600 ul of 0.05 ppm IV working standard	1.5
7	Standard 5	1.33	800 ul of 0.05 ppm IV working standard	2.0
7	Standard 6	1.67	1000 ul of 0.05 ppm IV working standard	2.5

Check List

- ✓ Digest Code/labels
- ✓ ~~Samples poured out~~ FILTER & RINSE CONE
- ✓ Acids added 7ml HF + 5ml AQUA
- ~~Reagents added~~
- ~~Samples spiked~~
- ~~Bath at 95 degrees C~~ 8HRS IN 85°C SYT
- ✓ Samples digested
- ~~Hydroxylamine HCl added.~~
- ✓ Samples bulked and mixed
- ~~Rack order checked~~

	#	Sample I.D.	B.Code	Init.Vol.	F. Vol.	Dil	Comment
	9	ICV (Init. Calib. Verif.)	INFT	20 ml	30 ml	1 X	1.5 ppb = 600 ul. of 0.05 ppm HP MESS-ZENO 30/QCA Std.
	10	BL 1217	"	"	"	"	(Processed Blank)
	11	BL 1217 S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	12	66554	"	"	"	"	100
1	13	D	"	"	"	"	(Duplicate sample)
1	14	S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	15	DS	"	"	"	"	(Duplicate Spiked sample)
2	16	66553	"	"	"	"	100
3	17	54	"	"	"	"	100
4	18	55	"	"	"	"	100 RINSE ALONE FILTER LOST
5	19	57	"	"	"	"	100
6	20	58	"	"	"	"	100
7	21	66654	"	"	"	"	THIMBLE
8	22	66554	"	"	"	"	PROBE
9	23		"	"	"	"	
10	24		"	"	"	"	
	25	CCV (Cont. Calib. Verif.)	INFT	20 ml	30 ml	1 X	1.0 ppb = 400 ul. of 0.05 ppm HP MESS-ZENO 30/QCA Std.
	26	BL 1217	"	"	"	"	(Processed Blank)
	27	BL 1217 S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	28	69909	"	"	"	"	100
1	29	D	"	"	"	"	(Duplicate sample)
1	30	S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	31	DS	"	"	"	"	(Duplicate Spiked sample)
2	32	69904	"	"	"	"	
3	33	05	"	"	"	"	
4	34	07	"	"	"	"	
5	35	08	"	"	"	"	
6	36	06	"	"	"	"	
7	37	10	"	"	"	"	
8	38	11	"	"	"	"	
9	39	12	"	"	"	"	2300
10	40	13	"	"	"	"	1900

Notes: Other Applicable Test Codes: DG29HG-1B, DG29HG-2B, DG29HG-3A, DG29HG-3B, DG29HG-3C
DG29HGI, DG29HGF, DG101AA1, DG101AA2

Include External Reference Material (EPA WS 378 or SPEX CertiPrep TM - WS) per run

Prepare 0.05 ppm standards daily

~~HNO3 Lot. No.~~ HF LOT 519070 | ~~H2SO4 Lot. No.~~ | Bath Temps. / / °C

Prepared By: [illegible] Date: 991217 Checked by: [illegible]

	#	Sample I.D.	B.Code	Init.Vol.	F. Vol.	Dil	Comment
	41	CCV (Cont. Calib. Verif.)	PNJFT	20 ml	30 ml	1 X	1.0 ppb = 400 ul. of 0.05 ppm HP MESS-ZENO 30/QCA Std.
	42	BL 1217	"	"	"	"	(Processed Blank)
	43	BL 1217 S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	44	67912	"	"	"	"	1900
1	45	D	"	"	"	"	(Duplicate sample)
1	46	S	"	"	"	"	1 ppb = 400 ul. of 0.05 ppm Inorganic Ventures Std Interm.
1	47	DS	"	"	"	"	(Duplicate Spiked sample)
2	48	15	"	"	"	"	500
3	49	16	"	"	"	"	500
4	50	17	"	"	"	"	500
5	51		"	"	"	"	
6	52		"	"	"	"	
7	53		"	"	"	"	
8	54		"	"	"	"	
9	55		"	"	"	"	
10	56		"	"	"	"	

Comments

* concentration based on 30 ml final volume, ** concentration based on 20 ml final volume

*** group of several Method 29 testcodes

Dilution factor of 1.5 is corrected by entering the calibration concentrations listed above

Procedure/Methodology:

1 Prepare 25 ppm Intermediate stock (if required) by pipetting 625 ul., of 1000 ppm Stock to 25 ml final volume of 2% HNO3
2 Prepare 0.05 ppm Working stock daily by pipetting 200 ul., of 25 ppm Stock to 100 ml final volume of 2% HNO3
3 Using the LIMS Screen "SCNDIG" enter the required samples into LIMS
4 Using the labeling program, "DIGLBL", retreive the "SCNDIG" list and create labels for the required samples.
5 Label the falcon tubes appropriately
6 Transfer a 20 ml. aliquot of well mixed sample into the designated falcon tube
7 Spike the tubes as indicated in the comment sector of the digestion sheet
8 Add 0.5 ml. of conc. Nitric Acid (HNO3), and 1 ml. of conc. Sulphuric acid, (H2SO4), to each tube
9 Add 3 ml. Potassium Permanganate (KMnO4), colour should remain for at least 15 minutes
10 Add 1.5 ml. of Potassium persulphate, (K2S2O8), to each tube
11 Mix samples, cap loosely and place in a water bath @ 95 degrees C for 2 hours
12 Remove tubes and allow to cool to room temperature
13 Add 1.0 ml. 20% Hydroxylamine Hydrochloride to each tube
14 Recap tubes and shake until the Potassium Permanganate (KMnO4) is destroyed and sample becomes colourless
15 Dilute the sample to a final volume of 30 ml., cap and mix well

REFERENCE STANDARDS/SPIKING SOLUTIONS:
Source: Inorganic Ventures Standard, see standard tracking binder for current lot and expiry date information

ICV/CCV STANDARDS:
Source: High Purity MESS-ZENO 30/QCA Standard, see standard tracking binder for current lot

INTERNAL REFERENCE STANDARD: (2 ppb in 10% HNO3)
Source: EPA WS 378 or SPEX CertiPrep Trace Metal - Water Supply, see standard tracking binder for current source, lot and expiry date information.

All reagents used are of a grade suitable for mercury analyses

4/

LDC AUTOSAMPLER RUN LOG (MERCURY)

Date: 99/12/17 Run Code: MG02 Matrix: IMP

Analyst: MG Units: µg (see comments) MDL: 0.01

Cup	Dig. F.	Dil. F.	Zenon ID	Init. Conc.	F. Conc.	% R
1			Primer (ICV)			
2			Dummy (Blk)			
3			Std 1 (S1)	0.0		
4			Std 2 (S2)	0.5		
5			Std 3 (S3)	1.0		
6			Std 4 (S4)	1.5		
7			Std 5 (S5)	2.0		
8			Std 6 (S6)	2.5		
9			ICV			
10			B (Std 1)			
11			D4 (Std 4)			
12						
13						
14						
15						
16						
17						
18						
19						
20						
21			69915			
22			69916			
23			"			
24			69917			
25			"			
26			CCV			
27			B			
28			D4			
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						

Cup	Dig. F.	Dil. F.	Zenon ID	Init. Conc.	F. Conc.	% R
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						
51						
52						
53						
54						
55						
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78						
79						
80						

Comments: *** "HG-347" and "MISA12" units are expressed in mg/L not ug/L

ICV = 1.5 ug/L, CCV = 1.0 ug/L, Blank Spike = 1.0 ug/L for liquid samples.

[illegible] Blank Spike = 1.0 mg/kg for solid samples.

LDC AUTOSAMPLER RUN LOG (MERCURY)

Date: 99.12.17 Run Code: MG02 Matrix: IHP

Analyst: MG Units: µg (see comments) MDL: 0.01

Cup	Dig. F.	Dil. F.	Zenon ID	Init. Conc.	F. Conc.	% R
1			Primer (ICV)			
2			Dummy (Blk)			
3			Std 1 (S1)	0.0		
4			Std 2 (S2)	0.5		
5			Std 3 (S3)	1.0		
6			Std 4 (S4)	1.5		
7			Std 5 (S5)	2.0		
8			Std 6 (S6)	2.5		
9			ICV			
10			B (Std 1)			
11			D4 (Std 4)			
12						
13						
14						
15						
16						
17						
18						
19						
NB 20						
4/ ~~21~~			66554	PROBE		
22			"	"		
23			BL1217	2NFT		
24			"			
25			BL1217 S			
26			"			
27			CCV			
28			B			
29			D4			
30			BL1217 DS			
31			"			
32			69909			
33			"			
34			69909 D			
35			"			
36			69909 S			
37			"			
38			69909 DS			
39			"			
40			69904			
41			69904			
42			69905			
43			"			
44		1/2	69906			
45		↓	"			
46		1/2	69907			
47		↓	"			
48			69908			
49			"			
50			CCV			
51			B			
52			D4			
53			69910			
54			"			
55			69911			
56			"			
57			~~69912~~ NB			
58			~~"~~ NB			
59			69913			
60			"			
61			69914			
62			"			
63			BL1217	3NFT		
64			"			
65			BL1217 S			
66			"			
67			BL1217 DS			
68			"			
69			69912			
70			"			
71			69912 D			
72			"			
73			CCV			
74			B			
75			D4			
76			69912 S			
77			"			
78			69912 DS			
79			"			
80			69915			

