# APPENDIX A
# DETAILED TEST DATA AND TEST RESULTS

# TABLE A-1
# MISSISSIPPI POWER COMPANY
# ONTARIO HYDRO METHOD DATA INPUTS
# UNIT NO. 4 ESP INLET

| | | | | |
|---|---|---|---|---|
| **Test Data** | | | | |
| Run number | 1 | 2 | | 3 |
| Location | | Unit No. 4 ESP Inlet | | |
| Date | 1/19/00 | 1/20/00 | | 1/20/00 |
| Time period | 1135-1448 | 0831-1145 | | 1343-1642 |
| Operator | KA,PEG | KA,PEG | | KA,PEG |
| **Process Data** | | | | |
| Unit Load, MW | 249 | 250 | | 249 |
| Coal feed rate, lb/hr. | 184000 | 185000 | | 185000 |
| Coal Btu content, Btu/lb.(as received) | 12560 | 12640 | | 12630 |
| Heat Input, $10^6$ Btu/hr | 2311 | 2338 | | 2337 |
| **Inputs For Calcs.** | | | | |
| Sq. rt. delta P | 0.621 | 0.599 | | 0.620 |
| Delta H | 1.126 | 0.998 | | 1.110 |
| Stack temp. (deg.F) | 311 | 298 | | 295 |
| Meter temp. (deg.F) | 83 | 79 | | 93 |
| Sample volume (act.) | 80.683 | 78.148 | | 83.524 |
| Barometric press. (in.Hg) | 30.03 | 30.00 | | 30.00 |
| Volume $H_2O$ imp. (ml) | 147.2 | 132.7 | | 124.5 |
| Weight chnge sil. gel (g) | 19.6 | 17.3 | | 21.9 |
| % $CO_2$ | 12.5 | 12.5 | | 12.3 |
| % $O_2$ | 6.7 | 6.7 | | 6.8 |
| % N | 80.8 | 80.8 | | 80.9 |
| Area of stack (sq.ft.) | 194.53 | 194.53 | | 194.53 |
| Sample time (min.) | 150.00 | 150.00 | | 150.00 |
| Static pressure (in.$H_2O$) | -10.50 | -10.50 | | -10.50 |
| Nozzle dia. (in.) | 0.247 | 0.247 | | 0.247 |
| Meter box cal. | 0.9961 | 0.9961 | | 0.9961 |
| Cp of pitot tube | 0.84 | 0.84 | | 0.84 |
| Traverse points | 25 | 25 | | 25 |
| **Mercury Laboratory Report Data** | | | | |
| Particulate bound, ug | 6.3700 | 8.4700 | | 8.2700 |
| Oxidized, ug | 2.1500 | 2.0000 | | 1.0600 |
| Elemental, ug | 1.6200 | 0.4330 | < | 0.4000 |
| **Total mercury catch, ug** | 10.1400 | 10.9030 | | 9.7300 |

Note: Non-detects included in total mercury catch value.

**TABLE A-1**
**MISSISSIPPI POWER COMPANY**
**SUMMARY OF MERCURY SPECIATION TEST DATA AND TEST RESULTS**
**UNIT NO. 4 ESP INLET**

| | | | | |
|---|---|---|---|---|
| **TEST DATA:** | | | | |
| Test run number | 1 | 2 | 3 | AVERAGE |
| Location | | Unit No. 4 ESP Inlet | | |
| Test date | 1/19/00 | 1/20/00 | 1/20/00 | ---- |
| Test time period | 1135-1448 | 0831-1145 | 1343-1642 | ---- |
| **PROCESS DATA:** | | | | |
| Unit Load, MW | 249 | 250 | 249 | 249 |
| Coal feed rate, lb/hr. | 184000 | 185000 | 185000 | 184667 |
| Coal Btu content, Btu/lb. | 12560 | 12640 | 12630 | 12610 |
| Heat Input, $10^6$ Btu/hr | 2311 | 2338 | 2337 | 2329 |
| **SAMPLING DATA:** | | | | |
| Sampling duration, min. | 150.0 | 150.0 | 150.0 | 150.0 |
| Nozzle diameter, in. | 0.247 | 0.247 | 0.247 | 0.247 |
| Cross sectional nozzle area, sq.ft. | 0.000333 | 0.000333 | 0.000333 | 0.000333 |
| Barometric pressure, in. Hg | 30.03 | 30.00 | 30.00 | 30.01 |
| Avg. orifice press. diff., in $H_2O$ | 1.13 | 1.00 | 1.11 | 1.08 |
| Avg. dry gas meter temp., deg F | 82.9 | 78.8 | 92.9 | 84.9 |
| Avg. abs. dry gas meter temp., deg. R | 543 | 539 | 553 | 545 |
| Total liquid collected by train, ml | 166.8 | 150.0 | 146.4 | 154.4 |
| Std. vol. of $H_2O$ vapor coll., cu.ft. | 7.9 | 7.1 | 6.9 | 7.3 |
| Dry gas meter calibration factor | 0.9961 | 0.9961 | 0.9961 | 0.9961 |
| Sample vol. at meter cond., dcf | 80.683 | 78.148 | 83.524 | 80.785 |
| Sample vol. at std. cond., dscf (1) | 78.635 | 76.643 | 79.849 | 78.376 |
| Percent of isokinetic sampling | 101.8 | 101.4 | 101.4 | 101.5 |
| Sample vol. at std. cond., dscm (1) | 2.227 | 2.170 | 2.261 | 2.219 |
| **GAS STREAM COMPOSITION DATA:** | | | | |
| $CO_2$, % by volume, dry basis | 12.5 | 12.5 | 12.3 | 12.4 |
| $O_2$, % by volume, dry basis | 6.7 | 6.7 | 6.8 | 6.7 |
| $N_2$, % by volume, dry basis | 80.8 | 80.8 | 80.9 | 80.8 |
| Molecular wt. of dry gas, lb/lb mole | 30.27 | 30.27 | 30.24 | 30.26 |
| $H_20$ vapor in gas stream, prop. by vol. | 0.091 | 0.084 | 0.079 | 0.085 |
| Mole fraction of dry gas | 0.909 | 0.916 | 0.921 | 0.915 |
| Molecular wt. of wet gas, lb/lb mole | 29.15 | 29.23 | 29.27 | 29.22 |
| **GAS STREAM VELOCITY AND VOLUMETRIC FLOW DATA:** | | | | |
| Static pressure, in. $H_2O$ | -10.50 | -10.50 | -10.50 | -10.50 |
| Absolute pressure, in. Hg | 29.26 | 29.23 | 29.23 | 29.24 |
| Avg. temperature, deg. F | 311 | 298 | 295 | 301 |
| Avg. absolute temperature, deg.R | 771 | 758 | 755 | 761 |
| Pitot tube coefficient | 0.84 | 0.84 | 0.84 | 0.84 |
| Total number of traverse points | 25 | 25 | 25 | 25 |
| Avg. gas stream velocity, ft./sec. | 42.4 | 40.5 | 41.8 | 41.6 |
| Stack/duct cross sectional area, sq.ft. | 194.530 | 194.530 | 194.530 | 194.530 |
| Avg. gas stream volumetric flow, wacf/min. | 494872 | 472763 | 488303 | 485313 |
| Avg. gas stream volumetric flow, dscf/min. (1) | 301269 | 294593 | 307040 | 300967 |
| | **Recalculated Inlet Flow Rate (4)** | | | |
| **Total Stack** gas stream volumetric flow, dscf/min. (1) | 614249 | 565782 | 571992 | 584008 |
| **Stack** $O_2$, % by volume, dry basis | 6.3 | 7.1 | 6.7 | 6.7 |
| Corrected Inlet volumetric flow rate, dscf/min (4) | 631431 | 549956 | 576020 | 585802 |
| **MERCURY LABORATORY REPORT DATA:** | | | | |
| Particulate bound, ug | 6.3700 | 8.4700 | 8.2700 | 7.7033 |
| Oxidized, ug | 2.1500 | 2.0000 | 1.0600 | 1.7367 |
| Elemental, ug | 1.6200 | 0.4330 | 0.4000 | 0.8177 |
| **Total catch, ug(3)** | 10.1400 | 10.9030 | 9.7300 | 10.2577 |
| **PARTICULATE BOUND MERCURY EMISSIONS:** | | | | |
| Conc., lb/dscf | 1.79E-10 | 2.44E-10 | 2.28E-10 | 2.17E-10 |
| Conc., ug/$m^3$ | 2.86 | 3.90 | 3.66 | 3.47 |
| Conc., ug/$Nm^3$ (2) | 3.07 | 4.19 | 3.92 | 3.73 |
| Emission rate, lbs/$10^{12}$ Btu. | 2.93 | 3.44 | 3.38 | 3.25 |
| Emission rate, lbs/hr | 6.77E-03 | 8.04E-03 | 7.89E-03 | 7.57E-03 |
| **OXIDIZED MERCURY EMISSIONS:** | | | | |
| Conc., ug/$m^3$ | 0.97 | 0.92 | 0.47 | 0.79 |
| Conc., ug/$Nm^3$ (2) | 1.04 | 0.99 | 0.50 | 0.84 |
| Emission rate, lbs/$10^{12}$ Btu. | 0.99 | 0.81 | 0.43 | 0.74 |
| Emission rate, lbs/hr | 2.28E-03 | 1.90E-03 | 1.01E-03 | 1.73E-03 |
| **ELEMENTAL MERCURY EMISSIONS:** | | | | |
| Conc., ug/$m^3$ | 0.73 | 0.20 | 0.18 | 0.37 |
| Conc., ug/$Nm^3$ (2) | 0.78 | 0.21 | 0.19 | 0.39 |
| Emission rate, lbs/$10^{12}$ Btu. | 0.74 | 0.18 | 0.16 | 0.36 |
| Emission rate, lbs/hr | 1.72E-03 | 4.11E-04 | 3.82E-04 | 8.38E-04 |
| **TOTAL MERCURY EMISSIONS: (3)** | | | | |
| Conc., ug/$m^3$ | 4.55 | 5.02 | 4.30 | 4.63 |
| Conc., ug/$Nm^3$ (2) | 4.89 | 5.39 | 4.62 | 4.96 |
| Emission rate, lbs/$10^{12}$ Btu. | 4.66 | 4.43 | 3.97 | 4.35 |
| Emission rate, lbs/hr | 1.08E-02 | 1.03E-02 | 9.28E-03 | 1.01E-02 |

(1) Standard conditions = 68 deg. F. (20 deg. C.) and 29.92 inches Hg (760mm Hg). These values are shown only to present the VFR measured at the selected Inlet duct (1 of 2) and were not used to calculated Inlet mass pollutant emission rates (lb/hr).
(2) Nm3 = Normal cubic meter ( 32 deg. F. (0 deg. C.) and 29.92 inches Hg (760mm Hg)).
(3) Non-detects included in total mercury catch value.
(4) Outlet volumetric flow rate was corrected for the Inlet O2 values measured since only one of the two Inlet ducts were sampled at the Inlet location. The corrected volumetric flow rate was used to calculated Inlet mass pollutant emission rates (lb/hr)

# ESP OUTLET

# TABLE A-1
# MISSISSIPPI POWER COMPANY
# ONTARIO HYDRO METHOD DATA INPUTS
# UNIT NO. 4 ESP OUTLET

| | | | |
|---|---|---|---|
| **Test Data** | | | |
| Run number | 1 | 2 | 3 |
| Location | | Unit No. 4 Outlet | |
| Date | 1/19/00 | 1/20/00 | 1/20/00 |
| Time period | 1135-1448 | 0831-1145 | 1343-1642 |
| Operator | GS,JW,JP | GS,JW,JP | GS,JW,JP |
| **Process Data** | | | |
| Unit Load, MW | 249 | 250 | 249 |
| Coal feed rate, lb/hr. | 184000 | 185000 | 185000 |
| Coal Btu content, Btu/lb.(as received) | 12560 | 12640 | 12630 |
| Heat Input, $10^6$ Btu/hr | 2311 | 2338 | 2337 |
| **Inputs For Calcs.** | | | |
| Sq. rt. delta P | 1.152 | 1.013 | 1.010 |
| Delta H | 1.508 | 0.856 | 0.860 |
| Stack temp. (deg.F) | 314 | 302 | 302 |
| Meter temp. (deg.F) | 77 | 65 | 67 |
| Sample volume (act.) | 102.953 | 76.258 | 76.421 |
| Barometric press. (in.Hg) | 30.03 | 30.00 | 30.00 |
| Volume $H_2O$ imp. (ml) | 190.5 | 130.9 | 123.7 |
| Weight chnge sil. gel (g) | 20.9 | 16.5 | 16.8 |
| % $CO_2$ | 12.3 | 12.0 | 12.3 |
| % $O_2$ | 6.3 | 7.1 | 6.7 |
| % N | 81.4 | 80.9 | 81.0 |
| Area of stack (sq.ft.) | 108.48 | 108.48 | 108.48 |
| Sample time (min.) | 150.00 | 150.00 | 150.00 |
| Static pressure (in.$H_2O$) | 0.30 | -0.32 | -0.30 |
| Nozzle dia. (in.) | 0.200 | 0.190 | 0.190 |
| Meter box cal. | 0.9936 | 0.9936 | 0.9936 |
| Cp of pitot tube | 0.84 | 0.84 | 0.84 |
| Traverse points | 30 | 30 | 30 |
| **Mercury Laboratory Report Data** | | | |
| Particulate bound, ug | < 0.11 | < 0.09 | < 0.11 |
| Oxidized, ug | 6.01 | 5.01 | 5.02 |
| Elemental, ug | 4.39 | 1.50 | 1.54 |
| **Total mercury catch, ug** | 10.51 | 6.60 | 6.67 |

Note: Non-detects included in total mercury catch value.

# TABLE A-1
## MISSISSIPPI POWER COMPANY
## SUMMARY OF MERCURY SPECIATION TEST DATA AND TEST RESULTS
## UNIT NO. 4 ESP OUTLET

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **TEST DATA:** | | | | | | | | |
| Test run number | | 1 | | 2 | | 3 | | AVERAGE |
| Location | | | | Unit No. 4 Outlet | | | | |
| Test date | | 1/19/00 | | 1/20/00 | | 1/20/00 | | --- |
| Test time period | | 1135-1448 | | 0831-1145 | | 1343-1642 | | --- |
| **PROCESS DATA:** | | | | | | | | |
| Unit Load, MW | | 249 | | 250 | | 249 | | 249 |
| Coal feed rate, lb/hr. | | 184000 | | 185000 | | 185000 | | 184667 |
| Coal Btu content, Btu/lb. | | 12560 | | 12640 | | 12630 | | 12610 |
| Heat Input, $10^6$ Btu/hr | | 2311 | | 2338 | | 2337 | | 2329 |
| **SAMPLING DATA:** | | | | | | | | |
| Sampling duration, min. | | 150.0 | | 150.0 | | 150.0 | | 150.0 |
| Nozzle diameter, in. | | 0.200 | | 0.190 | | 0.190 | | 0.193 |
| Cross sectional nozzle area, sq.ft. | | 0.000218 | | 0.000197 | | 0.000197 | | 0.000204 |
| Barometric pressure, in. Hg | | 30.03 | | 30.00 | | 30.00 | | 30.01 |
| Avg. orifice press. diff., in $H_2O$ | | 1.51 | | 0.86 | | 0.86 | | 1.07 |
| Avg. dry gas meter temp., deg F | | 77.0 | | 65.4 | | 67.0 | | 69.8 |
| Avg. abs. dry gas meter temp., deg. R | | 537 | | 525 | | 527 | | 530 |
| Total liquid collected by train, ml | | 211.4 | | 147.4 | | 140.5 | | 166.4 |
| Std. vol. of $H_2O$ vapor coll., cu.ft. | | 10.0 | | 6.9 | | 6.6 | | 7.8 |
| Dry gas meter calibration factor | | 0.9936 | | 0.9936 | | 0.9936 | | 0.9936 |
| Sample vol. at meter cond., dcf | | 102.953 | | 76.258 | | 76.421 | | 85.211 |
| Sample vol. at std. cond., dscf(1) | | 101.282 | | 76.478 | | 76.410 | | 84.723 |
| Percent of isokinetic sampling | | 106.4 | | 99.9 | | 99.9 | | 102.0 |
| Sample vol. at std. cond., dscm(1) | | 2.868 | | 2.166 | | 2.164 | | 2.399 |
| **GAS STREAM COMPOSITION DATA:** | | | | | | | | |
| $CO_2$, % by volume, dry basis | | 12.3 | | 12.0 | | 12.3 | | 12.2 |
| $O_2$, % by volume, dry basis | | 6.3 | | 7.1 | | 6.7 | | 6.7 |
| $N_2$, % by volume, dry basis | | 81.4 | | 80.9 | | 81.0 | | 81.1 |
| Molecular wt. of dry gas, lb/lb mole | | 30.22 | | 30.20 | | 30.24 | | 30.22 |
| $H_20$ vapor in gas stream, prop. by vol. | | 0.089 | | 0.083 | | 0.080 | | 0.084 |
| Mole fraction of dry gas | | 0.911 | | 0.917 | | 0.920 | | 0.916 |
| Molecular wt. of wet gas, lb/lb mole | | 29.13 | | 29.19 | | 29.26 | | 29.19 |
| **GAS STREAM VELOCITY AND VOLUMETRIC FLOW DATA:** | | | | | | | | |
| Static pressure, in. $H_2O$ | | 0.30 | | -0.32 | | -0.30 | | -0.11 |
| Absolute pressure, in. Hg | | 30.05 | | 29.98 | | 29.98 | | 30.00 |
| Avg. temperature, deg. F | | 314 | | 302 | | 302 | | 306 |
| Avg. absolute temperature, deg.R | | 774 | | 762 | | 762 | | 766 |
| Pitot tube coefficient | | 0.84 | | 0.84 | | 0.84 | | 0.84 |
| Total number of traverse points | | 30 | | 30 | | 30 | | 30 |
| Avg. gas stream velocity, ft./sec. | | 77.8 | | 67.9 | | 67.6 | | 71.1 |
| Stack/duct cross sectional area, sq.ft. | | 108.480 | | 108.480 | | 108.480 | | 108.480 |
| Avg. gas stream volumetric flow, wacf/min. | | 506333 | | 441816 | | 440126 | | 462758 |
| Avg. gas stream volumetric flow, dscf/min(1) | | 315763 | | 281201 | | 281103 | | 292689 |
| **Total volumetric flow rate, dscf/min(4)** | | | | | | | | |
| A side volumetric flow rate, dscf/min | | 315763 | | 281201 | | 281103 | | 292689 |
| B side volumetric flow rate, dscf/min | | 298486 | | 284581 | | 290889 | | 291319 |
| Total Outlet volumetric flow rate, dscf/min (4) | | 614249 | | 565782 | | 571992 | | 584008 |
| **MERCURY LABORATORY REPORT DATA:** | | | | | | | | |
| Particulate bound, ug | < | 0.1100 | < | 0.0920 | < | 0.1100 | < | 0.1040 |
| Oxidized, ug | | 6.0100 | | 5.0100 | | 5.0200 | | 5.3467 |
| Elemental, ug | | 4.3900 | | 1.5000 | | 1.5400 | | 2.4767 |
| **Total catch, ug(5)** | | 10.5100 | | 6.6020 | | 6.6700 | | 7.9273 |
| **PARTICULATE BOUND MERCURY EMISSIONS:** | | | | | | | | |
| Conc., ug/$m^3$ | < | 0.04 | < | 0.04 | < | 0.05 | < | 0.04 |
| Conc., ug/$Nm^3$(2) | < | 0.04 | < | 0.05 | < | 0.05 | < | 0.05 |
| Emission rate, lbs/$10^12$ Btu. | < | 0.04 | < | 0.04 | < | 0.05 | < | 0.04 |
| Emission rate, lbs/hr | < | 8.82E-05 | < | 9.00E-05 | < | 1.09E-04 | < | 9.57E-05 |
| **OXIDIZED MERCURY EMISSIONS:** | | | | | | | | |
| Conc., ug/$m^3$ | | 2.10 | | 2.31 | | 2.32 | | 2.24 |
| Conc., ug/$Nm^3$(2) | | 2.25 | | 2.48 | | 2.49 | | 2.41 |
| Emission rate, lbs/$10^12$ Btu. | | 2.09 | | 2.10 | | 2.13 | | 2.10 |
| Emission rate, lbs/hr | | 4.82E-03 | | 4.90E-03 | | 4.97E-03 | | 4.90E-03 |
| **ELEMENTAL MERCURY EMISSIONS:** | | | | | | | | |
| Conc., ug/$m^3$ | | 1.53 | | 0.69 | | 0.71 | | 0.98 |
| Conc., ug/$Nm^3$(2) | | 1.64 | | 0.74 | | 0.76 | | 1.05 |
| Emission rate, lbs/$10^12$ Btu. | | 1.52 | | 0.63 | | 0.65 | | 0.93 |
| Emission rate, lbs/hr | | 3.52E-03 | | 1.47E-03 | | 1.52E-03 | | 2.17E-03 |
| **TOTAL MERCURY EMISSIONS:** (3) | | | | | | | | |
| Conc., ug/$m^3$ | | 3.66 | | 3.05 | | 3.08 | | 3.27 |
| Conc., ug/$Nm^3$(2) | | 3.93 | | 3.27 | | 3.31 | | 3.50 |
| Emission rate, lbs/$10^12$ Btu. | | 3.65 | | 2.76 | | 2.83 | | 3.08 |
| Emission rate, lbs/hr | | 8.43E-03 | | 6.46E-03 | | 6.60E-03 | | 7.17E-03 |

(1) Standard conditions = 68 deg. F. (20 deg. C.) and 29.92 inches Hg (760mm Hg). VFR value represents A side only.

# APPENDIX B
# PROCESS OPERATIONS, FACILITY CEMS, AND ESP DATA

1/19/00 R1

| | 10AM First Hour | | 11AM Second Hour | | 12 PM Third Hour | | RUN 1 MEAN |
|---|---|---|---|---|---|---|---|
| Gross Generation | 250 | MW | 250 | MW | 248 | MW | 249 |
| Net Generation | 233 | MW | 233 | MW | 231 | MW | 232 |
| Primary Air Flow: A | 88.5 | kLbs/hr | 88.8 | kLbs/hr | 88.8 | kLbs/hr | 88.5 |
| B | 89 | kLbs/hr | 88.9 | kLbs/hr | 88.4 | kLbs/hr | |
| C | 86.4 | kLbs/hr | 85.8 | kLbs/hr | 86.9 | kLbs/hr | |
| Primary Air Temp: A | 394 | Degrees F | 396 | Degrees F | 392 | Degrees F | |
| B | 376 | Degrees F | 357 | Degrees F | 387 | Degrees F | |
| C | 401 | Degrees F | 400 | Degrees F | 395 | Degrees F | |
| Coal Feed Total: A-1 | 32 | kLbs/hr | 32 | kLbs/hr | 31 | kLbs/hr | 30.9 |
| A-2 | 32 | kLbs/hr | 32 | kLbs/hr | 31 | kLbs/hr | |
| B-1 | 31 | kLbs/hr | 32 | kLbs/hr | 32 | kLbs/hr | |
| B-2 | 33 | kLbs/hr | 33 | kLbs/hr | 33 | kLbs/hr | |
| C-1 | 29 | kLbs/hr | 28 | kLbs/hr | 28 | kLbs/hr | |
| C-2 | 29 | kLbs/hr | 28 | kLbs/hr | 28 | kLbs/hr | |
| Main Steam Flow | 1502 | Lbs/hr | 1505 | Lbs/hr | 1507 | Lbs/hr | 1500 |
| Main Steam Temp. | 990 | Degrees F | 958 | Degrees F | 980 | Degrees F | 991 |

Ok 16/~~NA~~ 184 185 30.8 R-1 183 30.5 Ave 184

11:00 - 1500 AVG

Unit Load (MW) - 249

Avg. Total Coal Feed, (lb/hr) - ~~30.9~~ 184

| | 100PM | | 2:00 PM | | 3PM | |
|---|---|---|---|---|---|---|
| | First Hour | | Second Hour | | Third Hour | |
| Gross Generation | 250 | MW | 249 | MW | 248 | MW |
| Net Generation | 233 | MW | 232 | MW | 231 | MW |
| Primary Air Flow: A | 88 | kLbs/hr | 89 | kLbs/hr | 88 | kLbs/hr |
| B | 89 | kLbs/hr | 88 | kLbs/hr | 89 | kLbs/hr |
| C | 86 | kLbs/hr | 87 | kLbs/hr | 86 | kLbs/hr |
| Primary Air Temp: A | 394 | Degrees F | 392 | Degrees F | 391 | Degrees F |
| B | 387 | Degrees F | 382 | Degrees F | 381 | Degrees F |
| C | 396 | Degrees F | 394 | Degrees F | 391 | Degrees F |
| Coal Feed Total: A-1 | 32 | kLbs/hr | 32 | kLbs/hr | 32 | kLbs/hr |
| A-2 | 32 | kLbs/hr | 32 | kLbs/hr | 32 | kLbs/hr |
| B-1 | 32 | kLbs/hr | 33 | kLbs/hr | 32 | kLbs/hr |
| B-2 | 32 | kLbs/hr | 34 | kLbs/hr | 32 | kLbs/hr |
| C-1 | 28 | kLbs/hr | 29 | kLbs/hr | 28 | kLbs/hr |
| C-2 | 29 | kLbs/hr | 29 | kLbs/hr | 28 | kLbs/hr |
| Main Steam Flow | 1499 | Lbs/hr | 1499 | Lbs/hr | 1489 | Lbs/hr |
| Main Steam Temp. | 995 | Degrees F | 993 | Degrees F | 999 | Degrees F |
| | 30.8 | | 31.5 | | 30.7 | |

Mississippi Power Plant Watson

File Avc Precipitator Graphs Options Window Help

Time: 11:38 am Sunday January 16, 19100

Precipitator Status

oad 258 MW Fuel Flow Klbs/Hr

% Engy Mgt None Freeze

0219 KW

4 Opacity 6 %

| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-A-12 | 001 | 022 | 258 | 0150 | 37.8 | 032 | 099 | 05.7 | Running | AVC |
| 4-A-34 | 002 | 035 | 471 | 0200 | 57.6 | 112 | 109 | 11.5 | Running | AVC |
| 4-A-56 | 003 | 036 | 426 | 0220 | 48.6 | 040 | 104 | 10.7 | Running | AVC |

| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-B-12 | 004 | 044 | 006 | 0290 | 54.0 | 032 | 121 | 15.7 | Running | AVC |
| 4-B-34 | 005 | 047 | 402 | 0240 | 50.4 | 032 | 097 | 12.1 | Running | AVC |
| 4-B-56 | 006 | 062 | 438 | 0360 | 50.4 | 044 | 112 | 19.2 | Running | AVC |

| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-C-12 | 007 | 118 | 333 | 0600 | 46.8 | 024 | 085 | 28.1 | Running | AVC |
| 4-C-34 | 008 | 144 | 375 | 0820 | 48.6 | 012 | 093 | 39.9 | Running | AVC |
| 4-C-56 | 009 | 192 | 459 | 1420 | 54.0 | 036 | 119 | 76.7 | Running | AVC |

Mississippi Power Plant Watson

File Avc Precipitator Graphs Options Window Help

Time: 12:39 pm Sunday January 16, 19100

Precipitator Status

oad 258 MW Fuel Flow Klbs/Hr

0175 MW

4 Opacity 7 %

| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-A-12 | 001 | 026 | 432 | 0160 | 52.2 | 024 | 097 | 08.4 | Running | AUC |
| 4-A-34 | 002 | 032 | 453 | 0180 | 52.2 | 040 | 104 | 09.4 | Running | AUC |
| 4-A-56 | 003 | 024 | 330 | 0140 | 46.8 | 024 | 087 | 06.6 | Running | AUC |
| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
| 4-B-12 | 004 | 034 | 006 | 0210 | 48.6 | 044 | 100 | 10.2 | Running | AUC |
| 4-B-34 | 005 | 041 | 357 | 0210 | 50.4 | 044 | 092 | 10.6 | Running | AUC |
| 4-B-56 | 006 | 045 | 360 | 0260 | 46.8 | 040 | 094 | 12.2 | Running | AUC |
| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
| 4-C-12 | 007 | 106 | 318 | 0520 | 46.8 | 012 | 082 | 24.3 | Running | AUC |
| 4-C-34 | 008 | 134 | 357 | 0740 | 46.8 | 008 | 090 | 34.6 | Running | AUC |
| 4-C-56 | 009 | 166 | 432 | 1160 | 50.4 | 012 | 108 | 58.5 | Running | AUC |

Mississippi Power Plant Watson

File Avc Precipitator Graphs Options Window Help

Time: 01:37 pm Sunday January 16, 19100

## Precipitator Status

Generator Load 256 MW Fuel Flow Klbs/Hr

Boiler Load % Engy Mgt None Freeze

Total Power 0178 KW

Precipitator 4 Opacity 10 %

| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-A-12 | 001 | 027 | 441 | 0150 | 52.2 | 052 | 101 | 07.8 | Running | AVC |
| 4-A-34 | 002 | 034 | 462 | 0200 | 55.8 | 056 | 107 | 11.2 | Running | AVC |
| 4-A-56 | 003 | 024 | 300 | 0130 | 39.6 | 040 | 086 | 05.1 | Running | AVC |
| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
| 4-B-12 | 004 | 041 | 006 | 0260 | 52.2 | 040 | 114 | 13.6 | Running | AVC |
| 4-B-34 | 005 | 028 | 228 | 0170 | 36.0 | 040 | 087 | 06.1 | Running | AVC |
| 4-B-56 | 006 | 056 | 429 | 0340 | 50.4 | 040 | 107 | 17.1 | Running | AVC |
| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
| 4-C-12 | 007 | 120 | 336 | 0610 | 46.6 | 008 | 086 | 20.5 | Running | AVC |
| 4-C-34 | 008 | 134 | 360 | 0750 | 46.6 | 008 | 090 | 36.5 | Running | AVC |
| 4-C-56 | 009 | 160 | 432 | 1070 | 46.6 | 008 | 106 | 52.0 | Running | AVC |

1/20/00 - First Run of the day R 2

| | 9:00-10:00 a.m. First Hour | | 11:00 a.m. Second Hour | | 12:00 p.m. Third Hour | | RUN 2 MEAN |
|---|---|---|---|---|---|---|---|
| Gross Generation | 251 | MW | 247 | MW | 252 | MW | 250 |
| Net Generation | 234 | MW | 229 | MW | 235 | MW | 233 |
| Primary Air Flow: A | 88 | kLbs/hr | 88 | kLbs/hr | 88 | kLbs/hr | |
| B | 88 | kLbs/hr | 89 | kLbs/hr | 89 | kLbs/hr | |
| C | 86 | kLbs/hr | 85 | kLbs/hr | 86 | kLbs/hr | |
| Primary Air Temp: A | 394 | Degrees F | 395 | Degrees F | 400 | Degrees F | |
| B | 387 | Degrees F | 386 | Degrees F | 399 | Degrees F | |
| C | 396 | Degrees F | 393 | Degrees F | 394 | Degrees F | |
| Coal Feed Total: A-1 | 32 | kLbs/hr | 32 | kLbs/hr | 32 | kLbs/hr | |
| A-2 | 32 | kLbs/hr | 31 | kLbs/hr | 32 | kLbs/hr | |
| B-1 | 32 | kLbs/hr | 33 | kLbs/hr | 33 | kLbs/hr | |
| B-2 | 32 | kLbs/hr | 33 | kLbs/hr | 34 | kLbs/hr | |
| C-1 | 28 | kLbs/hr | 27 | kLbs/hr | 27 | kLbs/hr | |
| C-2 | 28 | kLbs/hr | 28 | kLbs/hr | 28 | kLbs/hr | |
| Main Steam Flow | 1536 | Lbs/hr | 1557 | Lbs/hr | 1548 | Lbs/hr | 1547 |
| Main Steam Temp. | 985 | Degrees F | 953 | Degrees F | 973 | Degrees F | 970 |
| | 30.7 | | 30.7 | | 31.0 | | |
| Coal lb/hr | 184 | | 184 | | 186 | | 185 |

R-2 0831-1145

Unit Load (MW) - 250

Avg. Total Coal Feed, (lb/hr) - ~~30.8~~ 185

Mississippi Power Plant Watson

File Avc Precipitator Graphs Options Window Help

Time: 08:43 am Monday January 17, 19100

Precipitator Status

oad 256 MW Fuel Flow [illegible] Klbs/Hr

[illegible] % Engy Mgt None Freeze

0221 KW

4 Opacity 5 %

| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-A-12 | 001 | 033 | 459 | 0200 | 52.2 | 044 | 109 | 10.4 | Running | AUC |
| 4-A-34 | 002 | 035 | 468 | 0210 | 55.0 | 000 | 109 | 11.7 | Running | AUC |
| 4-A-56 | 003 | 036 | 426 | 0220 | 48.6 | 032 | 105 | 10.7 | Running | AUC |
| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
| 4-B-12 | 004 | 050 | 006 | 0350 | 54.0 | 000 | 140 | 18.9 | Running | AUC |
| 4-B-34 | 005 | 055 | 423 | 0300 | 52.2 | 036 | 104 | 15.7 | Running | AUC |
| 4-B-56 | 006 | 064 | 447 | 0400 | 52.2 | 036 | 115 | 20.9 | Running | AUC |
| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
| 4-C-12 | 007 | 096 | 288 | 0470 | 43.2 | 008 | 077 | 20.3 | Running | AUC |
| 4-C-34 | 008 | 148 | 396 | 0840 | 48.6 | 016 | 095 | 40.8 | Running | AUC |
| 4-C-56 | 009 | 178 | 462 | 1290 | 55.8 | 000 | 115 | 72.0 | Running | AUC |

Mississippi Power Plant Watson

File Avc Precipitator Graphs Options Window Help

Time: 09:41 am Monday January 17, 19100

## Precipitator Status

Boiler Load % Engy Mgt None Freeze

Total Power 0243 KW

Precipitator 4 Opacity 6 %

| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-A-12 | 001 | 029 | 354 | 0170 | 41.4 | 036 | 105 | 07.0 | Running | AVC |
| 4-A-34 | 002 | 035 | 460 | 0210 | 57.6 | 012 | 108 | 12.1 | Running | AVC |
| 4-A-56 | 003 | 029 | 348 | 0170 | 45.0 | 040 | 092 | 07.7 | Running | AVC |
| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
| 4-B-12 | 004 | 049 | 006 | 0350 | 54.0 | 000 | 140 | 18.9 | Running | AVC |
| 4-B-34 | 005 | 055 | 420 | 0300 | 52.2 | 044 | 103 | 15.7 | Running | AVC |
| 4-B-56 | 006 | 063 | 450 | 0390 | 52.2 | 044 | 115 | 20.4 | Running | AVC |
| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
| 4-C-12 | 007 | 140 | 378 | 0730 | 46.8 | 008 | 092 | 34.2 | Running | AVC |
| 4-C-34 | 008 | 190 | 456 | 1160 | 52.2 | 008 | 110 | 60.6 | Running | AVC |
| 4-C-56 | 009 | 174 | 459 | 1240 | 54.0 | 000 | 114 | 67.0 | Running | AVC |

Mississippi Power Plant Watson

File Avc Precipitator Graphs Options Window Help

Time: 10:41 am Monday January 17, 19100

Precipitator Status

oad 256 MW Fuel Flow Klbs/Hr

% Engy Mgt None Freeze

0204 KW

4 Opacity 6 %

| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-A-12 | 001 | 020 | 252 | 0140 | 37.8 | 040 | 064 | 05.3 | Running | AUC |
| 4-A-34 | 002 | 032 | 456 | 0190 | 55.8 | 020 | 104 | 10.6 | Running | AUC |
| 4-A-56 | 003 | 031 | 399 | 0180 | 46.8 | 048 | 096 | 08.4 | Running | AUC |
| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
| 4-B-12 | 004 | 049 | 006 | 0300 | 48.6 | 028 | 133 | 14.6 | Running | AUC |
| 4-B-34 | 005 | 050 | 408 | 0270 | 50.4 | 040 | 099 | 13.6 | Running | AUC |
| 4-B-56 | 006 | 053 | 420 | 0310 | 48.6 | 032 | 103 | 15.1 | Running | AUC |
| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
| 4-C-12 | 007 | 130 | 351 | 0680 | 48.6 | 008 | 089 | 33.0 | Running | AUC |
| 4-C-34 | 008 | 140 | 375 | 0790 | 48.6 | 012 | 093 | 38.4 | Running | AUC |
| 4-C-56 | 009 | 178 | 414 | 1280 | 50.4 | 040 | 047 | 64.5 | Running | AUC |

1/20/00 Second Run of the day R3

| | 2pm First Hour | | 3pm Second Hour | | 4pm Third Hour | | Run 3 Mean |
|---|---|---|---|---|---|---|---|
| Gross Generation | 248 | MW | 250 | MW | 250 | MW | 249 |
| Net Generation | 231 | MW | 233 | MW | 233 | MW | 232 |
| Primary Air Flow: A | 88 | kLbs/hr | 88 | kLbs/hr | 88 | kLbs/hr | |
| B | 89 | kLbs/hr | 90 | kLbs/hr | 89 | kLbs/hr | |
| C | 86 | kLbs/hr | 86 | kLbs/hr | 86 | kLbs/hr | |
| Primary Air Temp: A | 395 | Degrees F | 399 | Degrees F | 403 | Degrees F | |
| B | 399 | Degrees F | 399 | Degrees F | 400 | Degrees F | |
| C | 395 | Degrees F | 393 | Degrees F | 392 | Degrees F | |
| Coal Feed Total: A-1 | 32 | kLbs/hr | 31 | kLbs/hr | 31 | kLbs/hr | |
| A-2 | 32 | kLbs/hr | 31 | kLbs/hr | 31 | kLbs/hr | |
| B-1 | 34 | kLbs/hr | 33 | kLbs/hr | 34 | kLbs/hr | |
| B-2 | 34 | kLbs/hr | 34 | kLbs/hr | 34 | kLbs/hr | |
| C-1 | 28 | kLbs/hr | 27 | kLbs/hr | 27 | kLbs/hr | |
| C-2 | 28 | kLbs/hr | 27 | kLbs/hr | 27 | kLbs/hr | |
| Main Steam Flow | 1542 | Lbs/hr | 1538 | Lbs/hr | 1545 | Lbs/hr | 1542 |
| Main Steam Temp. | 975 | Degrees F | 975 | Degrees F | 975 | Degrees F | 975 |
| | 31.3 | | 30.5 | | 30.7 | | |
| | 188 | | 183 | | 184 | | 185 |

R-3 1343-1642

Unit load (MW) - 249

Avg. total Coal Feed, (lb/hr) - ~~30.8~~ 185

Mississippi Power Plant Watson

File Avc Precipitator Graphs Options Window Help

Time: 01:53 pm Monday January 17, 19100

Precipitator Status

oad 256 MW Fuel Flow Klbs/Hr

% Engy Mgt None Freeze

0188 KW

4 Opacity 6 %

| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-A-12 | 001 | 025 | 426 | 0140 | 50.4 | 040 | 095 | 07.1 | Running | AVC |
| 4-A-34 | 002 | 030 | 453 | 0170 | 55.8 | 000 | 101 | 09.5 | Running | AVC |
| 4-A-56 | 003 | 029 | 372 | 0160 | 46.8 | 040 | 093 | 07.5 | Running | AVC |
| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
| 4-B-12 | 004 | 040 | 006 | 0250 | 50.4 | 076 | 111 | 12.6 | Running | AVC |
| 4-B-34 | 005 | 037 | 321 | 0180 | 46.8 | 040 | 087 | 08.4 | Running | AVC |
| 4-B-56 | 006 | 060 | 438 | 0360 | 50.4 | 052 | 109 | 18.1 | Running | AVC |
| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
| 4-C-12 | 007 | 104 | 312 | 0520 | 45.0 | 012 | 081 | 23.4 | Running | AVC |
| 4-C-34 | 008 | 132 | 351 | 0720 | 46.8 | 012 | 089 | 33.7 | Running | AVC |
| 4-C-56 | 009 | 178 | 450 | 1260 | 54.0 | 008 | 113 | 68.0 | Running | AVC |

Mississippi Power Plant Watson

File Avc Precipitator Graphs Options Window Help

Time 02:47 pm Monday January 17, 19100

Precipitator Status

Generator Load 258 MW Fuel Flow Klbs/Hr

Boiler Load % Engy Mgt None Freeze

Total Power 0202 KW

Precipitator 4

| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-A-12 | 001 | 032 | 456 | 0190 | 52.2 | 028 | 107 | 09.9 | Running | AUC |
| 4-A-34 | 002 | 033 | 459 | 0190 | 52.2 | 004 | 104 | 09.9 | Running | AUC |
| 4-A-56 | 003 | 036 | 420 | 0220 | 48.6 | 036 | 104 | 10.7 | Running | AUC |

| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-B-12 | 004 | 041 | 006 | 0270 | 52.2 | 052 | 115 | 14.1 | Running | AUC |
| 4-B-34 | 005 | 043 | 339 | 0220 | 48.6 | 044 | 091 | 10.7 | Running | AUC |
| 4-B-56 | 006 | 042 | 333 | 0230 | 41.4 | 040 | 092 | 09.5 | Running | AUC |

| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-C-12 | 007 | 116 | 330 | 0600 | 46.8 | 008 | 085 | 28.1 | Running | AUC |
| 4-C-34 | 008 | 138 | 363 | 0770 | 48.6 | 012 | 091 | 37.4 | Running | AUC |
| 4-C-56 | 009 | 184 | 453 | 1320 | 54.0 | 012 | 115 | 71.3 | Running | AUC |

Mississippi Power Plant Watson

File Avc Precipitator Graphs Options Window Help

Time: 03:48 pm Monday January 17, 19100

Precipitator Status

Generator Load 258 MW Fuel Flow Kibs/Hr

Boiler Load % Engy Mgt None Freeze

Total Power 0210 KW

Precipitator 4 Opacity 5 %

| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-A-12 | 001 | 039 | 483 | 0250 | 55.8 | 056 | 121 | 14.0 | Running | AVC |
| 4-A-34 | 002 | 032 | 459 | 0180 | 54.0 | 004 | 105 | 09.7 | Running | AVC |
| 4-A-56 | 003 | 035 | 411 | 0210 | 48.6 | 028 | 101 | 10.2 | Running | AVC |
| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
| 4-B-12 | 004 | 040 | 006 | 0250 | 52.2 | 044 | 115 | 13.1 | Running | AVC |
| 4-B-34 | 005 | 055 | 426 | 0300 | 52.2 | 044 | 105 | 15.7 | Running | AVC |
| 4-B-56 | 006 | 052 | 420 | 0310 | 50.4 | 048 | 104 | 15.6 | Running | AVC |
| Unit | Addr | Aca | Acv | Dcma | Dckv | Spks | Deg | Pwr | | |
| 4-C-12 | 007 | 118 | 333 | 0600 | 46.8 | 016 | 085 | 28.1 | Running | AVC |
| 4-C-34 | 008 | 120 | 336 | 0650 | 46.8 | 012 | 086 | 30.4 | Running | AVC |
| 4-C-56 | 009 | 182 | 462 | 1320- | 55.8 | 008 | 117 | 73.7 | Running | AVC |

**Process Data Summary - Mississippi Power Co., Watson, Unit 4**

| Run No. | 1 | | 2 | | 3 | | Mean | |
|---|---|---|---|---|---|---|---|---|
| Duct | A | B | A | B | A | B | A | B |
| Source Gas Flow, Kscfm | 282.2 | 286.6 | 273.1 | 283.6 | 272.4 | 283.4 | 275.9 | 284.5 |
| Total | **568.8** | | **556.7** | | **555.8** | | **560.4** | |
| kscf/hr | 34,128 | | 33,402 | | 33,348 | | 33,624 | |
| CO2 Concentration, % | 11.9 | 11.6 | 12.0 | 12.2 | 12.0 | 12.2 | 12.0 | 12.0 |
| Average | **11.8** | | **12.1** | | **12.1** | | **12.0** | |
| NOx Concentration, ppm | 267.6 | 268.6 | 270.1 | 272.2 | 268.4 | 273.1 | 268.7 | 271.3 |
| Average | **268.1** | | **271.2** | | **270.8** | | **270.0** | |
| NOx Emission Rate, lb/MMBtu | 0.482 | 0.498 | 0.483 | 0.479 | 0.482 | 0.481 | 0.5 | 0.5 |
| Average | **0.5** | | **0.5** | | **0.5** | | **0.5** | |
| SO2 Concentration, ppm | 533.4 | 518.7 | 573.2 | 582.4 | 556.6 | 566.8 | 554.4 | 556.0 |
| Average | **526.1** | | **577.8** | | **561.7** | | **555.2** | |
| SO2 Emission Rate, lb/MMBtu | 1.337 | 1.336 | 1.431 | 1.424 | 1.389 | 1.387 | 1.4 | 1.4 |
| Average | **1.3** | | **1.4** | | **1.4** | | **1.4** | |
| Opacity, % | **6.96** | | **4.93** | | **5.93** | | **5.94** | |
| Generation, MW | **249.7** | | **250.0** | | **250.0** | | **249.9** | |

| Record# | DATE | TIME | WT4FLOA1 | WT4CO2A2 | WT4FLOB3 | WT4GENA4 | WT4CO2B5 |
|---|---|---|---|---|---|---|---|
| 1 | 1/19/2000 | 113500 | 282.895 | 11.994 | 284.783 | 249.596 | |
| 2 | 1/19/2000 | 113530 | 283.064 | 11.868 | 284.227 | 249.89 | |
| 3 | 1/19/2000 | 113600 | 283.064 | 11.868 | 284.227 | 249.89 | |
| 4 | 1/19/2000 | 113630 | 283.25 | 11.839 | 284.19 | 250.077 | |
| 5 | 1/19/2000 | 113700 | 283.25 | 11.839 | 284.19 | 250.077 | |
| 6 | 1/19/2000 | 113730 | 284.286 | 11.746 | 282.349 | 248.785 | |
| 7 | 1/19/2000 | 113800 | 284.286 | 11.746 | 282.349 | 248.785 | |
| 8 | 1/19/2000 | 113830 | 285.934 | 11.734 | 282.177 | 248.98 | |
| 9 | 1/19/2000 | 113900 | 285.934 | 11.734 | 282.177 | 248.98 | |
| 10 | 1/19/2000 | 113930 | 285.786 | 11.741 | 282.166 | 249.747 | |
| 11 | 1/19/2000 | 114000 | 285.786 | 11.741 | 282.166 | 249.747 | |
| 12 | 1/19/2000 | 114030 | 285.203 | | 282.743 | 250.187 | |
| 13 | 1/19/2000 | 114100 | 285.203 | | 282.743 | 250.187 | |
| 14 | 1/19/2000 | 114130 | 285.001 | | 282.801 | 250.242 | 12.646 |
| 15 | 1/19/2000 | 114200 | 285.001 | | 282.801 | 250.242 | 12.646 |
| 16 | 1/19/2000 | 114230 | 282.707 | | 282.749 | 249.812 | 11.891 |
| 17 | 1/19/2000 | 114300 | 282.707 | | 282.749 | 249.812 | 11.891 |
| 18 | 1/19/2000 | 114330 | 282.716 | | 282.701 | 250.359 | 11.558 |
| 19 | 1/19/2000 | 114400 | 282.716 | | 282.701 | 250.359 | 11.558 |
| 20 | 1/19/2000 | 114430 | 281.654 | | 282.686 | 249.905 | 11.466 |
| 21 | 1/19/2000 | 114500 | 281.654 | | 282.686 | 249.905 | 11.466 |
| 22 | 1/19/2000 | 114530 | 281.334 | | 283.944 | 249.325 | 11.39 |
| 23 | 1/19/2000 | 114600 | 281.334 | | 283.944 | 249.325 | 11.39 |
| 24 | 1/19/2000 | 114630 | 281.396 | | 284.542 | 249.249 | 11.338 |
| 25 | 1/19/2000 | 114700 | 281.396 | | 284.542 | 249.249 | 11.338 |
| 26 | 1/19/2000 | 114730 | 281.342 | | 284.468 | 250.224 | 11.303 |
| 27 | 1/19/2000 | 114800 | 281.342 | | 284.468 | 250.224 | 11.303 |
| 28 | 1/19/2000 | 114830 | 281.427 | 12.45 | 283 | 250.232 | |
| 29 | 1/19/2000 | 114900 | 281.427 | 12.45 | 283 | 250.232 | |
| 30 | 1/19/2000 | 114930 | 281.389 | 12.072 | 283.022 | 249.54 | |
| 31 | 1/19/2000 | 115000 | 281.389 | 12.072 | 283.022 | 249.54 | |
| 32 | 1/19/2000 | 115030 | 282.748 | 11.929 | 283.227 | 249.793 | |
| 33 | 1/19/2000 | 115100 | 282.748 | 11.929 | 283.227 | 249.793 | |
| 34 | 1/19/2000 | 115130 | 283.201 | 11.889 | 283.651 | 249.917 | |
| 35 | 1/19/2000 | 115200 | 283.201 | 11.889 | 283.651 | 249.917 | |
| 36 | 1/19/2000 | 115230 | 282.887 | 11.831 | 283.497 | 249.819 | |
| 37 | 1/19/2000 | 115300 | 282.887 | 11.831 | 283.497 | 249.819 | |
| 38 | 1/19/2000 | 115330 | 282.601 | 11.818 | 283.66 | 249.371 | |
| 39 | 1/19/2000 | 115400 | 282.601 | 11.818 | 283.66 | 249.371 | |
| 40 | 1/19/2000 | 115430 | 281.603 | 11.802 | 283.509 | 249.761 | |
| 41 | 1/19/2000 | 115500 | 281.603 | 11.802 | 283.509 | 249.761 | |
| 42 | 1/19/2000 | 115530 | 280.191 | | 283.656 | 249.898 | |
| 43 | 1/19/2000 | 115600 | 280.191 | | 283.656 | 249.898 | |
| 44 | 1/19/2000 | 115630 | 279.147 | | 283.547 | 249.977 | 12.546 |
| 45 | 1/19/2000 | 115700 | 279.147 | | 283.547 | 249.977 | 12.546 |
| 46 | 1/19/2000 | 115730 | 277.179 | | 283.159 | 250.021 | 11.823 |
| 47 | 1/19/2000 | 115800 | 277.179 | | 283.159 | 250.021 | 11.823 |
| 48 | 1/19/2000 | 115830 | 277.371 | | 283.055 | 249.728 | 11.489 |
| 49 | 1/19/2000 | 115900 | 277.371 | | 283.055 | 249.728 | 11.489 |
| 50 | 1/19/2000 | 115930 | 277.817 | | 283.478 | 250.072 | 11.4 |
| 51 | 1/19/2000 | 120000 | 277.817 | | 283.478 | 250.072 | 11.4 |
| 52 | 1/19/2000 | 120030 | 278.177 | | 283.67 | 249.431 | 11.446 |
| 53 | 1/19/2000 | 120100 | 278.177 | | 283.67 | 249.431 | 11.446 |
| 54 | 1/19/2000 | 120130 | 279.266 | | 283.843 | 248.69 | 11.41 |
| 55 | 1/19/2000 | 120200 | 279.266 | | 283.843 | 248.69 | 11.41 |
| 56 | 1/19/2000 | 120230 | 279.271 | | 284.216 | 248.982 | 11.361 |
| 57 | 1/19/2000 | 120300 | 279.271 | | 284.216 | 248.982 | 11.361 |
| 58 | 1/19/2000 | 120330 | 279.418 | 12.472 | 284.201 | 249.634 | |
| 59 | 1/19/2000 | 120400 | 279.418 | 12.472 | 284.201 | 249.634 | |
| 60 | 1/19/2000 | 120430 | 279.384 | 12.047 | 284.122 | 249.853 | |
| 61 | 1/19/2000 | 120500 | 279.384 | 12.047 | 284.122 | 249.853 | |
| 62 | 1/19/2000 | 120530 | 280.086 | 11.93 | 283.781 | 250.259 | |
| 63 | 1/19/2000 | 120600 | 280.086 | 11.93 | 283.781 | 250.259 | |
| 64 | 1/19/2000 | 120630 | 280.12 | 11.986 | 283.743 | 249.365 | |
| 65 | 1/19/2000 | 120700 | 280.12 | 11.986 | 283.743 | 249.365 | |
| 66 | 1/19/2000 | 120730 | 282.341 | 12.022 | 283.79 | 249.71 | |
| 67 | 1/19/2000 | 120800 | 282.341 | 12.022 | 283.79 | 249.71 | |
| 68 | 1/19/2000 | 120830 | 282.39 | 12.019 | 282.483 | 249.405 | |
| 69 | 1/19/2000 | 120900 | 282.39 | 12.019 | 282.483 | 249.405 | |

| Record# | DATE | TIME | WT4FLOA1 | WT4CO2A2 | WT4FLOB3 | WT4GENA4 | WT4CO2B5 |
|---|---|---|---|---|---|---|---|
| 70 | 1/19/2000 | 120930 | 282.134 | 11.941 | 282.18 | 249.318 | |
| 71 | 1/19/2000 | 121000 | 282.134 | 11.941 | 282.18 | 249.318 | |
| 72 | 1/19/2000 | 121030 | 282.068 | | 282.08 | 249.116 | |
| 73 | 1/19/2000 | 121100 | 282.068 | | 282.08 | 249.116 | |
| 74 | 1/19/2000 | 121130 | 280.652 | | 281.749 | 249.846 | 12.501 |
| 75 | 1/19/2000 | 121200 | 280.652 | | 281.749 | 249.846 | 12.501 |
| 76 | 1/19/2000 | 121230 | 280.432 | | 281.748 | 250.211 | 11.832 |
| 77 | 1/19/2000 | 121300 | 280.432 | | 281.748 | 250.211 | 11.832 |
| 78 | 1/19/2000 | 121330 | 280.747 | | 281.93 | 249.821 | 11.466 |
| 79 | 1/19/2000 | 121400 | 280.747 | | 281.93 | 249.821 | 11.466 |
| 80 | 1/19/2000 | 121430 | 280.873 | | 282.613 | 249.238 | 11.361 |
| 81 | 1/19/2000 | 121500 | 280.873 | | 282.613 | 249.238 | 11.361 |
| 82 | 1/19/2000 | 121530 | 281.941 | | 282.629 | 249.26 | 11.33 |
| 83 | 1/19/2000 | 121600 | 281.941 | | 282.629 | 249.26 | 11.33 |
| 84 | 1/19/2000 | 121630 | 282.026 | | 283.195 | 249.41 | 11.352 |
| 85 | 1/19/2000 | 121700 | 282.026 | | 283.195 | 249.41 | 11.352 |
| 86 | 1/19/2000 | 121730 | 284.283 | | 283.774 | 250.008 | 11.362 |
| 87 | 1/19/2000 | 121800 | 284.283 | | 283.774 | 250.008 | 11.362 |
| 88 | 1/19/2000 | 121830 | 285.015 | 12.517 | 283.576 | 250.386 | |
| 89 | 1/19/2000 | 121900 | 285.015 | 12.517 | 283.576 | 250.386 | |
| 90 | 1/19/2000 | 121930 | 286.184 | 12.074 | 284.077 | 249.887 | |
| 91 | 1/19/2000 | 122000 | 286.184 | 12.074 | 284.077 | 249.887 | |
| 92 | 1/19/2000 | 122030 | 286.253 | 11.971 | 284.141 | 249.372 | |
| 93 | 1/19/2000 | 122100 | 286.253 | 11.971 | 284.141 | 249.372 | |
| 94 | 1/19/2000 | 122130 | 288.079 | 11.943 | 284.332 | 249.102 | |
| 95 | 1/19/2000 | 122200 | 288.079 | 11.943 | 284.332 | 249.102 | |
| 96 | 1/19/2000 | 122230 | 288.832 | 11.92 | 284.084 | 249.733 | |
| 97 | 1/19/2000 | 122300 | 288.832 | 11.92 | 284.084 | 249.733 | |
| 98 | 1/19/2000 | 122330 | 287.647 | 11.923 | 284.134 | 250.879 | |
| 99 | 1/19/2000 | 122400 | 287.647 | 11.923 | 284.134 | 250.879 | |
| 100 | 1/19/2000 | 122430 | 287.17 | 11.883 | 284.048 | 250.005 | |
| 101 | 1/19/2000 | 122500 | 287.17 | 11.883 | 284.048 | 250.005 | |
| 102 | 1/19/2000 | 122530 | 286.205 | | 284.448 | 249.478 | |
| 103 | 1/19/2000 | 122600 | 286.205 | | 284.448 | 249.478 | |
| 104 | 1/19/2000 | 122630 | 285.186 | | 285.064 | 249.28 | 12.579 |
| 105 | 1/19/2000 | 122700 | 285.186 | | 285.064 | 249.28 | 12.579 |
| 106 | 1/19/2000 | 122730 | 284.418 | | 284.996 | 249.739 | 11.907 |
| 107 | 1/19/2000 | 122800 | 284.418 | | 284.996 | 249.739 | 11.907 |
| 108 | 1/19/2000 | 122830 | 283.309 | | 285.481 | 250.04 | 11.665 |
| 109 | 1/19/2000 | 122900 | 283.309 | | 285.481 | 250.04 | 11.665 |
| 110 | 1/19/2000 | 122930 | 283.191 | | 285.847 | 249.806 | 11.491 |
| 111 | 1/19/2000 | 123000 | 283.191 | | 285.847 | 249.806 | 11.491 |
| 112 | 1/19/2000 | 123030 | 282.757 | | 285.919 | 250.02 | 11.448 |
| 113 | 1/19/2000 | 123100 | 282.757 | | 285.919 | 250.02 | 11.448 |
| 114 | 1/19/2000 | 123130 | 282.753 | | 287.07 | 250.266 | 11.401 |
| 115 | 1/19/2000 | 123200 | 282.753 | | 287.07 | 250.266 | 11.401 |
| 116 | 1/19/2000 | 123230 | 280.527 | | 287.902 | 250.407 | 11.475 |
| 117 | 1/19/2000 | 123300 | 280.527 | | 287.902 | 250.407 | 11.475 |
| 118 | 1/19/2000 | 123330 | 280.349 | 12.411 | 287.857 | 249.959 | |
| 119 | 1/19/2000 | 123400 | 280.349 | 12.411 | 287.857 | 249.959 | |
| 120 | 1/19/2000 | 123430 | 279.222 | 12.033 | 287.947 | 249.996 | |
| 121 | 1/19/2000 | 123500 | 279.222 | 12.033 | 287.947 | 249.996 | |
| 122 | 1/19/2000 | 123530 | 278.785 | 11.937 | 287.972 | 249.578 | |
| 123 | 1/19/2000 | 123600 | 278.785 | 11.937 | 287.972 | 249.578 | |
| 124 | 1/19/2000 | 123630 | 276.6 | 11.959 | 288.002 | 249.324 | |
| 125 | 1/19/2000 | 123700 | 276.6 | 11.959 | 288.002 | 249.324 | |
| 126 | 1/19/2000 | 123730 | 275.671 | 11.995 | 287.684 | 249.254 | |
| 127 | 1/19/2000 | 123800 | 275.671 | 11.995 | 287.684 | 249.254 | |
| 128 | 1/19/2000 | 123830 | 276.132 | 11.99 | 287.718 | 249.403 | |
| 129 | 1/19/2000 | 123900 | 276.132 | 11.99 | 287.718 | 249.403 | |
| 130 | 1/19/2000 | 123930 | 276.455 | 11.983 | 286.863 | 249.522 | |
| 131 | 1/19/2000 | 124000 | 276.455 | 11.983 | 286.863 | 249.522 | |
| 132 | 1/19/2000 | 124030 | 276.263 | | 284.117 | 249.514 | |
| 133 | 1/19/2000 | 124100 | 276.263 | | 284.117 | 249.514 | |
| 134 | 1/19/2000 | 124130 | 276.024 | | 284.131 | 250.092 | 12.559 |
| 135 | 1/19/2000 | 124200 | 276.024 | | 284.131 | 250.092 | 12.559 |
| 136 | 1/19/2000 | 124230 | 277.373 | | 284.458 | 249.919 | 11.824 |
| 137 | 1/19/2000 | 124300 | 277.373 | | 284.458 | 249.919 | 11.824 |
| 138 | 1/19/2000 | 124330 | 278.539 | | 285.069 | 249.789 | 11.47 |

| Record# | DATE | TIME | WT4FLOA1 | WT4CO2A2 | WT4FLOB3 | WT4GENA4 | WT4CO2B5 |
|---|---|---|---|---|---|---|---|
| 139 | 1/19/2000 | 124400 | 278.539 | | 285.069 | 249.789 | 11.47 |
| 140 | 1/19/2000 | 124430 | 279.417 | | 285.122 | 249.844 | 11.366 |
| 141 | 1/19/2000 | 124500 | 279.417 | | 285.122 | 249.844 | 11.366 |
| 142 | 1/19/2000 | 124530 | 280.334 | | 284.066 | 249.343 | 11.348 |
| 143 | 1/19/2000 | 124600 | 280.334 | | 284.066 | 249.343 | 11.348 |
| 144 | 1/19/2000 | 124630 | 280.302 | | 284.007 | 249.15 | 11.322 |
| 145 | 1/19/2000 | 124700 | 280.302 | | 284.007 | 249.15 | 11.322 |
| 146 | 1/19/2000 | 124730 | 280.31 | | 283.953 | 250.14 | 11.289 |
| 147 | 1/19/2000 | 124800 | 280.31 | | 283.953 | 250.14 | 11.289 |
| 148 | 1/19/2000 | 124830 | 280.28 | 12.49 | 285.931 | 250.095 | |
| 149 | 1/19/2000 | 124900 | 280.28 | 12.49 | 285.931 | 250.095 | |
| 150 | 1/19/2000 | 124930 | 280.315 | 12.165 | 286.814 | 250.646 | |
| 151 | 1/19/2000 | 125000 | 280.315 | 12.165 | 286.814 | 250.646 | |
| 152 | 1/19/2000 | 125030 | 282.038 | 12.075 | 286.793 | 249.472 | |
| 153 | 1/19/2000 | 125100 | 282.038 | 12.075 | 286.793 | 249.472 | |
| 154 | 1/19/2000 | 125130 | 282.838 | 11.983 | 286.758 | 249.083 | |
| 155 | 1/19/2000 | 125200 | 282.838 | 11.983 | 286.758 | 249.083 | |
| 156 | 1/19/2000 | 125230 | 283.284 | 12.044 | 286.8 | 249.389 | |
| 157 | 1/19/2000 | 125300 | 283.284 | 12.044 | 286.8 | 249.389 | |
| 158 | 1/19/2000 | 125330 | 283.81 | 12.009 | 286.793 | 249.805 | |
| 159 | 1/19/2000 | 125400 | 283.81 | 12.009 | 286.793 | 249.805 | |
| 160 | 1/19/2000 | 125430 | 283.122 | 12.017 | 286.748 | 250.123 | |
| 161 | 1/19/2000 | 125500 | 283.122 | 12.017 | 286.748 | 250.123 | |
| 162 | 1/19/2000 | 125530 | 282.399 | | 285.688 | 249.661 | |
| 163 | 1/19/2000 | 125600 | 282.399 | | 285.688 | 249.661 | |
| 164 | 1/19/2000 | 125630 | 282.554 | | 284.701 | 249.511 | 12.487 |
| 165 | 1/19/2000 | 125700 | 282.554 | | 284.701 | 249.511 | 12.487 |
| 166 | 1/19/2000 | 125730 | 282.856 | | 284.785 | 249.519 | 11.774 |
| 167 | 1/19/2000 | 125800 | 282.856 | | 284.785 | 249.519 | 11.774 |
| 168 | 1/19/2000 | 125830 | 282.993 | | 285.055 | 249.702 | 11.428 |
| 169 | 1/19/2000 | 125900 | 282.993 | | 285.055 | 249.702 | 11.428 |
| 170 | 1/19/2000 | 125930 | 283.341 | | 285.161 | 250.364 | 11.35 |
| 171 | 1/19/2000 | 130000 | 283.341 | | 285.161 | 250.364 | 11.35 |
| 172 | 1/19/2000 | 130030 | 283.416 | | 285.698 | 250.62 | 11.364 |
| 173 | 1/19/2000 | 130100 | 283.416 | | 285.698 | 250.62 | 11.364 |
| 174 | 1/19/2000 | 130130 | 283.995 | | 286.661 | 249.652 | 11.38 |
| 175 | 1/19/2000 | 130200 | 283.995 | | 286.661 | 249.652 | 11.38 |
| 176 | 1/19/2000 | 130230 | 283.98 | | 286.669 | 249.091 | 11.376 |
| 177 | 1/19/2000 | 130300 | 283.98 | | 286.669 | 249.091 | 11.376 |
| 178 | 1/19/2000 | 130330 | 282.839 | 12.266 | 286.408 | 249.411 | |
| 179 | 1/19/2000 | 130400 | 282.839 | 12.266 | 286.408 | 249.411 | |
| 180 | 1/19/2000 | 130430 | 282.629 | 11.907 | 286.063 | 249.898 | |
| 181 | 1/19/2000 | 130500 | 282.629 | 11.907 | 286.063 | 249.898 | |
| 182 | 1/19/2000 | 130530 | 281.374 | 11.863 | 286.031 | 249.99 | |
| 183 | 1/19/2000 | 130600 | 281.374 | 11.863 | 286.031 | 249.99 | |
| 184 | 1/19/2000 | 130630 | 281.419 | 11.863 | 286.33 | 249.805 | |
| 185 | 1/19/2000 | 130700 | 281.419 | 11.863 | 286.33 | 249.805 | |
| 186 | 1/19/2000 | 130730 | 281.529 | 11.935 | 286.637 | 249.585 | |
| 187 | 1/19/2000 | 130800 | 281.529 | 11.935 | 286.637 | 249.585 | |
| 188 | 1/19/2000 | 130830 | 281.51 | 11.968 | 286.547 | 249.52 | |
| 189 | 1/19/2000 | 130900 | 281.51 | 11.968 | 286.547 | 249.52 | |
| 190 | 1/19/2000 | 130930 | 283.991 | 11.919 | 285.448 | 250.121 | |
| 191 | 1/19/2000 | 131000 | 283.991 | 11.919 | 285.448 | 250.121 | |
| 192 | 1/19/2000 | 131030 | 284.297 | | 283.904 | 250.219 | |
| 193 | 1/19/2000 | 131100 | 284.297 | | 283.904 | 250.219 | |
| 194 | 1/19/2000 | 131130 | 285.955 | | 283.868 | 249.522 | 12.591 |
| 195 | 1/19/2000 | 131200 | 285.955 | | 283.868 | 249.522 | 12.591 |
| 196 | 1/19/2000 | 131230 | 285.638 | | 283.926 | 249.178 | 11.881 |
| 197 | 1/19/2000 | 131300 | 285.638 | | 283.926 | 249.178 | 11.881 |
| 198 | 1/19/2000 | 131330 | 284.263 | | 284.11 | 250.022 | 11.535 |
| 199 | 1/19/2000 | 131400 | 284.263 | | 284.11 | 250.022 | 11.535 |
| 200 | 1/19/2000 | 131430 | 284.299 | | 284.055 | 250.32 | 11.487 |
| 201 | 1/19/2000 | 131500 | 284.299 | | 284.055 | 250.32 | 11.487 |
| 202 | 1/19/2000 | 131530 | 282.22 | | 284.493 | 250.044 | 11.48 |
| 203 | 1/19/2000 | 131600 | 282.22 | | 284.493 | 250.044 | 11.48 |
| 204 | 1/19/2000 | 131630 | 282.226 | | 285.191 | 249.619 | 11.471 |
| 205 | 1/19/2000 | 131700 | 282.226 | | 285.191 | 249.619 | 11.471 |
| 206 | 1/19/2000 | 131730 | 280.708 | | 285.177 | 249.22 | 11.46 |
| 207 | 1/19/2000 | 131800 | 280.708 | | 285.177 | 249.22 | 11.46 |

| Record# | DATE | TIME | WT4FLOA1 | WT4CO2A2 | WT4FLOB3 | WT4GENA4 | WT4CO2B5 |
|---|---|---|---|---|---|---|---|
| 208 | 1/19/2000 | 131830 | 280.309 | 12.33 | 285.138 | 249.154 | |
| 209 | 1/19/2000 | 131900 | 280.309 | 12.33 | 285.138 | 249.154 | |
| 210 | 1/19/2000 | 131930 | 280.294 | 11.922 | 285.177 | 250.216 | |
| 211 | 1/19/2000 | 132000 | 280.294 | 11.922 | 285.177 | 250.216 | |
| 212 | 1/19/2000 | 132030 | 280.293 | 11.914 | 285.138 | 250.458 | |
| 213 | 1/19/2000 | 132100 | 280.293 | 11.914 | 285.138 | 250.458 | |
| 214 | 1/19/2000 | 132130 | 277.704 | 11.897 | 285.978 | 249.887 | |
| 215 | 1/19/2000 | 132200 | 277.704 | 11.897 | 285.978 | 249.887 | |
| 216 | 1/19/2000 | 132230 | 276.182 | 11.907 | 286.198 | 249.529 | |
| 217 | 1/19/2000 | 132300 | 276.182 | 11.907 | 286.198 | 249.529 | |
| 218 | 1/19/2000 | 132330 | 275.038 | 11.902 | 286.091 | 249.686 | |
| 219 | 1/19/2000 | 132400 | 275.038 | 11.902 | 286.091 | 249.686 | |
| 220 | 1/19/2000 | 132430 | 273.882 | 11.907 | 286.044 | 250.036 | |
| 221 | 1/19/2000 | 132500 | 273.882 | 11.907 | 286.044 | 250.036 | |
| 222 | 1/19/2000 | 132530 | 274.426 | | 286.117 | 249.997 | |
| 223 | 1/19/2000 | 132600 | 274.426 | | 286.117 | 249.997 | |
| 224 | 1/19/2000 | 132630 | 277.098 | | 285.995 | 249.823 | 12.636 |
| 225 | 1/19/2000 | 132700 | 277.098 | | 285.995 | 249.823 | 12.636 |
| 226 | 1/19/2000 | 132730 | 277.044 | | 287.072 | 249.86 | 11.976 |
| 227 | 1/19/2000 | 132800 | 277.044 | | 287.072 | 249.86 | 11.976 |
| 228 | 1/19/2000 | 132830 | 281.73 | | 287.267 | 250.35 | 11.764 |
| 229 | 1/19/2000 | 132900 | 281.73 | | 287.267 | 250.35 | 11.764 |
| 230 | 1/19/2000 | 132930 | 281.679 | | 287.289 | 249.15 | 11.695 |
| 231 | 1/19/2000 | 133000 | 281.679 | | 287.289 | 249.15 | 11.695 |
| 232 | 1/19/2000 | 133030 | 282.635 | | 287.216 | 249.114 | 11.44 |
| 233 | 1/19/2000 | 133100 | 282.635 | | 287.216 | 249.114 | 11.44 |
| 234 | 1/19/2000 | 133130 | 282.737 | | 287.118 | 249.568 | 11.41 |
| 235 | 1/19/2000 | 133200 | 282.737 | | 287.118 | 249.568 | 11.41 |
| 236 | 1/19/2000 | 133230 | 280.156 | | 286.722 | 249.925 | 11.354 |
| 237 | 1/19/2000 | 133300 | 280.156 | | 286.722 | 249.925 | 11.354 |
| 238 | 1/19/2000 | 133330 | 279.218 | 12.308 | 285.371 | 249.652 | |
| 239 | 1/19/2000 | 133400 | 279.218 | 12.308 | 285.371 | 249.652 | |
| 240 | 1/19/2000 | 133430 | 277.878 | 11.848 | 285.403 | 249.526 | |
| 241 | 1/19/2000 | 133500 | 277.878 | 11.848 | 285.403 | 249.526 | |
| 242 | 1/19/2000 | 133530 | 277.578 | 11.753 | 285.705 | 249.972 | |
| 243 | 1/19/2000 | 133600 | 277.578 | 11.753 | 285.705 | 249.972 | |
| 244 | 1/19/2000 | 133630 | 280.746 | 11.74 | 286.064 | 250.221 | |
| 245 | 1/19/2000 | 133700 | 280.746 | 11.74 | 286.064 | 250.221 | |
| 246 | 1/19/2000 | 133730 | 282.083 | 11.773 | 286.042 | 250.112 | |
| 247 | 1/19/2000 | 133800 | 282.083 | 11.773 | 286.042 | 250.112 | |
| 248 | 1/19/2000 | 133830 | 282.972 | 11.79 | 287.145 | 249.206 | |
| 249 | 1/19/2000 | 133900 | 282.972 | 11.79 | 287.145 | 249.206 | |
| 250 | 1/19/2000 | 133930 | 284.029 | 11.793 | 288.114 | 248.84 | |
| 251 | 1/19/2000 | 134000 | 284.029 | 11.793 | 288.114 | 248.84 | |
| 252 | 1/19/2000 | 134030 | 284.318 | | 288.181 | 249.98 | |
| 253 | 1/19/2000 | 134100 | 284.318 | | 288.181 | 249.98 | |
| 254 | 1/19/2000 | 134130 | 284.595 | | 288.032 | 250.029 | 12.504 |
| 255 | 1/19/2000 | 134200 | 284.595 | | 288.032 | 250.029 | 12.504 |
| 256 | 1/19/2000 | 134230 | 284.519 | | 288.159 | 250.123 | 11.789 |
| 257 | 1/19/2000 | 134300 | 284.519 | | 288.159 | 250.123 | 11.789 |
| 258 | 1/19/2000 | 134330 | 284.362 | | 287.963 | 249.593 | 11.381 |
| 259 | 1/19/2000 | 134400 | 284.362 | | 287.963 | 249.593 | 11.381 |
| 260 | 1/19/2000 | 134430 | 284.464 | | 285.725 | 248.662 | 11.287 |
| 261 | 1/19/2000 | 134500 | 284.464 | | 285.725 | 248.662 | 11.287 |
| 262 | 1/19/2000 | 134530 | 285.033 | | 285.825 | 249.448 | 11.241 |
| 263 | 1/19/2000 | 134600 | 285.033 | | 285.825 | 249.448 | 11.241 |
| 264 | 1/19/2000 | 134630 | 285.05 | | 284.638 | 250.186 | 11.162 |
| 265 | 1/19/2000 | 134700 | 285.05 | | 284.638 | 250.186 | 11.162 |
| 266 | 1/19/2000 | 134730 | 285.053 | | 282.46 | 250.368 | 11.149 |
| 267 | 1/19/2000 | 134800 | 285.053 | | 282.46 | 250.368 | 11.149 |
| 268 | 1/19/2000 | 134830 | 285.062 | 12.282 | 282.369 | 250.096 | |
| 269 | 1/19/2000 | 134900 | 285.062 | 12.282 | 282.369 | 250.096 | |
| 270 | 1/19/2000 | 134930 | 285.015 | 11.875 | 282.415 | 249.529 | |
| 271 | 1/19/2000 | 135000 | 285.015 | 11.875 | 282.415 | 249.529 | |
| 272 | 1/19/2000 | 135030 | 286.485 | 11.769 | 283.002 | 249.524 | |
| 273 | 1/19/2000 | 135100 | 286.485 | 11.769 | 283.002 | 249.524 | |
| 274 | 1/19/2000 | 135130 | 287.155 | 11.812 | 282.94 | 248.847 | |
| 275 | 1/19/2000 | 135200 | 287.155 | 11.812 | 282.94 | 248.847 | |
| 276 | 1/19/2000 | 135230 | 285.806 | 11.794 | 282.986 | 249.701 | |

| Record# | DATE | TIME | WT4FLOA1 | WT4CO2A2 | WT4FLOB3 | WT4GENA4 | WT4CO2B5 |
|---|---|---|---|---|---|---|---|
| 277 | 1/19/2000 | 135300 | 285.806 | 11.794 | 282.986 | 249.701 | |
| 278 | 1/19/2000 | 135330 | 284.103 | 11.816 | 283.015 | 250.249 | |
| 279 | 1/19/2000 | 135400 | 284.103 | 11.816 | 283.015 | 250.249 | |
| 280 | 1/19/2000 | 135430 | 285.797 | 11.857 | 283.055 | 250.016 | |
| 281 | 1/19/2000 | 135500 | 285.797 | 11.857 | 283.055 | 250.016 | |
| 282 | 1/19/2000 | 135530 | 287.671 | | 283.096 | 249.55 | |
| 283 | 1/19/2000 | 135600 | 287.671 | | 283.096 | 249.55 | |
| 284 | 1/19/2000 | 135630 | 286.662 | | 283.445 | 249.671 | 12.566 |
| 285 | 1/19/2000 | 135700 | 286.662 | | 283.445 | 249.671 | 12.566 |
| 286 | 1/19/2000 | 135730 | 285.651 | | 283.671 | 249.448 | 11.856 |
| 287 | 1/19/2000 | 135800 | 285.651 | | 283.671 | 249.448 | 11.856 |
| 288 | 1/19/2000 | 135830 | 286.451 | | 283.687 | 249.327 | 11.479 |
| 289 | 1/19/2000 | 135900 | 286.451 | | 283.687 | 249.327 | 11.479 |
| 290 | 1/19/2000 | 135930 | 288.534 | | 282.679 | 250.143 | 11.436 |
| 291 | 1/19/2000 | 140000 | 288.534 | | 282.679 | 250.143 | 11.436 |
| 292 | 1/19/2000 | 140030 | 287.549 | | 282.55 | 250.507 | 11.432 |
| 293 | 1/19/2000 | 140100 | 287.549 | | 282.55 | 250.507 | 11.432 |
| 294 | 1/19/2000 | 140130 | 282.561 | | 282.571 | 249.716 | 11.504 |
| 295 | 1/19/2000 | 140200 | 282.561 | | 282.571 | 249.716 | 11.504 |
| 296 | 1/19/2000 | 140230 | 282.608 | | 282.627 | 249.163 | 11.546 |
| 297 | 1/19/2000 | 140300 | 282.608 | | 282.627 | 249.163 | 11.546 |
| 298 | 1/19/2000 | 140330 | 281.438 | 12.269 | 282.665 | 250.109 | |
| 299 | 1/19/2000 | 140400 | 281.438 | 12.269 | 282.665 | 250.109 | |
| 300 | 1/19/2000 | 140430 | 281.312 | 11.853 | 282.479 | 250.241 | |
| 301 | 1/19/2000 | 140500 | 281.312 | 11.853 | 282.479 | 250.241 | |
| 302 | 1/19/2000 | 140530 | 280.054 | 11.78 | 282.214 | 250.574 | |
| 303 | 1/19/2000 | 140600 | 280.054 | 11.78 | 282.214 | 250.574 | |
| 304 | 1/19/2000 | 140630 | 279.843 | 11.796 | 282.196 | 249.814 | |
| 305 | 1/19/2000 | 140700 | 279.843 | 11.796 | 282.196 | 249.814 | |
| 306 | 1/19/2000 | 140730 | 279.265 | 11.832 | 282.471 | 249.544 | |
| 307 | 1/19/2000 | 140800 | 279.265 | 11.832 | 282.471 | 249.544 | |
| 308 | 1/19/2000 | 140830 | 279.147 | 11.872 | 282.874 | 249.609 | |
| 309 | 1/19/2000 | 140900 | 279.147 | 11.872 | 282.874 | 249.609 | |
| 310 | 1/19/2000 | 140930 | 278.873 | 11.866 | 282.949 | 249.779 | |
| 311 | 1/19/2000 | 141000 | 278.873 | 11.866 | 282.949 | 249.779 | |
| 312 | 1/19/2000 | 141030 | 278.824 | | 283.438 | 249.664 | |
| 313 | 1/19/2000 | 141100 | 278.824 | | 283.438 | 249.664 | |
| 314 | 1/19/2000 | 141130 | 278.524 | | 283.73 | 249.28 | 12.547 |
| 315 | 1/19/2000 | 141200 | 278.524 | | 283.73 | 249.28 | 12.547 |
| 316 | 1/19/2000 | 141230 | 278.319 | | 283.81 | 249.824 | 11.775 |
| 317 | 1/19/2000 | 141300 | 278.319 | | 283.81 | 249.824 | 11.775 |
| 318 | 1/19/2000 | 141330 | 281.785 | | 283.402 | 249.166 | 11.47 |
| 319 | 1/19/2000 | 141400 | 281.785 | | 283.402 | 249.166 | 11.47 |
| 320 | 1/19/2000 | 141430 | 283.781 | | 283.302 | 249.479 | 11.351 |
| 321 | 1/19/2000 | 141500 | 283.781 | | 283.302 | 249.479 | 11.351 |
| 322 | 1/19/2000 | 141530 | 285.492 | | 283.362 | 250.577 | 11.286 |
| 323 | 1/19/2000 | 141600 | 285.492 | | 283.362 | 250.577 | 11.286 |
| 324 | 1/19/2000 | 141630 | 286.962 | | 283.463 | 250.191 | 11.32 |
| 325 | 1/19/2000 | 141700 | 286.962 | | 283.463 | 250.191 | 11.32 |
| 326 | 1/19/2000 | 141730 | 286.465 | | 283.445 | 249.349 | 11.394 |
| 327 | 1/19/2000 | 141800 | 286.465 | | 283.445 | 249.349 | 11.394 |
| 328 | 1/19/2000 | 141830 | 285.479 | | 283.396 | 248.966 | 11.41 |
| 329 | 1/19/2000 | 141900 | 285.479 | | 283.396 | 248.966 | 11.41 |
| 330 | 1/19/2000 | 141930 | 285.11 | | 281.947 | 249.802 | 11.427 |
| 331 | 1/19/2000 | 142000 | 285.11 | | 281.947 | 249.802 | 11.427 |
| 332 | 1/19/2000 | 142030 | 284.109 | | 281.677 | 249.857 | 11.394 |
| 333 | 1/19/2000 | 142100 | 284.109 | | 281.677 | 249.857 | 11.394 |
| 334 | 1/19/2000 | 142130 | 284.049 | | 281.873 | 249.725 | 11.42 |
| 335 | 1/19/2000 | 142200 | 284.049 | | 281.873 | 249.725 | 11.42 |
| 336 | 1/19/2000 | 142230 | 283.817 | | 282.574 | 250.361 | 11.377 |
| 337 | 1/19/2000 | 142300 | 283.817 | | 282.574 | 250.361 | 11.377 |
| 338 | 1/19/2000 | 142330 | 283.865 | | 282.615 | 249.696 | 11.344 |
| 339 | 1/19/2000 | 142400 | 283.865 | | 282.615 | 249.696 | 11.344 |
| 340 | 1/19/2000 | 142430 | 283.944 | | 282.694 | 249.244 | 11.315 |
| 341 | 1/19/2000 | 142500 | 283.944 | | 282.694 | 249.244 | 11.315 |
| 342 | 1/19/2000 | 142530 | 283.654 | | 283.371 | 249.448 | |
| 343 | 1/19/2000 | 142600 | 283.654 | | 283.371 | 249.448 | |
| 344 | 1/19/2000 | 142630 | 281.836 | 11.826 | 283.284 | 250.271 | |
| 345 | 1/19/2000 | 142700 | 281.836 | 11.826 | 283.284 | 250.271 | |

| Record# | DATE | TIME | WT4FLOA1 | WT4CO2A2 | WT4FLOB3 | WT4GENA4 | WT4CO2B5 |
|---|---|---|---|---|---|---|---|
| 346 | 1/19/2000 | 142730 | 281.842 | 11.624 | 283.934 | 250.253 | |
| 347 | 1/19/2000 | 142800 | 281.842 | 11.624 | 283.934 | 250.253 | |
| 348 | 1/19/2000 | 142830 | 280.868 | 11.654 | 284.652 | 250.244 | |
| 349 | 1/19/2000 | 142900 | 280.868 | 11.654 | 284.652 | 250.244 | |
| 350 | 1/19/2000 | 142930 | 280.87 | 11.69 | 284.655 | 249.901 | |
| 351 | 1/19/2000 | 143000 | 280.87 | 11.69 | 284.655 | 249.901 | |
| 352 | 1/19/2000 | 143030 | 282.507 | 11.667 | 284.698 | 249.328 | |
| 353 | 1/19/2000 | 143100 | 282.507 | 11.667 | 284.698 | 249.328 | |
| 354 | 1/19/2000 | 143130 | 282.607 | 11.6 | 284.406 | 249.07 | |
| 355 | 1/19/2000 | 143200 | 282.607 | 11.6 | 284.406 | 249.07 | |
| 356 | 1/19/2000 | 143230 | 280.61 | 11.635 | 284.393 | 249.764 | |
| 357 | 1/19/2000 | 143300 | 280.61 | 11.635 | 284.393 | 249.764 | |
| 358 | 1/19/2000 | 143330 | 280.337 | 11.658 | 284.034 | 249.977 | |
| 359 | 1/19/2000 | 143400 | 280.337 | 11.658 | 284.034 | 249.977 | |
| 360 | 1/19/2000 | 143430 | 280.321 | 11.685 | 283.019 | 250.412 | |
| 361 | 1/19/2000 | 143500 | 280.321 | 11.685 | 283.019 | 250.412 | |
| 362 | 1/19/2000 | 143530 | 280.371 | 11.783 | 283.005 | 250.27 | |
| 363 | 1/19/2000 | 143600 | 280.371 | 11.783 | 283.005 | 250.27 | |
| 364 | 1/19/2000 | 143630 | 279.136 | 11.812 | 283.056 | 249.436 | |
| 365 | 1/19/2000 | 143700 | 279.136 | 11.812 | 283.056 | 249.436 | |
| 366 | 1/19/2000 | 143730 | 278.179 | 11.868 | 281.336 | 249.503 | |
| 367 | 1/19/2000 | 143800 | 278.179 | 11.868 | 281.336 | 249.503 | |
| 368 | 1/19/2000 | 143830 | 279.893 | 11.857 | 281.066 | 249.24 | |
| 369 | 1/19/2000 | 143900 | 279.893 | 11.857 | 281.066 | 249.24 | |
| 370 | 1/19/2000 | 143930 | 281.983 | 11.845 | 280.902 | 249.638 | |
| 371 | 1/19/2000 | 144000 | 281.983 | 11.845 | 280.902 | 249.638 | |
| 372 | 1/19/2000 | 144030 | 282.039 | | 280.33 | 249.754 | |
| 373 | 1/19/2000 | 144100 | 282.039 | | 280.33 | 249.754 | |
| 374 | 1/19/2000 | 144130 | 282.096 | | 280.403 | 250.241 | 12.092 |
| 375 | 1/19/2000 | 144200 | 282.096 | | 280.403 | 250.241 | 12.092 |
| 376 | 1/19/2000 | 144230 | 283.576 | | 280.626 | 250.252 | 11.473 |
| 377 | 1/19/2000 | 144300 | 283.576 | | 280.626 | 250.252 | 11.473 |
| 378 | 1/19/2000 | 144330 | 286.574 | | 280.822 | 250.223 | 11.263 |
| 379 | 1/19/2000 | 144400 | 286.574 | | 280.822 | 250.223 | 11.263 |
| 380 | 1/19/2000 | 144430 | 286.389 | | 280.828 | 249.547 | 11.232 |
| 381 | 1/19/2000 | 144500 | 286.389 | | 280.828 | 249.547 | 11.232 |
| 382 | 1/19/2000 | 144530 | 285.792 | | 282.127 | 249.142 | 11.207 |
| 383 | 1/19/2000 | 144600 | 285.792 | | 282.127 | 249.142 | 11.207 |
| 384 | 1/19/2000 | 144630 | 285.852 | | 282.414 | 249.111 | 11.223 |
| 385 | 1/19/2000 | 144700 | 285.852 | | 282.414 | 249.111 | 11.223 |
| 386 | 1/19/2000 | 144730 | 285.831 | | 282.386 | 250.083 | |
| 387 | 1/19/2000 | 144800 | 285.831 | | 282.386 | 250.083 | |
| 388 | 1/19/2000 | 144830 | 285.879 | 12.166 | 285.981 | 250.396 | |
| 389 | 1/19/2000 | 144900 | 285.879 | 12.166 | 285.981 | 250.396 | |
| 390 | 1/19/2000 | 144930 | 285.116 | 11.841 | 286.138 | 249.69 | |
| 391 | 1/19/2000 | 145000 | 285.116 | 11.841 | 286.138 | 249.69 | |
| 392 | 1/19/2000 | 145030 | 283.228 | 11.819 | 286.264 | 249.158 | |
| 393 | 1/19/2000 | 145100 | 283.228 | 11.819 | 286.264 | 249.158 | |
| 394 | 1/19/2000 | 145130 | 282.25 | 11.851 | 286.595 | 249.53 | |
| 395 | 1/19/2000 | 145200 | 282.25 | 11.851 | 286.595 | 249.53 | |
| 396 | 1/19/2000 | 145230 | 281.116 | 11.794 | 286.6 | 250.354 | |
| 397 | 1/19/2000 | 145300 | 281.116 | 11.794 | 286.6 | 250.354 | |
| 398 | / / | | | | | | |
| 399 | / / | AVE | 282.192 | 11.927 | 284.338 | 249.748 | 11.605 |