Comments: *** "HG-347" and "MISA12" units are expressed in mg/L not ug/L

ICV = 1.5 ug/L, CCV = 1.0 ug/L, Blank Spike = 1.0 ug/L for liquid samples.

[illegible] = 1.0 mg/kg for solid samples.

2/

LDC AUTOSAMPLER RUN LOG (MERCURY)

Date: 99.12.17 Run Code: M602 Matrix: IMP

Analyst: MG Units: µg (see comments) MDL: 0.01

Cup	Dig. F.	Dil. F.	Zenon ID	Init. Conc.	F. Conc.	% R
1			Primer (ICV)			
2			Dummy (Blk)			
3			Std 1 (S1)	0.0		
4			Std 2 (S2)	0.5		
5			Std 3 (S3)	1.0		
6			Std 4 (S4)	1.5		
7			Std 5 (S5)	2.0		
8			Std 6 (S6)	2.5		
9			ICV			
10			B (Std 1)			
11			D4 (Std 4)			
12						
13						
14						
15						
16						
17						
18						
19						
20						
21			65788			
22			"			
23			65789			
24			"			
25			65790			
26			"			
27			BL1217	6NFB		
28			"			
29			BL1217 S			
30			"			
31			BL1217 DS			
32			"			
33			66560			
34			"			
35			66560 D			
36			"			
37			66560 S			
38			"			
39			66560 DS			
40			"			

Cup	Dig. F.	Dil. F.	Zenon ID	Init. Conc.	F. Conc.	% R
41			CCV			
42			B			
43			D4			
44			66559			
45			"			
46			66561			
47			"			
48			66562			
49			"			
50			64892			
51			"			
52			BL1217	INFT		
53			"			
54			BL1217 S			
55			"			
56			BL1217 DS			
57			"			
58			66556			
59			"			
60			66556 D			
61			"			
62			66556 S			
63			"			
64			CCV			
65			B			
66			D4			
67			66556 DS			
68			"			
69			66553			
70			"			
71			66554			
72			"			
73			66555			
74			"			
75			66557			
76			"			
77			66558			
78			"			
79			66554	THIMBLE		
80			"	"		

Comments: *** "HG-347" and "MISA12" units are expressed in mg/L not ug/L

ICV = 1.5 ug/L, CCV = 1.0 ug/L, Blank Spike = 1.0 ug/L for liquid samples.

[illegible] mg/kg, Blank Spike = 1.0 mg/kg for solid samples.

1

LDC AUTOSAMPLER RUN LOG (MERCURY)

Date: 99.12.17 Run Code: MGD2 Matrix: IMP

Analyst: MG Units: µg (see comments) MDL: 0.01

Cup	Dig. F.	Dil. F.	Zenon ID	Init. Conc.	F. Conc.	% R
1			Primer (ICV)			
2			Dummy (Blk)			
3			Std 1 (S1)	0.0		
4			Std 2 (S2)	0.5		
5			Std 3 (S3)	1.0		
6			Std 4 (S4)	1.5		
7			Std 5 (S5)	2.0		
8			Std 6 (S6)	2.5		
9			ICV			
10			B (Std 1)			
11			D4 (Std 4)			
12			BL1217	4NFB.		
13			"			
14			BL1217 S			
15			"			
16			BL1217 DS			
17			"			
18			65767			
19			"			
20			65767 D			
21			"			
22			65767 S			
23			"			
24			65767 DS			
25			"			
26			65763			
27			"			
28			65764			
29			"			
30			65765			
31			"			
32			CCV			
33			B			
34			D4			
35			65766			
36			"			
37			65768			
38			"			
39			65769			
40			"			

Cup	Dig. F.	Dil. F.	Zenon ID	Init. Conc.	F. Conc.	% R
41			65770			
42			"			
43			65772			
44			"			
45			BL1217	5NFB		
46			"			
47			BL1217 S			
48			"			
49			BL1217 DS			
50			"			
51			65771			
52			"			
53			65771 D			
54			"			
55			CCV			
56			B			
57			D4			
58			65771 S			
59			"			
60			65771 DS			
61			"			
62			65773			
63			"			
64			65781			
65			"			
66			65782			
67			"			
68			65783			
69			"			
70			65784			
71			"			
72			65785			
73			"			
74			65786			
75			"			
76			65787			
77			"			
78			CCV			
79			B			
80			D4			

Comments: *** "HG-347" and "MISA12" units are expressed in mg/L not ug/L

ICV = 1.5 ug/L, CCV = 1.0 ug/L, Blank Spike = 1.0 ug/L for liquid samples.