| Record# | DATE | TIME | WT4FLOA1 | WT4FLOB2 | WT4CO2A3 | WT4CO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 8 | 1/20/00 | 83330 | 278.625 | 283.532 | 10.139 | | 249.335 |
| 9 | 1/20/00 | 83400 | 278.625 | 283.532 | 10.139 | | 249.335 |
| 10 | 1/20/00 | 83430 | 276.706 | 283.938 | 11.239 | | 250.419 |
| 11 | 1/20/00 | 83500 | 276.706 | 283.938 | 11.239 | | 250.419 |
| 12 | 1/20/00 | 83530 | 276.306 | 283.909 | 11.733 | | 249.412 |
| 13 | 1/20/00 | 83600 | 276.306 | 283.909 | 11.733 | | 249.412 |
| 14 | 1/20/00 | 83630 | 276.615 | 281.869 | 11.763 | | 249.141 |
| 15 | 1/20/00 | 83700 | 276.615 | 281.869 | 11.763 | | 249.141 |
| 16 | 1/20/00 | 83730 | 276.783 | 280.335 | 11.711 | | 249.885 |
| 17 | 1/20/00 | 83800 | 276.783 | 280.335 | 11.711 | | 249.885 |
| 18 | 1/20/00 | 83830 | 278.089 | 280.612 | 11.707 | | 250.616 |
| 19 | 1/20/00 | 83900 | 278.089 | 280.612 | 11.707 | | 250.616 |
| 20 | 1/20/00 | 83930 | 278.642 | 281.439 | 11.742 | | 250.75 |
| 21 | 1/20/00 | 84000 | 278.642 | 281.439 | 11.742 | | 250.75 |
| 22 | 1/20/00 | 84030 | 278.757 | 281.345 | | | 250.359 |
| 23 | 1/20/00 | 84100 | 278.757 | 281.345 | | | 250.359 |
| 24 | 1/20/00 | 84130 | 278.954 | 281.552 | | 11.612 | 249.68 |
| 25 | 1/20/00 | 84200 | 278.954 | 281.552 | | 11.612 | 249.68 |
| 26 | 1/20/00 | 84230 | 278.038 | 282.352 | | 11.566 | 250.029 |
| 27 | 1/20/00 | 84300 | 278.038 | 282.352 | | 11.566 | 250.029 |
| 28 | 1/20/00 | 84330 | 277.578 | 282.353 | | 11.471 | 250.011 |
| 29 | 1/20/00 | 84400 | 277.578 | 282.353 | | 11.471 | 250.011 |
| 30 | 1/20/00 | 84430 | 276.927 | 283.427 | | 11.416 | 249.734 |
| 31 | 1/20/00 | 84500 | 276.927 | 283.427 | | 11.416 | 249.734 |
| 32 | 1/20/00 | 84530 | 276.37 | 284.15 | | 11.46 | 249.876 |
| 33 | 1/20/00 | 84600 | 276.37 | 284.15 | | 11.46 | 249.876 |
| 34 | 1/20/00 | 84630 | 276.341 | 284.232 | | 11.46 | 249.866 |
| 35 | 1/20/00 | 84700 | 276.341 | 284.232 | | 11.46 | 249.866 |
| 36 | 1/20/00 | 84730 | 276.352 | 284.043 | | | 250.223 |
| 37 | 1/20/00 | 84800 | 276.352 | 284.043 | | | 250.223 |
| 38 | 1/20/00 | 84830 | 276.335 | 283.654 | 12.436 | | 250.593 |
| 39 | 1/20/00 | 84900 | 276.335 | 283.654 | 12.436 | | 250.593 |
| 40 | 1/20/00 | 84930 | 276.313 | 283.611 | 11.994 | | 250.724 |
| 41 | 1/20/00 | 85000 | 276.313 | 283.611 | 11.994 | | 250.724 |
| 42 | 1/20/00 | 85030 | 279.509 | 283.664 | 11.886 | | 248.901 |
| 43 | 1/20/00 | 85100 | 279.509 | 283.664 | 11.886 | | 248.901 |
| 44 | 1/20/00 | 85130 | 279.538 | 283.677 | 11.841 | | 249.005 |
| 45 | 1/20/00 | 85200 | 279.538 | 283.677 | 11.841 | | 249.005 |
| 46 | 1/20/00 | 85230 | 281.374 | 283.614 | 11.845 | | 250.044 |
| 47 | 1/20/00 | 85300 | 281.374 | 283.614 | 11.845 | | 250.044 |
| 48 | 1/20/00 | 85330 | 281.805 | 283.532 | 11.876 | | 250.658 |
| 49 | 1/20/00 | 85400 | 281.805 | 283.532 | 11.876 | | 250.658 |
| 50 | 1/20/00 | 85430 | 280.905 | 283.574 | 11.882 | | 250.875 |
| 51 | 1/20/00 | 85500 | 280.905 | 283.574 | 11.882 | | 250.875 |
| 52 | 1/20/00 | 85530 | 280.737 | 283.391 | | | 249.129 |
| 53 | 1/20/00 | 85600 | 280.737 | 283.391 | | | 249.129 |
| 54 | 1/20/00 | 85630 | 278.976 | 282.857 | | 12.786 | 249.489 |
| 55 | 1/20/00 | 85700 | 278.976 | 282.857 | | 12.786 | 249.489 |
| 56 | 1/20/00 | 85730 | 278.771 | 282.819 | | 12.036 | 250.09 |
| 57 | 1/20/00 | 85800 | 278.771 | 282.819 | | 12.036 | 250.09 |
| 58 | 1/20/00 | 85830 | 276.806 | 282.807 | | 11.789 | 250.521 |
| 59 | 1/20/00 | 85900 | 276.806 | 282.807 | | 11.789 | 250.521 |
| 60 | 1/20/00 | 85930 | 276.678 | 282.814 | | 11.705 | 251.126 |
| 61 | 1/20/00 | 90000 | 276.678 | 282.814 | | 11.705 | 251.126 |
| 62 | 1/20/00 | 90030 | 276.09 | 282.92 | | 11.696 | 249.542 |
| 63 | 1/20/00 | 90100 | 276.09 | 282.92 | | 11.696 | 249.542 |
| 64 | 1/20/00 | 90130 | 276.047 | 284.217 | | 11.798 | 249.544 |
| 65 | 1/20/00 | 90200 | 276.047 | 284.217 | | 11.798 | 249.544 |
| 66 | 1/20/00 | 90230 | 274.515 | 284.24 | | | 249.546 |
| 67 | 1/20/00 | 90300 | 274.515 | 284.24 | | | 249.546 |
| 68 | 1/20/00 | 90330 | 274.347 | 284.164 | 12.306 | | 250.268 |
| 69 | 1/20/00 | 90400 | 274.347 | 284.164 | 12.306 | | 250.268 |
| 70 | 1/20/00 | 90430 | 273.989 | 284.114 | 11.88 | | 250.719 |
| 71 | 1/20/00 | 90500 | 273.989 | 284.114 | 11.88 | | 250.719 |
| 72 | 1/20/00 | 90530 | 273.867 | 284.013 | 11.783 | | 250.962 |
| 73 | 1/20/00 | 90600 | 273.867 | 284.013 | 11.783 | | 250.962 |
| 74 | 1/20/00 | 90630 | 274.995 | 283.387 | 11.759 | | 250.037 |
| 75 | 1/20/00 | 90700 | 274.995 | 283.387 | 11.759 | | 250.037 |
| 76 | 1/20/00 | 90730 | 275.237 | 282.583 | 11.776 | | 249.801 |

| Record# | DATE | TIME | WT4FLOA1 | WT4FLOB2 | WT4CO2A3 | WT4CO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 77 | 1/20/00 | 90800 | 275.237 | 282.583 | 11.776 | | 249.801 |
| 78 | 1/20/00 | 90830 | 276.391 | 282.646 | 11.81 | | 249.144 |
| 79 | 1/20/00 | 90900 | 276.391 | 282.646 | 11.81 | | 249.144 |
| 80 | 1/20/00 | 90930 | 276.798 | 282.867 | 11.803 | | 250.223 |
| 81 | 1/20/00 | 91000 | 276.798 | 282.867 | 11.803 | | 250.223 |
| 82 | 1/20/00 | 91030 | 277.679 | 282.857 | | | 249.849 |
| 83 | 1/20/00 | 91100 | 277.679 | 282.857 | | | 249.849 |
| 84 | 1/20/00 | 91130 | 277.966 | 283.224 | | 13.026 | 249.876 |
| 85 | 1/20/00 | 91200 | 277.966 | 283.224 | | 13.026 | 249.876 |
| 86 | 1/20/00 | 91230 | 279.254 | 283.428 | | 12.375 | 250.342 |
| 87 | 1/20/00 | 91300 | 279.254 | 283.428 | | 12.375 | 250.342 |
| 88 | 1/20/00 | 91330 | 279.703 | 283.459 | | 12.107 | 250.467 |
| 89 | 1/20/00 | 91400 | 279.703 | 283.459 | | 12.107 | 250.467 |
| 90 | 1/20/00 | 91430 | 279.517 | 284.72 | | 11.893 | 250.027 |
| 91 | 1/20/00 | 91500 | 279.517 | 284.72 | | 11.893 | 250.027 |
| 92 | 1/20/00 | 91530 | 279.344 | 285.1 | | 11.755 | 249.418 |
| 93 | 1/20/00 | 91600 | 279.344 | 285.1 | | 11.755 | 249.418 |
| 94 | 1/20/00 | 91630 | 280.106 | 285.13 | | 11.742 | 249.1 |
| 95 | 1/20/00 | 91700 | 280.106 | 285.13 | | 11.742 | 249.1 |
| 96 | 1/20/00 | 91730 | 280.62 | 285.945 | | | 249.238 |
| 97 | 1/20/00 | 91800 | 280.62 | 285.945 | | | 249.238 |
| 98 | 1/20/00 | 91830 | 280.342 | 285.988 | 12.386 | | 250.754 |
| 99 | 1/20/00 | 91900 | 280.342 | 285.988 | 12.386 | | 250.754 |
| 100 | 1/20/00 | 91930 | 280.171 | 285.065 | 11.991 | | 250.702 |
| 101 | 1/20/00 | 92000 | 280.171 | 285.065 | 11.991 | | 250.702 |
| 102 | 1/20/00 | 92030 | 279.732 | 283.77 | 11.811 | | 251.042 |
| 103 | 1/20/00 | 92100 | 279.732 | 283.77 | 11.811 | | 251.042 |
| 104 | 1/20/00 | 92130 | 277.722 | 283.767 | 11.821 | | 250.379 |
| 105 | 1/20/00 | 92200 | 277.722 | 283.767 | 11.821 | | 250.379 |
| 106 | 1/20/00 | 92230 | 277.7 | 283.297 | 11.821 | | 249.689 |
| 107 | 1/20/00 | 92300 | 277.7 | 283.297 | 11.821 | | 249.689 |
| 108 | 1/20/00 | 92330 | 276.691 | 283.247 | 11.856 | | 249.356 |
| 109 | 1/20/00 | 92400 | 276.691 | 283.247 | 11.856 | | 249.356 |
| 110 | 1/20/00 | 92430 | 276.661 | 283.207 | 11.832 | | 249.133 |
| 111 | 1/20/00 | 92500 | 276.661 | 283.207 | 11.832 | | 249.133 |
| 112 | 1/20/00 | 92530 | 273.661 | 282.856 | | | 250.256 |
| 113 | 1/20/00 | 92600 | 273.661 | 282.856 | | | 250.256 |
| 114 | 1/20/00 | 92630 | 273.246 | 282.869 | | 12.946 | 250.644 |
| 115 | 1/20/00 | 92700 | 273.246 | 282.869 | | 12.946 | 250.644 |
| 116 | 1/20/00 | 92730 | 273.763 | 282.705 | | 12.221 | 250.226 |
| 117 | 1/20/00 | 92800 | 273.763 | 282.705 | | 12.221 | 250.226 |
| 118 | 1/20/00 | 92830 | 274.053 | 282.624 | | 11.909 | 249.521 |
| 119 | 1/20/00 | 92900 | 274.053 | 282.624 | | 11.909 | 249.521 |
| 120 | 1/20/00 | 92930 | 273.488 | 282.61 | | 11.81 | 249.519 |
| 121 | 1/20/00 | 93000 | 273.488 | 282.61 | | 11.81 | 249.519 |
| 122 | 1/20/00 | 93030 | 272.948 | 282.501 | | 11.762 | 249.751 |
| 123 | 1/20/00 | 93100 | 272.948 | 282.501 | | 11.762 | 249.751 |
| 124 | 1/20/00 | 93130 | 273.418 | 282.517 | | 11.773 | 250.153 |
| 125 | 1/20/00 | 93200 | 273.418 | 282.517 | | 11.773 | 250.153 |
| 126 | 1/20/00 | 93230 | 273.916 | 282.52 | | | 249.961 |
| 127 | 1/20/00 | 93300 | 273.916 | 282.52 | | | 249.961 |
| 128 | 1/20/00 | 93330 | 272.774 | 283.863 | 12.423 | | 249.87 |
| 129 | 1/20/00 | 93400 | 272.774 | 283.863 | 12.423 | | 249.87 |
| 130 | 1/20/00 | 93430 | 271.322 | 284.458 | 11.933 | | 250.19 |
| 131 | 1/20/00 | 93500 | 271.322 | 284.458 | 11.933 | | 250.19 |
| 132 | 1/20/00 | 93530 | 271.003 | 284.731 | 11.883 | | 250.589 |
| 133 | 1/20/00 | 93600 | 271.003 | 284.731 | 11.883 | | 250.589 |
| 134 | 1/20/00 | 93630 | 269.938 | 285.79 | 11.855 | | 250.124 |
| 135 | 1/20/00 | 93700 | 269.938 | 285.79 | 11.855 | | 250.124 |
| 136 | 1/20/00 | 93730 | 269.972 | 285.663 | 11.775 | | 249.81 |
| 137 | 1/20/00 | 93800 | 269.972 | 285.663 | 11.775 | | 249.81 |
| 138 | 1/20/00 | 93830 | 270.324 | 285.986 | 11.733 | | 249.527 |
| 139 | 1/20/00 | 93900 | 270.324 | 285.986 | 11.733 | | 249.527 |
| 140 | 1/20/00 | 93930 | 270.871 | 286.316 | 11.787 | | 249.522 |
| 141 | 1/20/00 | 94000 | 270.871 | 286.316 | 11.787 | | 249.522 |
| 142 | 1/20/00 | 94030 | 273.85 | 286.395 | | | 249.39 |
| 143 | 1/20/00 | 94100 | 273.85 | 286.395 | | | 249.39 |
| 144 | 1/20/00 | 94130 | 273.897 | 285.937 | | 13.013 | 249.599 |
| 145 | 1/20/00 | 94200 | 273.897 | 285.937 | | 13.013 | 249.599 |

| Record# | DATE | TIME | WT4FLOA1 | WT4FLOB2 | WT4CO2A3 | WT4CO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 146 | 1/20/00 | 94230 | 274.761 | 285.861 | | 12.217 | 250.014 |
| 147 | 1/20/00 | 94300 | 274.761 | 285.861 | | 12.217 | 250.014 |
| 148 | 1/20/00 | 94330 | 275.156 | 285.85 | | 11.864 | 249.973 |
| 149 | 1/20/00 | 94400 | 275.156 | 285.85 | | 11.864 | 249.973 |
| 150 | 1/20/00 | 94430 | 276.062 | 284.866 | | 11.825 | 250.298 |
| 151 | 1/20/00 | 94500 | 276.062 | 284.866 | | 11.825 | 250.298 |
| 152 | 1/20/00 | 94530 | 276.963 | 284.784 | | 11.793 | 250.651 |
| 153 | 1/20/00 | 94600 | 276.963 | 284.784 | | 11.793 | 250.651 |
| 154 | 1/20/00 | 94630 | 276.936 | 284.825 | | 11.767 | 250.472 |
| 155 | 1/20/00 | 94700 | 276.936 | 284.825 | | 11.767 | 250.472 |
| 156 | 1/20/00 | 94730 | 276.95 | 283.264 | | | 250.005 |
| 157 | 1/20/00 | 94800 | 276.95 | 283.264 | | | 250.005 |
| 158 | 1/20/00 | 94830 | 276.936 | 283.181 | 12.521 | | 250.408 |
| 159 | 1/20/00 | 94900 | 276.936 | 283.181 | 12.521 | | 250.408 |
| 160 | 1/20/00 | 94930 | 276.963 | 282.969 | 12.076 | | 250.276 |
| 161 | 1/20/00 | 95000 | 276.963 | 282.969 | 12.076 | | 250.276 |
| 162 | 1/20/00 | 95030 | 277.472 | 282.574 | 11.947 | | 250.567 |
| 163 | 1/20/00 | 95100 | 277.472 | 282.574 | 11.947 | | 250.567 |
| 164 | 1/20/00 | 95130 | 277.888 | 282.632 | 11.92 | | 250.03 |
| 165 | 1/20/00 | 95200 | 277.888 | 282.632 | 11.92 | | 250.03 |
| 166 | 1/20/00 | 95230 | 277.888 | 282.554 | 11.952 | | 249.802 |
| 167 | 1/20/00 | 95300 | 277.888 | 282.554 | 11.952 | | 249.802 |
| 168 | 1/20/00 | 95330 | 278.043 | 282.548 | 11.984 | | 249.085 |
| 169 | 1/20/00 | 95400 | 278.043 | 282.548 | 11.984 | | 249.085 |
| 170 | 1/20/00 | 95430 | 277.565 | 282.49 | 11.921 | | 250.003 |
| 171 | 1/20/00 | 95500 | 277.565 | 282.49 | 11.921 | | 250.003 |
| 172 | 1/20/00 | 95530 | 275.995 | 282.454 | | | 250.564 |
| 173 | 1/20/00 | 95600 | 275.995 | 282.454 | | | 250.564 |
| 174 | 1/20/00 | 95630 | 276.034 | 282.546 | | 12.978 | 250.67 |
| 175 | 1/20/00 | 95700 | 276.034 | 282.546 | | 12.978 | 250.67 |
| 176 | 1/20/00 | 95730 | 277.086 | 282.616 | | 12.284 | 250.35 |
| 177 | 1/20/00 | 95800 | 277.086 | 282.616 | | 12.284 | 250.35 |
| 178 | 1/20/00 | 95830 | 277.104 | 282.67 | | 11.904 | 249.674 |
| 179 | 1/20/00 | 95900 | 277.104 | 282.67 | | 11.904 | 249.674 |
| 180 | 1/20/00 | 95930 | 277.22 | 282.693 | | 11.805 | 249.881 |
| 181 | 1/20/00 | 100000 | 277.22 | 282.693 | | 11.805 | 249.881 |
| 182 | 1/20/00 | 100030 | 277.226 | 282.706 | | 11.722 | 250.15 |
| 183 | 1/20/00 | 100100 | 277.226 | 282.706 | | 11.722 | 250.15 |
| 184 | 1/20/00 | 100130 | 276.923 | 282.679 | | 11.704 | 249.949 |
| 185 | 1/20/00 | 100200 | 276.923 | 282.679 | | 11.704 | 249.949 |
| 186 | 1/20/00 | 100230 | 276.93 | 282.971 | | | 250.213 |
| 187 | 1/20/00 | 100300 | 276.93 | 282.971 | | | 250.213 |
| 188 | 1/20/00 | 100330 | 275.25 | 283.148 | 12.51 | | 249.89 |
| 189 | 1/20/00 | 100400 | 275.25 | 283.148 | 12.51 | | 249.89 |
| 190 | 1/20/00 | 100430 | 274.231 | 283.27 | 12.04 | | 250.287 |
| 191 | 1/20/00 | 100500 | 274.231 | 283.27 | 12.04 | | 250.287 |
| 192 | 1/20/00 | 100530 | 274.761 | 283.605 | 12.053 | | 250.039 |
| 193 | 1/20/00 | 100600 | 274.761 | 283.605 | 12.053 | | 250.039 |
| 194 | 1/20/00 | 100630 | 275.261 | 283.552 | 11.954 | | 250.276 |
| 195 | 1/20/00 | 100700 | 275.261 | 283.552 | 11.954 | | 250.276 |
| 196 | 1/20/00 | 100730 | 276.866 | 282.562 | 11.949 | | 250.599 |
| 197 | 1/20/00 | 100800 | 276.866 | 282.562 | 11.949 | | 250.599 |
| 198 | 1/20/00 | 100830 | 278.131 | 282.025 | 11.854 | | 250.012 |
| 199 | 1/20/00 | 100900 | 278.131 | 282.025 | 11.854 | | 250.012 |
| 200 | 1/20/00 | 100930 | 278.989 | 282.057 | 11.803 | | 249.163 |
| 201 | 1/20/00 | 101000 | 278.989 | 282.057 | 11.803 | | 249.163 |
| 202 | 1/20/00 | 101030 | 279.959 | 281.363 | | | 249.736 |
| 203 | 1/20/00 | 101100 | 279.959 | 281.363 | | | 249.736 |
| 204 | 1/20/00 | 101130 | 280.2 | 281.121 | | 13.058 | 250.954 |
| 205 | 1/20/00 | 101200 | 280.2 | 281.121 | | 13.058 | 250.954 |
| 206 | 1/20/00 | 101230 | 280.886 | 280.853 | | 12.372 | 250.359 |
| 207 | 1/20/00 | 101300 | 280.886 | 280.853 | | 12.372 | 250.359 |
| 208 | 1/20/00 | 101330 | 280.891 | 279.111 | | 12.06 | 249.804 |
| 209 | 1/20/00 | 101400 | 280.891 | 279.111 | | 12.06 | 249.804 |
| 210 | 1/20/00 | 101430 | 278.976 | 279.191 | | 11.955 | 249.55 |
| 211 | 1/20/00 | 101500 | 278.976 | 279.191 | | 11.955 | 249.55 |
| 212 | 1/20/00 | 101530 | 278.91 | 279.669 | | 11.902 | 250.013 |
| 213 | 1/20/00 | 101600 | 278.91 | 279.669 | | 11.902 | 250.013 |
| 214 | 1/20/00 | 101630 | 277.699 | 281.465 | | 11.857 | 249.989 |

| Record# | DATE | TIME | WT4FLOA1 | WT4FLOB2 | WT4CO2A3 | WT4CO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 215 | 1/20/00 | 101700 | 277.699 | 281.465 | | 11.857 | 249.989 |
| 216 | 1/20/00 | 101730 | 277.548 | 281.424 | | | 250.261 |
| 217 | 1/20/00 | 101800 | 277.548 | 281.424 | | | 250.261 |
| 218 | 1/20/00 | 101830 | 275.034 | 282.262 | 12.449 | | 250.25 |
| 219 | 1/20/00 | 101900 | 275.034 | 282.262 | 12.449 | | 250.25 |
| 220 | 1/20/00 | 101930 | 274.852 | 282.955 | 11.955 | | 250.481 |
| 221 | 1/20/00 | 102000 | 274.852 | 282.955 | 11.955 | | 250.481 |
| 222 | 1/20/00 | 102030 | 274.33 | 282.971 | 11.847 | | 250.277 |
| 223 | 1/20/00 | 102100 | 274.33 | 282.971 | 11.847 | | 250.277 |
| 224 | 1/20/00 | 102130 | 274.209 | 284.032 | 11.836 | | 250.071 |
| 225 | 1/20/00 | 102200 | 274.209 | 284.032 | 11.836 | | 250.071 |
| 226 | 1/20/00 | 102230 | 274.783 | 284.031 | 11.85 | | 249.615 |
| 227 | 1/20/00 | 102300 | 274.783 | 284.031 | 11.85 | | 249.615 |
| 228 | 1/20/00 | 102330 | 274.96 | 284.096 | 11.818 | | 249.209 |
| 229 | 1/20/00 | 102400 | 274.96 | 284.096 | 11.818 | | 249.209 |
| 230 | 1/20/00 | 102430 | 275.167 | 283.944 | 11.747 | | 249.762 |
| 231 | 1/20/00 | 102500 | 275.167 | 283.944 | 11.747 | | 249.762 |
| 232 | 1/20/00 | 102530 | 275.227 | 283.285 | | | 250.58 |
| 233 | 1/20/00 | 102600 | 275.227 | 283.285 | | | 250.58 |
| 234 | 1/20/00 | 102630 | 275.253 | 283.174 | | 13.132 | 250.674 |
| 235 | 1/20/00 | 102700 | 275.253 | 283.174 | | 13.132 | 250.674 |
| 236 | 1/20/00 | 102730 | 275.235 | 282.047 | | 12.338 | 249.852 |
| 237 | 1/20/00 | 102800 | 275.235 | 282.047 | | 12.338 | 249.852 |
| 238 | 1/20/00 | 102830 | 275.249 | 281.745 | | 12.004 | 248.919 |
| 239 | 1/20/00 | 102900 | 275.249 | 281.745 | | 12.004 | 248.919 |
| 240 | 1/20/00 | 102930 | 276.638 | 281.761 | | 11.894 | 249.898 |
| 241 | 1/20/00 | 103000 | 276.638 | 281.761 | | 11.894 | 249.898 |
| 242 | 1/20/00 | 103030 | 276.593 | 283.077 | | 11.838 | 250.256 |
| 243 | 1/20/00 | 103100 | 276.593 | 283.077 | | 11.838 | 250.256 |
| 244 | 1/20/00 | 103130 | 276.762 | 284.08 | | 11.863 | 250.037 |
| 245 | 1/20/00 | 103200 | 276.762 | 284.08 | | 11.863 | 250.037 |
| 246 | 1/20/00 | 103230 | 276.79 | 284.116 | | | 250.061 |
| 247 | 1/20/00 | 103300 | 276.79 | 284.116 | | | 250.061 |
| 248 | 1/20/00 | 103330 | 278.319 | 283.872 | 12.47 | | 250.054 |
| 249 | 1/20/00 | 103400 | 278.319 | 283.872 | 12.47 | | 250.054 |
| 250 | 1/20/00 | 103430 | 278.205 | 283.989 | 11.95 | | 250.177 |
| 251 | 1/20/00 | 103500 | 278.205 | 283.989 | 11.95 | | 250.177 |
| 252 | 1/20/00 | 103530 | 277.379 | 284.373 | 11.868 | | 250.885 |
| 253 | 1/20/00 | 103600 | 277.379 | 284.373 | 11.868 | | 250.885 |
| 254 | 1/20/00 | 103630 | 277.406 | 284.677 | 11.81 | | 250.337 |
| 255 | 1/20/00 | 103700 | 277.406 | 284.677 | 11.81 | | 250.337 |
| 256 | 1/20/00 | 103730 | 277.395 | 284.744 | 11.847 | | 249.309 |
| 257 | 1/20/00 | 103800 | 277.395 | 284.744 | 11.847 | | 249.309 |
| 258 | 1/20/00 | 103830 | 277.351 | 282.48 | 11.988 | | 249.55 |
| 259 | 1/20/00 | 103900 | 277.351 | 282.48 | 11.988 | | 249.55 |
| 260 | 1/20/00 | 103930 | 278.459 | 282.058 | 11.894 | | 249.836 |
| 261 | 1/20/00 | 104000 | 278.459 | 282.058 | 11.894 | | 249.836 |
| 262 | 1/20/00 | 104030 | 278.615 | 282.084 | | 13.398 | 249.979 |
| 263 | 1/20/00 | 104100 | 278.615 | 282.084 | | 13.398 | 249.979 |
| 264 | 1/20/00 | 104130 | 279.016 | 283.451 | | 12.972 | 250.275 |
| 265 | 1/20/00 | 104200 | 279.016 | 283.451 | | 12.972 | 250.275 |
| 266 | 1/20/00 | 104230 | 279.087 | 283.454 | | 12.331 | 251.032 |
| 267 | 1/20/00 | 104300 | 279.087 | 283.454 | | 12.331 | 251.032 |
| 268 | 1/20/00 | 104330 | 279.453 | 283.218 | | 11.999 | 250.294 |
| 269 | 1/20/00 | 104400 | 279.453 | 283.218 | | 11.999 | 250.294 |
| 270 | 1/20/00 | 104430 | 279.512 | 282.898 | | 11.826 | 250.023 |
| 271 | 1/20/00 | 104500 | 279.512 | 282.898 | | 11.826 | 250.023 |
| 272 | 1/20/00 | 104530 | 279.505 | 282.999 | | 11.79 | 250.067 |
| 273 | 1/20/00 | 104600 | 279.505 | 282.999 | | 11.79 | 250.067 |
| 274 | 1/20/00 | 104630 | 279.555 | 283.427 | | 11.809 | 250.037 |
| 275 | 1/20/00 | 104700 | 279.555 | 283.427 | | 11.809 | 250.037 |
| 276 | 1/20/00 | 104730 | 279.528 | 284.205 | | | 250.289 |
| 277 | 1/20/00 | 104800 | 279.528 | 284.205 | | | 250.289 |
| 278 | 1/20/00 | 104830 | 279.62 | 284.207 | 12.492 | | 250.736 |
| 279 | 1/20/00 | 104900 | 279.62 | 284.207 | 12.492 | | 250.736 |
| 280 | 1/20/00 | 104930 | 277.589 | 285.628 | 12.049 | | 249.961 |
| 281 | 1/20/00 | 105000 | 277.589 | 285.628 | 12.049 | | 249.961 |
| 282 | 1/20/00 | 105030 | 276.005 | 285.85 | 11.975 | | 249.63 |
| 283 | 1/20/00 | 105100 | 276.005 | 285.85 | 11.975 | | 249.63 |

| Record# | DATE | TIME | WT4FLOA1 | WT4FLOB2 | WT4CO2A3 | WT4CO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 284 | 1/20/00 | 105130 | 275.695 | 285.947 | 11.904 | | 249.53 |
| 285 | 1/20/00 | 105200 | 275.695 | 285.947 | 11.904 | | 249.53 |
| 286 | 1/20/00 | 105230 | 274.929 | 285.907 | 11.765 | | 249.822 |
| 287 | 1/20/00 | 105300 | 274.929 | 285.907 | 11.765 | | 249.822 |
| 288 | 1/20/00 | 105330 | 275.108 | 285.882 | 11.719 | | 249.963 |
| 289 | 1/20/00 | 105400 | 275.108 | 285.882 | 11.719 | | 249.963 |
| 290 | 1/20/00 | 105430 | 275.75 | 285.783 | 11.676 | | 250.558 |
| 291 | 1/20/00 | 105500 | 275.75 | 285.783 | 11.676 | | 250.558 |
| 292 | 1/20/00 | 105530 | 275.684 | 285.888 | | 13.45 | 250.27 |
| 293 | 1/20/00 | 105600 | 275.684 | 285.888 | | 13.45 | 250.27 |
| 294 | 1/20/00 | 105630 | 271.947 | 286.565 | | 13.041 | 249.887 |
| 295 | 1/20/00 | 105700 | 271.947 | 286.565 | | 13.041 | 249.887 |
| 296 | 1/20/00 | 105730 | 271.912 | 286.668 | | 12.396 | 249.536 |
| 297 | 1/20/00 | 105800 | 271.912 | 286.668 | | 12.396 | 249.536 |
| 298 | 1/20/00 | 105830 | 271.602 | 286.649 | | 12.16 | 249.765 |
| 299 | 1/20/00 | 105900 | 271.602 | 286.649 | | 12.16 | 249.765 |
| 300 | 1/20/00 | 105930 | 271.575 | 286.287 | | 12.063 | 250.01 |
| 301 | 1/20/00 | 110000 | 271.575 | 286.287 | | 12.063 | 250.01 |
| 302 | 1/20/00 | 110030 | 268.506 | 286.347 | | 11.962 | 250.594 |
| 303 | 1/20/00 | 110100 | 268.506 | 286.347 | | 11.962 | 250.594 |
| 304 | 1/20/00 | 110130 | 268.178 | 285.28 | | 11.845 | 250.04 |
| 305 | 1/20/00 | 110200 | 268.178 | 285.28 | | 11.845 | 250.04 |
| 306 | 1/20/00 | 110230 | 268.485 | 283.171 | | | 249.171 |
| 307 | 1/20/00 | 110300 | 268.485 | 283.171 | | | 249.171 |
| 308 | 1/20/00 | 110330 | 268.506 | 283.17 | 12.326 | | 249.513 |
| 309 | 1/20/00 | 110400 | 268.506 | 283.17 | 12.326 | | 249.513 |
| 310 | 1/20/00 | 110430 | 266.659 | 282.678 | 11.826 | | 249.254 |
| 311 | 1/20/00 | 110500 | 266.659 | 282.678 | 11.826 | | 249.254 |
| 312 | 1/20/00 | 110530 | 265.933 | 282.225 | 11.79 | | 249.943 |
| 313 | 1/20/00 | 110600 | 265.933 | 282.225 | 11.79 | | 249.943 |
| 314 | 1/20/00 | 110630 | 265.347 | 282.243 | 11.88 | | 250.328 |
| 315 | 1/20/00 | 110700 | 265.347 | 282.243 | 11.88 | | 250.328 |
| 316 | 1/20/00 | 110730 | 264.887 | 281.357 | 11.931 | | 250.348 |
| 317 | 1/20/00 | 110800 | 264.887 | 281.357 | 11.931 | | 250.348 |
| 318 | 1/20/00 | 110830 | 263.299 | 280.934 | 11.892 | | 249.854 |
| 319 | 1/20/00 | 110900 | 263.299 | 280.934 | 11.892 | | 249.854 |
| 320 | 1/20/00 | 110930 | 261.361 | 280.962 | 11.999 | | 249.071 |
| 321 | 1/20/00 | 111000 | 261.361 | 280.962 | 11.999 | | 249.071 |
| 322 | 1/20/00 | 111030 | 260.889 | 281.757 | | | 248.936 |
| 323 | 1/20/00 | 111100 | 260.889 | 281.757 | | | 248.936 |
| 324 | 1/20/00 | 111130 | 260.415 | 282.092 | | 13.28 | 249.428 |
| 325 | 1/20/00 | 111200 | 260.415 | 282.092 | | 13.28 | 249.428 |
| 326 | 1/20/00 | 111230 | 260.699 | 282.019 | | 12.587 | 249.53 |
| 327 | 1/20/00 | 111300 | 260.699 | 282.019 | | 12.587 | 249.53 |
| 328 | 1/20/00 | 111330 | 260.958 | 283.891 | | 12.197 | 249.924 |
| 329 | 1/20/00 | 111400 | 260.958 | 283.891 | | 12.197 | 249.924 |
| 330 | 1/20/00 | 111430 | 261.831 | 283.998 | | 12.11 | 249.722 |
| 331 | 1/20/00 | 111500 | 261.831 | 283.998 | | 12.11 | 249.722 |
| 332 | 1/20/00 | 111530 | 263.523 | 284.106 | | 12.097 | 249.851 |
| 333 | 1/20/00 | 111600 | 263.523 | 284.106 | | 12.097 | 249.851 |
| 334 | 1/20/00 | 111630 | 264.073 | 285.613 | | 12.053 | 249.822 |
| 335 | 1/20/00 | 111700 | 264.073 | 285.613 | | 12.053 | 249.822 |
| 336 | 1/20/00 | 111730 | 264.73 | 285.52 | | | 249.66 |
| 337 | 1/20/00 | 111800 | 264.73 | 285.52 | | | 249.66 |
| 338 | 1/20/00 | 111830 | 265.338 | 285.451 | 12.698 | | 250.122 |
| 339 | 1/20/00 | 111900 | 265.338 | 285.451 | 12.698 | | 250.122 |
| 340 | 1/20/00 | 111930 | 267.629 | 285.053 | 12.181 | | 250.639 |
| 341 | 1/20/00 | 112000 | 267.629 | 285.053 | 12.181 | | 250.639 |
| 342 | 1/20/00 | 112030 | 267.321 | 284.956 | 12.089 | | 249.98 |
| 343 | 1/20/00 | 112100 | 267.321 | 284.956 | 12.089 | | 249.98 |
| 344 | 1/20/00 | 112130 | 265.8 | 284.17 | 12.127 | | 249.148 |
| 345 | 1/20/00 | 112200 | 265.8 | 284.17 | 12.127 | | 249.148 |
| 346 | 1/20/00 | 112230 | 265.764 | 283.125 | 12.143 | | 249.152 |
| 347 | 1/20/00 | 112300 | 265.764 | 283.125 | 12.143 | | 249.152 |
| 348 | 1/20/00 | 112330 | 265.49 | 283.118 | 12.156 | | 250.178 |
| 349 | 1/20/00 | 112400 | 265.49 | 283.118 | 12.156 | | 250.178 |
| 350 | 1/20/00 | 112430 | 265.438 | 285.416 | 12.175 | | 250.449 |
| 351 | 1/20/00 | 112500 | 265.438 | 285.416 | 12.175 | | 250.449 |
| 352 | 1/20/00 | 112530 | 260.656 | 285.889 | | | 250.642 |

| Record# | DATE | TIME | WT4FLOA1 | WT4FLOB2 | WT4CO2A3 | WT4CO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 353 | 1/20/00 | 112600 | 260.656 | 285.889 | | | 250.642 |
| 354 | 1/20/00 | 112630 | 260.598 | 285.794 | | 13.417 | 250.528 |
| 355 | 1/20/00 | 112700 | 260.598 | 285.794 | | 13.417 | 250.528 |
| 356 | 1/20/00 | 112730 | 261.027 | 285.636 | | 12.703 | 249.75 |
| 357 | 1/20/00 | 112800 | 261.027 | 285.636 | | 12.703 | 249.75 |
| 358 | 1/20/00 | 112830 | 261.056 | 285.793 | | 12.454 | 249.591 |
| 359 | 1/20/00 | 112900 | 261.056 | 285.793 | | 12.454 | 249.591 |
| 360 | 1/20/00 | 112930 | 260.334 | 285.729 | | 12.297 | 249.924 |
| 361 | 1/20/00 | 113000 | 260.334 | 285.729 | | 12.297 | 249.924 |
| 362 | 1/20/00 | 113030 | 260.164 | 285.628 | | 12.262 | 249.871 |
| 363 | 1/20/00 | 113100 | 260.164 | 285.628 | | 12.262 | 249.871 |
| 364 | 1/20/00 | 113130 | 261.959 | 285.587 | | 12.352 | 249.703 |
| 365 | 1/20/00 | 113200 | 261.959 | 285.587 | | 12.352 | 249.703 |
| 366 | 1/20/00 | 113230 | 263.041 | 282.74 | | | 249.269 |
| 367 | 1/20/00 | 113300 | 263.041 | 282.74 | | | 249.269 |
| 368 | 1/20/00 | 113330 | 263.041 | 281.891 | | | 249.47 |
| 369 | 1/20/00 | 113400 | 263.041 | 281.891 | | | 249.47 |
| 370 | 1/20/00 | 113430 | 263.041 | 281.968 | | | 250.075 |
| 371 | 1/20/00 | 113500 | 263.041 | 281.968 | | | 250.075 |
| 372 | 1/20/00 | 113530 | 263.041 | 282.321 | | | 250.896 |
| 373 | 1/20/00 | 113600 | 263.041 | 282.321 | | | 250.896 |
| 374 | 1/20/00 | 113630 | 263.041 | 282.284 | | | 250.104 |
| 375 | 1/20/00 | 113700 | 263.041 | 282.284 | | | 250.104 |
| 376 | 1/20/00 | 113730 | 261.544 | 282.573 | 12.238 | | 249.623 |
| 377 | 1/20/00 | 113800 | 261.544 | 282.573 | 12.238 | | 249.623 |
| 378 | 1/20/00 | 113830 | 260.449 | 284.069 | 12.333 | | 249.525 |
| 379 | 1/20/00 | 113900 | 260.449 | 284.069 | 12.333 | | 249.525 |
| 380 | 1/20/00 | 113930 | 260.683 | 284.078 | 12.338 | | 249.437 |
| 381 | 1/20/00 | 114000 | 260.683 | 284.078 | 12.338 | | 249.437 |
| 382 | 1/20/00 | 114030 | 261.968 | 284.108 | | 14.017 | 250.21 |
| 383 | 1/20/00 | 114100 | 261.968 | 284.108 | | 14.017 | 250.21 |
| 384 | 1/20/00 | 114130 | 261.944 | 284.05 | | 13.53 | 249.897 |
| 385 | 1/20/00 | 114200 | 261.944 | 284.05 | | 13.53 | 249.897 |
| 386 | 1/20/00 | 114230 | 259.855 | 284.108 | | 12.768 | 250.565 |
| 387 | 1/20/00 | 114300 | 259.855 | 284.108 | | 12.768 | 250.565 |
| 388 | 1/20/00 | 114330 | 259.652 | 284.115 | | 12.515 | 250.664 |
| 389 | 1/20/00 | 114400 | 259.652 | 284.115 | | 12.515 | 250.664 |
| 390 | 1/20/00 | 114430 | 259.328 | 284.15 | | 12.523 | 250.015 |
| 391 | 1/20/00 | 114500 | 259.328 | 284.15 | | 12.523 | 250.015 |
| 392 | 1/20/00 | 114530 | 259.231 | 283.97 | | 12.439 | 249.966 |
| 393 | 1/20/00 | 114600 | 259.231 | 283.97 | | 12.439 | 249.966 |
| 394 | 1/20/00 | 114630 | 259.241 | 283.582 | | 12.446 | 249.928 |
| 395 | 1/20/00 | 114700 | 259.241 | 283.582 | | 12.446 | 249.928 |
| 396 | 1/20/00 | 114730 | 259.225 | 283.562 | | | 249.545 |
| 397 | 1/20/00 | 114800 | 259.225 | 283.562 | | | 249.545 |
| 398 | 1/20/00 | 114830 | 259.237 | 283.688 | 12.832 | | 249.152 |
| 399 | 1/20/00 | 114900 | 259.237 | 283.688 | 12.832 | | 249.152 |
| 400 | 1/20/00 | 114930 | 259.21 | 283.506 | 12.226 | | 250.343 |
| 401 | 1/20/00 | 115000 | 259.21 | 283.506 | 12.226 | | 250.343 |
| 402 / / | | | | | | | |
| 403 / / | | AVE | 273.1488579 | 283.5593096 | 11.95944944 | 12.2265679 | 249.9866599 |

| Record# | DATE | TIME | WT4FLOA1 | WT4FLOB2 | WT4CO2A3 | WT4CO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 1 | 1/20/2000 | 133000 | 284.01 | 281.75 | | 11.851 | 250.18 |
| 2 | 1/20/2000 | 133030 | 284.259 | 281.299 | | 11.928 | 250.613 |
| 3 | 1/20/2000 | 133100 | 284.259 | 281.299 | | 11.928 | 250.613 |
| 4 | 1/20/2000 | 133130 | 284.369 | 281.249 | | 11.886 | 250.306 |
| 5 | 1/20/2000 | 133200 | 284.369 | 281.249 | | 11.886 | 250.306 |
| 6 | 1/20/2000 | 133230 | 285.546 | 281.466 | | | 249.824 |
| 7 | 1/20/2000 | 133300 | 285.546 | 281.466 | | | 249.824 |
| 8 | 1/20/2000 | 133330 | 285.546 | 281.467 | | | 249.572 |
| 9 | 1/20/2000 | 133400 | 285.546 | 281.467 | | | 249.572 |
| 10 | 1/20/2000 | 133430 | 285.546 | 281.764 | | | 249.9 |
| 11 | 1/20/2000 | 133500 | 285.546 | 281.764 | | | 249.9 |
| 12 | 1/20/2000 | 133530 | 284.298 | 282.456 | 11.731 | | 250.208 |
| 13 | 1/20/2000 | 133600 | 284.298 | 282.456 | 11.731 | | 250.208 |
| 14 | 1/20/2000 | 133630 | 280.337 | 282.433 | 11.792 | | 249.9 |
| 15 | 1/20/2000 | 133700 | 280.337 | 282.433 | 11.792 | | 249.9 |
| 16 | 1/20/2000 | 133730 | 280.167 | 281.96 | 11.825 | | 250.244 |
| 17 | 1/20/2000 | 133800 | 280.167 | 281.96 | 11.825 | | 250.244 |
| 18 | 1/20/2000 | 133830 | 275.074 | 281.325 | 11.865 | | 250.192 |
| 19 | 1/20/2000 | 133900 | 275.074 | 281.325 | 11.865 | | 250.192 |
| 20 | 1/20/2000 | 133930 | 274.216 | 281.349 | 11.846 | | 250.447 |
| 21 | 1/20/2000 | 134000 | 274.216 | 281.349 | 11.846 | | 250.447 |
| 22 | 1/20/2000 | 134030 | 273.185 | 281.784 | | 13.385 | 250.253 |
| 23 | 1/20/2000 | 134100 | 273.185 | 281.784 | | 13.385 | 250.253 |
| 24 | 1/20/2000 | 134130 | 272.808 | 282.042 | | 12.923 | 250.016 |
| 25 | 1/20/2000 | 134200 | 272.808 | 282.042 | | 12.923 | 250.016 |
| 26 | 1/20/2000 | 134230 | 273.649 | 281.909 | | 12.213 | 249.687 |
| 27 | 1/20/2000 | 134300 | 273.649 | 281.909 | | 12.213 | 249.687 |
| 28 | 1/20/2000 | 134330 | 273.938 | 281.396 | | 11.948 | 249.137 |
| 29 | 1/20/2000 | 134400 | 273.938 | 281.396 | | 11.948 | 249.137 |
| 30 | 1/20/2000 | 134430 | 273.304 | 281.321 | | 11.85 | 249.752 |
| 31 | 1/20/2000 | 134500 | 273.304 | 281.321 | | 11.85 | 249.752 |
| 32 | 1/20/2000 | 134530 | 272.98 | 281.624 | | 11.823 | 250.648 |
| 33 | 1/20/2000 | 134600 | 272.98 | 281.624 | | 11.823 | 250.648 |
| 34 | 1/20/2000 | 134630 | 273.075 | 282.604 | | 11.84 | 250.667 |
| 35 | 1/20/2000 | 134700 | 273.075 | 282.604 | | 11.84 | 250.667 |
| 36 | 1/20/2000 | 134730 | 273.05 | 282.597 | | | 249.911 |
| 37 | 1/20/2000 | 134800 | 273.05 | 282.597 | | | 249.911 |
| 38 | 1/20/2000 | 134830 | 273.057 | 283.444 | 12.504 | | 249.109 |
| 39 | 1/20/2000 | 134900 | 273.057 | 283.444 | 12.504 | | 249.109 |
| 40 | 1/20/2000 | 134930 | 273.227 | 283.981 | 12.044 | | 249.558 |
| 41 | 1/20/2000 | 135000 | 273.227 | 283.981 | 12.044 | | 249.558 |
| 42 | 1/20/2000 | 135030 | 273.795 | 281.528 | 11.967 | | 250.253 |
| 43 | 1/20/2000 | 135100 | 273.795 | 281.528 | 11.967 | | 250.253 |
| 44 | 1/20/2000 | 135130 | 273.727 | 281.076 | 12.003 | | 250.332 |
| 45 | 1/20/2000 | 135200 | 273.727 | 281.076 | 12.003 | | 250.332 |
| 46 | 1/20/2000 | 135230 | 273.587 | 281.052 | 12.025 | | 250.441 |
| 47 | 1/20/2000 | 135300 | 273.587 | 281.052 | 12.025 | | 250.441 |
| 48 | 1/20/2000 | 135330 | 273.631 | 51.467 | 12.032 | | 250.169 |
| 49 | 1/20/2000 | 135400 | 273.631 | 51.467 | 12.032 | | 250.169 |
| 50 | 1/20/2000 | 135430 | 275.259 | 14.068 | 12.023 | | 250.195 |
| 51 | 1/20/2000 | 135500 | 275.259 | 14.068 | 12.023 | | 250.195 |
| 52 | 1/20/2000 | 135530 | 275.418 | 13.949 | | 13.433 | 249.81 |
| 53 | 1/20/2000 | 135600 | 275.418 | 13.949 | | 13.433 | 249.81 |
| 54 | 1/20/2000 | 135630 | 274.969 | 252.732 | | 12.965 | 249.989 |
| 55 | 1/20/2000 | 135700 | 274.969 | 252.732 | | 12.965 | 249.989 |
| 56 | 1/20/2000 | 135730 | 274.96 | 284.802 | | 12.228 | 249.84 |
| 57 | 1/20/2000 | 135800 | 274.96 | 284.802 | | 12.228 | 249.84 |
| 58 | 1/20/2000 | 135830 | 275.895 | 284.757 | | 11.946 | 249.832 |
| 59 | 1/20/2000 | 135900 | 275.895 | 284.757 | | 11.946 | 249.832 |
| 60 | 1/20/2000 | 135930 | 275.897 | 285.023 | | 11.923 | 249.588 |
| 61 | 1/20/2000 | 140000 | 275.897 | 285.023 | | 11.923 | 249.588 |
| 62 | 1/20/2000 | 140030 | 273.999 | 285.077 | | 11.957 | 249.837 |
| 63 | 1/20/2000 | 140100 | 273.999 | 285.077 | | 11.957 | 249.837 |
| 64 | 1/20/2000 | 140130 | 273.308 | 284.903 | | 11.936 | 249.92 |
| 65 | 1/20/2000 | 140200 | 273.308 | 284.903 | | 11.936 | 249.92 |
| 66 | 1/20/2000 | 140230 | 272.907 | 283.778 | | | 250.25 |
| 67 | 1/20/2000 | 140300 | 272.907 | 283.778 | | | 250.25 |
| 68 | 1/20/2000 | 140330 | 272.661 | 283.791 | 12.527 | | 250.486 |
| 69 | 1/20/2000 | 140400 | 272.661 | 283.791 | 12.527 | | 250.486 |

| Record# | DATE | TIME | WT4FLOA1 | WT4FLOB2 | WT4CO2A3 | WT4CO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 70 | 1/20/2000 | 140430 | 271.343 | 283.985 | 12.046 | | 250.498 |
| 71 | 1/20/2000 | 140500 | 271.343 | 283.985 | 12.046 | | 250.498 |
| 72 | 1/20/2000 | 140530 | 270.284 | 284.708 | 11.977 | | 250.836 |
| 73 | 1/20/2000 | 140600 | 270.284 | 284.708 | 11.977 | | 250.836 |
| 74 | 1/20/2000 | 140630 | 271.229 | 284.689 | 11.965 | | 249.694 |
| 75 | 1/20/2000 | 140700 | 271.229 | 284.689 | 11.965 | | 249.694 |
| 76 | 1/20/2000 | 140730 | 272.389 | 285.263 | 11.917 | | 249.163 |
| 77 | 1/20/2000 | 140800 | 272.389 | 285.263 | 11.917 | | 249.163 |
| 78 | 1/20/2000 | 140830 | 271.634 | 285.784 | 11.91 | | 250.366 |
| 79 | 1/20/2000 | 140900 | 271.634 | 285.784 | 11.91 | | 250.366 |
| 80 | 1/20/2000 | 140930 | 270.679 | 285.831 | 11.887 | | 250.822 |
| 81 | 1/20/2000 | 141000 | 270.679 | 285.831 | 11.887 | | 250.822 |
| 82 | 1/20/2000 | 141030 | 270.428 | 287.162 | | 13.625 | 250.237 |
| 83 | 1/20/2000 | 141100 | 270.428 | 287.162 | | 13.625 | 250.237 |
| 84 | 1/20/2000 | 141130 | 269.957 | 287.096 | | 13.172 | 249.927 |
| 85 | 1/20/2000 | 141200 | 269.957 | 287.096 | | 13.172 | 249.927 |
| 86 | 1/20/2000 | 141230 | 269.312 | 287.082 | | 12.454 | 249.864 |
| 87 | 1/20/2000 | 141300 | 269.312 | 287.082 | | 12.454 | 249.864 |
| 88 | 1/20/2000 | 141330 | 268.162 | 286.499 | | 12.172 | 249.867 |
| 89 | 1/20/2000 | 141400 | 268.162 | 286.499 | | 12.172 | 249.867 |
| 90 | 1/20/2000 | 141430 | 268.509 | 286.38 | | 12.066 | 249.855 |
| 91 | 1/20/2000 | 141500 | 268.509 | 286.38 | | 12.066 | 249.855 |
| 92 | 1/20/2000 | 141530 | 269.474 | 285.745 | | 12.046 | 249.849 |
| 93 | 1/20/2000 | 141600 | 269.474 | 285.745 | | 12.046 | 249.849 |
| 94 | 1/20/2000 | 141630 | 269.458 | 284.78 | | 12.076 | 249.737 |
| 95 | 1/20/2000 | 141700 | 269.458 | 284.78 | | 12.076 | 249.737 |
| 96 | 1/20/2000 | 141730 | 269.142 | 284.944 | | 12.089 | 250.087 |
| 97 | 1/20/2000 | 141800 | 269.142 | 284.944 | | 12.089 | 250.087 |
| 98 | 1/20/2000 | 141830 | 269.212 | 283.871 | | 12.071 | 250.042 |
| 99 | 1/20/2000 | 141900 | 269.212 | 283.871 | | 12.071 | 250.042 |
| 100 | 1/20/2000 | 141930 | 270.288 | 283.184 | | 12.043 | 250.216 |
| 101 | 1/20/2000 | 142000 | 270.288 | 283.184 | | 12.043 | 250.216 |
| 102 | 1/20/2000 | 142030 | 270.324 | 283.088 | | 12.082 | 249.834 |
| 103 | 1/20/2000 | 142100 | 270.324 | 283.088 | | 12.082 | 249.834 |
| 104 | 1/20/2000 | 142130 | 271.129 | 281.007 | | 12.057 | 249.702 |
| 105 | 1/20/2000 | 142200 | 271.129 | 281.007 | | 12.057 | 249.702 |
| 106 | 1/20/2000 | 142230 | 271.363 | 280.946 | | 12.049 | 249.764 |
| 107 | 1/20/2000 | 142300 | 271.363 | 280.946 | | 12.049 | 249.764 |
| 108 | 1/20/2000 | 142330 | 270.93 | 281.7 | | 12.027 | 250.142 |
| 109 | 1/20/2000 | 142400 | 270.93 | 281.7 | | 12.027 | 250.142 |
| 110 | 1/20/2000 | 142430 | 270.713 | 282.898 | | | 250.255 |
| 111 | 1/20/2000 | 142500 | 270.713 | 282.898 | | | 250.255 |
| 112 | 1/20/2000 | 142530 | 271.154 | 282.902 | 11.843 | | 250.242 |
| 113 | 1/20/2000 | 142600 | 271.154 | 282.902 | 11.843 | | 250.242 |
| 114 | 1/20/2000 | 142630 | 271.819 | 285.111 | 11.487 | | 250.556 |
| 115 | 1/20/2000 | 142700 | 271.819 | 285.111 | 11.487 | | 250.556 |
| 116 | 1/20/2000 | 142730 | 271.024 | 285.221 | 11.506 | | 250.343 |
| 117 | 1/20/2000 | 142800 | 271.024 | 285.221 | 11.506 | | 250.343 |
| 118 | 1/20/2000 | 142830 | 270.095 | 285.294 | 11.521 | | 250.228 |
| 119 | 1/20/2000 | 142900 | 270.095 | 285.294 | 11.521 | | 250.228 |
| 120 | 1/20/2000 | 142930 | 270.421 | 285.294 | 11.564 | | 250.231 |
| 121 | 1/20/2000 | 143000 | 270.421 | 285.294 | 11.564 | | 250.231 |
| 122 | 1/20/2000 | 143030 | 272.108 | 285.257 | 11.631 | | 249.898 |
| 123 | 1/20/2000 | 143100 | 272.108 | 285.257 | 11.631 | | 249.898 |
| 124 | 1/20/2000 | 143130 | 272.098 | 284.97 | | | 249.707 |
| 125 | 1/20/2000 | 143200 | 272.098 | 284.97 | | | 249.707 |
| 126 | 1/20/2000 | 143230 | 270.258 | 284.085 | | | 249.652 |
| 127 | 1/20/2000 | 143300 | 270.258 | 284.085 | | | 249.652 |
| 128 | 1/20/2000 | 143330 | 270.221 | 284.055 | 12.239 | | 249.809 |
| 129 | 1/20/2000 | 143400 | 270.221 | 284.055 | 12.239 | | 249.809 |
| 130 | 1/20/2000 | 143430 | 269.571 | 283.742 | 11.737 | | 250.587 |
| 131 | 1/20/2000 | 143500 | 269.571 | 283.742 | 11.737 | | 250.587 |
| 132 | 1/20/2000 | 143530 | 269.54 | 283.133 | 11.777 | | 250.449 |
| 133 | 1/20/2000 | 143600 | 269.54 | 283.133 | 11.777 | | 250.449 |
| 134 | 1/20/2000 | 143630 | 268.38 | 283.211 | 11.821 | | 250.675 |
| 135 | 1/20/2000 | 143700 | 268.38 | 283.211 | 11.821 | | 250.675 |
| 136 | 1/20/2000 | 143730 | 268.017 | 284.191 | 11.851 | | 250.027 |
| 137 | 1/20/2000 | 143800 | 268.017 | 284.191 | 11.851 | | 250.027 |
| 138 | 1/20/2000 | 143830 | 268.05 | 285.051 | 11.834 | | 249.561 |

| Record# | DATE | TIME | WT4FLOA1 | WT4FLOB2 | WT4CO2A3 | WT4CO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 139 | 1/20/2000 | 143900 | 268.05 | 285.051 | 11.834 | | 249.561 |
| 140 | 1/20/2000 | 143930 | 268.149 | 285.022 | 11.791 | | 250.176 |
| 141 | 1/20/2000 | 144000 | 268.149 | 285.022 | 11.791 | | 250.176 |
| 142 | 1/20/2000 | 144030 | 267.866 | 284.68 | | | 250.223 |
| 143 | 1/20/2000 | 144100 | 267.866 | 284.68 | | | 250.223 |
| 144 | 1/20/2000 | 144130 | 267.627 | 284.186 | | 12.74 | 250.138 |
| 145 | 1/20/2000 | 144200 | 267.627 | 284.186 | | 12.74 | 250.138 |
| 146 | 1/20/2000 | 144230 | 267.03 | 284.196 | | 12.131 | 249.802 |
| 147 | 1/20/2000 | 144300 | 267.03 | 284.196 | | 12.131 | 249.802 |
| 148 | 1/20/2000 | 144330 | 266.702 | 284.311 | | 11.75 | 249.6 |
| 149 | 1/20/2000 | 144400 | 266.702 | 284.311 | | 11.75 | 249.6 |
| 150 | 1/20/2000 | 144430 | 266.529 | 284.409 | | 11.759 | 249.233 |
| 151 | 1/20/2000 | 144500 | 266.529 | 284.409 | | 11.759 | 249.233 |
| 152 | 1/20/2000 | 144530 | 266.25 | 284.412 | | 11.746 | 249.798 |
| 153 | 1/20/2000 | 144600 | 266.25 | 284.412 | | 11.746 | 249.798 |
| 154 | 1/20/2000 | 144630 | 266.306 | 285.032 | | 11.674 | 250.368 |
| 155 | 1/20/2000 | 144700 | 266.306 | 285.032 | | 11.674 | 250.368 |
| 156 | 1/20/2000 | 144730 | 266.301 | 285.134 | | 11.703 | 250.61 |
| 157 | 1/20/2000 | 144800 | 266.301 | 285.134 | | 11.703 | 250.61 |
| 158 | 1/20/2000 | 144830 | 266.317 | 285.984 | 12.475 | | 249.642 |
| 159 | 1/20/2000 | 144900 | 266.317 | 285.984 | 12.475 | | 249.642 |
| 160 | 1/20/2000 | 144930 | 267.108 | 287.083 | 11.965 | | 249.271 |
| 161 | 1/20/2000 | 145000 | 267.108 | 287.083 | 11.965 | | 249.271 |
| 162 | 1/20/2000 | 145030 | 267.667 | 282.298 | 11.901 | | 249.971 |
| 163 | 1/20/2000 | 145100 | 267.667 | 282.298 | 11.901 | | 249.971 |
| 164 | 1/20/2000 | 145130 | 267.511 | 281.093 | 11.896 | | 250.065 |
| 165 | 1/20/2000 | 145200 | 267.511 | 281.093 | 11.896 | | 250.065 |
| 166 | 1/20/2000 | 145230 | 267.361 | 280.927 | 11.863 | | 250.227 |
| 167 | 1/20/2000 | 145300 | 267.361 | 280.927 | 11.863 | | 250.227 |
| 168 | 1/20/2000 | 145330 | 266.513 | 65.507 | 11.826 | | 250.372 |
| 169 | 1/20/2000 | 145400 | 266.513 | 65.507 | 11.826 | | 250.372 |
| 170 | 1/20/2000 | 145430 | 265.141 | 13.967 | 11.831 | | 249.801 |
| 171 | 1/20/2000 | 145500 | 265.141 | 13.967 | 11.831 | | 249.801 |
| 172 | 1/20/2000 | 145530 | 265.202 | 14.006 | | | 249.212 |
| 173 | 1/20/2000 | 145600 | 265.202 | 14.006 | | | 249.212 |
| 174 | 1/20/2000 | 145630 | 265.162 | 223.799 | | 12.971 | 249.365 |
| 175 | 1/20/2000 | 145700 | 265.162 | 223.799 | | 12.971 | 249.365 |
| 176 | 1/20/2000 | 145730 | 265.626 | 288.5 | | 12.252 | 249.225 |
| 177 | 1/20/2000 | 145800 | 265.626 | 288.5 | | 12.252 | 249.225 |
| 178 | 1/20/2000 | 145830 | 266.934 | 287.517 | | 11.95 | 250.181 |
| 179 | 1/20/2000 | 145900 | 266.934 | 287.517 | | 11.95 | 250.181 |
| 180 | 1/20/2000 | 145930 | 268.107 | 285.952 | | 11.857 | 250.814 |
| 181 | 1/20/2000 | 150000 | 268.107 | 285.952 | | 11.857 | 250.814 |
| 182 | 1/20/2000 | 150030 | 270.897 | 285.951 | | 11.83 | 250.629 |
| 183 | 1/20/2000 | 150100 | 270.897 | 285.951 | | 11.83 | 250.629 |
| 184 | 1/20/2000 | 150130 | 270.994 | 283.542 | | 11.971 | 249.785 |
| 185 | 1/20/2000 | 150200 | 270.994 | 283.542 | | 11.971 | 249.785 |
| 186 | 1/20/2000 | 150230 | 271.887 | 282.66 | | 11.993 | 249.555 |
| 187 | 1/20/2000 | 150300 | 271.887 | 282.66 | | 11.993 | 249.555 |
| 188 | 1/20/2000 | 150330 | 272.3 | 282.306 | 12.468 | | 249.618 |
| 189 | 1/20/2000 | 150400 | 272.3 | 282.306 | 12.468 | | 249.618 |
| 190 | 1/20/2000 | 150430 | 273.466 | 278.581 | 11.933 | | 250.326 |
| 191 | 1/20/2000 | 150500 | 273.466 | 278.581 | 11.933 | | 250.326 |
| 192 | 1/20/2000 | 150530 | 273.402 | 278.614 | 11.83 | | 250.638 |
| 193 | 1/20/2000 | 150600 | 273.402 | 278.614 | 11.83 | | 250.638 |
| 194 | 1/20/2000 | 150630 | 270.756 | 279.269 | 11.854 | | 250.049 |
| 195 | 1/20/2000 | 150700 | 270.756 | 279.269 | 11.854 | | 250.049 |
| 196 | 1/20/2000 | 150730 | 270.658 | 280.399 | 11.917 | | 249.801 |
| 197 | 1/20/2000 | 150800 | 270.658 | 280.399 | 11.917 | | 249.801 |
| 198 | 1/20/2000 | 150830 | 269.062 | 280.429 | 12.086 | | 249.146 |
| 199 | 1/20/2000 | 150900 | 269.062 | 280.429 | 12.086 | | 249.146 |
| 200 | 1/20/2000 | 150930 | 268.917 | 282.634 | 12.072 | | 249.695 |
| 201 | 1/20/2000 | 151000 | 268.917 | 282.634 | 12.072 | | 249.695 |
| 202 | 1/20/2000 | 151030 | 270.823 | 282.692 | | | 249.912 |
| 203 | 1/20/2000 | 151100 | 270.823 | 282.692 | | | 249.912 |
| 204 | 1/20/2000 | 151130 | 271.83 | 282.895 | | 13.035 | 250.611 |
| 205 | 1/20/2000 | 151200 | 271.83 | 282.895 | | 13.035 | 250.611 |
| 206 | 1/20/2000 | 151230 | 274.052 | 283.975 | | 12.289 | 250.987 |
| 207 | 1/20/2000 | 151300 | 274.052 | 283.975 | | 12.289 | 250.987 |

| Record# | DATE | TIME | WT4FLOA1 | WT4FLOB2 | WT4CO2A3 | WT4CO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 208 | 1/20/2000 | 151330 | 275.492 | 284.012 | | 11.994 | 250.384 |
| 209 | 1/20/2000 | 151400 | 275.492 | 284.012 | | 11.994 | 250.384 |
| 210 | 1/20/2000 | 151430 | 275.13 | 283.662 | | 12.045 | 249.832 |
| 211 | 1/20/2000 | 151500 | 275.13 | 283.662 | | 12.045 | 249.832 |
| 212 | 1/20/2000 | 151530 | 274.977 | 282.849 | | 11.99 | 249.386 |
| 213 | 1/20/2000 | 151600 | 274.977 | 282.849 | | 11.99 | 249.386 |
| 214 | 1/20/2000 | 151630 | 273.562 | 282.968 | | 11.956 | 249.828 |
| 215 | 1/20/2000 | 151700 | 273.562 | 282.968 | | 11.956 | 249.828 |
| 216 | 1/20/2000 | 151730 | 272.461 | 283.53 | | 11.953 | 250.312 |
| 217 | 1/20/2000 | 151800 | 272.461 | 283.53 | | 11.953 | 250.312 |
| 218 | 1/20/2000 | 151830 | 271.438 | 284.287 | 12.527 | | 250.531 |
| 219 | 1/20/2000 | 151900 | 271.438 | 284.287 | 12.527 | | 250.531 |
| 220 | 1/20/2000 | 151930 | 270.84 | 284.233 | 11.983 | | 249.651 |
| 221 | 1/20/2000 | 152000 | 270.84 | 284.233 | 11.983 | | 249.651 |
| 222 | 1/20/2000 | 152030 | 272.4 | 285.21 | 11.958 | | 249.24 |
| 223 | 1/20/2000 | 152100 | 272.4 | 285.21 | 11.958 | | 249.24 |
| 224 | 1/20/2000 | 152130 | 273.306 | 285.145 | 11.985 | | 250.311 |
| 225 | 1/20/2000 | 152200 | 273.306 | 285.145 | 11.985 | | 250.311 |
| 226 | 1/20/2000 | 152230 | 273.108 | 285.447 | 11.964 | | 250.242 |
| 227 | 1/20/2000 | 152300 | 273.108 | 285.447 | 11.964 | | 250.242 |
| 228 | 1/20/2000 | 152330 | 272.856 | 286.158 | 11.905 | | 250.531 |
| 229 | 1/20/2000 | 152400 | 272.856 | 286.158 | 11.905 | | 250.531 |
| 230 | 1/20/2000 | 152430 | 272.399 | 286.082 | 12.009 | | 250.422 |
| 231 | 1/20/2000 | 152500 | 272.399 | 286.082 | 12.009 | | 250.422 |
| 232 | 1/20/2000 | 152530 | 271.975 | 284.151 | | | 250.117 |
| 233 | 1/20/2000 | 152600 | 271.975 | 284.151 | | | 250.117 |
| 234 | 1/20/2000 | 152630 | 271.428 | 283.88 | | 13.275 | 249.91 |
| 235 | 1/20/2000 | 152700 | 271.428 | 283.88 | | 13.275 | 249.91 |
| 236 | 1/20/2000 | 152730 | 270.887 | 283.775 | | 12.554 | 249.537 |
| 237 | 1/20/2000 | 152800 | 270.887 | 283.775 | | 12.554 | 249.537 |
| 238 | 1/20/2000 | 152830 | 270.354 | 282.751 | | 12.126 | 249.887 |
| 239 | 1/20/2000 | 152900 | 270.354 | 282.751 | | 12.126 | 249.887 |
| 240 | 1/20/2000 | 152930 | 268.515 | 282.637 | | 12.03 | 250.004 |
| 241 | 1/20/2000 | 153000 | 268.515 | 282.637 | | 12.03 | 250.004 |
| 242 | 1/20/2000 | 153030 | 268.536 | 282.48 | | 12.001 | 250.562 |
| 243 | 1/20/2000 | 153100 | 268.536 | 282.48 | | 12.001 | 250.562 |
| 244 | 1/20/2000 | 153130 | 268.539 | 281.968 | | 12.057 | 250.087 |
| 245 | 1/20/2000 | 153200 | 268.539 | 281.968 | | 12.057 | 250.087 |
| 246 | 1/20/2000 | 153230 | 268.493 | 281.952 | | 12.069 | 249.714 |
| 247 | 1/20/2000 | 153300 | 268.493 | 281.952 | | 12.069 | 249.714 |
| 248 | 1/20/2000 | 153330 | 267.669 | 282.488 | 12.569 | | 249.557 |
| 249 | 1/20/2000 | 153400 | 267.669 | 282.488 | 12.569 | | 249.557 |
| 250 | 1/20/2000 | 153430 | 267.714 | 283.016 | 12.004 | | 249.877 |
| 251 | 1/20/2000 | 153500 | 267.714 | 283.016 | 12.004 | | 249.877 |
| 252 | 1/20/2000 | 153530 | 269.201 | 283.129 | 11.818 | | 250.494 |
| 253 | 1/20/2000 | 153600 | 269.201 | 283.129 | 11.818 | | 250.494 |
| 254 | 1/20/2000 | 153630 | 269.198 | 282.912 | 11.914 | | 250.429 |
| 255 | 1/20/2000 | 153700 | 269.198 | 282.912 | 11.914 | | 250.429 |
| 256 | 1/20/2000 | 153730 | 268.277 | 282.89 | 11.973 | | 250.338 |
| 257 | 1/20/2000 | 153800 | 268.277 | 282.89 | 11.973 | | 250.338 |
| 258 | 1/20/2000 | 153830 | 268.268 | 283.048 | 11.96 | | 250.579 |
| 259 | 1/20/2000 | 153900 | 268.268 | 283.048 | 11.96 | | 250.579 |
| 260 | 1/20/2000 | 153930 | 269.578 | 284.243 | 11.901 | | 249.789 |
| 261 | 1/20/2000 | 154000 | 269.578 | 284.243 | 11.901 | | 249.789 |
| 262 | 1/20/2000 | 154030 | 269.764 | 284.215 | | | 249.531 |
| 263 | 1/20/2000 | 154100 | 269.764 | 284.215 | | | 249.531 |
| 264 | 1/20/2000 | 154130 | 267.791 | 283.799 | | 13.279 | 249.297 |
| 265 | 1/20/2000 | 154200 | 267.791 | 283.799 | | 13.279 | 249.297 |
| 266 | 1/20/2000 | 154230 | 267.642 | 282.376 | | 12.552 | 249.821 |
| 267 | 1/20/2000 | 154300 | 267.642 | 282.376 | | 12.552 | 249.821 |
| 268 | 1/20/2000 | 154330 | 268.374 | 282.423 | | 12.219 | 249.925 |
| 269 | 1/20/2000 | 154400 | 268.374 | 282.423 | | 12.219 | 249.925 |
| 270 | 1/20/2000 | 154430 | 268.416 | 283.151 | | 12.151 | 250.164 |
| 271 | 1/20/2000 | 154500 | 268.416 | 283.151 | | 12.151 | 250.164 |
| 272 | 1/20/2000 | 154530 | 268.395 | 284.444 | | 12.199 | 249.99 |
| 273 | 1/20/2000 | 154600 | 268.395 | 284.444 | | 12.199 | 249.99 |
| 274 | 1/20/2000 | 154630 | 268.471 | 284.436 | | 12.058 | 250.237 |
| 275 | 1/20/2000 | 154700 | 268.471 | 284.436 | | 12.058 | 250.237 |
| 276 | 1/20/2000 | 154730 | 268.428 | 284.701 | | 12.055 | 250.49 |

| Record# | DATE | TIME | WT4FLOA1 | WT4FLOB2 | WT4CO2A3 | WT4CO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 277 | 1/20/2000 | 154800 | 268.428 | 284.701 | | 12.055 | 250.49 |
| 278 | 1/20/2000 | 154830 | 268.423 | 285.049 | 12.49 | | 250.377 |
| 279 | 1/20/2000 | 154900 | 268.423 | 285.049 | 12.49 | | 250.377 |
| 280 | 1/20/2000 | 154930 | 268.442 | 285.042 | 11.931 | | 250.12 |
| 281 | 1/20/2000 | 155000 | 268.442 | 285.042 | 11.931 | | 250.12 |
| 282 | 1/20/2000 | 155030 | 269.305 | 285.292 | 11.836 | | 250.332 |
| 283 | 1/20/2000 | 155100 | 269.305 | 285.292 | 11.836 | | 250.332 |
| 284 | 1/20/2000 | 155130 | 270.096 | 285.357 | 11.83 | | 250.39 |
| 285 | 1/20/2000 | 155200 | 270.096 | 285.357 | 11.83 | | 250.39 |
| 286 | 1/20/2000 | 155230 | 273.604 | 285.386 | 11.752 | | 249.728 |
| 287 | 1/20/2000 | 155300 | 273.604 | 285.386 | 11.752 | | 249.728 |
| 288 | 1/20/2000 | 155330 | 277.583 | 285.172 | 11.725 | | 249.414 |
| 289 | 1/20/2000 | 155400 | 277.583 | 285.172 | 11.725 | | 249.414 |
| 290 | 1/20/2000 | 155430 | 279.616 | 285.313 | 11.702 | | 249.301 |
| 291 | 1/20/2000 | 155500 | 279.616 | 285.313 | 11.702 | | 249.301 |
| 292 | 1/20/2000 | 155530 | 281.557 | 285.28 | | | 251.093 |
| 293 | 1/20/2000 | 155600 | 281.557 | 285.28 | | | 251.093 |
| 294 | 1/20/2000 | 155630 | 282.434 | 285.135 | | 13.184 | 251.018 |
| 295 | 1/20/2000 | 155700 | 282.434 | 285.135 | | 13.184 | 251.018 |
| 296 | 1/20/2000 | 155730 | 283.547 | 284.865 | | 12.366 | 250.692 |
| 297 | 1/20/2000 | 155800 | 283.547 | 284.865 | | 12.366 | 250.692 |
| 298 | 1/20/2000 | 155830 | 282.215 | 284.786 | | 11.954 | 249.851 |
| 299 | 1/20/2000 | 155900 | 282.215 | 284.786 | | 11.954 | 249.851 |
| 300 | 1/20/2000 | 155930 | 280.041 | 284.219 | | 11.868 | 249.819 |
| 301 | 1/20/2000 | 160000 | 280.041 | 284.219 | | 11.868 | 249.819 |
| 302 | 1/20/2000 | 160030 | 278.969 | 283.824 | | 11.88 | 249.56 |
| 303 | 1/20/2000 | 160100 | 278.969 | 283.824 | | 11.88 | 249.56 |
| 304 | 1/20/2000 | 160130 | 274.844 | 283.699 | | 11.844 | 249.55 |
| 305 | 1/20/2000 | 160200 | 274.844 | 283.699 | | 11.844 | 249.55 |
| 306 | 1/20/2000 | 160230 | 274.433 | 284.67 | | 11.898 | 249.738 |
| 307 | 1/20/2000 | 160300 | 274.433 | 284.67 | | 11.898 | 249.738 |
| 308 | 1/20/2000 | 160330 | 271.324 | 284.721 | 12.458 | | 249.681 |
| 309 | 1/20/2000 | 160400 | 271.324 | 284.721 | 12.458 | | 249.681 |
| 310 | 1/20/2000 | 160430 | 271.309 | 286.238 | 11.965 | | 249.944 |
| 311 | 1/20/2000 | 160500 | 271.309 | 286.238 | 11.965 | | 249.944 |
| 312 | 1/20/2000 | 160530 | 269.324 | 287.599 | 11.938 | | 249.57 |
| 313 | 1/20/2000 | 160600 | 269.324 | 287.599 | 11.938 | | 249.57 |
| 314 | 1/20/2000 | 160630 | 268.988 | 287.557 | 11.861 | | 250.021 |
| 315 | 1/20/2000 | 160700 | 268.988 | 287.557 | 11.861 | | 250.021 |
| 316 | 1/20/2000 | 160730 | 269.043 | 287.167 | 11.798 | | 250.41 |
| 317 | 1/20/2000 | 160800 | 269.043 | 287.167 | 11.798 | | 250.41 |
| 318 | 1/20/2000 | 160830 | 269.042 | 287.126 | 11.772 | | 250.184 |
| 319 | 1/20/2000 | 160900 | 269.042 | 287.126 | 11.772 | | 250.184 |
| 320 | 1/20/2000 | 160930 | 269.033 | 287.132 | 11.794 | | 249.825 |
| 321 | 1/20/2000 | 161000 | 269.033 | 287.132 | 11.794 | | 249.825 |
| 322 | 1/20/2000 | 161030 | 269.076 | 287.881 | | | 249.106 |
| 323 | 1/20/2000 | 161100 | 269.076 | 287.881 | | | 249.106 |
| 324 | 1/20/2000 | 161130 | 268.669 | 287.982 | | 13.126 | 249.287 |
| 325 | 1/20/2000 | 161200 | 268.669 | 287.982 | | 13.126 | 249.287 |
| 326 | 1/20/2000 | 161230 | 268.231 | 287.652 | | 12.417 | 250.318 |
| 327 | 1/20/2000 | 161300 | 268.231 | 287.652 | | 12.417 | 250.318 |
| 328 | 1/20/2000 | 161330 | 268.036 | 286.34 | | 12.084 | 250.642 |
| 329 | 1/20/2000 | 161400 | 268.036 | 286.34 | | 12.084 | 250.642 |
| 330 | 1/20/2000 | 161430 | 267.161 | 286.363 | | 12.033 | 249.851 |
| 331 | 1/20/2000 | 161500 | 267.161 | 286.363 | | 12.033 | 249.851 |
| 332 | 1/20/2000 | 161530 | 266.983 | 286.402 | | 11.999 | 250.25 |
| 333 | 1/20/2000 | 161600 | 266.983 | 286.402 | | 11.999 | 250.25 |
| 334 | 1/20/2000 | 161630 | 264.956 | 286.324 | | 11.919 | 248.945 |
| 335 | 1/20/2000 | 161700 | 264.956 | 286.324 | | 11.919 | 248.945 |
| 336 | 1/20/2000 | 161730 | 264.935 | 286.299 | | 11.87 | 249.286 |
| 337 | 1/20/2000 | 161800 | 264.935 | 286.299 | | 11.87 | 249.286 |
| 338 | 1/20/2000 | 161830 | 266.891 | 286.375 | 12.622 | | 249.8 |
| 339 | 1/20/2000 | 161900 | 266.891 | 286.375 | 12.622 | | 249.8 |
| 340 | 1/20/2000 | 161930 | 267.034 | 286.339 | 12.115 | | 249.992 |
| 341 | 1/20/2000 | 162000 | 267.034 | 286.339 | 12.115 | | 249.992 |
| 342 | 1/20/2000 | 162030 | 268.037 | 285.942 | 12.058 | | 250.538 |
| 343 | 1/20/2000 | 162100 | 268.037 | 285.942 | 12.058 | | 250.538 |
| 344 | 1/20/2000 | 162130 | 268.749 | 284.188 | 12.039 | | 250.612 |
| 345 | 1/20/2000 | 162200 | 268.749 | 284.188 | 12.039 | | 250.612 |

| Record# | DATE | TIME | WT4FLOA1 | WT4FLOB2 | WT4CO2A3 | WT4CO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 346 | 1/20/2000 | 162230 | 270.765 | 284.285 | 12.071 | | 250.223 |
| 347 | 1/20/2000 | 162300 | 270.765 | 284.285 | 12.071 | | 250.223 |
| 348 | 1/20/2000 | 162330 | 271.769 | 283.969 | 12.103 | | 250.036 |
| 349 | 1/20/2000 | 162400 | 271.769 | 283.969 | 12.103 | | 250.036 |
| 350 | 1/20/2000 | 162430 | 271.912 | 283.424 | 12.031 | | 249.839 |
| 351 | 1/20/2000 | 162500 | 271.912 | 283.424 | 12.031 | | 249.839 |
| 352 | 1/20/2000 | 162530 | 271.898 | 283.542 | | | 249.848 |
| 353 | 1/20/2000 | 162600 | 271.898 | 283.542 | | | 249.848 |
| 354 | 1/20/2000 | 162630 | 272.472 | 282.515 | | 13.039 | 249.822 |
| 355 | 1/20/2000 | 162700 | 272.472 | 282.515 | | 13.039 | 249.822 |
| 356 | 1/20/2000 | 162730 | 272.805 | 282.241 | | 12.31 | 249.819 |
| 357 | 1/20/2000 | 162800 | 272.805 | 282.241 | | 12.31 | 249.819 |
| 358 | 1/20/2000 | 162830 | 272.331 | 282.159 | | 11.954 | 249.837 |
| 359 | 1/20/2000 | 162900 | 272.331 | 282.159 | | 11.954 | 249.837 |
| 360 | 1/20/2000 | 162930 | 271.46 | 281.506 | | 11.915 | 250.085 |
| 361 | 1/20/2000 | 163000 | 271.46 | 281.506 | | 11.915 | 250.085 |
| 362 | 1/20/2000 | 163030 | 271.152 | 281.472 | | 11.988 | 250.072 |
| 363 | 1/20/2000 | 163100 | 271.152 | 281.472 | | 11.988 | 250.072 |
| 364 | 1/20/2000 | 163130 | 270.833 | 281.446 | | 12.04 | 250.103 |
| 365 | 1/20/2000 | 163200 | 270.833 | 281.446 | | 12.04 | 250.103 |
| 366 | 1/20/2000 | 163230 | 270.621 | 280.497 | | 11.976 | 249.805 |
| 367 | 1/20/2000 | 163300 | 270.621 | 280.497 | | 11.976 | 249.805 |
| 368 | 1/20/2000 | 163330 | 269.975 | 280.225 | 12.646 | | 249.791 |
| 369 | 1/20/2000 | 163400 | 269.975 | 280.225 | 12.646 | | 249.791 |
| 370 | 1/20/2000 | 163430 | 269.526 | 280.559 | 12.101 | | 249.851 |
| 371 | 1/20/2000 | 163500 | 269.526 | 280.559 | 12.101 | | 249.851 |
| 372 | 1/20/2000 | 163530 | 268.94 | 280.898 | 11.994 | | 250.209 |
| 373 | 1/20/2000 | 163600 | 268.94 | 280.898 | 11.994 | | 250.209 |
| 374 | 1/20/2000 | 163630 | 269.687 | 280.8 | 11.96 | | 250.234 |
| 375 | 1/20/2000 | 163700 | 269.687 | 280.8 | 11.96 | | 250.234 |
| 376 | 1/20/2000 | 163730 | 270.702 | 281.657 | 11.968 | | 250.617 |
| 377 | 1/20/2000 | 163800 | 270.702 | 281.657 | 11.968 | | 250.617 |
| 378 | 1/20/2000 | 163830 | 270.672 | 281.86 | 12.007 | | 250.455 |
| 379 | 1/20/2000 | 163900 | 270.672 | 281.86 | 12.007 | | 250.455 |
| 380 | 1/20/2000 | 163930 | 270.685 | 282.16 | 12.048 | | 249.2 |
| 381 | 1/20/2000 | 164000 | 270.685 | 282.16 | 12.048 | | 249.2 |
| 382 | 1/20/2000 | 164030 | 270.799 | 284.425 | | | 249.444 |
| 383 | 1/20/2000 | 164100 | 270.799 | 284.425 | | | 249.444 |
| 384 | 1/20/2000 | 164130 | 270.85 | 284.304 | | 13.401 | 249.907 |
| 385 | 1/20/2000 | 164200 | 270.85 | 284.304 | | 13.401 | 249.907 |
| 386 | 1/20/2000 | 164230 | 270.28 | 284.206 | | 12.614 | 250.524 |
| 387 | 1/20/2000 | 164300 | 270.28 | 284.206 | | 12.614 | 250.524 |
| 388 | 1/20/2000 | 164330 | 269.299 | 283.975 | | 12.175 | 250.686 |
| 389 | 1/20/2000 | 164400 | 269.299 | 283.975 | | 12.175 | 250.686 |
| 390 | 1/20/2000 | 164430 | 269.889 | 283.955 | | 12.039 | 249.813 |
| 391 | 1/20/2000 | 164500 | 269.889 | 283.955 | | 12.039 | 249.813 |
| 392 | 1/20/2000 | 164530 | 272.509 | 283.588 | | 12.034 | 249.575 |
| 393 | 1/20/2000 | 164600 | 272.509 | 283.588 | | 12.034 | 249.575 |
| 394 | 1/20/2000 | 164630 | 272.541 | 283.302 | | 11.944 | 250.388 |
| 395 | 1/20/2000 | 164700 | 272.541 | 283.302 | | 11.944 | 250.388 |
| 396 | 1/20/2000 | 164730 | 272.522 | 283.301 | | 11.847 | 251.024 |
| 397 | 1/20/2000 | 164800 | 272.522 | 283.301 | | 11.847 | 251.024 |
| 398 | 1/20/2000 | 164830 | 272.549 | 283.345 | 12.449 | | 250.144 |
| 399 | 1/20/2000 | 164900 | 272.549 | 283.345 | 12.449 | | 250.144 |
| 400 | 1/20/2000 | 164930 | 272.43 | 283.352 | 11.914 | | 249.638 |
| 401 | 1/20/2000 | 165000 | 272.43 | 283.352 | 11.914 | | 249.638 |
| 402 / / | | | | | | | |
| 403 / / | | AVE | 271.42395 | 275.753621 | 11.9761444 | 12.2146578 | 250.018873 |