Lenon Number	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
169912	TRC-CO	APS-2-OHM-Inlet-R1	Mercury -	PV	0.585	0.573	2.440	97.	2.364	93.	99/12/17	3NFT	99/12/17	MG02	43.	28.	
169915	TRC-CO	APS-3-OHM-Inlet-R1	Mercury -	PV	0.085						99/12/17	3NFT	99/12/17	MG02	45.	28.	
169916	TRC-CO	APS-3-OHM-Inlet-R3	Mercury -	PV	0.621						99/12/17	3NFT	99/12/17	MG02	44.	28.	
169917	TRC-CO	APS-3-OHM-Inlet-R4	Mercury -	PV	0.549						99/12/17	3NFT	99/12/17	MG02	44.	28.	
L1217	INTERNAL		Mercury -	PV	-0.010	-99999.0	0.101	101.	0.103	103.	99/12/17	3NFT	99/12/17	MG02	$$$	$$$	*BLKIMP*

5 Tests for OHFLT with an MDL of 0.010 ug Validated By cmb Control Chart Updated N/A IO Requirements met N/A

00014

non mber	Client	Client ID	Parameter	TS	Result	Dup.	Spike	% Rec.	Dup. Spk	% Rec.	Batch Date	Batch Code	Run Date	Run Code	Day Old	Day In	Analyst's Comments
9904	TRC-CO	MB R456	Mercury -	PV	-0.010	-99999.0	0.105	105.	0.101	101.	99/12/17	2NFT	99/12/17	MG02	42.	28.	*BLKIMP*
9905	TRC-CO	APS-Site-OHM-Blank	Mercury -	PV	0.189						99/12/17	2NFT	99/12/17	MG02	42.	28.	
9906	TRC-CO	APS-2-OHM-Outlet-R1	Mercury -	PV	0.272						99/12/17	2NFT	99/12/17	MG02	42.	28.	
9907	TRC-CO	APS-2-OHM-Outlet-R2	Mercury -	PV	0.331						99/12/17	2NFT	99/12/17	MG02	42.	28.	
9908	TRC-CO	APS-2-OHM-Outlet-R3	Mercury -	PV	0.188						99/12/17	2NFT	99/12/17	MG02	42.	28.	
9909	TRC-CO	APS-3-OHM-Outlet-R1	Mercury -	PV	0.027	0.026	0.127	101.	0.123	96.	99/12/17	2NFT	99/12/17	MG02	45.	28.	
9910	TRC-CO	APS-3-OHM-Outlet-R3	Mercury -	PV	0.020						99/12/17	2NFT	99/12/17	MG02	44.	28.	
9911	TRC-CO	APS-3-OHM-Outlet-R4	Mercury -	PV	0.024						99/12/17	2NFT	99/12/17	MG02	44.	28.	
9913	TRC-CO	APS-2-OHM-Inlet-R2	Mercury -	PV	1.651						99/12/17	2NFT	99/12/17	MG02	42.	28.	
9914	TRC-CO	APS-2-OHM-Inlet-R3	Mercury -	PV	0.612						99/12/17	2NFT	99/12/17	MG02	42.	28.	
1217	INTERNAL		Mercury -	PV	-0.010	-99999.0	0.105	105.	0.101	101.	99/12/17	2NFT	99/12/17	MG02	$$$	$$$	*BLKIMP*

11 Tests for OHFLT with an MDL of 0.010 ug Validated By CMA Control Chart Updated N/A IO Requirements met N/A

00013

3. RAW DATA

	069908 99	
	069909 99	
	069910 99	
	069911 99	
	069913 99	
	069914 99	
	069915 99	
Run Date:	99/12/11	99/12/11
Date of Sample Prep:	99/12/11	99/12/11