| Record# | DATE | TIME | WT4NOXB1 | WT4NOXA2 | WT4GENA3 | WT4NOXA4 | WT4NOXB5 |
|---|---|---|---|---|---|---|---|
| 1 | 1/19/2000 | 113500 | | 261.154 | 249.596 | 0.468 | |
| 2 | 1/19/2000 | 113530 | | 254.806 | 249.89 | 0.461 | |
| 3 | 1/19/2000 | 113600 | | 254.806 | 249.89 | 0.461 | |
| 4 | 1/19/2000 | 113630 | | 257.286 | 250.077 | 0.467 | |
| 5 | 1/19/2000 | 113700 | | 257.286 | 250.077 | 0.467 | |
| 6 | 1/19/2000 | 113730 | | 260.962 | 248.785 | 0.477 | |
| 7 | 1/19/2000 | 113800 | | 260.962 | 248.785 | 0.477 | |
| 8 | 1/19/2000 | 113830 | | 258.189 | 248.98 | 0.473 | |
| 9 | 1/19/2000 | 113900 | | 258.189 | 248.98 | 0.473 | |
| 10 | 1/19/2000 | 113930 | | 253.999 | 249.747 | 0.465 | |
| 11 | 1/19/2000 | 114000 | | 253.999 | 249.747 | 0.465 | |
| 12 | 1/19/2000 | 114030 | | | 250.187 | | |
| 13 | 1/19/2000 | 114100 | | | 250.187 | | |
| 14 | 1/19/2000 | 114130 | 290.212 | | 250.242 | | 0.493 |
| 15 | 1/19/2000 | 114200 | 290.212 | | 250.242 | | 0.493 |
| 16 | 1/19/2000 | 114230 | 273.887 | | 249.812 | | 0.495 |
| 17 | 1/19/2000 | 114300 | 273.887 | | 249.812 | | 0.495 |
| 18 | 1/19/2000 | 114330 | 268.385 | | 250.359 | | 0.499 |
| 19 | 1/19/2000 | 114400 | 268.385 | | 250.359 | | 0.499 |
| 20 | 1/19/2000 | 114430 | 266.957 | | 249.905 | | 0.5 |
| 21 | 1/19/2000 | 114500 | 266.957 | | 249.905 | | 0.5 |
| 22 | 1/19/2000 | 114530 | 264.685 | | 249.325 | | 0.499 |
| 23 | 1/19/2000 | 114600 | 264.685 | | 249.325 | | 0.499 |
| 24 | 1/19/2000 | 114630 | 264.662 | | 249.249 | | 0.502 |
| 25 | 1/19/2000 | 114700 | 264.662 | | 249.249 | | 0.502 |
| 26 | 1/19/2000 | 114730 | 264.205 | | 250.224 | | 0.502 |
| 27 | 1/19/2000 | 114800 | 264.205 | | 250.224 | | 0.502 |
| 28 | 1/19/2000 | 114830 | | 269.59 | 250.232 | 0.465 | |
| 29 | 1/19/2000 | 114900 | | 269.59 | 250.232 | 0.465 | |
| 30 | 1/19/2000 | 114930 | | 268.889 | 249.54 | 0.479 | |
| 31 | 1/19/2000 | 115000 | | 268.889 | 249.54 | 0.479 | |
| 32 | 1/19/2000 | 115030 | | 269.33 | 249.793 | 0.485 | |
| 33 | 1/19/2000 | 115100 | | 269.33 | 249.793 | 0.485 | |
| 34 | 1/19/2000 | 115130 | | 268.398 | 249.917 | 0.485 | |
| 35 | 1/19/2000 | 115200 | | 268.398 | 249.917 | 0.485 | |
| 36 | 1/19/2000 | 115230 | | 268.793 | 249.819 | 0.488 | |
| 37 | 1/19/2000 | 115300 | | 268.793 | 249.819 | 0.488 | |
| 38 | 1/19/2000 | 115330 | | 270.764 | 249.371 | 0.492 | |
| 39 | 1/19/2000 | 115400 | | 270.764 | 249.371 | 0.492 | |
| 40 | 1/19/2000 | 115430 | | 272.748 | 249.761 | 0.497 | |
| 41 | 1/19/2000 | 115500 | | 272.748 | 249.761 | 0.497 | |
| 42 | 1/19/2000 | 115530 | | | 249.898 | | |
| 43 | 1/19/2000 | 115600 | | | 249.898 | | |
| 44 | 1/19/2000 | 115630 | 288.321 | | 249.977 | | 0.494 |
| 45 | 1/19/2000 | 115700 | 288.321 | | 249.977 | | 0.494 |
| 46 | 1/19/2000 | 115730 | 271.752 | | 250.021 | | 0.494 |
| 47 | 1/19/2000 | 115800 | 271.752 | | 250.021 | | 0.494 |
| 48 | 1/19/2000 | 115830 | 265.998 | | 249.728 | | 0.498 |
| 49 | 1/19/2000 | 115900 | 265.998 | | 249.728 | | 0.498 |
| 50 | 1/19/2000 | 115930 | 264.243 | | 250.072 | | 0.498 |
| 51 | 1/19/2000 | 120000 | 264.243 | | 250.072 | | 0.498 |
| 52 | 1/19/2000 | 120030 | 262.861 | | 249.431 | | 0.494 |
| 53 | 1/19/2000 | 120100 | 262.861 | | 249.431 | | 0.494 |
| 54 | 1/19/2000 | 120130 | 261.274 | | 248.69 | | 0.492 |
| 55 | 1/19/2000 | 120200 | 261.274 | | 248.69 | | 0.492 |
| 56 | 1/19/2000 | 120230 | 260.641 | | 248.982 | | 0.493 |
| 57 | 1/19/2000 | 120300 | 260.641 | | 248.982 | | 0.493 |
| 58 | 1/19/2000 | 120330 | | 267.14 | 249.634 | 0.46 | |
| 59 | 1/19/2000 | 120400 | | 267.14 | 249.634 | 0.46 | |
| 60 | 1/19/2000 | 120430 | | 264.988 | 249.853 | 0.473 | |
| 61 | 1/19/2000 | 120500 | | 264.988 | 249.853 | 0.473 | |
| 62 | 1/19/2000 | 120530 | | 265.355 | 250.259 | 0.478 | |
| 63 | 1/19/2000 | 120600 | | 265.355 | 250.259 | 0.478 | |

| Record# | DATE | TIME | WT4NOXB1 | WT4NOXA2 | WT4GENA3 | WT4NOXA4 | WT4NOXB5 |
|---|---|---|---|---|---|---|---|
| 64 | 1/19/2000 | 120630 | | 265.32 | 249.365 | 0.476 | |
| 65 | 1/19/2000 | 120700 | | 265.32 | 249.365 | 0.476 | |
| 66 | 1/19/2000 | 120730 | | 266.151 | 249.71 | 0.476 | |
| 67 | 1/19/2000 | 120800 | | 266.151 | 249.71 | 0.476 | |
| 68 | 1/19/2000 | 120830 | | 263.587 | 249.405 | 0.471 | |
| 69 | 1/19/2000 | 120900 | | 263.587 | 249.405 | 0.471 | |
| 70 | 1/19/2000 | 120930 | | 265.342 | 249.318 | 0.478 | |
| 71 | 1/19/2000 | 121000 | | 265.342 | 249.318 | 0.478 | |
| 72 | 1/19/2000 | 121030 | | | 249.116 | | |
| 73 | 1/19/2000 | 121100 | | | 249.116 | | |
| 74 | 1/19/2000 | 121130 | 286.296 | | 249.846 | | 0.492 |
| 75 | 1/19/2000 | 121200 | 286.296 | | 249.846 | | 0.492 |
| 76 | 1/19/2000 | 121230 | 269.396 | | 250.211 | | 0.489 |
| 77 | 1/19/2000 | 121300 | 269.396 | | 250.211 | | 0.489 |
| 78 | 1/19/2000 | 121330 | 262.375 | | 249.821 | | 0.492 |
| 79 | 1/19/2000 | 121400 | 262.375 | | 249.821 | | 0.492 |
| 80 | 1/19/2000 | 121430 | 260.347 | | 249.238 | | 0.493 |
| 81 | 1/19/2000 | 121500 | 260.347 | | 249.238 | | 0.493 |
| 82 | 1/19/2000 | 121530 | 260.977 | | 249.26 | | 0.495 |
| 83 | 1/19/2000 | 121600 | 260.977 | | 249.26 | | 0.495 |
| 84 | 1/19/2000 | 121630 | 260.751 | | 249.41 | | 0.494 |
| 85 | 1/19/2000 | 121700 | 260.751 | | 249.41 | | 0.494 |
| 86 | 1/19/2000 | 121730 | 261.304 | | 250.008 | | 0.494 |
| 87 | 1/19/2000 | 121800 | 261.304 | | 250.008 | | 0.494 |
| 88 | 1/19/2000 | 121830 | | 268.381 | 250.386 | 0.461 | |
| 89 | 1/19/2000 | 121900 | | 268.381 | 250.386 | 0.461 | |
| 90 | 1/19/2000 | 121930 | | 267.134 | 249.887 | 0.475 | |
| 91 | 1/19/2000 | 122000 | | 267.134 | 249.887 | 0.475 | |
| 92 | 1/19/2000 | 122030 | | 268.542 | 249.372 | 0.482 | |
| 93 | 1/19/2000 | 122100 | | 268.542 | 249.372 | 0.482 | |
| 94 | 1/19/2000 | 122130 | | 268.038 | 249.102 | 0.482 | |
| 95 | 1/19/2000 | 122200 | | 268.038 | 249.102 | 0.482 | |
| 96 | 1/19/2000 | 122230 | | 269.246 | 249.733 | 0.485 | |
| 97 | 1/19/2000 | 122300 | | 269.246 | 249.733 | 0.485 | |
| 98 | 1/19/2000 | 122330 | | 267.044 | 250.879 | 0.481 | |
| 99 | 1/19/2000 | 122400 | | 267.044 | 250.879 | 0.481 | |
| 100 | 1/19/2000 | 122430 | | 265.911 | 250.005 | 0.481 | |
| 101 | 1/19/2000 | 122500 | | 265.911 | 250.005 | 0.481 | |
| 102 | 1/19/2000 | 122530 | | | 249.478 | | |
| 103 | 1/19/2000 | 122600 | | | 249.478 | | |
| 104 | 1/19/2000 | 122630 | 289.454 | | 249.28 | | 0.495 |
| 105 | 1/19/2000 | 122700 | 289.454 | | 249.28 | | 0.495 |
| 106 | 1/19/2000 | 122730 | 270.968 | | 249.739 | | 0.489 |
| 107 | 1/19/2000 | 122800 | 270.968 | | 249.739 | | 0.489 |
| 108 | 1/19/2000 | 122830 | 262.887 | | 250.04 | | 0.484 |
| 109 | 1/19/2000 | 122900 | 262.887 | | 250.04 | | 0.484 |
| 110 | 1/19/2000 | 122930 | 260.979 | | 249.806 | | 0.488 |
| 111 | 1/19/2000 | 123000 | 260.979 | | 249.806 | | 0.488 |
| 112 | 1/19/2000 | 123030 | 260.205 | | 250.02 | | 0.488 |
| 113 | 1/19/2000 | 123100 | 260.205 | | 250.02 | | 0.488 |
| 114 | 1/19/2000 | 123130 | 259.743 | | 250.266 | | 0.49 |
| 115 | 1/19/2000 | 123200 | 259.743 | | 250.266 | | 0.49 |
| 116 | 1/19/2000 | 123230 | 259.33 | | 250.407 | | 0.486 |
| 117 | 1/19/2000 | 123300 | 259.33 | | 250.407 | | 0.486 |
| 118 | 1/19/2000 | 123330 | | 268.291 | 249.959 | 0.465 | |
| 119 | 1/19/2000 | 123400 | | 268.291 | 249.959 | 0.465 | |
| 120 | 1/19/2000 | 123430 | | 265.379 | 249.996 | 0.474 | |
| 121 | 1/19/2000 | 123500 | | 265.379 | 249.996 | 0.474 | |
| 122 | 1/19/2000 | 123530 | | 268.221 | 249.578 | 0.483 | |
| 123 | 1/19/2000 | 123600 | | 268.221 | 249.578 | 0.483 | |
| 124 | 1/19/2000 | 123630 | | 268.134 | 249.324 | 0.482 | |
| 125 | 1/19/2000 | 123700 | | 268.134 | 249.324 | 0.482 | |
| 126 | 1/19/2000 | 123730 | | 265.879 | 249.254 | 0.476 | |

| Record# | DATE | TIME | WT4NOXB1 | WT4NOXA2 | WT4GENA3 | WT4NOXA4 | WT4NOXB5 |
|---|---|---|---|---|---|---|---|
| 127 | 1/19/2000 | 123800 | | 265.879 | 249.254 | 0.476 | |
| 128 | 1/19/2000 | 123830 | | 266.349 | 249.403 | 0.477 | |
| 129 | 1/19/2000 | 123900 | | 266.349 | 249.403 | 0.477 | |
| 130 | 1/19/2000 | 123930 | | 267.475 | 249.522 | 0.48 | |
| 131 | 1/19/2000 | 124000 | | 267.475 | 249.522 | 0.48 | |
| 132 | 1/19/2000 | 124030 | | | 249.514 | | |
| 133 | 1/19/2000 | 124100 | | | 249.514 | | |
| 134 | 1/19/2000 | 124130 | 286.093 | | 250.092 | | 0.49 |
| 135 | 1/19/2000 | 124200 | 286.093 | | 250.092 | | 0.49 |
| 136 | 1/19/2000 | 124230 | 269.557 | | 249.919 | | 0.49 |
| 137 | 1/19/2000 | 124300 | 269.557 | | 249.919 | | 0.49 |
| 138 | 1/19/2000 | 124330 | 263.533 | | 249.789 | | 0.494 |
| 139 | 1/19/2000 | 124400 | 263.533 | | 249.789 | | 0.494 |
| 140 | 1/19/2000 | 124430 | 261.706 | | 249.844 | | 0.495 |
| 141 | 1/19/2000 | 124500 | 261.706 | | 249.844 | | 0.495 |
| 142 | 1/19/2000 | 124530 | 262.06 | | 249.343 | | 0.496 |
| 143 | 1/19/2000 | 124600 | 262.06 | | 249.343 | | 0.496 |
| 144 | 1/19/2000 | 124630 | 260.726 | | 249.15 | | 0.495 |
| 145 | 1/19/2000 | 124700 | 260.726 | | 249.15 | | 0.495 |
| 146 | 1/19/2000 | 124730 | 260.309 | | 250.14 | | 0.496 |
| 147 | 1/19/2000 | 124800 | 260.309 | | 250.14 | | 0.496 |
| 148 | 1/19/2000 | 124830 | | 272.073 | 250.095 | 0.468 | |
| 149 | 1/19/2000 | 124900 | | 272.073 | 250.095 | 0.468 | |
| 150 | 1/19/2000 | 124930 | | 271.972 | 250.646 | 0.48 | |
| 151 | 1/19/2000 | 125000 | | 271.972 | 250.646 | 0.48 | |
| 152 | 1/19/2000 | 125030 | | 274.114 | 249.472 | 0.488 | |
| 153 | 1/19/2000 | 125100 | | 274.114 | 249.472 | 0.488 | |
| 154 | 1/19/2000 | 125130 | | 273.796 | 249.083 | 0.491 | |
| 155 | 1/19/2000 | 125200 | | 273.796 | 249.083 | 0.491 | |
| 156 | 1/19/2000 | 125230 | | 271.619 | 249.389 | 0.485 | |
| 157 | 1/19/2000 | 125300 | | 271.619 | 249.389 | 0.485 | |
| 158 | 1/19/2000 | 125330 | | 272.976 | 249.805 | 0.489 | |
| 159 | 1/19/2000 | 125400 | | 272.976 | 249.805 | 0.489 | |
| 160 | 1/19/2000 | 125430 | | 274.021 | 250.123 | 0.49 | |
| 161 | 1/19/2000 | 125500 | | 274.021 | 250.123 | 0.49 | |
| 162 | 1/19/2000 | 125530 | | | 249.661 | | |
| 163 | 1/19/2000 | 125600 | | | 249.661 | | |
| 164 | 1/19/2000 | 125630 | 293.002 | | 249.511 | | 0.504 |
| 165 | 1/19/2000 | 125700 | 293.002 | | 249.511 | | 0.504 |
| 166 | 1/19/2000 | 125730 | 275.756 | | 249.519 | | 0.503 |
| 167 | 1/19/2000 | 125800 | 275.756 | | 249.519 | | 0.503 |
| 168 | 1/19/2000 | 125830 | 269.771 | | 249.702 | | 0.507 |
| 169 | 1/19/2000 | 125900 | 269.771 | | 249.702 | | 0.507 |
| 170 | 1/19/2000 | 125930 | 267.54 | | 250.364 | | 0.507 |
| 171 | 1/19/2000 | 130000 | 267.54 | | 250.364 | | 0.507 |
| 172 | 1/19/2000 | 130030 | 269.229 | | 250.62 | | 0.509 |
| 173 | 1/19/2000 | 130100 | 269.229 | | 250.62 | | 0.509 |
| 174 | 1/19/2000 | 130130 | 271.457 | | 249.652 | | 0.513 |
| 175 | 1/19/2000 | 130200 | 271.457 | | 249.652 | | 0.513 |
| 176 | 1/19/2000 | 130230 | 271.267 | | 249.091 | | 0.512 |
| 177 | 1/19/2000 | 130300 | 271.267 | | 249.091 | | 0.512 |
| 178 | 1/19/2000 | 130330 | | 271.688 | 249.411 | 0.476 | |
| 179 | 1/19/2000 | 130400 | | 271.688 | 249.411 | 0.476 | |
| 180 | 1/19/2000 | 130430 | | 271.594 | 249.898 | 0.49 | |
| 181 | 1/19/2000 | 130500 | | 271.594 | 249.898 | 0.49 | |
| 182 | 1/19/2000 | 130530 | | 272.225 | 249.99 | 0.493 | |
| 183 | 1/19/2000 | 130600 | | 272.225 | 249.99 | 0.493 | |
| 184 | 1/19/2000 | 130630 | | 270.26 | 249.805 | 0.49 | |
| 185 | 1/19/2000 | 130700 | | 270.26 | 249.805 | 0.49 | |
| 186 | 1/19/2000 | 130730 | | 274.198 | 249.585 | 0.494 | |
| 187 | 1/19/2000 | 130800 | | 274.198 | 249.585 | 0.494 | |
| 188 | 1/19/2000 | 130830 | | 274.653 | 249.52 | 0.493 | |
| 189 | 1/19/2000 | 130900 | | 274.653 | 249.52 | 0.493 | |

| Record# | DATE | TIME | WT4NOXB1 | WT4NOXA2 | WT4GENA3 | WT4NOXA4 | WT4NOXB5 |
|---|---|---|---|---|---|---|---|
| 190 | 1/19/2000 | 130930 | | 274.304 | 250.121 | 0.495 | |
| 191 | 1/19/2000 | 131000 | | 274.304 | 250.121 | 0.495 | |
| 192 | 1/19/2000 | 131030 | | | 250.219 | | |
| 193 | 1/19/2000 | 131100 | | | 250.219 | | |
| 194 | 1/19/2000 | 131130 | 293.529 | | 249.522 | | 0.501 |
| 195 | 1/19/2000 | 131200 | 293.529 | | 249.522 | | 0.501 |
| 196 | 1/19/2000 | 131230 | 276.3 | | 249.178 | | 0.5 |
| 197 | 1/19/2000 | 131300 | 276.3 | | 249.178 | | 0.5 |
| 198 | 1/19/2000 | 131330 | 269.264 | | 250.022 | | 0.502 |
| 199 | 1/19/2000 | 131400 | 269.264 | | 250.022 | | 0.502 |
| 200 | 1/19/2000 | 131430 | 267.862 | | 250.32 | | 0.501 |
| 201 | 1/19/2000 | 131500 | 267.862 | | 250.32 | | 0.501 |
| 202 | 1/19/2000 | 131530 | 268.017 | | 250.044 | | 0.502 |
| 203 | 1/19/2000 | 131600 | 268.017 | | 250.044 | | 0.502 |
| 204 | 1/19/2000 | 131630 | 267.574 | | 249.619 | | 0.501 |
| 205 | 1/19/2000 | 131700 | 267.574 | | 249.619 | | 0.501 |
| 206 | 1/19/2000 | 131730 | 266.036 | | 249.22 | | 0.499 |
| 207 | 1/19/2000 | 131800 | 266.036 | | 249.22 | | 0.499 |
| 208 | 1/19/2000 | 131830 | | 270.721 | 249.154 | 0.472 | |
| 209 | 1/19/2000 | 131900 | | 270.721 | 249.154 | 0.472 | |
| 210 | 1/19/2000 | 131930 | | 268.235 | 250.216 | 0.484 | |
| 211 | 1/19/2000 | 132000 | | 268.235 | 250.216 | 0.484 | |
| 212 | 1/19/2000 | 132030 | | 266.923 | 250.458 | 0.482 | |
| 213 | 1/19/2000 | 132100 | | 266.923 | 250.458 | 0.482 | |
| 214 | 1/19/2000 | 132130 | | 265.343 | 249.887 | 0.479 | |
| 215 | 1/19/2000 | 132200 | | 265.343 | 249.887 | 0.479 | |
| 216 | 1/19/2000 | 132230 | | 266.49 | 249.529 | 0.481 | |
| 217 | 1/19/2000 | 132300 | | 266.49 | 249.529 | 0.481 | |
| 218 | 1/19/2000 | 132330 | | 266.699 | 249.686 | 0.482 | |
| 219 | 1/19/2000 | 132400 | | 266.699 | 249.686 | 0.482 | |
| 220 | 1/19/2000 | 132430 | | 259.625 | 250.036 | 0.469 | |
| 221 | 1/19/2000 | 132500 | | 259.625 | 250.036 | 0.469 | |
| 222 | 1/19/2000 | 132530 | | | 249.997 | | |
| 223 | 1/19/2000 | 132600 | | | 249.997 | | |
| 224 | 1/19/2000 | 132630 | 292.891 | | 249.823 | | 0.498 |
| 225 | 1/19/2000 | 132700 | 292.891 | | 249.823 | | 0.498 |
| 226 | 1/19/2000 | 132730 | 277.198 | | 249.86 | | 0.497 |
| 227 | 1/19/2000 | 132800 | 277.198 | | 249.86 | | 0.497 |
| 228 | 1/19/2000 | 132830 | 271.391 | | 250.35 | | 0.496 |
| 229 | 1/19/2000 | 132900 | 271.391 | | 250.35 | | 0.496 |
| 230 | 1/19/2000 | 132930 | 267.45 | | 249.15 | | 0.491 |
| 231 | 1/19/2000 | 133000 | 267.45 | | 249.15 | | 0.491 |
| 232 | 1/19/2000 | 133030 | 265.513 | | 249.114 | | 0.499 |
| 233 | 1/19/2000 | 133100 | 265.513 | | 249.114 | | 0.499 |
| 234 | 1/19/2000 | 133130 | 265.539 | | 249.568 | | 0.5 |
| 235 | 1/19/2000 | 133200 | 265.539 | | 249.568 | | 0.5 |
| 236 | 1/19/2000 | 133230 | 266.11 | | 249.925 | | 0.504 |
| 237 | 1/19/2000 | 133300 | 266.11 | | 249.925 | | 0.504 |
| 238 | 1/19/2000 | 133330 | | 262.462 | 249.652 | 0.458 | |
| 239 | 1/19/2000 | 133400 | | 262.462 | 249.652 | 0.458 | |
| 240 | 1/19/2000 | 133430 | | 262.219 | 249.526 | 0.476 | |
| 241 | 1/19/2000 | 133500 | | 262.219 | 249.526 | 0.476 | |
| 242 | 1/19/2000 | 133530 | | 264.569 | 249.972 | 0.484 | |
| 243 | 1/19/2000 | 133600 | | 264.569 | 249.972 | 0.484 | |
| 244 | 1/19/2000 | 133630 | | 265.878 | 250.221 | 0.487 | |
| 245 | 1/19/2000 | 133700 | | 265.878 | 250.221 | 0.487 | |
| 246 | 1/19/2000 | 133730 | | 268.773 | 250.112 | 0.491 | |
| 247 | 1/19/2000 | 133800 | | 268.773 | 250.112 | 0.491 | |
| 248 | 1/19/2000 | 133830 | | 270.854 | 249.206 | 0.494 | |
| 249 | 1/19/2000 | 133900 | | 270.854 | 249.206 | 0.494 | |
| 250 | 1/19/2000 | 133930 | | 269.169 | 248.84 | 0.491 | |
| 251 | 1/19/2000 | 134000 | | 269.169 | 248.84 | 0.491 | |
| 252 | 1/19/2000 | 134030 | | | 249.98 | | |

| Record# | DATE | TIME | WT4NOXB1 | WT4NOXA2 | WT4GENA3 | WT4NOXA4 | WT4NOXB5 |
|---|---|---|---|---|---|---|---|
| 253 | 1/19/2000 | 134100 | | | 249.98 | | |
| 254 | 1/19/2000 | 134130 | 293.299 | | 250.029 | | 0.504 |
| 255 | 1/19/2000 | 134200 | 293.299 | | 250.029 | | 0.504 |
| 256 | 1/19/2000 | 134230 | 276.607 | | 250.123 | | 0.504 |
| 257 | 1/19/2000 | 134300 | 276.607 | | 250.123 | | 0.504 |
| 258 | 1/19/2000 | 134330 | 266.959 | | 249.593 | | 0.504 |
| 259 | 1/19/2000 | 134400 | 266.959 | | 249.593 | | 0.504 |
| 260 | 1/19/2000 | 134430 | 265.614 | | 248.662 | | 0.506 |
| 261 | 1/19/2000 | 134500 | 265.614 | | 248.662 | | 0.506 |
| 262 | 1/19/2000 | 134530 | 264.607 | | 249.448 | | 0.506 |
| 263 | 1/19/2000 | 134600 | 264.607 | | 249.448 | | 0.506 |
| 264 | 1/19/2000 | 134630 | 263.225 | | 250.186 | | 0.507 |
| 265 | 1/19/2000 | 134700 | 263.225 | | 250.186 | | 0.507 |
| 266 | 1/19/2000 | 134730 | 262.703 | | 250.368 | | 0.506 |
| 267 | 1/19/2000 | 134800 | 262.703 | | 250.368 | | 0.506 |
| 268 | 1/19/2000 | 134830 | | 273.501 | 250.096 | 0.479 | |
| 269 | 1/19/2000 | 134900 | | 273.501 | 250.096 | 0.479 | |
| 270 | 1/19/2000 | 134930 | | 271.789 | 249.529 | 0.492 | |
| 271 | 1/19/2000 | 135000 | | 271.789 | 249.529 | 0.492 | |
| 272 | 1/19/2000 | 135030 | | 272.55 | 249.524 | 0.498 | |
| 273 | 1/19/2000 | 135100 | | 272.55 | 249.524 | 0.498 | |
| 274 | 1/19/2000 | 135130 | | 274.253 | 248.847 | 0.499 | |
| 275 | 1/19/2000 | 135200 | | 274.253 | 248.847 | 0.499 | |
| 276 | 1/19/2000 | 135230 | | 273.785 | 249.701 | 0.499 | |
| 277 | 1/19/2000 | 135300 | | 273.785 | 249.701 | 0.499 | |
| 278 | 1/19/2000 | 135330 | | 273.284 | 250.249 | 0.497 | |
| 279 | 1/19/2000 | 135400 | | 273.284 | 250.249 | 0.497 | |
| 280 | 1/19/2000 | 135430 | | 273.216 | 250.016 | 0.495 | |
| 281 | 1/19/2000 | 135500 | | 273.216 | 250.016 | 0.495 | |
| 282 | 1/19/2000 | 135530 | | | 249.55 | | |
| 283 | 1/19/2000 | 135600 | | | 249.55 | | |
| 284 | 1/19/2000 | 135630 | 285.168 | | 249.671 | | 0.488 |
| 285 | 1/19/2000 | 135700 | 285.168 | | 249.671 | | 0.488 |
| 286 | 1/19/2000 | 135730 | 269.064 | | 249.448 | | 0.488 |
| 287 | 1/19/2000 | 135800 | 269.064 | | 249.448 | | 0.488 |
| 288 | 1/19/2000 | 135830 | 262.855 | | 249.327 | | 0.492 |
| 289 | 1/19/2000 | 135900 | 262.855 | | 249.327 | | 0.492 |
| 290 | 1/19/2000 | 135930 | 257.269 | | 250.143 | | 0.484 |
| 291 | 1/19/2000 | 140000 | 257.269 | | 250.143 | | 0.484 |
| 292 | 1/19/2000 | 140030 | 258.891 | | 250.507 | | 0.487 |
| 293 | 1/19/2000 | 140100 | 258.891 | | 250.507 | | 0.487 |
| 294 | 1/19/2000 | 140130 | 265.012 | | 249.716 | | 0.495 |
| 295 | 1/19/2000 | 140200 | 265.012 | | 249.716 | | 0.495 |
| 296 | 1/19/2000 | 140230 | 267.74 | | 249.163 | | 0.498 |
| 297 | 1/19/2000 | 140300 | 267.74 | | 249.163 | | 0.498 |
| 298 | 1/19/2000 | 140330 | | 269.528 | 250.109 | 0.472 | |
| 299 | 1/19/2000 | 140400 | | 269.528 | 250.109 | 0.472 | |
| 300 | 1/19/2000 | 140430 | | 263.997 | 250.241 | 0.479 | |
| 301 | 1/19/2000 | 140500 | | 263.997 | 250.241 | 0.479 | |
| 302 | 1/19/2000 | 140530 | | 257.645 | 250.574 | 0.47 | |
| 303 | 1/19/2000 | 140600 | | 257.645 | 250.574 | 0.47 | |
| 304 | 1/19/2000 | 140630 | | 260.165 | 249.814 | 0.474 | |
| 305 | 1/19/2000 | 140700 | | 260.165 | 249.814 | 0.474 | |
| 306 | 1/19/2000 | 140730 | | 267.661 | 249.544 | 0.486 | |
| 307 | 1/19/2000 | 140800 | | 267.661 | 249.544 | 0.486 | |
| 308 | 1/19/2000 | 140830 | | 267.64 | 249.609 | 0.485 | |
| 309 | 1/19/2000 | 140900 | | 267.64 | 249.609 | 0.485 | |
| 310 | 1/19/2000 | 140930 | | 266.931 | 249.779 | 0.483 | |
| 311 | 1/19/2000 | 141000 | | 266.931 | 249.779 | 0.483 | |
| 312 | 1/19/2000 | 141030 | | | 249.664 | | |
| 313 | 1/19/2000 | 141100 | | | 249.664 | | |
| 314 | 1/19/2000 | 141130 | 288.505 | | 249.28 | | 0.494 |
| 315 | 1/19/2000 | 141200 | 288.505 | | 249.28 | | 0.494 |

| Record# | DATE | TIME | WT4NOXB1 | WT4NOXA2 | WT4GENA3 | WT4NOXA4 | WT4NOXB5 |
|---|---|---|---|---|---|---|---|
| 316 | 1/19/2000 | 141230 | 270.982 | | 249.824 | | 0.495 |
| 317 | 1/19/2000 | 141300 | 270.982 | | 249.824 | | 0.495 |
| 318 | 1/19/2000 | 141330 | 265.831 | | 249.166 | | 0.498 |
| 319 | 1/19/2000 | 141400 | 265.831 | | 249.166 | | 0.498 |
| 320 | 1/19/2000 | 141430 | 264.595 | | 249.479 | | 0.501 |
| 321 | 1/19/2000 | 141500 | 264.595 | | 249.479 | | 0.501 |
| 322 | 1/19/2000 | 141530 | 262.837 | | 250.577 | | 0.501 |
| 323 | 1/19/2000 | 141600 | 262.837 | | 250.577 | | 0.501 |
| 324 | 1/19/2000 | 141630 | 262.674 | | 250.191 | | 0.499 |
| 325 | 1/19/2000 | 141700 | 262.674 | | 250.191 | | 0.499 |
| 326 | 1/19/2000 | 141730 | 264.328 | | 249.349 | | 0.499 |
| 327 | 1/19/2000 | 141800 | 264.328 | | 249.349 | | 0.499 |
| 328 | 1/19/2000 | 141830 | 264.625 | | 248.966 | | 0.498 |
| 329 | 1/19/2000 | 141900 | 264.625 | | 248.966 | | 0.498 |
| 330 | 1/19/2000 | 141930 | 264.558 | | 249.802 | | 0.498 |
| 331 | 1/19/2000 | 142000 | 264.558 | | 249.802 | | 0.498 |
| 332 | 1/19/2000 | 142030 | 263.927 | | 249.857 | | 0.498 |
| 333 | 1/19/2000 | 142100 | 263.927 | | 249.857 | | 0.498 |
| 334 | 1/19/2000 | 142130 | 264.368 | | 249.725 | | 0.498 |
| 335 | 1/19/2000 | 142200 | 264.368 | | 249.725 | | 0.498 |
| 336 | 1/19/2000 | 142230 | 264.473 | | 250.361 | | 0.5 |
| 337 | 1/19/2000 | 142300 | 264.473 | | 250.361 | | 0.5 |
| 338 | 1/19/2000 | 142330 | 263.318 | | 249.696 | | 0.499 |
| 339 | 1/19/2000 | 142400 | 263.318 | | 249.696 | | 0.499 |
| 340 | 1/19/2000 | 142430 | 262.234 | | 249.244 | | 0.498 |
| 341 | 1/19/2000 | 142500 | 262.234 | | 249.244 | | 0.498 |
| 342 | 1/19/2000 | 142530 | | | 249.448 | | |
| 343 | 1/19/2000 | 142600 | | | 249.448 | | |
| 344 | 1/19/2000 | 142630 | | 261.261 | 250.271 | 0.475 | |
| 345 | 1/19/2000 | 142700 | | 261.261 | 250.271 | 0.475 | |
| 346 | 1/19/2000 | 142730 | | 264.271 | 250.253 | 0.489 | |
| 347 | 1/19/2000 | 142800 | | 264.271 | 250.253 | 0.489 | |
| 348 | 1/19/2000 | 142830 | | 263.359 | 250.244 | 0.486 | |
| 349 | 1/19/2000 | 142900 | | 263.359 | 250.244 | 0.486 | |
| 350 | 1/19/2000 | 142930 | | 263.675 | 249.901 | 0.485 | |
| 351 | 1/19/2000 | 143000 | | 263.675 | 249.901 | 0.485 | |
| 352 | 1/19/2000 | 143030 | | 265.055 | 249.328 | 0.488 | |
| 353 | 1/19/2000 | 143100 | | 265.055 | 249.328 | 0.488 | |
| 354 | 1/19/2000 | 143130 | | 264.942 | 249.07 | 0.491 | |
| 355 | 1/19/2000 | 143200 | | 264.942 | 249.07 | 0.491 | |
| 356 | 1/19/2000 | 143230 | | 265.782 | 249.764 | 0.491 | |
| 357 | 1/19/2000 | 143300 | | 265.782 | 249.764 | 0.491 | |
| 358 | 1/19/2000 | 143330 | | 265.912 | 249.977 | 0.49 | |
| 359 | 1/19/2000 | 143400 | | 265.912 | 249.977 | 0.49 | |
| 360 | 1/19/2000 | 143430 | | 265.286 | 250.412 | 0.488 | |
| 361 | 1/19/2000 | 143500 | | 265.286 | 250.412 | 0.488 | |
| 362 | 1/19/2000 | 143530 | | 265.851 | 250.27 | 0.485 | |
| 363 | 1/19/2000 | 143600 | | 265.851 | 250.27 | 0.485 | |
| 364 | 1/19/2000 | 143630 | | 270.308 | 249.436 | 0.492 | |
| 365 | 1/19/2000 | 143700 | | 270.308 | 249.436 | 0.492 | |
| 366 | 1/19/2000 | 143730 | | 269.801 | 249.503 | 0.489 | |
| 367 | 1/19/2000 | 143800 | | 269.801 | 249.503 | 0.489 | |
| 368 | 1/19/2000 | 143830 | | 267.934 | 249.24 | 0.486 | |
| 369 | 1/19/2000 | 143900 | | 267.934 | 249.24 | 0.486 | |
| 370 | 1/19/2000 | 143930 | | 270.016 | 249.638 | 0.49 | |
| 371 | 1/19/2000 | 144000 | | 270.016 | 249.638 | 0.49 | |
| 372 | 1/19/2000 | 144030 | | | 249.754 | | |
| 373 | 1/19/2000 | 144100 | | | 249.754 | | |
| 374 | 1/19/2000 | 144130 | 281.304 | | 250.241 | | 0.5 |
| 375 | 1/19/2000 | 144200 | 281.304 | | 250.241 | | 0.5 |
| 376 | 1/19/2000 | 144230 | 268.5 | | 250.252 | | 0.503 |
| 377 | 1/19/2000 | 144300 | 268.5 | | 250.252 | | 0.503 |
| 378 | 1/19/2000 | 144330 | 263.542 | | 250.223 | | 0.503 |

| Record# | DATE | TIME | WT4NOXB1 | WT4NOXA2 | WT4GENA3 | WT4NOXA4 | WT4NOXB5 |
|---|---|---|---|---|---|---|---|
| 379 | 1/19/2000 | 144400 | 263.542 | | 250.223 | | 0.503 |
| 380 | 1/19/2000 | 144430 | 262.081 | | 249.547 | | 0.501 |
| 381 | 1/19/2000 | 144500 | 262.081 | | 249.547 | | 0.501 |
| 382 | 1/19/2000 | 144530 | 263.442 | | 249.142 | | 0.505 |
| 383 | 1/19/2000 | 144600 | 263.442 | | 249.142 | | 0.505 |
| 384 | 1/19/2000 | 144630 | 262.355 | | 249.111 | | 0.502 |
| 385 | 1/19/2000 | 144700 | 262.355 | | 249.111 | | 0.502 |
| 386 | 1/19/2000 | 144730 | | | 250.083 | | |
| 387 | 1/19/2000 | 144800 | | | 250.083 | | |
| 388 | 1/19/2000 | 144830 | | 268.87 | 250.396 | 0.475 | |
| 389 | 1/19/2000 | 144900 | | 268.87 | 250.396 | 0.475 | |
| 390 | 1/19/2000 | 144930 | | 268.108 | 249.69 | 0.487 | |
| 391 | 1/19/2000 | 145000 | | 268.108 | 249.69 | 0.487 | |
| 392 | 1/19/2000 | 145030 | | 267.803 | 249.158 | 0.487 | |
| 393 | 1/19/2000 | 145100 | | 267.803 | 249.158 | 0.487 | |
| 394 | 1/19/2000 | 145130 | | 266.894 | 249.53 | 0.484 | |
| 395 | 1/19/2000 | 145200 | | 266.894 | 249.53 | 0.484 | |
| 396 | 1/19/2000 | 145230 | | 270.661 | 250.354 | 0.493 | |
| 397 | 1/19/2000 | 145300 | | 270.661 | 250.354 | 0.493 | |
| 398 | / / | | | | | | |
| 399 | / / | 130251.486 | 268.6363 | 267.570635 | 249.747834 | 0.48227513 | 0.49758889 |

| Record# | DATE | TIME | WT4NOXA1 | WT4NOXB2 | WT4NOXA3 | WT4NOXB4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 8 | 1/20/00 | 83330 | 269.179 | | 0.571 | | 249.335 |
| 9 | 1/20/00 | 83400 | 269.179 | | 0.571 | | 249.335 |
| 10 | 1/20/00 | 83430 | 267.507 | | 0.512 | | 250.419 |
| 11 | 1/20/00 | 83500 | 267.507 | | 0.512 | | 250.419 |
| 12 | 1/20/00 | 83530 | 267.921 | | 0.491 | | 249.412 |
| 13 | 1/20/00 | 83600 | 267.921 | | 0.491 | | 249.412 |
| 14 | 1/20/00 | 83630 | 269.948 | | 0.493 | | 249.141 |
| 15 | 1/20/00 | 83700 | 269.948 | | 0.493 | | 249.141 |
| 16 | 1/20/00 | 83730 | 270.025 | | 0.496 | | 249.885 |
| 17 | 1/20/00 | 83800 | 270.025 | | 0.496 | | 249.885 |
| 18 | 1/20/00 | 83830 | 270.482 | | 0.497 | | 250.616 |
| 19 | 1/20/00 | 83900 | 270.482 | | 0.497 | | 250.616 |
| 20 | 1/20/00 | 83930 | 269.198 | | 0.493 | | 250.75 |
| 21 | 1/20/00 | 84000 | 269.198 | | 0.493 | | 250.75 |
| 22 | 1/20/00 | 84030 | | | | | 250.359 |
| 23 | 1/20/00 | 84100 | | | | | 250.359 |
| 24 | 1/20/00 | 84130 | | 288.216 | | 0.533 | 249.68 |
| 25 | 1/20/00 | 84200 | | 288.216 | | 0.533 | 249.68 |
| 26 | 1/20/00 | 84230 | | 273.52 | | 0.508 | 250.029 |
| 27 | 1/20/00 | 84300 | | 273.52 | | 0.508 | 250.029 |
| 28 | 1/20/00 | 84330 | | 265.499 | | 0.497 | 250.011 |
| 29 | 1/20/00 | 84400 | | 265.499 | | 0.497 | 250.011 |
| 30 | 1/20/00 | 84430 | | 262.551 | | 0.494 | 249.734 |
| 31 | 1/20/00 | 84500 | | 262.551 | | 0.494 | 249.734 |
| 32 | 1/20/00 | 84530 | | 261.321 | | 0.49 | 249.876 |
| 33 | 1/20/00 | 84600 | | 261.321 | | 0.49 | 249.876 |
| 34 | 1/20/00 | 84630 | | 259.297 | | 0.486 | 249.866 |
| 35 | 1/20/00 | 84700 | | 259.297 | | 0.486 | 249.866 |
| 36 | 1/20/00 | 84730 | | | | | 250.223 |
| 37 | 1/20/00 | 84800 | | | | | 250.223 |
| 38 | 1/20/00 | 84830 | 277.678 | | 0.48 | | 250.593 |
| 39 | 1/20/00 | 84900 | 277.678 | | 0.48 | | 250.593 |
| 40 | 1/20/00 | 84930 | 275.499 | | 0.494 | | 250.724 |
| 41 | 1/20/00 | 85000 | 275.499 | | 0.494 | | 250.724 |
| 42 | 1/20/00 | 85030 | 274.005 | | 0.495 | | 248.901 |
| 43 | 1/20/00 | 85100 | 274.005 | | 0.495 | | 248.901 |
| 44 | 1/20/00 | 85130 | 275.016 | | 0.499 | | 249.005 |
| 45 | 1/20/00 | 85200 | 275.016 | | 0.499 | | 249.005 |
| 46 | 1/20/00 | 85230 | 274.788 | | 0.499 | | 250.044 |
| 47 | 1/20/00 | 85300 | 274.788 | | 0.499 | | 250.044 |
| 48 | 1/20/00 | 85330 | 274.878 | | 0.497 | | 250.658 |
| 49 | 1/20/00 | 85400 | 274.878 | | 0.497 | | 250.658 |
| 50 | 1/20/00 | 85430 | 275.113 | | 0.498 | | 250.875 |
| 51 | 1/20/00 | 85500 | 275.113 | | 0.498 | | 250.875 |
| 52 | 1/20/00 | 85530 | | | | | 249.129 |
| 53 | 1/20/00 | 85600 | | | | | 249.129 |
| 54 | 1/20/00 | 85630 | | 289.289 | | 0.486 | 249.489 |
| 55 | 1/20/00 | 85700 | | 289.289 | | 0.486 | 249.489 |
| 56 | 1/20/00 | 85730 | | 273.636 | | 0.489 | 250.09 |
| 57 | 1/20/00 | 85800 | | 273.636 | | 0.489 | 250.09 |
| 58 | 1/20/00 | 85830 | | 269.572 | | 0.491 | 250.521 |
| 59 | 1/20/00 | 85900 | | 269.572 | | 0.491 | 250.521 |
| 60 | 1/20/00 | 85930 | | 266.665 | | 0.49 | 251.126 |
| 61 | 1/20/00 | 90000 | | 266.665 | | 0.49 | 251.126 |
| 62 | 1/20/00 | 90030 | | 264.25 | | 0.486 | 249.542 |
| 63 | 1/20/00 | 90100 | | 264.25 | | 0.486 | 249.542 |
| 64 | 1/20/00 | 90130 | | 265.25 | | 0.483 | 249.544 |
| 65 | 1/20/00 | 90200 | | 265.25 | | 0.483 | 249.544 |
| 66 | 1/20/00 | 90230 | | | | | 249.546 |
| 67 | 1/20/00 | 90300 | | | | | 249.546 |
| 68 | 1/20/00 | 90330 | 275.475 | | 0.481 | | 250.268 |
| 69 | 1/20/00 | 90400 | 275.475 | | 0.481 | | 250.268 |
| 70 | 1/20/00 | 90430 | 273.577 | | 0.495 | | 250.719 |

| Record# | DATE | TIME | WT4NOXA1 | WT4NOXB2 | WT4NOXA3 | WT4NOXB4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 71 | 1/20/00 | 90500 | 273.577 | | 0.495 | | 250.719 |
| 72 | 1/20/00 | 90530 | 271.328 | | 0.495 | | 250.962 |
| 73 | 1/20/00 | 90600 | 271.328 | | 0.495 | | 250.962 |
| 74 | 1/20/00 | 90630 | 270.021 | | 0.494 | | 250.037 |
| 75 | 1/20/00 | 90700 | 270.021 | | 0.494 | | 250.037 |
| 76 | 1/20/00 | 90730 | 271.465 | | 0.495 | | 249.801 |
| 77 | 1/20/00 | 90800 | 271.465 | | 0.495 | | 249.801 |
| 78 | 1/20/00 | 90830 | 272.088 | | 0.495 | | 249.144 |
| 79 | 1/20/00 | 90900 | 272.088 | | 0.495 | | 249.144 |
| 80 | 1/20/00 | 90930 | 273.35 | | 0.498 | | 250.223 |
| 81 | 1/20/00 | 91000 | 273.35 | | 0.498 | | 250.223 |
| 82 | 1/20/00 | 91030 | | | | | 249.849 |
| 83 | 1/20/00 | 91100 | | | | | 249.849 |
| 84 | 1/20/00 | 91130 | | 295.76 | | 0.488 | 249.876 |
| 85 | 1/20/00 | 91200 | | 295.76 | | 0.488 | 249.876 |
| 86 | 1/20/00 | 91230 | | 277.14 | | 0.481 | 250.342 |
| 87 | 1/20/00 | 91300 | | 277.14 | | 0.481 | 250.342 |
| 88 | 1/20/00 | 91330 | | 274.756 | | 0.488 | 250.467 |
| 89 | 1/20/00 | 91400 | | 274.756 | | 0.488 | 250.467 |
| 90 | 1/20/00 | 91430 | | 272.735 | | 0.493 | 250.027 |
| 91 | 1/20/00 | 91500 | | 272.735 | | 0.493 | 250.027 |
| 92 | 1/20/00 | 91530 | | 274.011 | | 0.501 | 249.418 |
| 93 | 1/20/00 | 91600 | | 274.011 | | 0.501 | 249.418 |
| 94 | 1/20/00 | 91630 | | 276.048 | | 0.505 | 249.1 |
| 95 | 1/20/00 | 91700 | | 276.048 | | 0.505 | 249.1 |
| 96 | 1/20/00 | 91730 | | | | | 249.238 |
| 97 | 1/20/00 | 91800 | | | | | 249.238 |
| 98 | 1/20/00 | 91830 | 264.116 | | 0.458 | | 250.754 |
| 99 | 1/20/00 | 91900 | 264.116 | | 0.458 | | 250.754 |
| 100 | 1/20/00 | 91930 | 264.447 | | 0.474 | | 250.702 |
| 101 | 1/20/00 | 92000 | 264.447 | | 0.474 | | 250.702 |
| 102 | 1/20/00 | 92030 | 275.621 | | 0.502 | | 251.042 |
| 103 | 1/20/00 | 92100 | 275.621 | | 0.502 | | 251.042 |
| 104 | 1/20/00 | 92130 | 277.783 | | 0.505 | | 250.379 |
| 105 | 1/20/00 | 92200 | 277.783 | | 0.505 | | 250.379 |
| 106 | 1/20/00 | 92230 | 279.286 | | 0.506 | | 249.689 |
| 107 | 1/20/00 | 92300 | 279.286 | | 0.506 | | 249.689 |
| 108 | 1/20/00 | 92330 | 278.989 | | 0.506 | | 249.356 |
| 109 | 1/20/00 | 92400 | 278.989 | | 0.506 | | 249.356 |
| 110 | 1/20/00 | 92430 | 277.983 | | 0.505 | | 249.133 |
| 111 | 1/20/00 | 92500 | 277.983 | | 0.505 | | 249.133 |
| 112 | 1/20/00 | 92530 | | | | | 250.256 |
| 113 | 1/20/00 | 92600 | | | | | 250.256 |
| 114 | 1/20/00 | 92630 | | 295.728 | | 0.491 | 250.644 |
| 115 | 1/20/00 | 92700 | | 295.728 | | 0.491 | 250.644 |
| 116 | 1/20/00 | 92730 | | 276.036 | | 0.485 | 250.226 |
| 117 | 1/20/00 | 92800 | | 276.036 | | 0.485 | 250.226 |
| 118 | 1/20/00 | 92830 | | 270.904 | | 0.489 | 249.521 |
| 119 | 1/20/00 | 92900 | | 270.904 | | 0.489 | 249.521 |
| 120 | 1/20/00 | 92930 | | 268.899 | | 0.489 | 249.519 |
| 121 | 1/20/00 | 93000 | | 268.899 | | 0.489 | 249.519 |
| 122 | 1/20/00 | 93030 | | 268.439 | | 0.491 | 249.751 |
| 123 | 1/20/00 | 93100 | | 268.439 | | 0.491 | 249.751 |
| 124 | 1/20/00 | 93130 | | 267.494 | | 0.488 | 250.153 |
| 125 | 1/20/00 | 93200 | | 267.494 | | 0.488 | 250.153 |
| 126 | 1/20/00 | 93230 | | | | | 249.961 |
| 127 | 1/20/00 | 93300 | | | | | 249.961 |
| 128 | 1/20/00 | 93330 | 275.916 | | 0.477 | | 249.87 |
| 129 | 1/20/00 | 93400 | 275.916 | | 0.477 | | 249.87 |
| 130 | 1/20/00 | 93430 | 274.696 | | 0.495 | | 250.19 |
| 131 | 1/20/00 | 93500 | 274.696 | | 0.495 | | 250.19 |
| 132 | 1/20/00 | 93530 | 275.363 | | 0.498 | | 250.589 |
| 133 | 1/20/00 | 93600 | 275.363 | | 0.498 | | 250.589 |

| Record# | DATE | TIME | WT4NOXA1 | WT4NOXB2 | WT4NOXA3 | WT4NOXB4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 134 | 1/20/00 | 93630 | 273.084 | | 0.495 | | 250.124 |
| 135 | 1/20/00 | 93700 | 273.084 | | 0.495 | | 250.124 |
| 136 | 1/20/00 | 93730 | 271.593 | | 0.496 | | 249.81 |
| 137 | 1/20/00 | 93800 | 271.593 | | 0.496 | | 249.81 |
| 138 | 1/20/00 | 93830 | 271.132 | | 0.497 | | 249.527 |
| 139 | 1/20/00 | 93900 | 271.132 | | 0.497 | | 249.527 |
| 140 | 1/20/00 | 93930 | 271.378 | | 0.495 | | 249.522 |
| 141 | 1/20/00 | 94000 | 271.378 | | 0.495 | | 249.522 |
| 142 | 1/20/00 | 94030 | | | | | 249.39 |
| 143 | 1/20/00 | 94100 | | | | | 249.39 |
| 144 | 1/20/00 | 94130 | | 293.049 | | 0.484 | 249.599 |
| 145 | 1/20/00 | 94200 | | 293.049 | | 0.484 | 249.599 |
| 146 | 1/20/00 | 94230 | | 272.832 | | 0.48 | 250.014 |
| 147 | 1/20/00 | 94300 | | 272.832 | | 0.48 | 250.014 |
| 148 | 1/20/00 | 94330 | | 266.616 | | 0.483 | 249.973 |
| 149 | 1/20/00 | 94400 | | 266.616 | | 0.483 | 249.973 |
| 150 | 1/20/00 | 94430 | | 265.196 | | 0.482 | 250.298 |
| 151 | 1/20/00 | 94500 | | 265.196 | | 0.482 | 250.298 |
| 152 | 1/20/00 | 94530 | | 264.597 | | 0.482 | 250.651 |
| 153 | 1/20/00 | 94600 | | 264.597 | | 0.482 | 250.651 |
| 154 | 1/20/00 | 94630 | | 264.439 | | 0.483 | 250.472 |
| 155 | 1/20/00 | 94700 | | 264.439 | | 0.483 | 250.472 |
| 156 | 1/20/00 | 94730 | | | | | 250.005 |
| 157 | 1/20/00 | 94800 | | | | | 250.005 |
| 158 | 1/20/00 | 94830 | 276.235 | | 0.474 | | 250.408 |
| 159 | 1/20/00 | 94900 | 276.235 | | 0.474 | | 250.408 |
| 160 | 1/20/00 | 94930 | 275.665 | | 0.491 | | 250.276 |
| 161 | 1/20/00 | 95000 | 275.665 | | 0.491 | | 250.276 |
| 162 | 1/20/00 | 95030 | 277.491 | | 0.499 | | 250.567 |
| 163 | 1/20/00 | 95100 | 277.491 | | 0.499 | | 250.567 |
| 164 | 1/20/00 | 95130 | 276.94 | | 0.499 | | 250.03 |
| 165 | 1/20/00 | 95200 | 276.94 | | 0.499 | | 250.03 |
| 166 | 1/20/00 | 95230 | 277.759 | | 0.499 | | 249.802 |
| 167 | 1/20/00 | 95300 | 277.759 | | 0.499 | | 249.802 |
| 168 | 1/20/00 | 95330 | 277.213 | | 0.497 | | 249.085 |
| 169 | 1/20/00 | 95400 | 277.213 | | 0.497 | | 249.085 |
| 170 | 1/20/00 | 95430 | 275.878 | | 0.497 | | 250.003 |
| 171 | 1/20/00 | 95500 | 275.878 | | 0.497 | | 250.003 |
| 172 | 1/20/00 | 95530 | | | | | 250.564 |
| 173 | 1/20/00 | 95600 | | | | | 250.564 |
| 174 | 1/20/00 | 95630 | | 292.673 | | 0.485 | 250.67 |
| 175 | 1/20/00 | 95700 | | 292.673 | | 0.485 | 250.67 |
| 176 | 1/20/00 | 95730 | | 276.297 | | 0.483 | 250.35 |
| 177 | 1/20/00 | 95800 | | 276.297 | | 0.483 | 250.35 |
| 178 | 1/20/00 | 95830 | | 269.337 | | 0.486 | 249.674 |
| 179 | 1/20/00 | 95900 | | 269.337 | | 0.486 | 249.674 |
| 180 | 1/20/00 | 95930 | | 267.245 | | 0.487 | 249.881 |
| 181 | 1/20/00 | 100000 | | 267.245 | | 0.487 | 249.881 |
| 182 | 1/20/00 | 100030 | | 267.467 | | 0.49 | 250.15 |
| 183 | 1/20/00 | 100100 | | 267.467 | | 0.49 | 250.15 |
| 184 | 1/20/00 | 100130 | | 265.203 | | 0.487 | 249.949 |
| 185 | 1/20/00 | 100200 | | 265.203 | | 0.487 | 249.949 |
| 186 | 1/20/00 | 100230 | | | | | 250.213 |
| 187 | 1/20/00 | 100300 | | | | | 250.213 |
| 188 | 1/20/00 | 100330 | 278.102 | | 0.478 | | 249.89 |
| 189 | 1/20/00 | 100400 | 278.102 | | 0.478 | | 249.89 |
| 190 | 1/20/00 | 100430 | 276.84 | | 0.494 | | 250.287 |
| 191 | 1/20/00 | 100500 | 276.84 | | 0.494 | | 250.287 |
| 192 | 1/20/00 | 100530 | 276.961 | | 0.494 | | 250.039 |
| 193 | 1/20/00 | 100600 | 276.961 | | 0.494 | | 250.039 |
| 194 | 1/20/00 | 100630 | 275.652 | | 0.496 | | 250.276 |
| 195 | 1/20/00 | 100700 | 275.652 | | 0.496 | | 250.276 |
| 196 | 1/20/00 | 100730 | 273.045 | | 0.491 | | 250.599 |

| Record# | DATE | TIME | WT4NOXA1 | WT4NOXB2 | WT4NOXA3 | WT4NOXB4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 197 | 1/20/00 | 100800 | 273.045 | | 0.491 | | 250.599 |
| 198 | 1/20/00 | 100830 | 272.383 | | 0.494 | | 250.012 |
| 199 | 1/20/00 | 100900 | 272.383 | | 0.494 | | 250.012 |
| 200 | 1/20/00 | 100930 | 273.108 | | 0.497 | | 249.163 |
| 201 | 1/20/00 | 101000 | 273.108 | | 0.497 | | 249.163 |
| 202 | 1/20/00 | 101030 | | | | | 249.736 |
| 203 | 1/20/00 | 101100 | | | | | 249.736 |
| 204 | 1/20/00 | 101130 | | 297.556 | | 0.49 | 250.954 |
| 205 | 1/20/00 | 101200 | | 297.556 | | 0.49 | 250.954 |
| 206 | 1/20/00 | 101230 | | 280.851 | | 0.488 | 250.359 |
| 207 | 1/20/00 | 101300 | | 280.851 | | 0.488 | 250.359 |
| 208 | 1/20/00 | 101330 | | 274.309 | | 0.489 | 249.804 |
| 209 | 1/20/00 | 101400 | | 274.309 | | 0.489 | 249.804 |
| 210 | 1/20/00 | 101430 | | 271.705 | | 0.488 | 249.55 |
| 211 | 1/20/00 | 101500 | | 271.705 | | 0.488 | 249.55 |
| 212 | 1/20/00 | 101530 | | 269.809 | | 0.487 | 250.013 |
| 213 | 1/20/00 | 101600 | | 269.809 | | 0.487 | 250.013 |
| 214 | 1/20/00 | 101630 | | 268.169 | | 0.486 | 249.989 |
| 215 | 1/20/00 | 101700 | | 268.169 | | 0.486 | 249.989 |
| 216 | 1/20/00 | 101730 | | | | | 250.261 |
| 217 | 1/20/00 | 101800 | | | | | 250.261 |
| 218 | 1/20/00 | 101830 | 275.686 | | 0.476 | | 250.25 |
| 219 | 1/20/00 | 101900 | 275.686 | | 0.476 | | 250.25 |
| 220 | 1/20/00 | 101930 | 274.881 | | 0.494 | | 250.481 |
| 221 | 1/20/00 | 102000 | 274.881 | | 0.494 | | 250.481 |
| 222 | 1/20/00 | 102030 | 275.125 | | 0.499 | | 250.277 |
| 223 | 1/20/00 | 102100 | 275.125 | | 0.499 | | 250.277 |
| 224 | 1/20/00 | 102130 | 276.703 | | 0.502 | | 250.071 |
| 225 | 1/20/00 | 102200 | 276.703 | | 0.502 | | 250.071 |
| 226 | 1/20/00 | 102230 | 277.149 | | 0.503 | | 249.615 |
| 227 | 1/20/00 | 102300 | 277.149 | | 0.503 | | 249.615 |
| 228 | 1/20/00 | 102330 | 276.944 | | 0.504 | | 249.209 |
| 229 | 1/20/00 | 102400 | 276.944 | | 0.504 | | 249.209 |
| 230 | 1/20/00 | 102430 | 275.726 | | 0.504 | | 249.762 |
| 231 | 1/20/00 | 102500 | 275.726 | | 0.504 | | 249.762 |
| 232 | 1/20/00 | 102530 | | | | | 250.58 |
| 233 | 1/20/00 | 102600 | | | | | 250.58 |
| 234 | 1/20/00 | 102630 | | 297.744 | | 0.487 | 250.674 |
| 235 | 1/20/00 | 102700 | | 297.744 | | 0.487 | 250.674 |
| 236 | 1/20/00 | 102730 | | 279.114 | | 0.486 | 249.852 |
| 237 | 1/20/00 | 102800 | | 279.114 | | 0.486 | 249.852 |
| 238 | 1/20/00 | 102830 | | 272.178 | | 0.487 | 248.919 |
| 239 | 1/20/00 | 102900 | | 272.178 | | 0.487 | 248.919 |
| 240 | 1/20/00 | 102930 | | 270.358 | | 0.489 | 249.898 |
| 241 | 1/20/00 | 103000 | | 270.358 | | 0.489 | 249.898 |
| 242 | 1/20/00 | 103030 | | 270.455 | | 0.491 | 250.256 |
| 243 | 1/20/00 | 103100 | | 270.455 | | 0.491 | 250.256 |
| 244 | 1/20/00 | 103130 | | 270.293 | | 0.49 | 250.037 |
| 245 | 1/20/00 | 103200 | | 270.293 | | 0.49 | 250.037 |
| 246 | 1/20/00 | 103230 | | | | | 250.061 |
| 247 | 1/20/00 | 103300 | | | | | 250.061 |
| 248 | 1/20/00 | 103330 | 278.286 | | 0.48 | | 250.054 |
| 249 | 1/20/00 | 103400 | 278.286 | | 0.48 | | 250.054 |
| 250 | 1/20/00 | 103430 | 276.035 | | 0.496 | | 250.177 |
| 251 | 1/20/00 | 103500 | 276.035 | | 0.496 | | 250.177 |
| 252 | 1/20/00 | 103530 | 274.868 | | 0.498 | | 250.885 |
| 253 | 1/20/00 | 103600 | 274.868 | | 0.498 | | 250.885 |
| 254 | 1/20/00 | 103630 | 275.054 | | 0.501 | | 250.337 |
| 255 | 1/20/00 | 103700 | 275.054 | | 0.501 | | 250.337 |
| 256 | 1/20/00 | 103730 | 274.685 | | 0.498 | | 249.309 |
| 257 | 1/20/00 | 103800 | 274.685 | | 0.498 | | 249.309 |
| 258 | 1/20/00 | 103830 | 267.448 | | 0.479 | | 249.55 |
| 259 | 1/20/00 | 103900 | 267.448 | | 0.479 | | 249.55 |

| Record# | DATE | TIME | WT4NOXA1 | WT4NOXB2 | WT4NOXA3 | WT4NOXB4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 260 | 1/20/00 | 103930 | 267.258 | | 0.483 | | 249.836 |
| 261 | 1/20/00 | 104000 | 267.258 | | 0.483 | | 249.836 |
| 262 | 1/20/00 | 104030 | | 320.364 | | 0.514 | 249.979 |
| 263 | 1/20/00 | 104100 | | 320.364 | | 0.514 | 249.979 |
| 264 | 1/20/00 | 104130 | | 302.63 | | 0.501 | 250.275 |
| 265 | 1/20/00 | 104200 | | 302.63 | | 0.501 | 250.275 |
| 266 | 1/20/00 | 104230 | | 285.225 | | 0.497 | 251.032 |
| 267 | 1/20/00 | 104300 | | 285.225 | | 0.497 | 251.032 |
| 268 | 1/20/00 | 104330 | | 277.622 | | 0.497 | 250.294 |
| 269 | 1/20/00 | 104400 | | 277.622 | | 0.497 | 250.294 |
| 270 | 1/20/00 | 104430 | | 274.633 | | 0.499 | 250.023 |
| 271 | 1/20/00 | 104500 | | 274.633 | | 0.499 | 250.023 |
| 272 | 1/20/00 | 104530 | | 272.695 | | 0.497 | 250.067 |
| 273 | 1/20/00 | 104600 | | 272.695 | | 0.497 | 250.067 |
| 274 | 1/20/00 | 104630 | | 271.484 | | 0.494 | 250.037 |
| 275 | 1/20/00 | 104700 | | 271.484 | | 0.494 | 250.037 |
| 276 | 1/20/00 | 104730 | | | | | 250.289 |
| 277 | 1/20/00 | 104800 | | | | | 250.289 |
| 278 | 1/20/00 | 104830 | 282.272 | | 0.486 | | 250.736 |
| 279 | 1/20/00 | 104900 | 282.272 | | 0.486 | | 250.736 |
| 280 | 1/20/00 | 104930 | 278.558 | | 0.497 | | 249.961 |
| 281 | 1/20/00 | 105000 | 278.558 | | 0.497 | | 249.961 |
| 282 | 1/20/00 | 105030 | 279.752 | | 0.502 | | 249.63 |
| 283 | 1/20/00 | 105100 | 279.752 | | 0.502 | | 249.63 |
| 284 | 1/20/00 | 105130 | 281.913 | | 0.509 | | 249.53 |
| 285 | 1/20/00 | 105200 | 281.913 | | 0.509 | | 249.53 |
| 286 | 1/20/00 | 105230 | 278.09 | | 0.508 | | 249.822 |
| 287 | 1/20/00 | 105300 | 278.09 | | 0.508 | | 249.822 |
| 288 | 1/20/00 | 105330 | 274.722 | | 0.504 | | 249.963 |
| 289 | 1/20/00 | 105400 | 274.722 | | 0.504 | | 249.963 |
| 290 | 1/20/00 | 105430 | 272.583 | | 0.502 | | 250.558 |
| 291 | 1/20/00 | 105500 | 272.583 | | 0.502 | | 250.558 |
| 292 | 1/20/00 | 105530 | | 315.356 | | 0.504 | 250.27 |
| 293 | 1/20/00 | 105600 | | 315.356 | | 0.504 | 250.27 |
| 294 | 1/20/00 | 105630 | | 295.26 | | 0.487 | 249.887 |
| 295 | 1/20/00 | 105700 | | 295.26 | | 0.487 | 249.887 |
| 296 | 1/20/00 | 105730 | | 277.948 | | 0.482 | 249.536 |
| 297 | 1/20/00 | 105800 | | 277.948 | | 0.482 | 249.536 |
| 298 | 1/20/00 | 105830 | | 273.553 | | 0.483 | 249.765 |
| 299 | 1/20/00 | 105900 | | 273.553 | | 0.483 | 249.765 |
| 300 | 1/20/00 | 105930 | | 273.369 | | 0.487 | 250.01 |
| 301 | 1/20/00 | 110000 | | 273.369 | | 0.487 | 250.01 |
| 302 | 1/20/00 | 110030 | | 269.199 | | 0.484 | 250.594 |
| 303 | 1/20/00 | 110100 | | 269.199 | | 0.484 | 250.594 |
| 304 | 1/20/00 | 110130 | | 270.916 | | 0.492 | 250.04 |
| 305 | 1/20/00 | 110200 | | 270.916 | | 0.492 | 250.04 |
| 306 | 1/20/00 | 110230 | | | | | 249.171 |
| 307 | 1/20/00 | 110300 | | | | | 249.171 |
| 308 | 1/20/00 | 110330 | 270.686 | | 0.472 | | 249.513 |
| 309 | 1/20/00 | 110400 | 270.686 | | 0.472 | | 249.513 |
| 310 | 1/20/00 | 110430 | 268.745 | | 0.488 | | 249.254 |
| 311 | 1/20/00 | 110500 | 268.745 | | 0.488 | | 249.254 |
| 312 | 1/20/00 | 110530 | 266.653 | | 0.486 | | 249.943 |
| 313 | 1/20/00 | 110600 | 266.653 | | 0.486 | | 249.943 |
| 314 | 1/20/00 | 110630 | 265.729 | | 0.481 | | 250.328 |
| 315 | 1/20/00 | 110700 | 265.729 | | 0.481 | | 250.328 |
| 316 | 1/20/00 | 110730 | 263.758 | | 0.475 | | 250.348 |
| 317 | 1/20/00 | 110800 | 263.758 | | 0.475 | | 250.348 |
| 318 | 1/20/00 | 110830 | 262.103 | | 0.474 | | 249.854 |
| 319 | 1/20/00 | 110900 | 262.103 | | 0.474 | | 249.854 |
| 320 | 1/20/00 | 110930 | 264.284 | | 0.473 | | 249.071 |
| 321 | 1/20/00 | 111000 | 264.284 | | 0.473 | | 249.071 |
| 322 | 1/20/00 | 111030 | | | | | 248.936 |

| Record# | DATE | TIME | WT4NOXA1 | WT4NOXB2 | WT4NOXA3 | WT4NOXB4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 323 | 1/20/00 | 111100 | | | | | 248.936 |
| 324 | 1/20/00 | 111130 | | 284.656 | | 0.461 | 249.428 |
| 325 | 1/20/00 | 111200 | | 284.656 | | 0.461 | 249.428 |
| 326 | 1/20/00 | 111230 | | 265.612 | | 0.454 | 249.53 |
| 327 | 1/20/00 | 111300 | | 265.612 | | 0.454 | 249.53 |
| 328 | 1/20/00 | 111330 | | 257.557 | | 0.454 | 249.924 |
| 329 | 1/20/00 | 111400 | | 257.557 | | 0.454 | 249.924 |
| 330 | 1/20/00 | 111430 | | 254.463 | | 0.452 | 249.722 |
| 331 | 1/20/00 | 111500 | | 254.463 | | 0.452 | 249.722 |
| 332 | 1/20/00 | 111530 | | 253.272 | | 0.45 | 249.851 |
| 333 | 1/20/00 | 111600 | | 253.272 | | 0.45 | 249.851 |
| 334 | 1/20/00 | 111630 | | 250.302 | | 0.446 | 249.822 |
| 335 | 1/20/00 | 111700 | | 250.302 | | 0.446 | 249.822 |
| 336 | 1/20/00 | 111730 | | | | | 249.66 |
| 337 | 1/20/00 | 111800 | | | | | 249.66 |
| 338 | 1/20/00 | 111830 | 252.219 | | 0.427 | | 250.122 |
| 339 | 1/20/00 | 111900 | 252.219 | | 0.427 | | 250.122 |
| 340 | 1/20/00 | 111930 | 248.64 | | 0.439 | | 250.639 |
| 341 | 1/20/00 | 112000 | 248.64 | | 0.439 | | 250.639 |
| 342 | 1/20/00 | 112030 | 247.8 | | 0.441 | | 249.98 |
| 343 | 1/20/00 | 112100 | 247.8 | | 0.441 | | 249.98 |
| 344 | 1/20/00 | 112130 | 248.086 | | 0.44 | | 249.148 |
| 345 | 1/20/00 | 112200 | 248.086 | | 0.44 | | 249.148 |
| 346 | 1/20/00 | 112230 | 248.148 | | 0.439 | | 249.152 |
| 347 | 1/20/00 | 112300 | 248.148 | | 0.439 | | 249.152 |
| 348 | 1/20/00 | 112330 | 246.3 | | 0.435 | | 250.178 |
| 349 | 1/20/00 | 112400 | 246.3 | | 0.435 | | 250.178 |
| 350 | 1/20/00 | 112430 | 243.876 | | 0.43 | | 250.449 |
| 351 | 1/20/00 | 112500 | 243.876 | | 0.43 | | 250.449 |
| 352 | 1/20/00 | 112530 | | | | | 250.642 |
| 353 | 1/20/00 | 112600 | | | | | 250.642 |
| 354 | 1/20/00 | 112630 | | 269.175 | | 0.431 | 250.528 |
| 355 | 1/20/00 | 112700 | | 269.175 | | 0.431 | 250.528 |
| 356 | 1/20/00 | 112730 | | 254.557 | | 0.431 | 249.75 |
| 357 | 1/20/00 | 112800 | | 254.557 | | 0.431 | 249.75 |
| 358 | 1/20/00 | 112830 | | 253.037 | | 0.437 | 249.591 |
| 359 | 1/20/00 | 112900 | | 253.037 | | 0.437 | 249.591 |
| 360 | 1/20/00 | 112930 | | 251.627 | | 0.44 | 249.924 |
| 361 | 1/20/00 | 113000 | | 251.627 | | 0.44 | 249.924 |
| 362 | 1/20/00 | 113030 | | 251.132 | | 0.44 | 249.871 |
| 363 | 1/20/00 | 113100 | | 251.132 | | 0.44 | 249.871 |
| 364 | 1/20/00 | 113130 | | 250.672 | | 0.436 | 249.703 |
| 365 | 1/20/00 | 113200 | | 250.672 | | 0.436 | 249.703 |
| 366 | 1/20/00 | 113230 | | | | | 249.269 |
| 367 | 1/20/00 | 113300 | | | | | 249.269 |
| 368 | 1/20/00 | 113330 | | | 0.414 | | 249.47 |
| 369 | 1/20/00 | 113400 | | | 0.414 | | 249.47 |
| 370 | 1/20/00 | 113430 | | | 0.43 | | 250.075 |
| 371 | 1/20/00 | 113500 | | | 0.43 | | 250.075 |
| 372 | 1/20/00 | 113530 | | | 0.432 | | 250.896 |
| 373 | 1/20/00 | 113600 | | | 0.432 | | 250.896 |
| 374 | 1/20/00 | 113630 | | | 0.432 | | 250.104 |
| 375 | 1/20/00 | 113700 | | | 0.432 | | 250.104 |
| 376 | 1/20/00 | 113730 | 245.047 | | 0.43 | | 249.623 |
| 377 | 1/20/00 | 113800 | 245.047 | | 0.43 | | 249.623 |
| 378 | 1/20/00 | 113830 | 246.761 | | 0.43 | | 249.525 |
| 379 | 1/20/00 | 113900 | 246.761 | | 0.43 | | 249.525 |
| 380 | 1/20/00 | 113930 | 246.87 | | 0.43 | | 249.437 |
| 381 | 1/20/00 | 114000 | 246.87 | | 0.43 | | 249.437 |
| 382 | 1/20/00 | 114030 | | 288.669 | | 0.443 | 250.21 |
| 383 | 1/20/00 | 114100 | | 288.669 | | 0.443 | 250.21 |
| 384 | 1/20/00 | 114130 | | 271.787 | | 0.432 | 249.897 |
| 385 | 1/20/00 | 114200 | | 271.787 | | 0.432 | 249.897 |

| Record# | DATE | TIME | WT4NOXA1 | WT4NOXB2 | WT4NOXA3 | WT4NOXB4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 386 | 1/20/00 | 114230 | | 255.583 | | 0.43 | 250.565 |
| 387 | 1/20/00 | 114300 | | 255.583 | | 0.43 | 250.565 |
| 388 | 1/20/00 | 114330 | | 252.19 | | 0.433 | 250.664 |
| 389 | 1/20/00 | 114400 | | 252.19 | | 0.433 | 250.664 |
| 390 | 1/20/00 | 114430 | | 251.774 | | 0.432 | 250.015 |
| 391 | 1/20/00 | 114500 | | 251.774 | | 0.432 | 250.015 |
| 392 | 1/20/00 | 114530 | | 251.736 | | 0.435 | 249.966 |
| 393 | 1/20/00 | 114600 | | 251.736 | | 0.435 | 249.966 |
| 394 | 1/20/00 | 114630 | | 252.087 | | 0.435 | 249.928 |
| 395 | 1/20/00 | 114700 | | 252.087 | | 0.435 | 249.928 |
| 396 | 1/20/00 | 114730 | | | | | 249.545 |
| 397 | 1/20/00 | 114800 | | | | | 249.545 |
| 398 | 1/20/00 | 114830 | 248.921 | | 0.417 | | 249.152 |
| 399 | 1/20/00 | 114900 | 248.921 | | 0.417 | | 249.152 |
| 400 | 1/20/00 | 114930 | 248.299 | | 0.436 | | 250.343 |
| 401 | 1/20/00 | 115000 | 248.299 | | 0.436 | | 250.343 |
| 402 / / | | | | | | | |
| 403 / / | | 99895.96 | 270.11082 | 272.156173 | 0.48336559 | 0.47879012 | 249.98666 |

| Record# | DATE | TIME | WT4NOXA1 | WT4NOXB2 | WT4NOXA3 | WT4NOXB4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 1 | 1/20/2000 | 133000 | | 274.839 | | 0.498 | 250.18 |
| 2 | 1/20/2000 | 133030 | | 273.466 | | 0.493 | 250.613 |
| 3 | 1/20/2000 | 133100 | | 273.466 | | 0.493 | 250.613 |
| 4 | 1/20/2000 | 133130 | | 274.596 | | 0.497 | 250.306 |
| 5 | 1/20/2000 | 133200 | | 274.596 | | 0.497 | 250.306 |
| 6 | 1/20/2000 | 133230 | | | | | 249.824 |
| 7 | 1/20/2000 | 133300 | | | | | 249.824 |
| 8 | 1/20/2000 | 133330 | | | 0.491 | | 249.572 |
| 9 | 1/20/2000 | 133400 | | | 0.491 | | 249.572 |
| 10 | 1/20/2000 | 133430 | | | 0.507 | | 249.9 |
| 11 | 1/20/2000 | 133500 | | | 0.507 | | 249.9 |
| 12 | 1/20/2000 | 133530 | 276.724 | | 0.507 | | 250.208 |
| 13 | 1/20/2000 | 133600 | 276.724 | | 0.507 | | 250.208 |
| 14 | 1/20/2000 | 133630 | 277.015 | | 0.505 | | 249.9 |
| 15 | 1/20/2000 | 133700 | 277.015 | | 0.505 | | 249.9 |
| 16 | 1/20/2000 | 133730 | 276.173 | | 0.502 | | 250.244 |
| 17 | 1/20/2000 | 133800 | 276.173 | | 0.502 | | 250.244 |
| 18 | 1/20/2000 | 133830 | 276.443 | | 0.501 | | 250.192 |
| 19 | 1/20/2000 | 133900 | 276.443 | | 0.501 | | 250.192 |
| 20 | 1/20/2000 | 133930 | 274.504 | | 0.498 | | 250.447 |
| 21 | 1/20/2000 | 134000 | 274.504 | | 0.498 | | 250.447 |
| 22 | 1/20/2000 | 134030 | | 309.06 | | 0.496 | 250.253 |
| 23 | 1/20/2000 | 134100 | | 309.06 | | 0.496 | 250.253 |
| 24 | 1/20/2000 | 134130 | | 290.789 | | 0.484 | 250.016 |
| 25 | 1/20/2000 | 134200 | | 290.789 | | 0.484 | 250.016 |
| 26 | 1/20/2000 | 134230 | | 273.984 | | 0.482 | 249.687 |
| 27 | 1/20/2000 | 134300 | | 273.984 | | 0.482 | 249.687 |
| 28 | 1/20/2000 | 134330 | | 270.069 | | 0.486 | 249.137 |
| 29 | 1/20/2000 | 134400 | | 270.069 | | 0.486 | 249.137 |
| 30 | 1/20/2000 | 134430 | | 267.113 | | 0.484 | 249.752 |
| 31 | 1/20/2000 | 134500 | | 267.113 | | 0.484 | 249.752 |
| 32 | 1/20/2000 | 134530 | | 265.028 | | 0.482 | 250.648 |
| 33 | 1/20/2000 | 134600 | | 265.028 | | 0.482 | 250.648 |
| 34 | 1/20/2000 | 134630 | | 263.498 | | 0.478 | 250.667 |
| 35 | 1/20/2000 | 134700 | | 263.498 | | 0.478 | 250.667 |
| 36 | 1/20/2000 | 134730 | | | | | 249.911 |
| 37 | 1/20/2000 | 134800 | | | | | 249.911 |
| 38 | 1/20/2000 | 134830 | 273.351 | | 0.47 | | 249.109 |
| 39 | 1/20/2000 | 134900 | 273.351 | | 0.47 | | 249.109 |
| 40 | 1/20/2000 | 134930 | 272.415 | | 0.486 | | 249.558 |
| 41 | 1/20/2000 | 135000 | 272.415 | | 0.486 | | 249.558 |
| 42 | 1/20/2000 | 135030 | 270.92 | | 0.487 | | 250.253 |
| 43 | 1/20/2000 | 135100 | 270.92 | | 0.487 | | 250.253 |
| 44 | 1/20/2000 | 135130 | 268.901 | | 0.481 | | 250.332 |
| 45 | 1/20/2000 | 135200 | 268.901 | | 0.481 | | 250.332 |
| 46 | 1/20/2000 | 135230 | 269.074 | | 0.481 | | 250.441 |
| 47 | 1/20/2000 | 135300 | 269.074 | | 0.481 | | 250.441 |
| 48 | 1/20/2000 | 135330 | 269.976 | | 0.482 | | 250.169 |
| 49 | 1/20/2000 | 135400 | 269.976 | | 0.482 | | 250.169 |
| 50 | 1/20/2000 | 135430 | 270.481 | | 0.484 | | 250.195 |
| 51 | 1/20/2000 | 135500 | 270.481 | | 0.484 | | 250.195 |
| 52 | 1/20/2000 | 135530 | | 304.722 | | 0.488 | 249.81 |
| 53 | 1/20/2000 | 135600 | | 304.722 | | 0.488 | 249.81 |
| 54 | 1/20/2000 | 135630 | | 287.783 | | 0.477 | 249.989 |
| 55 | 1/20/2000 | 135700 | | 287.783 | | 0.477 | 249.989 |
| 56 | 1/20/2000 | 135730 | | 271.534 | | 0.477 | 249.84 |
| 57 | 1/20/2000 | 135800 | | 271.534 | | 0.477 | 249.84 |
| 58 | 1/20/2000 | 135830 | | 266.832 | | 0.48 | 249.832 |
| 59 | 1/20/2000 | 135900 | | 266.832 | | 0.48 | 249.832 |
| 60 | 1/20/2000 | 135930 | | 265.325 | | 0.478 | 249.588 |
| 61 | 1/20/2000 | 140000 | | 265.325 | | 0.478 | 249.588 |
| 62 | 1/20/2000 | 140030 | | 265.321 | | 0.477 | 249.837 |
| 63 | 1/20/2000 | 140100 | | 265.321 | | 0.477 | 249.837 |

| Record# | DATE | TIME | WT4NOXA1 | WT4NOXB2 | WT4NOXA3 | WT4NOXB4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 64 | 1/20/2000 | 140130 | | 265.367 | | 0.478 | 249.92 |
| 65 | 1/20/2000 | 140200 | | 265.367 | | 0.478 | 249.92 |
| 66 | 1/20/2000 | 140230 | | | | | 250.25 |
| 67 | 1/20/2000 | 140300 | | | | | 250.25 |
| 68 | 1/20/2000 | 140330 | 271.506 | | 0.466 | | 250.486 |
| 69 | 1/20/2000 | 140400 | 271.506 | | 0.466 | | 250.486 |
| 70 | 1/20/2000 | 140430 | 269.847 | | 0.481 | | 250.498 |
| 71 | 1/20/2000 | 140500 | 269.847 | | 0.481 | | 250.498 |
| 72 | 1/20/2000 | 140530 | 271.097 | | 0.486 | | 250.836 |
| 73 | 1/20/2000 | 140600 | 271.097 | | 0.486 | | 250.836 |
| 74 | 1/20/2000 | 140630 | 270.439 | | 0.486 | | 249.694 |
| 75 | 1/20/2000 | 140700 | 270.439 | | 0.486 | | 249.694 |
| 76 | 1/20/2000 | 140730 | 270.504 | | 0.488 | | 249.163 |
| 77 | 1/20/2000 | 140800 | 270.504 | | 0.488 | | 249.163 |
| 78 | 1/20/2000 | 140830 | 269.521 | | 0.486 | | 250.366 |
| 79 | 1/20/2000 | 140900 | 269.521 | | 0.486 | | 250.366 |
| 80 | 1/20/2000 | 140930 | 268.423 | | 0.485 | | 250.822 |
| 81 | 1/20/2000 | 141000 | 268.423 | | 0.485 | | 250.822 |
| 82 | 1/20/2000 | 141030 | | 309.075 | | 0.488 | 250.237 |
| 83 | 1/20/2000 | 141100 | | 309.075 | | 0.488 | 250.237 |
| 84 | 1/20/2000 | 141130 | | 290.552 | | 0.474 | 249.927 |
| 85 | 1/20/2000 | 141200 | | 290.552 | | 0.474 | 249.927 |
| 86 | 1/20/2000 | 141230 | | 275.378 | | 0.475 | 249.864 |
| 87 | 1/20/2000 | 141300 | | 275.378 | | 0.475 | 249.864 |
| 88 | 1/20/2000 | 141330 | | 269.084 | | 0.475 | 249.867 |
| 89 | 1/20/2000 | 141400 | | 269.084 | | 0.475 | 249.867 |
| 90 | 1/20/2000 | 141430 | | 267.809 | | 0.477 | 249.855 |
| 91 | 1/20/2000 | 141500 | | 267.809 | | 0.477 | 249.855 |
| 92 | 1/20/2000 | 141530 | | 266.759 | | 0.476 | 249.849 |
| 93 | 1/20/2000 | 141600 | | 266.759 | | 0.476 | 249.849 |
| 94 | 1/20/2000 | 141630 | | 266.681 | | 0.475 | 249.737 |
| 95 | 1/20/2000 | 141700 | | 266.681 | | 0.475 | 249.737 |
| 96 | 1/20/2000 | 141730 | | 266.923 | | 0.475 | 250.087 |
| 97 | 1/20/2000 | 141800 | | 266.923 | | 0.475 | 250.087 |
| 98 | 1/20/2000 | 141830 | | 267.171 | | 0.476 | 250.042 |
| 99 | 1/20/2000 | 141900 | | 267.171 | | 0.476 | 250.042 |
| 100 | 1/20/2000 | 141930 | | 265.275 | | 0.473 | 250.216 |
| 101 | 1/20/2000 | 142000 | | 265.275 | | 0.473 | 250.216 |
| 102 | 1/20/2000 | 142030 | | 265.476 | | 0.472 | 249.834 |
| 103 | 1/20/2000 | 142100 | | 265.476 | | 0.472 | 249.834 |
| 104 | 1/20/2000 | 142130 | | 266.297 | | 0.475 | 249.702 |
| 105 | 1/20/2000 | 142200 | | 266.297 | | 0.475 | 249.702 |
| 106 | 1/20/2000 | 142230 | | 265.84 | | 0.474 | 249.764 |
| 107 | 1/20/2000 | 142300 | | 265.84 | | 0.474 | 249.764 |
| 108 | 1/20/2000 | 142330 | | 265.937 | | 0.475 | 250.142 |
| 109 | 1/20/2000 | 142400 | | 265.937 | | 0.475 | 250.142 |
| 110 | 1/20/2000 | 142430 | | | | | 250.255 |
| 111 | 1/20/2000 | 142500 | | | | | 250.255 |
| 112 | 1/20/2000 | 142530 | 257.372 | | 0.467 | | 250.242 |
| 113 | 1/20/2000 | 142600 | 257.372 | | 0.467 | | 250.242 |
| 114 | 1/20/2000 | 142630 | 257.762 | | 0.482 | | 250.556 |
| 115 | 1/20/2000 | 142700 | 257.762 | | 0.482 | | 250.556 |
| 116 | 1/20/2000 | 142730 | 257.841 | | 0.482 | | 250.343 |
| 117 | 1/20/2000 | 142800 | 257.841 | | 0.482 | | 250.343 |
| 118 | 1/20/2000 | 142830 | 259.061 | | 0.483 | | 250.228 |
| 119 | 1/20/2000 | 142900 | 259.061 | | 0.483 | | 250.228 |
| 120 | 1/20/2000 | 142930 | 260.636 | | 0.484 | | 250.231 |
| 121 | 1/20/2000 | 143000 | 260.636 | | 0.484 | | 250.231 |
| 122 | 1/20/2000 | 143030 | 261.082 | | 0.482 | | 249.898 |
| 123 | 1/20/2000 | 143100 | 261.082 | | 0.482 | | 249.898 |
| 124 | 1/20/2000 | 143130 | | | | | 249.707 |
| 125 | 1/20/2000 | 143200 | | | | | 249.707 |
| 126 | 1/20/2000 | 143230 | | | | | 249.652 |