Batch Code:	**12172NFT**	**12173NFT**
Mercury - filter	069904 99	069912 99
	069905 99	069915 99
	069906 99	069916 99
	069907 99	069917 99
	069908 99	
	069909 99	
	069910 99	
	069911 99	
	069913 99	
	069914 99	
Run Date:	99/12/17	99/12/17
Date of Sample Prep:	99/12/17	99/12/17

Batch Code:	**12111NKC**	**12112NKC**
Mercury - KCl	069904 99	069912 99
	069905 99	069916 99
	069906 99	069917 99
	069907 99	
	069908 99	
	069909 99	
	069910 99	
	069911 99	
	069913 99	
	069914 99	
	069915 99	
Run Date:	99/12/11	99/12/11
Date of Sample Prep:	99/12/11	99/12/11

Batch Code:	**12141NMN**	**12142NMN**
Mercury - KMnO4	069904 99	069912 99
	069905 99	069916 99
	069906 99	069917 99
	069907 99	
	069908 99	
	069909 99	
	069910 99	
	069911 99	
	069913 99	
	069914 99	
	069915 99	
Run Date:	99/12/14	99/12/14
Date of Sample Prep:	99/12/14	99/12/14

Batch Code:	**12113NPO**	**12114NPO**
Mercury - H202	069904 99	069912 99
	069905 99	069916 99
	069906 99	069917 99
	069907 99	

PASC - Certificate of Analysis

			APS	APS	APS	APS	APS
Client ID:			2-OHM-Inlet-R2	2-OHM-Inlet-R3	3-OHM-Inlet-R1	3-OHM-Inlet-R3	3-OHM-Inlet-R4
Lab No.:			069913 99	069914 99	069915 99	069916 99	069917 99
Date Sampled:			99/11/05	99/11/05	99/11/02	99/11/03	99/11/03
Component	**MDL**	**Units**					
Mercury - filter	0.010	ug	1.7	0.61	0.085	0.62	0.55
Mercury - KCl	0.030	"	NA*	1.9	<0.10	0.39	0.53
Mercury - KMnO4	0.030	"	4.0	3.3	2.4	0.57	0.76
Mercury - H202	0.010	"	<0.25	1.2	<0.25	<0.25	<0.25

00009

PASC - Certificate of Analysis

			APS	APS	APS	APS	APS	APS	APS
Client ID:			3-OHM-Outlet-R4	2-OHM-Inlet-R1	2-OHM-Inlet-R1	2-OHM-Inlet-R1	2-OHM-Inlet-R1	2-OHM-Inlet-R1	2-OHM-Inlet-R1
Lab No.:			069911 99	069912 99	069912 99	069912 99	069912 99	069912 99	069912 99
Date Sampled:			99/11/03	99/11/04	99/11/04	99/11/04	99/11/04	99/11/04	99/11/04
Component	**MDL**	**Units**			Duplicate	M. Spike	MS % Rec.	MS Dup	MSD % Rec.
Mercury - filter	0.010	ug	0.024	0.59	0.57	2.4	97	2.4	93
Mercury - KCl	0.030	"	0.61	0.95	0.96	2.0	100	1.9	99
Mercury - KMnO4	0.030	"	2.0	6.2	6.1	10	85	10	84
Mercury - H202	0.010	"	<0.25	0.43	0.44	3.1	110	3.0	100

00008

PASC - Certificate of Analysis

			APS	APS	APS	APS	APS	APS	APS
Client ID:			3-OHM-Outlet-R1	3-OHM-Outlet-R1	3-OHM-Outlet-R1	3-OHM-Outlet-R1	3-OHM-Outlet-R1	3-OHM-Outlet-R1	3-OHM-Outlet-R3
Lab No.:			069909 99	069909 99	069909 99	069909 99	069909 99	069909 99	069910 99
Date Sampled:			99/11/02	99/11/02	99/11/02	99/11/02	99/11/02	99/11/02	99/11/03
Component	**MDL**	**Units**		Duplicate	M. Spike	MS % Rec.	MS Dup	MSD % Rec.	
Mercury - filter	0.010	ug	0.027	0.026	0.13	100	0.12	96	0.020
Mercury - KCl	0.030	"	0.79	0.80	1.8	100	1.8	100	NA*
Mercury - KMnO4	0.030	"	2.9	2.8	5.1	87	5.1	90	1.6
Mercury - H202	0.010	"	<0.25	<0.25	2.6	100	2.5	100	<0.25