| Record# | DATE | TIME | WT4NOXA1 | WT4NOXB2 | WT4NOXA3 | WT4NOXB4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 127 | 1/20/2000 | 143300 | | | | | 249.652 |
| 128 | 1/20/2000 | 143330 | 264.086 | | 0.464 | | 249.809 |
| 129 | 1/20/2000 | 143400 | 264.086 | | 0.464 | | 249.809 |
| 130 | 1/20/2000 | 143430 | 263.809 | | 0.483 | | 250.587 |
| 131 | 1/20/2000 | 143500 | 263.809 | | 0.483 | | 250.587 |
| 132 | 1/20/2000 | 143530 | 263.85 | | 0.481 | | 250.449 |
| 133 | 1/20/2000 | 143600 | 263.85 | | 0.481 | | 250.449 |
| 134 | 1/20/2000 | 143630 | 263.747 | | 0.48 | | 250.675 |
| 135 | 1/20/2000 | 143700 | 263.747 | | 0.48 | | 250.675 |
| 136 | 1/20/2000 | 143730 | 263.883 | | 0.479 | | 250.027 |
| 137 | 1/20/2000 | 143800 | 263.883 | | 0.479 | | 250.027 |
| 138 | 1/20/2000 | 143830 | 264.861 | | 0.481 | | 249.561 |
| 139 | 1/20/2000 | 143900 | 264.861 | | 0.481 | | 249.561 |
| 140 | 1/20/2000 | 143930 | 263.917 | | 0.481 | | 250.176 |
| 141 | 1/20/2000 | 144000 | 263.917 | | 0.481 | | 250.176 |
| 142 | 1/20/2000 | 144030 | | | | | 250.223 |
| 143 | 1/20/2000 | 144100 | | | | | 250.223 |
| 144 | 1/20/2000 | 144130 | | 281.119 | | 0.474 | 250.138 |
| 145 | 1/20/2000 | 144200 | | 281.119 | | 0.474 | 250.138 |
| 146 | 1/20/2000 | 144230 | | 272.167 | | 0.482 | 249.802 |
| 147 | 1/20/2000 | 144300 | | 272.167 | | 0.482 | 249.802 |
| 148 | 1/20/2000 | 144330 | | 268.388 | | 0.491 | 249.6 |
| 149 | 1/20/2000 | 144400 | | 268.388 | | 0.491 | 249.6 |
| 150 | 1/20/2000 | 144430 | | 269.948 | | 0.493 | 249.233 |
| 151 | 1/20/2000 | 144500 | | 269.948 | | 0.493 | 249.233 |
| 152 | 1/20/2000 | 144530 | | 267.325 | | 0.489 | 249.798 |
| 153 | 1/20/2000 | 144600 | | 267.325 | | 0.489 | 249.798 |
| 154 | 1/20/2000 | 144630 | | 264.32 | | 0.487 | 250.368 |
| 155 | 1/20/2000 | 144700 | | 264.32 | | 0.487 | 250.368 |
| 156 | 1/20/2000 | 144730 | | 263.152 | | 0.483 | 250.61 |
| 157 | 1/20/2000 | 144800 | | 263.152 | | 0.483 | 250.61 |
| 158 | 1/20/2000 | 144830 | 270.291 | | 0.466 | | 249.642 |
| 159 | 1/20/2000 | 144900 | 270.291 | | 0.466 | | 249.642 |
| 160 | 1/20/2000 | 144930 | 268.874 | | 0.483 | | 249.271 |
| 161 | 1/20/2000 | 145000 | 268.874 | | 0.483 | | 249.271 |
| 162 | 1/20/2000 | 145030 | 266.783 | | 0.482 | | 249.971 |
| 163 | 1/20/2000 | 145100 | 266.783 | | 0.482 | | 249.971 |
| 164 | 1/20/2000 | 145130 | 267.469 | | 0.483 | | 250.065 |
| 165 | 1/20/2000 | 145200 | 267.469 | | 0.483 | | 250.065 |
| 166 | 1/20/2000 | 145230 | 266.862 | | 0.483 | | 250.227 |
| 167 | 1/20/2000 | 145300 | 266.862 | | 0.483 | | 250.227 |
| 168 | 1/20/2000 | 145330 | 268.86 | | 0.489 | | 250.372 |
| 169 | 1/20/2000 | 145400 | 268.86 | | 0.489 | | 250.372 |
| 170 | 1/20/2000 | 145430 | 269.213 | | 0.489 | | 249.801 |
| 171 | 1/20/2000 | 145500 | 269.213 | | 0.489 | | 249.801 |
| 172 | 1/20/2000 | 145530 | | | | | 249.212 |
| 173 | 1/20/2000 | 145600 | | | | | 249.212 |
| 174 | 1/20/2000 | 145630 | | 290.104 | | 0.481 | 249.365 |
| 175 | 1/20/2000 | 145700 | | 290.104 | | 0.481 | 249.365 |
| 176 | 1/20/2000 | 145730 | | 271.806 | | 0.477 | 249.225 |
| 177 | 1/20/2000 | 145800 | | 271.806 | | 0.477 | 249.225 |
| 178 | 1/20/2000 | 145830 | | 266.311 | | 0.479 | 250.181 |
| 179 | 1/20/2000 | 145900 | | 266.311 | | 0.479 | 250.181 |
| 180 | 1/20/2000 | 145930 | | 263.524 | | 0.478 | 250.814 |
| 181 | 1/20/2000 | 150000 | | 263.524 | | 0.478 | 250.814 |
| 182 | 1/20/2000 | 150030 | | 262.471 | | 0.477 | 250.629 |
| 183 | 1/20/2000 | 150100 | | 262.471 | | 0.477 | 250.629 |
| 184 | 1/20/2000 | 150130 | | 264.406 | | 0.475 | 249.785 |
| 185 | 1/20/2000 | 150200 | | 264.406 | | 0.475 | 249.785 |
| 186 | 1/20/2000 | 150230 | | 265.53 | | 0.476 | 249.555 |
| 187 | 1/20/2000 | 150300 | | 265.53 | | 0.476 | 249.555 |
| 188 | 1/20/2000 | 150330 | 265.3 | | 0.457 | | 249.618 |
| 189 | 1/20/2000 | 150400 | 265.3 | | 0.457 | | 249.618 |

| Record# | DATE | TIME | WT4NOXA1 | WT4NOXB2 | WT4NOXA3 | WT4NOXB4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 190 | 1/20/2000 | 150430 | 263.376 | | 0.474 | | 250.326 |
| 191 | 1/20/2000 | 150500 | 263.376 | | 0.474 | | 250.326 |
| 192 | 1/20/2000 | 150530 | 263.159 | | 0.478 | | 250.638 |
| 193 | 1/20/2000 | 150600 | 263.159 | | 0.478 | | 250.638 |
| 194 | 1/20/2000 | 150630 | 263.095 | | 0.477 | | 250.049 |
| 195 | 1/20/2000 | 150700 | 263.095 | | 0.477 | | 250.049 |
| 196 | 1/20/2000 | 150730 | 265.18 | | 0.478 | | 249.801 |
| 197 | 1/20/2000 | 150800 | 265.18 | | 0.478 | | 249.801 |
| 198 | 1/20/2000 | 150830 | 265.749 | | 0.473 | | 249.146 |
| 199 | 1/20/2000 | 150900 | 265.749 | | 0.473 | | 249.146 |
| 200 | 1/20/2000 | 150930 | 266.527 | | 0.474 | | 249.695 |
| 201 | 1/20/2000 | 151000 | 266.527 | | 0.474 | | 249.695 |
| 202 | 1/20/2000 | 151030 | | | | | 249.912 |
| 203 | 1/20/2000 | 151100 | | | | | 249.912 |
| 204 | 1/20/2000 | 151130 | | 286.746 | | 0.473 | 250.611 |
| 205 | 1/20/2000 | 151200 | | 286.746 | | 0.473 | 250.611 |
| 206 | 1/20/2000 | 151230 | | 268.976 | | 0.47 | 250.987 |
| 207 | 1/20/2000 | 151300 | | 268.976 | | 0.47 | 250.987 |
| 208 | 1/20/2000 | 151330 | | 265.4 | | 0.476 | 250.384 |
| 209 | 1/20/2000 | 151400 | | 265.4 | | 0.476 | 250.384 |
| 210 | 1/20/2000 | 151430 | | 265.603 | | 0.474 | 249.832 |
| 211 | 1/20/2000 | 151500 | | 265.603 | | 0.474 | 249.832 |
| 212 | 1/20/2000 | 151530 | | 265.834 | | 0.476 | 249.386 |
| 213 | 1/20/2000 | 151600 | | 265.834 | | 0.476 | 249.386 |
| 214 | 1/20/2000 | 151630 | | 265.981 | | 0.478 | 249.828 |
| 215 | 1/20/2000 | 151700 | | 265.981 | | 0.478 | 249.828 |
| 216 | 1/20/2000 | 151730 | | 265.386 | | 0.477 | 250.312 |
| 217 | 1/20/2000 | 151800 | | 265.386 | | 0.477 | 250.312 |
| 218 | 1/20/2000 | 151830 | 266.352 | | 0.457 | | 250.531 |
| 219 | 1/20/2000 | 151900 | 266.352 | | 0.457 | | 250.531 |
| 220 | 1/20/2000 | 151930 | 264.673 | | 0.475 | | 249.651 |
| 221 | 1/20/2000 | 152000 | 264.673 | | 0.475 | | 249.651 |
| 222 | 1/20/2000 | 152030 | 267.221 | | 0.48 | | 249.24 |
| 223 | 1/20/2000 | 152100 | 267.221 | | 0.48 | | 249.24 |
| 224 | 1/20/2000 | 152130 | 267.631 | | 0.48 | | 250.311 |
| 225 | 1/20/2000 | 152200 | 267.631 | | 0.48 | | 250.311 |
| 226 | 1/20/2000 | 152230 | 266.372 | | 0.478 | | 250.242 |
| 227 | 1/20/2000 | 152300 | 266.372 | | 0.478 | | 250.242 |
| 228 | 1/20/2000 | 152330 | 267.238 | | 0.482 | | 250.531 |
| 229 | 1/20/2000 | 152400 | 267.238 | | 0.482 | | 250.531 |
| 230 | 1/20/2000 | 152430 | 268.394 | | 0.48 | | 250.422 |
| 231 | 1/20/2000 | 152500 | 268.394 | | 0.48 | | 250.422 |
| 232 | 1/20/2000 | 152530 | | | | | 250.117 |
| 233 | 1/20/2000 | 152600 | | | | | 250.117 |
| 234 | 1/20/2000 | 152630 | | 296.176 | | 0.479 | 249.91 |
| 235 | 1/20/2000 | 152700 | | 296.176 | | 0.479 | 249.91 |
| 236 | 1/20/2000 | 152730 | | 277.512 | | 0.475 | 249.537 |
| 237 | 1/20/2000 | 152800 | | 277.512 | | 0.475 | 249.537 |
| 238 | 1/20/2000 | 152830 | | 270.937 | | 0.48 | 249.887 |
| 239 | 1/20/2000 | 152900 | | 270.937 | | 0.48 | 249.887 |
| 240 | 1/20/2000 | 152930 | | 267.502 | | 0.478 | 250.004 |
| 241 | 1/20/2000 | 153000 | | 267.502 | | 0.478 | 250.004 |
| 242 | 1/20/2000 | 153030 | | 266.931 | | 0.478 | 250.562 |
| 243 | 1/20/2000 | 153100 | | 266.931 | | 0.478 | 250.562 |
| 244 | 1/20/2000 | 153130 | | 266.407 | | 0.475 | 250.087 |
| 245 | 1/20/2000 | 153200 | | 266.407 | | 0.475 | 250.087 |
| 246 | 1/20/2000 | 153230 | | 266.502 | | 0.475 | 249.714 |
| 247 | 1/20/2000 | 153300 | | 266.502 | | 0.475 | 249.714 |
| 248 | 1/20/2000 | 153330 | 270.353 | | 0.462 | | 249.557 |
| 249 | 1/20/2000 | 153400 | 270.353 | | 0.462 | | 249.557 |
| 250 | 1/20/2000 | 153430 | 266.897 | | 0.478 | | 249.877 |
| 251 | 1/20/2000 | 153500 | 266.897 | | 0.478 | | 249.877 |
| 252 | 1/20/2000 | 153530 | 264.199 | | 0.48 | | 250.494 |

| Record# | DATE | TIME | WT4NOXA1 | WT4NOXB2 | WT4NOXA3 | WT4NOXB4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 253 | 1/20/2000 | 153600 | 264.199 | | 0.48 | | 250.494 |
| 254 | 1/20/2000 | 153630 | 265.705 | | 0.479 | | 250.429 |
| 255 | 1/20/2000 | 153700 | 265.705 | | 0.479 | | 250.429 |
| 256 | 1/20/2000 | 153730 | 266.994 | | 0.479 | | 250.338 |
| 257 | 1/20/2000 | 153800 | 266.994 | | 0.479 | | 250.338 |
| 258 | 1/20/2000 | 153830 | 267.782 | | 0.481 | | 250.579 |
| 259 | 1/20/2000 | 153900 | 267.782 | | 0.481 | | 250.579 |
| 260 | 1/20/2000 | 153930 | 265.597 | | 0.48 | | 249.789 |
| 261 | 1/20/2000 | 154000 | 265.597 | | 0.48 | | 249.789 |
| 262 | 1/20/2000 | 154030 | | | | | 249.531 |
| 263 | 1/20/2000 | 154100 | | | | | 249.531 |
| 264 | 1/20/2000 | 154130 | | 294.286 | | 0.476 | 249.297 |
| 265 | 1/20/2000 | 154200 | | 294.286 | | 0.476 | 249.297 |
| 266 | 1/20/2000 | 154230 | | 277.156 | | 0.475 | 249.821 |
| 267 | 1/20/2000 | 154300 | | 277.156 | | 0.475 | 249.821 |
| 268 | 1/20/2000 | 154330 | | 270.868 | | 0.476 | 249.925 |
| 269 | 1/20/2000 | 154400 | | 270.868 | | 0.476 | 249.925 |
| 270 | 1/20/2000 | 154430 | | 268.812 | | 0.475 | 250.164 |
| 271 | 1/20/2000 | 154500 | | 268.812 | | 0.475 | 250.164 |
| 272 | 1/20/2000 | 154530 | | 268.077 | | 0.472 | 249.99 |
| 273 | 1/20/2000 | 154600 | | 268.077 | | 0.472 | 249.99 |
| 274 | 1/20/2000 | 154630 | | 268.149 | | 0.478 | 250.237 |
| 275 | 1/20/2000 | 154700 | | 268.149 | | 0.478 | 250.237 |
| 276 | 1/20/2000 | 154730 | | 268.704 | | 0.479 | 250.49 |
| 277 | 1/20/2000 | 154800 | | 268.704 | | 0.479 | 250.49 |
| 278 | 1/20/2000 | 154830 | 272.537 | | 0.469 | | 250.377 |
| 279 | 1/20/2000 | 154900 | 272.537 | | 0.469 | | 250.377 |
| 280 | 1/20/2000 | 154930 | 270.693 | | 0.488 | | 250.12 |
| 281 | 1/20/2000 | 155000 | 270.693 | | 0.488 | | 250.12 |
| 282 | 1/20/2000 | 155030 | 272.327 | | 0.495 | | 250.332 |
| 283 | 1/20/2000 | 155100 | 272.327 | | 0.495 | | 250.332 |
| 284 | 1/20/2000 | 155130 | 265.139 | | 0.482 | | 250.39 |
| 285 | 1/20/2000 | 155200 | 265.139 | | 0.482 | | 250.39 |
| 286 | 1/20/2000 | 155230 | 268.012 | | 0.49 | | 249.728 |
| 287 | 1/20/2000 | 155300 | 268.012 | | 0.49 | | 249.728 |
| 288 | 1/20/2000 | 155330 | 272.836 | | 0.5 | | 249.414 |
| 289 | 1/20/2000 | 155400 | 272.836 | | 0.5 | | 249.414 |
| 290 | 1/20/2000 | 155430 | 271.951 | | 0.499 | | 249.301 |
| 291 | 1/20/2000 | 155500 | 271.951 | | 0.499 | | 249.301 |
| 292 | 1/20/2000 | 155530 | | | | | 251.093 |
| 293 | 1/20/2000 | 155600 | | | | | 251.093 |
| 294 | 1/20/2000 | 155630 | | 302.232 | | 0.493 | 251.018 |
| 295 | 1/20/2000 | 155700 | | 302.232 | | 0.493 | 251.018 |
| 296 | 1/20/2000 | 155730 | | 285.745 | | 0.497 | 250.692 |
| 297 | 1/20/2000 | 155800 | | 285.745 | | 0.497 | 250.692 |
| 298 | 1/20/2000 | 155830 | | 278.664 | | 0.501 | 249.851 |
| 299 | 1/20/2000 | 155900 | | 278.664 | | 0.501 | 249.851 |
| 300 | 1/20/2000 | 155930 | | 273.793 | | 0.496 | 249.819 |
| 301 | 1/20/2000 | 160000 | | 273.793 | | 0.496 | 249.819 |
| 302 | 1/20/2000 | 160030 | | 273.358 | | 0.495 | 249.56 |
| 303 | 1/20/2000 | 160100 | | 273.358 | | 0.495 | 249.56 |
| 304 | 1/20/2000 | 160130 | | 272.322 | | 0.494 | 249.55 |
| 305 | 1/20/2000 | 160200 | | 272.322 | | 0.494 | 249.55 |
| 306 | 1/20/2000 | 160230 | | 271.886 | | 0.491 | 249.738 |
| 307 | 1/20/2000 | 160300 | | 271.886 | | 0.491 | 249.738 |
| 308 | 1/20/2000 | 160330 | 273.281 | | 0.471 | | 249.681 |
| 309 | 1/20/2000 | 160400 | 273.281 | | 0.471 | | 249.681 |
| 310 | 1/20/2000 | 160430 | 269.823 | | 0.485 | | 249.944 |
| 311 | 1/20/2000 | 160500 | 269.823 | | 0.485 | | 249.944 |
| 312 | 1/20/2000 | 160530 | 270.099 | | 0.486 | | 249.57 |
| 313 | 1/20/2000 | 160600 | 270.099 | | 0.486 | | 249.57 |
| 314 | 1/20/2000 | 160630 | 272.931 | | 0.495 | | 250.021 |
| 315 | 1/20/2000 | 160700 | 272.931 | | 0.495 | | 250.021 |

| Record# | DATE | TIME | WT4NOXA1 | WT4NOXB2 | WT4NOXA3 | WT4NOXB4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 316 | 1/20/2000 | 160730 | 273.107 | | 0.497 | | 250.41 |
| 317 | 1/20/2000 | 160800 | 273.107 | | 0.497 | | 250.41 |
| 318 | 1/20/2000 | 160830 | 271.722 | | 0.496 | | 250.184 |
| 319 | 1/20/2000 | 160900 | 271.722 | | 0.496 | | 250.184 |
| 320 | 1/20/2000 | 160930 | 271.372 | | 0.495 | | 249.825 |
| 321 | 1/20/2000 | 161000 | 271.372 | | 0.495 | | 249.825 |
| 322 | 1/20/2000 | 161030 | | | | | 249.106 |
| 323 | 1/20/2000 | 161100 | | | | | 249.106 |
| 324 | 1/20/2000 | 161130 | | 298.825 | | 0.489 | 249.287 |
| 325 | 1/20/2000 | 161200 | | 298.825 | | 0.489 | 249.287 |
| 326 | 1/20/2000 | 161230 | | 278.813 | | 0.483 | 250.318 |
| 327 | 1/20/2000 | 161300 | | 278.813 | | 0.483 | 250.318 |
| 328 | 1/20/2000 | 161330 | | 270.711 | | 0.481 | 250.642 |
| 329 | 1/20/2000 | 161400 | | 270.711 | | 0.481 | 250.642 |
| 330 | 1/20/2000 | 161430 | | 267.811 | | 0.478 | 249.851 |
| 331 | 1/20/2000 | 161500 | | 267.811 | | 0.478 | 249.851 |
| 332 | 1/20/2000 | 161530 | | 266.937 | | 0.478 | 250.25 |
| 333 | 1/20/2000 | 161600 | | 266.937 | | 0.478 | 250.25 |
| 334 | 1/20/2000 | 161630 | | 264.473 | | 0.477 | 248.945 |
| 335 | 1/20/2000 | 161700 | | 264.473 | | 0.477 | 248.945 |
| 336 | 1/20/2000 | 161730 | | 262.474 | | 0.475 | 249.286 |
| 337 | 1/20/2000 | 161800 | | 262.474 | | 0.475 | 249.286 |
| 338 | 1/20/2000 | 161830 | 268.556 | | 0.457 | | 249.8 |
| 339 | 1/20/2000 | 161900 | 268.556 | | 0.457 | | 249.8 |
| 340 | 1/20/2000 | 161930 | 266.83 | | 0.473 | | 249.992 |
| 341 | 1/20/2000 | 162000 | 266.83 | | 0.473 | | 249.992 |
| 342 | 1/20/2000 | 162030 | 268.561 | | 0.479 | | 250.538 |
| 343 | 1/20/2000 | 162100 | 268.561 | | 0.479 | | 250.538 |
| 344 | 1/20/2000 | 162130 | 269.3 | | 0.481 | | 250.612 |
| 345 | 1/20/2000 | 162200 | 269.3 | | 0.481 | | 250.612 |
| 346 | 1/20/2000 | 162230 | 269.054 | | 0.479 | | 250.223 |
| 347 | 1/20/2000 | 162300 | 269.054 | | 0.479 | | 250.223 |
| 348 | 1/20/2000 | 162330 | 268.709 | | 0.477 | | 250.036 |
| 349 | 1/20/2000 | 162400 | 268.709 | | 0.477 | | 250.036 |
| 350 | 1/20/2000 | 162430 | 269.087 | | 0.481 | | 249.839 |
| 351 | 1/20/2000 | 162500 | 269.087 | | 0.481 | | 249.839 |
| 352 | 1/20/2000 | 162530 | | | | | 249.848 |
| 353 | 1/20/2000 | 162600 | | | | | 249.848 |
| 354 | 1/20/2000 | 162630 | | 290.724 | | 0.479 | 249.822 |
| 355 | 1/20/2000 | 162700 | | 290.724 | | 0.479 | 249.822 |
| 356 | 1/20/2000 | 162730 | | 272.431 | | 0.476 | 249.819 |
| 357 | 1/20/2000 | 162800 | | 272.431 | | 0.476 | 249.819 |
| 358 | 1/20/2000 | 162830 | | 267.146 | | 0.48 | 249.837 |
| 359 | 1/20/2000 | 162900 | | 267.146 | | 0.48 | 249.837 |
| 360 | 1/20/2000 | 162930 | | 264.995 | | 0.478 | 250.085 |
| 361 | 1/20/2000 | 163000 | | 264.995 | | 0.478 | 250.085 |
| 362 | 1/20/2000 | 163030 | | 264.894 | | 0.475 | 250.072 |
| 363 | 1/20/2000 | 163100 | | 264.894 | | 0.475 | 250.072 |
| 364 | 1/20/2000 | 163130 | | 266.406 | | 0.476 | 250.103 |
| 365 | 1/20/2000 | 163200 | | 266.406 | | 0.476 | 250.103 |
| 366 | 1/20/2000 | 163230 | | 266.428 | | 0.478 | 249.805 |
| 367 | 1/20/2000 | 163300 | | 266.428 | | 0.478 | 249.805 |
| 368 | 1/20/2000 | 163330 | 272.608 | | 0.463 | | 249.791 |
| 369 | 1/20/2000 | 163400 | 272.608 | | 0.463 | | 249.791 |
| 370 | 1/20/2000 | 163430 | 271.302 | | 0.482 | | 249.851 |
| 371 | 1/20/2000 | 163500 | 271.302 | | 0.482 | | 249.851 |
| 372 | 1/20/2000 | 163530 | 271.361 | | 0.486 | | 250.209 |
| 373 | 1/20/2000 | 163600 | 271.361 | | 0.486 | | 250.209 |
| 374 | 1/20/2000 | 163630 | 271.066 | | 0.487 | | 250.234 |
| 375 | 1/20/2000 | 163700 | 271.066 | | 0.487 | | 250.234 |
| 376 | 1/20/2000 | 163730 | 269.303 | | 0.484 | | 250.617 |
| 377 | 1/20/2000 | 163800 | 269.303 | | 0.484 | | 250.617 |
| 378 | 1/20/2000 | 163830 | 268.23 | | 0.48 | | 250.455 |