00007

PASC - Certificate of Analysis

			Method Blank	Blank Spike #1	Blank Spike #1	Blank Spike #2	Blank Spike #2	APS Site-OHM-Blank	APS 2-OHM-Outlet-R1	APS 2-OHM-Outlet-R2	APS 2-OHM-Outlet-R3
	Client ID:		Method Blank	Blank Spike #1	Blank Spike #1	Blank Spike #2	Blank Spike #2	APS Site-OHM-Blank	APS 2-OHM-Outlet-R1	APS 2-OHM-Outlet-R2	APS 2-OHM-Outlet-R3
	Lab No.:		069904 99	069904 99	069904 99	069904 99	069904 99	069905 99	069906 99	069907 99	069908 99
	Date Sampled:		-	-	-	-	-	99/11/05	99/11/05	99/11/05	99/11/05
Component	**MDL**	**Units**			% Recoveries		% Recoveries				
Mercury - filter	0.010	ug	<	0.11	110	0.10	100	0.19	0.27	0.33	0.19
Mercury - KCl	0.030	"	<	0.29	97	0.30	100	<0.033	0.36	0.26	0.25
Mercury - KMnO4	0.030	"	<	0.30	100	0.30	100	<0.050	6.8	8.2	7.6
Mercury - H202	0.010	"	<	0.10	100	0.10	100	<0.25	<0.25	<0.25	<0.25

00006

PHILIP SERVICES

Certificate of Analysis

CLIENT INFORMATION

Attention: Bill Guyton
Client Name: TRC Environmental Corporation
Project: 25938
Project Desc: APS-Cholla

Address: 7761 Shaffer Parkway
Suite 100
Littleton CO
80127
Fax Number: 303-792-0122
Phone Number: 303-792-5555

LABORATORY INFORMATION

Contact: Ron McLeod
Project: AN991477
Date Received: 99/11/19
Date Reported: 99/12/20

Submission No.: 9K0824
Sample No.: 069904-069917

NOTES: ***'-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available***
LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33
Solids data is based on dry weight except for biota analyses.
Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

Methods used by PASC are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Nineteenth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PASC for a period of three weeks from receipt of data or as per contract.

COMMENTS:

*KCl bottles were broken during shipment

Certified by: _____

PHILIP ANALYTICAL SERVICES CORPORATION
5555 North Service Road, Burlington, Ontario, Canada L7L 5H7 Tel: (905) 332-8788 Fax: (905) 332-9169

2. ANALYTICAL DATA REPORT

Draft ASTM Mercury Speciation Method (September1, 1999 Revision)- KMNO4 Impingers/Rinses

069904 99	Method Blank	99/11/05	99/11/19	99/12/14	99/12/14
069905 99	APS-Site-OHM-Blank	99/11/05	99/11/19	99/12/14	99/12/14
069906 99	APS-2-OHM-Outlet-R1	99/11/05	99/11/19	99/12/14	99/12/14
069907 99	APS-2-OHM-Outlet-R2	99/11/05	99/11/19	99/12/14	99/12/14
069908 99	APS-2-OHM-Outlet-R3	99/11/05	99/11/19	99/12/14	99/12/14
069909 99	APS-3-OHM-Outlet-R1	99/11/02	99/11/19	99/12/14	99/12/14
069910 99	APS-3-OHM-Outlet-R3	99/11/03	99/11/19	99/12/14	99/12/14
069911 99	APS-3-OHM-Outlet-R4	99/11/03	99/11/19	99/12/14	99/12/14
069912 99	APS-2-OHM-Inlet-R1	99/11/04	99/11/19	99/12/14	99/12/14
069913 99	APS-2-OHM-Inlet-R2	99/11/05	99/11/19	99/12/14	99/12/14
069914 99	APS-2-OHM-Inlet-R3	99/11/05	99/11/19	99/12/14	99/12/14
069915 99	APS-3-OHM-Inlet-R1	99/11/02	99/11/19	99/12/14	99/12/14
069916 99	APS-3-OHM-Inlet-R3	99/11/03	99/11/19	99/12/14	99/12/14
069917 99	APS-3-OHM-Inlet-R4	99/11/03	99/11/19	99/12/14	99/12/14

Draft ASTM Mercury Speciation Method (September1, 1999 Revision)- HNO3/H202 Impingers/Rinses

069904 99	Method Blank	99/11/05	99/11/19	99/12/11	99/12/11
069905 99	APS-Site-OHM-Blank	99/11/05	99/11/19	99/12/11	99/12/11
069906 99	APS-2-OHM-Outlet-R1	99/11/05	99/11/19	99/12/11	99/12/11
069907 99	APS-2-OHM-Outlet-R2	99/11/05	99/11/19	99/12/11	99/12/11
069908 99	APS-2-OHM-Outlet-R3	99/11/05	99/11/19	99/12/11	99/12/11
069909 99	APS-3-OHM-Outlet-R1	99/11/02	99/11/19	99/12/11	99/12/11
069910 99	APS-3-OHM-Outlet-R3	99/11/03	99/11/19	99/12/11	99/12/11
069911 99	APS-3-OHM-Outlet-R4	99/11/03	99/11/19	99/12/11	99/12/11
069912 99	APS-2-OHM-Inlet-R1	99/11/04	99/11/19	99/12/11	99/12/11
069913 99	APS-2-OHM-Inlet-R2	99/11/05	99/11/19	99/12/11	99/12/11
069914 99	APS-2-OHM-Inlet-R3	99/11/05	99/11/19	99/12/11	99/12/11
069915 99	APS-3-OHM-Inlet-R1	99/11/02	99/11/19	99/12/11	99/12/11
069916 99	APS-3-OHM-Inlet-R3	99/11/03	99/11/19	99/12/11	99/12/11
069917 99	APS-3-OHM-Inlet-R4	99/11/03	99/11/19	99/12/11	99/12/11

Run Date is defined as the date of injection of the last calibration standard (12 hour or less) prior to the samples analyzed within that run sequence. Therefore the time of calibration injection that defines the run date is always within 12 hours of the time of sample injection.

b) Shipping Problems: none encountered

c) Documentation Problems: none encountered

II. SAMPLE PREP:

No problems encountered

III. SAMPLE ANALYSIS:

See also comments within the appropriate Certificate of Analysis.

a) Hold Times: all within recommended hold times

PROJECT NARRATIVE

PHILIP Analytical Services (Burlington ON)
Philip Project: AN991477
Philip Submission #:9K0824

Client: TRC Environmental Corporation
Client Project: 25938

I. SAMPLE RECEIPT/ANALYSIS

a) Sample Listing

Philip ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Run Date
Draft ASTM Mercury Speciation Method (September1, 1999 Revision)- Front Half					
069904 99	Method Blank	99/11/05	99/11/19	99/12/17	99/12/17
069905 99	APS-Site-OHM-Blank	99/11/05	99/11/19	99/12/17	99/12/17
069906 99	APS-2-OHM-Outlet-R1	99/11/05	99/11/19	99/12/17	99/12/17
069907 99	APS-2-OHM-Outlet-R2	99/11/05	99/11/19	99/12/17	99/12/17
069908 99	APS-2-OHM-Outlet-R3	99/11/05	99/11/19	99/12/17	99/12/17
069909 99	APS-3-OHM-Outlet-R1	99/11/02	99/11/19	99/12/17	99/12/17
069910 99	APS-3-OHM-Outlet-R3	99/11/03	99/11/19	99/12/17	99/12/17
069911 99	APS-3-OHM-Outlet-R4	99/11/03	99/11/19	99/12/17	99/12/17
069912 99	APS-2-OHM-Inlet-R1	99/11/04	99/11/19	99/12/17	99/12/17
069913 99	APS-2-OHM-Inlet-R2	99/11/05	99/11/19	99/12/17	99/12/17
069914 99	APS-2-OHM-Inlet-R3	99/11/05	99/11/19	99/12/17	99/12/17
069915 99	APS-3-OHM-Inlet-R1	99/11/02	99/11/19	99/12/17	99/12/17
069916 99	APS-3-OHM-Inlet-R3	99/11/03	99/11/19	99/12/17	99/12/17
069917 99	APS-3-OHM-Inlet-R4	99/11/03	99/11/19	99/12/17	99/12/17
Draft ASTM Mercury Speciation Method (September1, 1999 Revision)- KCl Impingers/Rinses					
069904 99	Method Blank	99/11/05	99/11/19	99/12/11	99/12/11
069905 99	APS-Site-OHM-Blank	99/11/05	99/11/19	99/12/11	99/12/11
069906 99	APS-2-OHM-Outlet-R1	99/11/05	99/11/19	99/12/11	99/12/11
069907 99	APS-2-OHM-Outlet-R2	99/11/05	99/11/19	99/12/11	99/12/11
069908 99	APS-2-OHM-Outlet-R3	99/11/05	99/11/19	99/12/11	99/12/11
069909 99	APS-3-OHM-Outlet-R1	99/11/02	99/11/19	99/12/11	99/12/11
069910 99	APS-3-OHM-Outlet-R3	99/11/03	99/11/19	99/12/11	99/12/11
069911 99	APS-3-OHM-Outlet-R4	99/11/03	99/11/19	99/12/11	99/12/11
069912 99	APS-2-OHM-Inlet-R1	99/11/04	99/11/19	99/12/11	99/12/11
069913 99	APS-2-OHM-Inlet-R2	99/11/05	99/11/19	99/12/11	99/12/11
069914 99	APS-2-OHM-Inlet-R3	99/11/05	99/11/19	99/12/11	99/12/11
069915 99	APS-3-OHM-Inlet-R1	99/11/02	99/11/19	99/12/11	99/12/11
069916 99	APS-3-OHM-Inlet-R3	99/11/03	99/11/19	99/12/11	99/12/11
069917 99	APS-3-OHM-Inlet-R4	99/11/03	99/11/19	99/12/11	99/12/11

CCCO3 A

b) Instrument Calibration: all within control limits

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above.
In addition, I certify, that to the best of my knowledge and belief, the data as reported are true and accurate.
Release of the data contained in this data package has been authorized by the cognizant laboratory official or his/her designee, as verified by this signature.

R.A. McLeod

Ronald A. McLeod, Principal Sci., Ph.D.,C.Chem.

Jan 7th 2000

Date

PHILIP SERVICES

INORGANIC DATA PACKAGE
FOR
TRC ENVIRONMENTAL CORPORATION
Project: 25938

Philip Analytical Services Corporation
5555 North Service Road
Burlington, ON L7L 5H7

Submission #: 9K0824

Prepared by : Janice Joseph - CSR Initial : _____
Approved by : Dr. Ron McLeod - Principal Scientist Initial : _____

Appendix D – Section 1
Exhaust Gas Streams
Laboratory Analyses

APPENDIX D
Analytical Data Sheets

APPENDIX E
Audit Data Sheets

PHILIP SERVICES

Certificate of Analysis

CLIENT INFORMATION		LABORATORY INFORMATION	
Attention:	Bill Guyton	**Contact:**	Ron McLeod
Client Name:	TRC Environmental Corporation	**Project:**	AN990787
Project:	25938	**Date Received:**	99/10/15
Project Desc:		**Date Reported:**	00/02/07
Address:	7761 Shaffer Parkway Suite 100 Littleton CO 80127	**Submission No.:**	9K0824
		Sample No.:	060279
Fax Number:	303-792-0122		
Phone Number:	303-792-5555		

NOTES: ***'-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available***
LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33
Solids data is based on dry weight except for biota analyses.
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COMMENTS:

Certified by: _____

PASC - Certificate of Analysis

	Client ID:		NIST 1633b Coal Ash	NIST 1633b
	Lab No.:		060279 99	Design
Component	**MDL**	**Units**		
Mercury	0.04	mg/kg	0.120	0.141

PASC - Summary of Analysis Pre. Dates

Batch Code:	**1022LTA1**
Mercury	060279 99
Run Date:	99/10/22
Date of Sample Prep:	99/10/22

PHILIP SERVICES

Certificate of Analysis

CLIENT INFORMATION		LABORATORY INFORMATION	
Attention:	Bill Guyton	**Contact:**	Ron McLeod
Client Name:	TRC Environmental Corporation	**Project:**	AN990787
Project:	25938	**Date Received:**	99/10/15
Project Desc:		**Date Reported:**	00/02/07
Address:	7761 Shaffer Parkway Suite 100 Littleton CO 80127	**Submission No.:**	9K0824
		Sample No.:	060279
Fax Number:	303-792-0122		
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COMMENTS:

Certified by:

PASC - Certificate of Analysis

	Client ID:		NIST 1633b Coal Ash	NIST 1633b
	Lab No.:		060279 99	Design
Component	**MDL**	**Units**		
Mercury	0.04	mg/kg	0.120	0.141

PASC - Summary of Analysis Pre. Dates

Batch Code:	**1022LTA1**
Mercury	060279 99
Run Date:	99/10/22
Date of Sample Prep:	99/10/22

APPENDIX E
AUDIT DATA SHEETS

APPENDIX F
LIST OF PARTICIPANTS

Bill Guyton - Field Team Coordinator
Bill Guyton - Sample Setup and Recovery
Brian Sandstrom – MDC/ESP Inlet Sampling
Darren Lane – MDC/ESP Inlet Sampling
Roman Szkoda – MDC/ESP Inlet Sampling
Scott Patterson - Exhaust Stack Sampling
Roman Szkoda - Exhaust Stack Sampling