| Record# | DATE | TIME | WT4NOXA1 | WT4NOXB2 | WT4NOXA3 | WT4NOXB4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 379 | 1/20/2000 | 163900 | 268.23 | | 0.48 | | 250.455 |
| 380 | 1/20/2000 | 163930 | 270.164 | | 0.482 | | 249.2 |
| 381 | 1/20/2000 | 164000 | 270.164 | | 0.482 | | 249.2 |
| 382 | 1/20/2000 | 164030 | | | | | 249.444 |
| 383 | 1/20/2000 | 164100 | | | | | 249.444 |
| 384 | 1/20/2000 | 164130 | | 296.228 | | 0.475 | 249.907 |
| 385 | 1/20/2000 | 164200 | | 296.228 | | 0.475 | 249.907 |
| 386 | 1/20/2000 | 164230 | | 277.786 | | 0.473 | 250.524 |
| 387 | 1/20/2000 | 164300 | | 277.786 | | 0.473 | 250.524 |
| 388 | 1/20/2000 | 164330 | | 271.762 | | 0.48 | 250.686 |
| 389 | 1/20/2000 | 164400 | | 271.762 | | 0.48 | 250.686 |
| 390 | 1/20/2000 | 164430 | | 269.571 | | 0.481 | 249.813 |
| 391 | 1/20/2000 | 164500 | | 269.571 | | 0.481 | 249.813 |
| 392 | 1/20/2000 | 164530 | | 271.167 | | 0.484 | 249.575 |
| 393 | 1/20/2000 | 164600 | | 271.167 | | 0.484 | 249.575 |
| 394 | 1/20/2000 | 164630 | | 272.838 | | 0.491 | 250.388 |
| 395 | 1/20/2000 | 164700 | | 272.838 | | 0.491 | 250.388 |
| 396 | 1/20/2000 | 164730 | | 271.606 | | 0.493 | 251.024 |
| 397 | 1/20/2000 | 164800 | | 271.606 | | 0.493 | 251.024 |
| 398 | 1/20/2000 | 164830 | 277.442 | | 0.479 | | 250.144 |
| 399 | 1/20/2000 | 164900 | 277.442 | | 0.479 | | 250.144 |
| 400 | 1/20/2000 | 164930 | 273.609 | | 0.494 | | 249.638 |
| 401 | 1/20/2000 | 165000 | 273.609 | | 0.494 | | 249.638 |
| 402 | / / | | | | | | |
| 403 | / / | 149603.491 | 268.4042111 | 273.0984545 | 0.482152174 | 0.480534759 | 250.0188728 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4GENA3 | WT4SO2A4 | WT4SO2B5 |
|---|---|---|---|---|---|---|---|
| 1 | 1/19/2000 | 113500 | 537.234 | | 249.596 | 1.338 | |
| 2 | 1/19/2000 | 113530 | 536.897 | | 249.89 | 1.352 | |
| 3 | 1/19/2000 | 113600 | 536.897 | | 249.89 | 1.352 | |
| 4 | 1/19/2000 | 113630 | 533.286 | | 250.077 | 1.346 | |
| 5 | 1/19/2000 | 113700 | 533.286 | | 250.077 | 1.346 | |
| 6 | 1/19/2000 | 113730 | 530.122 | | 248.785 | 1.349 | |
| 7 | 1/19/2000 | 113800 | 530.122 | | 248.785 | 1.349 | |
| 8 | 1/19/2000 | 113830 | 527.633 | | 248.98 | 1.344 | |
| 9 | 1/19/2000 | 113900 | 527.633 | | 248.98 | 1.344 | |
| 10 | 1/19/2000 | 113930 | 530.315 | | 249.747 | 1.35 | |
| 11 | 1/19/2000 | 114000 | 530.315 | | 249.747 | 1.35 | |
| 12 | 1/19/2000 | 114030 | | | 250.187 | | |
| 13 | 1/19/2000 | 114100 | | | 250.187 | | |
| 14 | 1/19/2000 | 114130 | | 555.293 | 250.242 | | 1.312 |
| 15 | 1/19/2000 | 114200 | | 555.293 | 250.242 | | 1.312 |
| 16 | 1/19/2000 | 114230 | | 529.918 | 249.812 | | 1.332 |
| 17 | 1/19/2000 | 114300 | | 529.918 | 249.812 | | 1.332 |
| 18 | 1/19/2000 | 114330 | | 521.313 | 250.359 | | 1.348 |
| 19 | 1/19/2000 | 114400 | | 521.313 | 250.359 | | 1.348 |
| 20 | 1/19/2000 | 114430 | | 517.26 | 249.905 | | 1.348 |
| 21 | 1/19/2000 | 114500 | | 517.26 | 249.905 | | 1.348 |
| 22 | 1/19/2000 | 114530 | | 512.918 | 249.325 | | 1.346 |
| 23 | 1/19/2000 | 114600 | | 512.918 | 249.325 | | 1.346 |
| 24 | 1/19/2000 | 114630 | | 508.564 | 249.249 | | 1.34 |
| 25 | 1/19/2000 | 114700 | | 508.564 | 249.249 | | 1.34 |
| 26 | 1/19/2000 | 114730 | | 504.82 | 250.224 | | 1.335 |
| 27 | 1/19/2000 | 114800 | | 504.82 | 250.224 | | 1.335 |
| 28 | 1/19/2000 | 114830 | 547.038 | | 250.232 | 1.313 | |
| 29 | 1/19/2000 | 114900 | 547.038 | | 250.232 | 1.313 | |
| 30 | 1/19/2000 | 114930 | 540.38 | | 249.54 | 1.337 | |
| 31 | 1/19/2000 | 115000 | 540.38 | | 249.54 | 1.337 | |
| 32 | 1/19/2000 | 115030 | 537.085 | | 249.793 | 1.345 | |
| 33 | 1/19/2000 | 115100 | 537.085 | | 249.793 | 1.345 | |
| 34 | 1/19/2000 | 115130 | 536.779 | | 249.917 | 1.349 | |
| 35 | 1/19/2000 | 115200 | 536.779 | | 249.917 | 1.349 | |
| 36 | 1/19/2000 | 115230 | 533.156 | | 249.819 | 1.347 | |
| 37 | 1/19/2000 | 115300 | 533.156 | | 249.819 | 1.347 | |
| 38 | 1/19/2000 | 115330 | 533.994 | | 249.371 | 1.35 | |
| 39 | 1/19/2000 | 115400 | 533.994 | | 249.371 | 1.35 | |
| 40 | 1/19/2000 | 115430 | 532.352 | | 249.761 | 1.348 | |
| 41 | 1/19/2000 | 115500 | 532.352 | | 249.761 | 1.348 | |
| 42 | 1/19/2000 | 115530 | | | 249.898 | | |
| 43 | 1/19/2000 | 115600 | | | 249.898 | | |
| 44 | 1/19/2000 | 115630 | | 555.181 | 249.977 | | 1.322 |
| 45 | 1/19/2000 | 115700 | | 555.181 | 249.977 | | 1.322 |
| 46 | 1/19/2000 | 115730 | | 527.134 | 250.021 | | 1.332 |
| 47 | 1/19/2000 | 115800 | | 527.134 | 250.021 | | 1.332 |
| 48 | 1/19/2000 | 115830 | | 515.608 | 249.728 | | 1.341 |
| 49 | 1/19/2000 | 115900 | | 515.608 | 249.728 | | 1.341 |
| 50 | 1/19/2000 | 115930 | | 511.367 | 250.072 | | 1.34 |
| 51 | 1/19/2000 | 120000 | | 511.367 | 250.072 | | 1.34 |
| 52 | 1/19/2000 | 120030 | | 513.927 | 249.431 | | 1.342 |
| 53 | 1/19/2000 | 120100 | | 513.927 | 249.431 | | 1.342 |
| 54 | 1/19/2000 | 120130 | | 509.233 | 248.69 | | 1.334 |
| 55 | 1/19/2000 | 120200 | | 509.233 | 248.69 | | 1.334 |
| 56 | 1/19/2000 | 120230 | | 503.219 | 248.982 | | 1.323 |
| 57 | 1/19/2000 | 120300 | | 503.219 | 248.982 | | 1.323 |
| 58 | 1/19/2000 | 120330 | 534.562 | | 249.634 | 1.281 | |
| 59 | 1/19/2000 | 120400 | 534.562 | | 249.634 | 1.281 | |
| 60 | 1/19/2000 | 120430 | 534.322 | | 249.853 | 1.325 | |
| 61 | 1/19/2000 | 120500 | 530.675 | | 249.853 | 1.325 | |
| 62 | 1/19/2000 | 120530 | 530.675 | | 250.259 | 1.329 | |
| 63 | 1/19/2000 | 120600 | 530.675 | | 250.259 | 1.329 | |
| 64 | 1/19/2000 | 120630 | 536.135 | | 249.365 | 1.336 | |
| 65 | 1/19/2000 | 120700 | 536.135 | | 249.365 | 1.336 | |
| 66 | 1/19/2000 | 120730 | 535.504 | | 249.71 | 1.331 | |
| 67 | 1/19/2000 | 120800 | 535.504 | | 249.71 | 1.331 | |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4GENA3 | WT4SO2A4 | WT4SO2B5 |
|---|---|---|---|---|---|---|---|
| 68 | 1/19/2000 | 120830 | 532.77 | | 249.405 | 1.324 | |
| 69 | 1/19/2000 | 120900 | 532.77 | | 249.405 | 1.324 | |
| 70 | 1/19/2000 | 120930 | 528.063 | | 249.318 | 1.321 | |
| 71 | 1/19/2000 | 121000 | 528.063 | | 249.318 | 1.321 | |
| 72 | 1/19/2000 | 121030 | | | 249.116 | | |
| 73 | 1/19/2000 | 121100 | | | 249.116 | | |
| 74 | 1/19/2000 | 121130 | | 546.664 | 249.846 | | 1.307 |
| 75 | 1/19/2000 | 121200 | | 546.664 | 249.846 | | 1.307 |
| 76 | 1/19/2000 | 121230 | | 521.024 | 250.211 | | 1.316 |
| 77 | 1/19/2000 | 121300 | | 521.024 | 250.211 | | 1.316 |
| 78 | 1/19/2000 | 121330 | | 507.563 | 249.821 | | 1.323 |
| 79 | 1/19/2000 | 121400 | | 507.563 | 249.821 | | 1.323 |
| 80 | 1/19/2000 | 121430 | | 503.764 | 249.238 | | 1.325 |
| 81 | 1/19/2000 | 121500 | | 503.764 | 249.238 | | 1.325 |
| 82 | 1/19/2000 | 121530 | | 502.929 | 249.26 | | 1.326 |
| 83 | 1/19/2000 | 121600 | | 502.929 | 249.26 | | 1.326 |
| 84 | 1/19/2000 | 121630 | | 505.023 | 249.41 | | 1.329 |
| 85 | 1/19/2000 | 121700 | | 505.023 | 249.41 | | 1.329 |
| 86 | 1/19/2000 | 121730 | | 504.702 | 250.008 | | 1.327 |
| 87 | 1/19/2000 | 121800 | | 504.702 | 250.008 | | 1.327 |
| 88 | 1/19/2000 | 121830 | 536.619 | | 250.386 | 1.281 | |
| 89 | 1/19/2000 | 121900 | 536.619 | | 250.386 | 1.281 | |
| 90 | 1/19/2000 | 121930 | 529.952 | | 249.887 | 1.311 | |
| 91 | 1/19/2000 | 122000 | 529.952 | | 249.887 | 1.311 | |
| 92 | 1/19/2000 | 122030 | 531.475 | | 249.372 | 1.327 | |
| 93 | 1/19/2000 | 122100 | 531.475 | | 249.372 | 1.327 | |
| 94 | 1/19/2000 | 122130 | 530.051 | | 249.102 | 1.326 | |
| 95 | 1/19/2000 | 122200 | 530.051 | | 249.102 | 1.326 | |
| 96 | 1/19/2000 | 122230 | 528.875 | | 249.733 | 1.326 | |
| 97 | 1/19/2000 | 122300 | 528.443 | | 249.733 | 1.324 | |
| 98 | 1/19/2000 | 122330 | 528.443 | | 250.879 | 1.324 | |
| 99 | 1/19/2000 | 122400 | 528.443 | | 250.879 | 1.324 | |
| 100 | 1/19/2000 | 122430 | 529.831 | | 250.005 | 1.332 | |
| 101 | 1/19/2000 | 122500 | | | 250.005 | 1.332 | |
| 102 | 1/19/2000 | 122530 | | | 249.478 | | |
| 103 | 1/19/2000 | 122600 | | | 249.478 | | |
| 104 | 1/19/2000 | 122630 | | 545.829 | 249.28 | | 1.297 |
| 105 | 1/19/2000 | 122700 | | 545.829 | 249.28 | | 1.297 |
| 106 | 1/19/2000 | 122730 | | 530.138 | 249.739 | | 1.33 |
| 107 | 1/19/2000 | 122800 | | 530.138 | 249.739 | | 1.33 |
| 108 | 1/19/2000 | 122830 | | 520.793 | 250.04 | | 1.334 |
| 109 | 1/19/2000 | 122900 | | 520.793 | 250.04 | | 1.334 |
| 110 | 1/19/2000 | 122930 | | 512.076 | 249.806 | | 1.332 |
| 111 | 1/19/2000 | 123000 | | 512.076 | 249.806 | | 1.332 |
| 112 | 1/19/2000 | 123030 | | 508.571 | 250.02 | | 1.327 |
| 113 | 1/19/2000 | 123100 | | 508.571 | 250.02 | | 1.327 |
| 114 | 1/19/2000 | 123130 | | 506.187 | 250.266 | | 1.327 |
| 115 | 1/19/2000 | 123200 | | 506.187 | 250.266 | | 1.327 |
| 116 | 1/19/2000 | 123230 | | 513.348 | 250.407 | | 1.337 |
| 117 | 1/19/2000 | 123300 | | 513.348 | 250.407 | | 1.337 |
| 118 | 1/19/2000 | 123330 | 534.51 | | 249.959 | 1.287 | |
| 119 | 1/19/2000 | 123400 | 534.51 | | 249.959 | 1.287 | |
| 120 | 1/19/2000 | 123430 | 533.266 | | 249.996 | 1.324 | |
| 121 | 1/19/2000 | 123500 | 533.266 | | 249.996 | 1.324 | |
| 122 | 1/19/2000 | 123530 | 531.448 | | 249.578 | 1.33 | |
| 123 | 1/19/2000 | 123600 | 531.448 | | 249.578 | 1.33 | |
| 124 | 1/19/2000 | 123630 | 532.593 | | 249.324 | 1.331 | |
| 125 | 1/19/2000 | 123700 | 532.593 | | 249.324 | 1.331 | |
| 126 | 1/19/2000 | 123730 | 534.2 | | 249.254 | 1.331 | |
| 127 | 1/19/2000 | 123800 | 534.2 | | 249.254 | 1.331 | |
| 128 | 1/19/2000 | 123830 | 532.555 | | 249.403 | 1.327 | |
| 129 | 1/19/2000 | 123900 | 532.555 | | 249.403 | 1.327 | |
| 130 | 1/19/2000 | 123930 | 532.036 | | 249.522 | 1.327 | |
| 131 | 1/19/2000 | 124000 | 532.036 | | 249.522 | 1.327 | |
| 132 | 1/19/2000 | 124030 | | | 249.514 | | |
| 133 | 1/19/2000 | 124100 | | | 249.514 | | |
| 134 | 1/19/2000 | 124130 | | 545.107 | 250.092 | | 1.297 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4GENA3 | WT4SO2A4 | WT4SO2B5 |
|---|---|---|---|---|---|---|---|
| 135 | 1/19/2000 | 124200 | | 545.107 | 250.092 | | 1.297 |
| 136 | 1/19/2000 | 124230 | | 523.272 | 249.919 | | 1.322 |
| 137 | 1/19/2000 | 124300 | | 523.272 | 249.919 | | 1.322 |
| 138 | 1/19/2000 | 124330 | | 512.235 | 249.789 | | 1.334 |
| 139 | 1/19/2000 | 124400 | | 512.235 | 249.789 | | 1.334 |
| 140 | 1/19/2000 | 124430 | | 508.353 | 249.844 | | 1.336 |
| 141 | 1/19/2000 | 124500 | | 508.353 | 249.844 | | 1.336 |
| 142 | 1/19/2000 | 124530 | | 507.864 | 249.343 | | 1.337 |
| 143 | 1/19/2000 | 124600 | | 507.864 | 249.343 | | 1.337 |
| 144 | 1/19/2000 | 124630 | | 505.84 | 249.15 | | 1.335 |
| 145 | 1/19/2000 | 124700 | | 505.84 | 249.15 | | 1.335 |
| 146 | 1/19/2000 | 124730 | | 504.828 | 250.14 | | 1.336 |
| 147 | 1/19/2000 | 124800 | | 504.828 | 250.14 | | 1.336 |
| 148 | 1/19/2000 | 124830 | 545.016 | | 250.095 | 1.304 | |
| 149 | 1/19/2000 | 124900 | 545.016 | | 250.095 | 1.304 | |
| 150 | 1/19/2000 | 124930 | 542.469 | | 250.646 | 1.332 | |
| 151 | 1/19/2000 | 125000 | 542.469 | | 250.646 | 1.332 | |
| 152 | 1/19/2000 | 125030 | 536.845 | | 249.472 | 1.328 | |
| 153 | 1/19/2000 | 125100 | 536.845 | | 249.472 | 1.328 | |
| 154 | 1/19/2000 | 125130 | 535.241 | | 249.083 | 1.335 | |
| 155 | 1/19/2000 | 125200 | 535.241 | | 249.083 | 1.335 | |
| 156 | 1/19/2000 | 125230 | 538.453 | | 249.389 | 1.336 | |
| 157 | 1/19/2000 | 125300 | 538.453 | | 249.389 | 1.336 | |
| 158 | 1/19/2000 | 125330 | 537.588 | | 249.805 | 1.338 | |
| 159 | 1/19/2000 | 125400 | 537.588 | | 249.805 | 1.338 | |
| 160 | 1/19/2000 | 125430 | 536.672 | | 250.123 | 1.334 | |
| 161 | 1/19/2000 | 125500 | 536.672 | | 250.123 | 1.334 | |
| 162 | 1/19/2000 | 125530 | | | 249.661 | | |
| 163 | 1/19/2000 | 125600 | | | 249.661 | | |
| 164 | 1/19/2000 | 125630 | | 546.624 | 249.511 | | 1.308 |
| 165 | 1/19/2000 | 125700 | | 546.624 | 249.511 | | 1.308 |
| 166 | 1/19/2000 | 125730 | | 521.875 | 249.519 | | 1.324 |
| 167 | 1/19/2000 | 125800 | | 521.875 | 249.519 | | 1.324 |
| 168 | 1/19/2000 | 125830 | | 509.866 | 249.702 | | 1.333 |
| 169 | 1/19/2000 | 125900 | | 509.866 | 249.702 | | 1.333 |
| 170 | 1/19/2000 | 125930 | | 508.589 | 250.364 | | 1.339 |
| 171 | 1/19/2000 | 130000 | | 508.589 | 250.364 | | 1.339 |
| 172 | 1/19/2000 | 130030 | | 510.644 | 250.62 | | 1.343 |
| 173 | 1/19/2000 | 130100 | | 510.644 | 250.62 | | 1.343 |
| 174 | 1/19/2000 | 130130 | | 509.517 | 249.652 | | 1.338 |
| 175 | 1/19/2000 | 130200 | | 509.517 | 249.652 | | 1.338 |
| 176 | 1/19/2000 | 130230 | | 509.025 | 249.091 | | 1.337 |
| 177 | 1/19/2000 | 130300 | | 509.025 | 249.091 | | 1.337 |
| 178 | 1/19/2000 | 130330 | 531.188 | | 249.411 | 1.294 | |
| 179 | 1/19/2000 | 130400 | 531.188 | | 249.411 | 1.294 | |
| 180 | 1/19/2000 | 130430 | 530.602 | | 249.898 | 1.331 | |
| 181 | 1/19/2000 | 130500 | 530.602 | | 249.898 | 1.331 | |
| 182 | 1/19/2000 | 130530 | 529.852 | | 249.99 | 1.335 | |
| 183 | 1/19/2000 | 130600 | 529.852 | | 249.99 | 1.335 | |
| 184 | 1/19/2000 | 130630 | 532.206 | | 249.805 | 1.34 | |
| 185 | 1/19/2000 | 130700 | 532.206 | | 249.805 | 1.34 | |
| 186 | 1/19/2000 | 130730 | 535.619 | | 249.585 | 1.341 | |
| 187 | 1/19/2000 | 130800 | 535.619 | | 249.585 | 1.341 | |
| 188 | 1/19/2000 | 130830 | 536.446 | | 249.52 | 1.339 | |
| 189 | 1/19/2000 | 130900 | 536.446 | | 249.52 | 1.339 | |
| 190 | 1/19/2000 | 130930 | 533.755 | | 250.121 | 1.338 | |
| 191 | 1/19/2000 | 131000 | 533.755 | | 250.121 | 1.338 | |
| 192 | 1/19/2000 | 131030 | | | 250.219 | | |
| 193 | 1/19/2000 | 131100 | | | 250.219 | | |
| 194 | 1/19/2000 | 131130 | | 553.785 | 249.522 | | 1.314 |
| 195 | 1/19/2000 | 131200 | | 553.785 | 249.522 | | 1.314 |
| 196 | 1/19/2000 | 131230 | | 529.945 | 249.178 | | 1.333 |
| 197 | 1/19/2000 | 131300 | | 529.945 | 249.178 | | 1.333 |
| 198 | 1/19/2000 | 131330 | | 518.056 | 250.022 | | 1.342 |
| 199 | 1/19/2000 | 131400 | | 518.056 | 250.022 | | 1.342 |
| 200 | 1/19/2000 | 131430 | | 516.273 | 250.32 | | 1.343 |
| 201 | 1/19/2000 | 131500 | | 516.273 | 250.32 | | 1.343 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4GENA3 | WT4SO2A4 | WT4SO2B5 |
|---|---|---|---|---|---|---|---|
| 202 | 1/19/2000 | 131530 | | 517.529 | 250.044 | | 1.347 |
| 203 | 1/19/2000 | 131600 | | 517.529 | 250.044 | | 1.347 |
| 204 | 1/19/2000 | 131630 | | 520.191 | 249.619 | | 1.355 |
| 205 | 1/19/2000 | 131700 | | 520.191 | 249.619 | | 1.355 |
| 206 | 1/19/2000 | 131730 | | 512.906 | 249.22 | | 1.337 |
| 207 | 1/19/2000 | 131800 | | 512.906 | 249.22 | | 1.337 |
| 208 | 1/19/2000 | 131830 | 536.604 | | 249.154 | 1.3 | |
| 209 | 1/19/2000 | 131900 | 536.604 | | 249.154 | 1.3 | |
| 210 | 1/19/2000 | 131930 | 533.116 | | 250.216 | 1.336 | |
| 211 | 1/19/2000 | 132000 | 533.116 | | 250.216 | 1.336 | |
| 212 | 1/19/2000 | 132030 | 535.995 | | 250.458 | 1.344 | |
| 213 | 1/19/2000 | 132100 | 535.995 | | 250.458 | 1.344 | |
| 214 | 1/19/2000 | 132130 | 535.162 | | 249.887 | 1.344 | |
| 215 | 1/19/2000 | 132200 | 535.162 | | 249.887 | 1.344 | |
| 216 | 1/19/2000 | 132230 | 534.867 | | 249.529 | 1.342 | |
| 217 | 1/19/2000 | 132300 | 536.394 | | 249.529 | 1.342 | |
| 218 | 1/19/2000 | 132330 | 536.394 | | 249.686 | 1.347 | |
| 219 | 1/19/2000 | 132400 | 536.394 | | 249.686 | 1.347 | |
| 220 | 1/19/2000 | 132430 | 541.451 | | 250.036 | 1.359 | |
| 221 | 1/19/2000 | 132500 | 541.451 | | 250.036 | 1.359 | |
| 222 | 1/19/2000 | 132530 | | | 249.997 | | |
| 223 | 1/19/2000 | 132600 | | | 249.997 | | |
| 224 | 1/19/2000 | 132630 | | 556.27 | 249.823 | | 1.315 |
| 225 | 1/19/2000 | 132700 | | 556.27 | 249.823 | | 1.315 |
| 226 | 1/19/2000 | 132730 | | 537.13 | 249.86 | | 1.34 |
| 227 | 1/19/2000 | 132800 | | 537.13 | 249.86 | | 1.34 |
| 228 | 1/19/2000 | 132830 | | 531.485 | 250.35 | | 1.35 |
| 229 | 1/19/2000 | 132900 | | 531.485 | 250.35 | | 1.35 |
| 230 | 1/19/2000 | 132930 | | 526.082 | 249.15 | | 1.344 |
| 231 | 1/19/2000 | 133000 | | 526.082 | 249.15 | | 1.344 |
| 232 | 1/19/2000 | 133030 | | 514.247 | 249.114 | | 1.343 |
| 233 | 1/19/2000 | 133100 | | 514.247 | 249.114 | | 1.343 |
| 234 | 1/19/2000 | 133130 | | 513.635 | 249.568 | | 1.345 |
| 235 | 1/19/2000 | 133200 | | 513.635 | 249.568 | | 1.345 |
| 236 | 1/19/2000 | 133230 | | 512.279 | 249.925 | | 1.348 |
| 237 | 1/19/2000 | 133300 | | 512.279 | 249.925 | | 1.348 |
| 238 | 1/19/2000 | 133330 | 539.297 | | 249.652 | 1.309 | |
| 239 | 1/19/2000 | 133400 | 539.297 | | 249.652 | 1.309 | |
| 240 | 1/19/2000 | 133430 | 531.129 | | 249.526 | 1.339 | |
| 241 | 1/19/2000 | 133500 | 531.129 | | 249.526 | 1.339 | |
| 242 | 1/19/2000 | 133530 | 529.597 | | 249.972 | 1.346 | |
| 243 | 1/19/2000 | 133600 | 529.597 | | 249.972 | 1.346 | |
| 244 | 1/19/2000 | 133630 | 528.63 | | 250.221 | 1.345 | |
| 245 | 1/19/2000 | 133700 | 528.63 | | 250.221 | 1.345 | |
| 246 | 1/19/2000 | 133730 | 532.33 | | 250.112 | 1.351 | |
| 247 | 1/19/2000 | 133800 | 532.33 | | 250.112 | 1.351 | |
| 248 | 1/19/2000 | 133830 | 529.298 | | 249.206 | 1.341 | |
| 249 | 1/19/2000 | 133900 | 529.298 | | 249.206 | 1.341 | |
| 250 | 1/19/2000 | 133930 | 529.41 | | 248.84 | 1.341 | |
| 251 | 1/19/2000 | 134000 | 529.41 | | 248.84 | 1.341 | |
| 252 | 1/19/2000 | 134030 | | | 249.98 | | |
| 253 | 1/19/2000 | 134100 | | | 249.98 | | |
| 254 | 1/19/2000 | 134130 | | 545.107 | 250.029 | | 1.303 |
| 255 | 1/19/2000 | 134200 | | 545.107 | 250.029 | | 1.303 |
| 256 | 1/19/2000 | 134230 | | 522.582 | 250.123 | | 1.325 |
| 257 | 1/19/2000 | 134300 | | 522.582 | 250.123 | | 1.325 |
| 258 | 1/19/2000 | 134330 | | 510.305 | 249.593 | | 1.34 |
| 259 | 1/19/2000 | 134400 | | 510.305 | 249.593 | | 1.34 |
| 260 | 1/19/2000 | 134430 | | 506.11 | 248.662 | | 1.34 |
| 261 | 1/19/2000 | 134500 | | 506.11 | 248.662 | | 1.34 |
| 262 | 1/19/2000 | 134530 | | 505.359 | 249.448 | | 1.343 |
| 263 | 1/19/2000 | 134600 | | 505.359 | 249.448 | | 1.343 |
| 264 | 1/19/2000 | 134630 | | 501.002 | 250.186 | | 1.341 |
| 265 | 1/19/2000 | 134700 | | 501.002 | 250.186 | | 1.341 |
| 266 | 1/19/2000 | 134730 | | 505.648 | 250.368 | | 1.355 |
| 267 | 1/19/2000 | 134800 | | 505.648 | 250.368 | | 1.355 |
| 268 | 1/19/2000 | 134830 | 535.474 | | 250.096 | 1.303 | |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4GENA3 | WT4SO2A4 | WT4SO2B5 |
|---|---|---|---|---|---|---|---|
| 269 | 1/19/2000 | 134900 | 535.474 | | 250.096 | 1.303 | |
| 270 | 1/19/2000 | 134930 | 531.097 | | 249.529 | 1.336 | |
| 271 | 1/19/2000 | 135000 | 531.097 | | 249.529 | 1.336 | |
| 272 | 1/19/2000 | 135030 | 528.429 | | 249.524 | 1.342 | |
| 273 | 1/19/2000 | 135100 | 528.429 | | 249.524 | 1.342 | |
| 274 | 1/19/2000 | 135130 | 528.494 | | 248.847 | 1.337 | |
| 275 | 1/19/2000 | 135200 | 528.494 | | 248.847 | 1.337 | |
| 276 | 1/19/2000 | 135230 | 528.455 | | 249.701 | 1.339 | |
| 277 | 1/19/2000 | 135300 | 528.455 | | 249.701 | 1.339 | |
| 278 | 1/19/2000 | 135330 | 529.63 | | 250.249 | 1.339 | |
| 279 | 1/19/2000 | 135400 | 529.63 | | 250.249 | 1.339 | |
| 280 | 1/19/2000 | 135430 | 532.873 | | 250.016 | 1.343 | |
| 281 | 1/19/2000 | 135500 | 532.873 | | 250.016 | 1.343 | |
| 282 | 1/19/2000 | 135530 | | | 249.55 | | |
| 283 | 1/19/2000 | 135600 | | | 249.55 | | |
| 284 | 1/19/2000 | 135630 | | 546.387 | 249.671 | | 1.299 |
| 285 | 1/19/2000 | 135700 | | 546.387 | 249.671 | | 1.299 |
| 286 | 1/19/2000 | 135730 | | 524.731 | 249.448 | | 1.322 |
| 287 | 1/19/2000 | 135800 | | 524.731 | 249.448 | | 1.322 |
| 288 | 1/19/2000 | 135830 | | 515.26 | 249.327 | | 1.341 |
| 289 | 1/19/2000 | 135900 | | 515.26 | 249.327 | | 1.341 |
| 290 | 1/19/2000 | 135930 | | 515.313 | 250.143 | | 1.346 |
| 291 | 1/19/2000 | 140000 | | 515.313 | 250.143 | | 1.346 |
| 292 | 1/19/2000 | 140030 | | 514.974 | 250.507 | | 1.346 |
| 293 | 1/19/2000 | 140100 | | 514.974 | 250.507 | | 1.346 |
| 294 | 1/19/2000 | 140130 | | 516.528 | 249.716 | | 1.342 |
| 295 | 1/19/2000 | 140200 | | 516.528 | 249.716 | | 1.342 |
| 296 | 1/19/2000 | 140230 | | 515.746 | 249.163 | | 1.335 |
| 297 | 1/19/2000 | 140300 | | 515.746 | 249.163 | | 1.335 |
| 298 | 1/19/2000 | 140330 | 531.007 | | 250.109 | 1.293 | |
| 299 | 1/19/2000 | 140400 | 531.007 | | 250.109 | 1.293 | |
| 300 | 1/19/2000 | 140430 | 530.199 | | 250.241 | 1.337 | |
| 301 | 1/19/2000 | 140500 | 530.199 | | 250.241 | 1.337 | |
| 302 | 1/19/2000 | 140530 | 528.733 | | 250.574 | 1.341 | |
| 303 | 1/19/2000 | 140600 | 528.733 | | 250.574 | 1.341 | |
| 304 | 1/19/2000 | 140630 | 530.61 | | 249.814 | 1.344 | |
| 305 | 1/19/2000 | 140700 | 530.61 | | 249.814 | 1.344 | |
| 306 | 1/19/2000 | 140730 | 529.489 | | 249.544 | 1.337 | |
| 307 | 1/19/2000 | 140800 | 529.489 | | 249.544 | 1.337 | |
| 308 | 1/19/2000 | 140830 | 533.726 | | 249.609 | 1.343 | |
| 309 | 1/19/2000 | 140900 | 533.726 | | 249.609 | 1.343 | |
| 310 | 1/19/2000 | 140930 | 533.664 | | 249.779 | 1.344 | |
| 311 | 1/19/2000 | 141000 | 533.664 | | 249.779 | 1.344 | |
| 312 | 1/19/2000 | 141030 | | | 249.664 | | |
| 313 | 1/19/2000 | 141100 | | | 249.664 | | |
| 314 | 1/19/2000 | 141130 | | 545.065 | 249.28 | | 1.298 |
| 315 | 1/19/2000 | 141200 | | 545.065 | 249.28 | | 1.298 |
| 316 | 1/19/2000 | 141230 | | 523.46 | 249.824 | | 1.328 |
| 317 | 1/19/2000 | 141300 | | 523.46 | 249.824 | | 1.328 |
| 318 | 1/19/2000 | 141330 | | 516.587 | 249.166 | | 1.346 |
| 319 | 1/19/2000 | 141400 | | 516.587 | 249.166 | | 1.346 |
| 320 | 1/19/2000 | 141430 | | 510.89 | 249.479 | | 1.345 |
| 321 | 1/19/2000 | 141500 | | 510.89 | 249.479 | | 1.345 |
| 322 | 1/19/2000 | 141530 | | 506.793 | 250.577 | | 1.342 |
| 323 | 1/19/2000 | 141600 | | 506.793 | 250.577 | | 1.342 |
| 324 | 1/19/2000 | 141630 | | 512.595 | 250.191 | | 1.353 |
| 325 | 1/19/2000 | 141700 | | 512.595 | 250.191 | | 1.353 |
| 326 | 1/19/2000 | 141730 | | 516.263 | 249.349 | | 1.354 |
| 327 | 1/19/2000 | 141800 | | 516.263 | 249.349 | | 1.354 |
| 328 | 1/19/2000 | 141830 | | 515.825 | 248.966 | | 1.351 |
| 329 | 1/19/2000 | 141900 | | 515.825 | 248.966 | | 1.351 |
| 330 | 1/19/2000 | 141930 | | 515.584 | 249.802 | | 1.348 |
| 331 | 1/19/2000 | 142000 | | 515.584 | 249.802 | | 1.348 |
| 332 | 1/19/2000 | 142030 | | 515.615 | 249.857 | | 1.352 |
| 333 | 1/19/2000 | 142100 | | 515.615 | 249.857 | | 1.352 |
| 334 | 1/19/2000 | 142130 | | 515.633 | 249.725 | | 1.349 |
| 335 | 1/19/2000 | 142200 | | 515.633 | 249.725 | | 1.349 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4GENA3 | WT4SO2A4 | WT4SO2B5 |
|---|---|---|---|---|---|---|---|
| 336 | 1/19/2000 | 142230 | | 515.676 | 250.361 | | 1.354 |
| 337 | 1/19/2000 | 142300 | | 515.676 | 250.361 | | 1.354 |
| 338 | 1/19/2000 | 142330 | | 514.165 | 249.696 | | 1.354 |
| 339 | 1/19/2000 | 142400 | | 514.165 | 249.696 | | 1.354 |
| 340 | 1/19/2000 | 142430 | | 511.24 | 249.244 | | 1.35 |
| 341 | 1/19/2000 | 142500 | | 511.24 | 249.244 | | 1.35 |
| 342 | 1/19/2000 | 142530 | | | 249.448 | | |
| 343 | 1/19/2000 | 142600 | | | 249.448 | | |
| 344 | 1/19/2000 | 142630 | 524.275 | | 250.271 | 1.325 | |
| 345 | 1/19/2000 | 142700 | 524.275 | | 250.271 | 1.325 | |
| 346 | 1/19/2000 | 142730 | 526.743 | | 250.253 | 1.354 | |
| 347 | 1/19/2000 | 142800 | 526.743 | | 250.253 | 1.354 | |
| 348 | 1/19/2000 | 142830 | 531.368 | | 250.244 | 1.362 | |
| 349 | 1/19/2000 | 142900 | 531.368 | | 250.244 | 1.362 | |
| 350 | 1/19/2000 | 142930 | 529.552 | | 249.901 | 1.354 | |
| 351 | 1/19/2000 | 143000 | 529.552 | | 249.901 | 1.354 | |
| 352 | 1/19/2000 | 143030 | 527.8 | | 249.328 | 1.352 | |
| 353 | 1/19/2000 | 143100 | 527.8 | | 249.328 | 1.352 | |
| 354 | 1/19/2000 | 143130 | 525.363 | | 249.07 | 1.353 | |
| 355 | 1/19/2000 | 143200 | 527.919 | | 249.07 | 1.356 | |
| 356 | 1/19/2000 | 143230 | 527.919 | | 249.764 | 1.356 | |
| 357 | 1/19/2000 | 143300 | 527.919 | | 249.764 | 1.356 | |
| 358 | 1/19/2000 | 143330 | 528.339 | | 249.977 | 1.354 | |
| 359 | 1/19/2000 | 143400 | 528.339 | | 249.977 | 1.354 | |
| 360 | 1/19/2000 | 143430 | 531.069 | | 250.412 | 1.358 | |
| 361 | 1/19/2000 | 143500 | 531.069 | | 250.412 | 1.358 | |
| 362 | 1/19/2000 | 143530 | 536.997 | | 250.27 | 1.362 | |
| 363 | 1/19/2000 | 143600 | 536.997 | | 250.27 | 1.362 | |
| 364 | 1/19/2000 | 143630 | 537.124 | | 249.436 | 1.359 | |
| 365 | 1/19/2000 | 143700 | 537.124 | | 249.436 | 1.359 | |
| 366 | 1/19/2000 | 143730 | 538.422 | | 249.503 | 1.356 | |
| 367 | 1/19/2000 | 143800 | 538.422 | | 249.503 | 1.356 | |
| 368 | 1/19/2000 | 143830 | 537.931 | | 249.24 | 1.356 | |
| 369 | 1/19/2000 | 143900 | 537.931 | | 249.24 | 1.356 | |
| 370 | 1/19/2000 | 143930 | 537.131 | | 249.638 | 1.355 | |
| 371 | 1/19/2000 | 144000 | 537.131 | | 249.638 | 1.355 | |
| 372 | 1/19/2000 | 144030 | | | 249.754 | | |
| 373 | 1/19/2000 | 144100 | | | 249.754 | | |
| 374 | 1/19/2000 | 144130 | | 538.892 | 250.241 | | 1.332 |
| 375 | 1/19/2000 | 144200 | | 538.892 | 250.241 | | 1.332 |
| 376 | 1/19/2000 | 144230 | | 520.485 | 250.252 | | 1.356 |
| 377 | 1/19/2000 | 144300 | | 520.485 | 250.252 | | 1.356 |
| 378 | 1/19/2000 | 144330 | | 513.362 | 250.223 | | 1.362 |
| 379 | 1/19/2000 | 144400 | | 513.362 | 250.223 | | 1.362 |
| 380 | 1/19/2000 | 144430 | | 510.402 | 249.547 | | 1.358 |
| 381 | 1/19/2000 | 144500 | | 510.402 | 249.547 | | 1.358 |
| 382 | 1/19/2000 | 144530 | | 510.104 | 249.142 | | 1.36 |
| 383 | 1/19/2000 | 144600 | | 510.104 | 249.142 | | 1.36 |
| 384 | 1/19/2000 | 144630 | | 511.155 | 249.111 | | 1.361 |
| 385 | 1/19/2000 | 144700 | | 511.155 | 249.111 | | 1.361 |
| 386 | 1/19/2000 | 144730 | | | 250.083 | | |
| 387 | 1/19/2000 | 144800 | | | 250.083 | | |
| 388 | 1/19/2000 | 144830 | 541.965 | | 250.396 | 1.331 | |
| 389 | 1/19/2000 | 144900 | 541.965 | | 250.396 | 1.331 | |
| 390 | 1/19/2000 | 144930 | 536.757 | | 249.69 | 1.354 | |
| 391 | 1/19/2000 | 145000 | 536.757 | | 249.69 | 1.354 | |
| 392 | 1/19/2000 | 145030 | 538.978 | | 249.158 | 1.363 | |
| 393 | 1/19/2000 | 145100 | 538.978 | | 249.158 | 1.363 | |
| 394 | 1/19/2000 | 145130 | 540.266 | | 249.53 | 1.362 | |
| 395 | 1/19/2000 | 145200 | 540.266 | | 249.53 | 1.362 | |
| 396 | 1/19/2000 | 145230 | 535.471 | | 250.354 | 1.357 | |
| 397 | 1/19/2000 | 145300 | 535.471 | | 250.354 | 1.357 | |
| 398 | / / | | | | | | |
| 399 | / / | AVE | 533.4171011 | 518.6962333 | 249.7478338 | 1.336513228 | 1.335977778 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4SO2A3 | WT4SO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 8 | 1/20/00 | 83330 | 598.359 | | 1.763 | | 249.335 |
| 9 | 1/20/00 | 83400 | 598.359 | | 1.763 | | 249.335 |
| 10 | 1/20/00 | 83430 | 568.002 | | 1.51 | | 250.419 |
| 11 | 1/20/00 | 83500 | 568.002 | | 1.51 | | 250.419 |
| 12 | 1/20/00 | 83530 | 567.159 | | 1.444 | | 249.412 |
| 13 | 1/20/00 | 83600 | 567.159 | | 1.444 | | 249.412 |
| 14 | 1/20/00 | 83630 | 565.45 | | 1.436 | | 249.141 |
| 15 | 1/20/00 | 83700 | 565.45 | | 1.436 | | 249.141 |
| 16 | 1/20/00 | 83730 | 561.124 | | 1.432 | | 249.885 |
| 17 | 1/20/00 | 83800 | 561.124 | | 1.432 | | 249.885 |
| 18 | 1/20/00 | 83830 | 559.288 | | 1.428 | | 250.616 |
| 19 | 1/20/00 | 83900 | 559.288 | | 1.428 | | 250.616 |
| 20 | 1/20/00 | 83930 | 562.69 | | 1.432 | | 250.75 |
| 21 | 1/20/00 | 84000 | 562.69 | | 1.432 | | 250.75 |
| 22 | 1/20/00 | 84030 | | | | | 250.359 |
| 23 | 1/20/00 | 84100 | | | | | 250.359 |
| 24 | 1/20/00 | 84130 | | 592.684 | | 1.525 | 249.68 |
| 25 | 1/20/00 | 84200 | | 592.684 | | 1.525 | 249.68 |
| 26 | 1/20/00 | 84230 | | 566.144 | | 1.463 | 250.029 |
| 27 | 1/20/00 | 84300 | | 566.144 | | 1.463 | 250.029 |
| 28 | 1/20/00 | 84330 | | 554.636 | | 1.445 | 250.011 |
| 29 | 1/20/00 | 84400 | | 554.636 | | 1.445 | 250.011 |
| 30 | 1/20/00 | 84430 | | 550.51 | | 1.441 | 249.734 |
| 31 | 1/20/00 | 84500 | | 550.51 | | 1.441 | 249.734 |
| 32 | 1/20/00 | 84530 | | 553.531 | | 1.443 | 249.876 |
| 33 | 1/20/00 | 84600 | | 553.531 | | 1.443 | 249.876 |
| 34 | 1/20/00 | 84630 | | 550.724 | | 1.436 | 249.866 |
| 35 | 1/20/00 | 84700 | | 550.724 | | 1.436 | 249.866 |
| 36 | 1/20/00 | 84730 | | | | | 250.223 |
| 37 | 1/20/00 | 84800 | | | | | 250.223 |
| 38 | 1/20/00 | 84830 | 577.769 | | 1.388 | | 250.593 |
| 39 | 1/20/00 | 84900 | 577.769 | | 1.388 | | 250.593 |
| 40 | 1/20/00 | 84930 | 575.228 | | 1.433 | | 250.724 |
| 41 | 1/20/00 | 85000 | 575.228 | | 1.433 | | 250.724 |
| 42 | 1/20/00 | 85030 | 573.371 | | 1.441 | | 248.901 |
| 43 | 1/20/00 | 85100 | 573.371 | | 1.441 | | 248.901 |
| 44 | 1/20/00 | 85130 | 569.372 | | 1.437 | | 249.005 |
| 45 | 1/20/00 | 85200 | 569.372 | | 1.437 | | 249.005 |
| 46 | 1/20/00 | 85230 | 570.136 | | 1.438 | | 250.044 |
| 47 | 1/20/00 | 85300 | 570.136 | | 1.438 | | 250.044 |
| 48 | 1/20/00 | 85330 | 571.303 | | 1.437 | | 250.658 |
| 49 | 1/20/00 | 85400 | 571.303 | | 1.437 | | 250.658 |
| 50 | 1/20/00 | 85430 | 573.042 | | 1.441 | | 250.875 |
| 51 | 1/20/00 | 85500 | 573.042 | | 1.441 | | 250.875 |
| 52 | 1/20/00 | 85530 | | | | | 249.129 |
| 53 | 1/20/00 | 85600 | | | | | 249.129 |
| 54 | 1/20/00 | 85630 | | 595.013 | | 1.391 | 249.489 |
| 55 | 1/20/00 | 85700 | | 595.013 | | 1.391 | 249.489 |
| 56 | 1/20/00 | 85730 | | 573.688 | | 1.424 | 250.09 |
| 57 | 1/20/00 | 85800 | | 573.688 | | 1.424 | 250.09 |
| 58 | 1/20/00 | 85830 | | 568.109 | | 1.44 | 250.521 |
| 59 | 1/20/00 | 85900 | | 568.109 | | 1.44 | 250.521 |
| 60 | 1/20/00 | 85930 | | 563.196 | | 1.438 | 251.126 |
| 61 | 1/20/00 | 90000 | | 563.196 | | 1.438 | 251.126 |
| 62 | 1/20/00 | 90030 | | 565.501 | | 1.445 | 249.542 |
| 63 | 1/20/00 | 90100 | | 565.501 | | 1.445 | 249.542 |
| 64 | 1/20/00 | 90130 | | 570.239 | | 1.444 | 249.544 |
| 65 | 1/20/00 | 90200 | | 570.239 | | 1.444 | 249.544 |
| 66 | 1/20/00 | 90230 | | | | | 249.546 |
| 67 | 1/20/00 | 90300 | | | | | 249.546 |
| 68 | 1/20/00 | 90330 | 568.526 | | 1.38 | | 250.268 |
| 69 | 1/20/00 | 90400 | 568.526 | | 1.38 | | 250.268 |
| 70 | 1/20/00 | 90430 | 568.228 | | 1.429 | | 250.719 |
| 71 | 1/20/00 | 90500 | 568.228 | | 1.429 | | 250.719 |
| 72 | 1/20/00 | 90530 | 565.854 | | 1.435 | | 250.962 |
| 73 | 1/20/00 | 90600 | 565.854 | | 1.435 | | 250.962 |
| 74 | 1/20/00 | 90630 | 562.919 | | 1.43 | | 250.037 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4SO2A3 | WT4SO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 75 | 1/20/00 | 90700 | 562.919 | | 1.43 | | 250.037 |
| 76 | 1/20/00 | 90730 | 564.849 | | 1.433 | | 249.801 |
| 77 | 1/20/00 | 90800 | 564.849 | | 1.433 | | 249.801 |
| 78 | 1/20/00 | 90830 | 569.532 | | 1.441 | | 249.144 |
| 79 | 1/20/00 | 90900 | 569.532 | | 1.441 | | 249.144 |
| 80 | 1/20/00 | 90930 | 566.527 | | 1.434 | | 250.223 |
| 81 | 1/20/00 | 91000 | 566.527 | | 1.434 | | 250.223 |
| 82 | 1/20/00 | 91030 | | | | | 249.849 |
| 83 | 1/20/00 | 91100 | | | | | 249.849 |
| 84 | 1/20/00 | 91130 | | 604.853 | | 1.387 | 249.876 |
| 85 | 1/20/00 | 91200 | | 604.853 | | 1.387 | 249.876 |
| 86 | 1/20/00 | 91230 | | 590.44 | | 1.426 | 250.342 |
| 87 | 1/20/00 | 91300 | | 590.44 | | 1.426 | 250.342 |
| 88 | 1/20/00 | 91330 | | 580.623 | | 1.433 | 250.467 |
| 89 | 1/20/00 | 91400 | | 580.623 | | 1.433 | 250.467 |
| 90 | 1/20/00 | 91430 | | 570.435 | | 1.433 | 250.027 |
| 91 | 1/20/00 | 91500 | | 570.435 | | 1.433 | 250.027 |
| 92 | 1/20/00 | 91530 | | 563.976 | | 1.434 | 249.418 |
| 93 | 1/20/00 | 91600 | | 563.976 | | 1.434 | 249.418 |
| 94 | 1/20/00 | 91630 | | 562.782 | | 1.432 | 249.1 |
| 95 | 1/20/00 | 91700 | | 562.782 | | 1.432 | 249.1 |
| 96 | 1/20/00 | 91730 | | | | | 249.238 |
| 97 | 1/20/00 | 91800 | | | | | 249.238 |
| 98 | 1/20/00 | 91830 | 577.074 | | 1.392 | | 250.754 |
| 99 | 1/20/00 | 91900 | 577.074 | | 1.392 | | 250.754 |
| 100 | 1/20/00 | 91930 | 575.735 | | 1.435 | | 250.702 |
| 101 | 1/20/00 | 92000 | 575.735 | | 1.435 | | 250.702 |
| 102 | 1/20/00 | 92030 | 566.711 | | 1.434 | | 251.042 |
| 103 | 1/20/00 | 92100 | 566.711 | | 1.434 | | 251.042 |
| 104 | 1/20/00 | 92130 | 568.229 | | 1.436 | | 250.379 |
| 105 | 1/20/00 | 92200 | 568.229 | | 1.436 | | 250.379 |
| 106 | 1/20/00 | 92230 | 569.047 | | 1.435 | | 249.689 |
| 107 | 1/20/00 | 92300 | 571.865 | | 1.435 | | 249.689 |
| 108 | 1/20/00 | 92330 | 571.865 | | 1.441 | | 249.356 |
| 109 | 1/20/00 | 92400 | 571.865 | | 1.441 | | 249.356 |
| 110 | 1/20/00 | 92430 | 567.534 | | 1.433 | | 249.133 |
| 111 | 1/20/00 | 92500 | 567.534 | | 1.433 | | 249.133 |
| 112 | 1/20/00 | 92530 | | | | | 250.256 |
| 113 | 1/20/00 | 92600 | | | | | 250.256 |
| 114 | 1/20/00 | 92630 | | 596.618 | | 1.377 | 250.644 |
| 115 | 1/20/00 | 92700 | | 596.618 | | 1.377 | 250.644 |
| 116 | 1/20/00 | 92730 | | 577.527 | | 1.412 | 250.226 |
| 117 | 1/20/00 | 92800 | | 577.527 | | 1.412 | 250.226 |
| 118 | 1/20/00 | 92830 | | 571.666 | | 1.434 | 249.521 |
| 119 | 1/20/00 | 92900 | | 571.666 | | 1.434 | 249.521 |
| 120 | 1/20/00 | 92930 | | 564.566 | | 1.428 | 249.519 |
| 121 | 1/20/00 | 93000 | | 564.566 | | 1.428 | 249.519 |
| 122 | 1/20/00 | 93030 | | 563.907 | | 1.433 | 249.751 |
| 123 | 1/20/00 | 93100 | | 563.907 | | 1.433 | 249.751 |
| 124 | 1/20/00 | 93130 | | 564.543 | | 1.433 | 250.153 |
| 125 | 1/20/00 | 93200 | | 564.543 | | 1.433 | 250.153 |
| 126 | 1/20/00 | 93230 | | | | | 249.961 |
| 127 | 1/20/00 | 93300 | | | | | 249.961 |
| 128 | 1/20/00 | 93330 | 572.245 | | 1.376 | | 249.87 |
| 129 | 1/20/00 | 93400 | 572.245 | | 1.376 | | 249.87 |
| 130 | 1/20/00 | 93430 | 569.286 | | 1.426 | | 250.19 |
| 131 | 1/20/00 | 93500 | 569.286 | | 1.426 | | 250.19 |
| 132 | 1/20/00 | 93530 | 570.452 | | 1.434 | | 250.589 |
| 133 | 1/20/00 | 93600 | 570.452 | | 1.434 | | 250.589 |
| 134 | 1/20/00 | 93630 | 568.925 | | 1.434 | | 250.124 |
| 135 | 1/20/00 | 93700 | 568.925 | | 1.434 | | 250.124 |
| 136 | 1/20/00 | 93730 | 563.811 | | 1.431 | | 249.81 |
| 137 | 1/20/00 | 93800 | 563.811 | | 1.431 | | 249.81 |
| 138 | 1/20/00 | 93830 | 562.451 | | 1.432 | | 249.527 |
| 139 | 1/20/00 | 93900 | 562.451 | | 1.432 | | 249.527 |
| 140 | 1/20/00 | 93930 | 567.848 | | 1.44 | | 249.522 |
| 141 | 1/20/00 | 94000 | 567.848 | | 1.44 | | 249.522 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4SO2A3 | WT4SO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 142 | 1/20/00 | 94030 | | | | | 249.39 |
| 143 | 1/20/00 | 94100 | | | | | 249.39 |
| 144 | 1/20/00 | 94130 | | 599.83 | | 1.377 | 249.599 |
| 145 | 1/20/00 | 94200 | | 599.83 | | 1.377 | 249.599 |
| 146 | 1/20/00 | 94230 | | 577.171 | | 1.412 | 250.014 |
| 147 | 1/20/00 | 94300 | | 577.171 | | 1.412 | 250.014 |
| 148 | 1/20/00 | 94330 | | 569.239 | | 1.434 | 249.973 |
| 149 | 1/20/00 | 94400 | | 569.239 | | 1.434 | 249.973 |
| 150 | 1/20/00 | 94430 | | 569.008 | | 1.438 | 250.298 |
| 151 | 1/20/00 | 94500 | | 569.008 | | 1.438 | 250.298 |
| 152 | 1/20/00 | 94530 | | 565.625 | | 1.433 | 250.651 |
| 153 | 1/20/00 | 94600 | | 565.625 | | 1.433 | 250.651 |
| 154 | 1/20/00 | 94630 | | 565.8 | | 1.437 | 250.472 |
| 155 | 1/20/00 | 94700 | | 565.8 | | 1.437 | 250.472 |
| 156 | 1/20/00 | 94730 | | | | | 250.005 |
| 157 | 1/20/00 | 94800 | | | | | 250.005 |
| 158 | 1/20/00 | 94830 | 583.065 | | 1.391 | | 250.408 |
| 159 | 1/20/00 | 94900 | 583.065 | | 1.391 | | 250.408 |
| 160 | 1/20/00 | 94930 | 577.484 | | 1.429 | | 250.276 |
| 161 | 1/20/00 | 95000 | 577.484 | | 1.429 | | 250.276 |
| 162 | 1/20/00 | 95030 | 574.858 | | 1.438 | | 250.567 |
| 163 | 1/20/00 | 95100 | 574.858 | | 1.438 | | 250.567 |
| 164 | 1/20/00 | 95130 | 573.434 | | 1.437 | | 250.03 |
| 165 | 1/20/00 | 95200 | 573.434 | | 1.437 | | 250.03 |
| 166 | 1/20/00 | 95230 | 577.464 | | 1.444 | | 249.802 |
| 167 | 1/20/00 | 95300 | 577.464 | | 1.444 | | 249.802 |
| 168 | 1/20/00 | 95330 | 578.73 | | 1.443 | | 249.085 |
| 169 | 1/20/00 | 95400 | 578.73 | | 1.443 | | 249.085 |
| 170 | 1/20/00 | 95430 | 573.961 | | 1.439 | | 250.003 |
| 171 | 1/20/00 | 95500 | 573.961 | | 1.439 | | 250.003 |
| 172 | 1/20/00 | 95530 | | | | | 250.564 |
| 173 | 1/20/00 | 95600 | | | | | 250.564 |
| 174 | 1/20/00 | 95630 | | 607.595 | | 1.399 | 250.67 |
| 175 | 1/20/00 | 95700 | | 607.595 | | 1.399 | 250.67 |
| 176 | 1/20/00 | 95730 | | 585.196 | | 1.424 | 250.35 |
| 177 | 1/20/00 | 95800 | | 585.196 | | 1.424 | 250.35 |
| 178 | 1/20/00 | 95830 | | 572.861 | | 1.438 | 249.674 |
| 179 | 1/20/00 | 95900 | | 572.861 | | 1.438 | 249.674 |
| 180 | 1/20/00 | 95930 | | 568.958 | | 1.44 | 249.881 |
| 181 | 1/20/00 | 100000 | | 568.958 | | 1.44 | 249.881 |
| 182 | 1/20/00 | 100030 | | 564.106 | | 1.438 | 250.15 |
| 183 | 1/20/00 | 100100 | | 564.106 | | 1.438 | 250.15 |
| 184 | 1/20/00 | 100130 | | 563.788 | | 1.439 | 249.949 |
| 185 | 1/20/00 | 100200 | | 563.788 | | 1.439 | 249.949 |
| 186 | 1/20/00 | 100230 | | | | | 250.213 |
| 187 | 1/20/00 | 100300 | | | | | 250.213 |
| 188 | 1/20/00 | 100330 | 580.486 | | 1.386 | | 249.89 |
| 189 | 1/20/00 | 100400 | 580.486 | | 1.386 | | 249.89 |
| 190 | 1/20/00 | 100430 | 577.403 | | 1.433 | | 250.287 |
| 191 | 1/20/00 | 100500 | 577.403 | | 1.433 | | 250.287 |
| 192 | 1/20/00 | 100530 | 583.286 | | 1.446 | | 250.039 |
| 193 | 1/20/00 | 100600 | 583.286 | | 1.446 | | 250.039 |
| 194 | 1/20/00 | 100630 | 574.691 | | 1.437 | | 250.276 |
| 195 | 1/20/00 | 100700 | 574.691 | | 1.437 | | 250.276 |
| 196 | 1/20/00 | 100730 | 574.119 | | 1.436 | | 250.599 |
| 197 | 1/20/00 | 100800 | 574.119 | | 1.436 | | 250.599 |
| 198 | 1/20/00 | 100830 | 571.271 | | 1.44 | | 250.012 |
| 199 | 1/20/00 | 100900 | 571.271 | | 1.44 | | 250.012 |
| 200 | 1/20/00 | 100930 | 566.717 | | 1.435 | | 249.163 |
| 201 | 1/20/00 | 101000 | | | 1.435 | | 249.163 |
| 202 | 1/20/00 | 101030 | | | | | 249.736 |
| 203 | 1/20/00 | 101100 | | | | | 249.736 |
| 204 | 1/20/00 | 101130 | | 607.387 | | 1.39 | 250.954 |
| 205 | 1/20/00 | 101200 | | 607.387 | | 1.39 | 250.954 |
| 206 | 1/20/00 | 101230 | | 586.025 | | 1.415 | 250.359 |
| 207 | 1/20/00 | 101300 | | 586.025 | | 1.415 | 250.359 |
| 208 | 1/20/00 | 101330 | | 579.847 | | 1.437 | 249.804 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4SO2A3 | WT4SO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 209 | 1/20/00 | 101400 | | 579.847 | | 1.437 | 249.804 |
| 210 | 1/20/00 | 101430 | | 575.485 | | 1.438 | 249.55 |
| 211 | 1/20/00 | 101500 | | 575.485 | | 1.438 | 249.55 |
| 212 | 1/20/00 | 101530 | | 572.405 | | 1.437 | 250.013 |
| 213 | 1/20/00 | 101600 | | 572.405 | | 1.437 | 250.013 |
| 214 | 1/20/00 | 101630 | | 570.873 | | 1.439 | 249.989 |
| 215 | 1/20/00 | 101700 | | 570.873 | | 1.439 | 249.989 |
| 216 | 1/20/00 | 101730 | | | | | 250.261 |
| 217 | 1/20/00 | 101800 | | | | | 250.261 |
| 218 | 1/20/00 | 101830 | 572.088 | | 1.373 | | 250.25 |
| 219 | 1/20/00 | 101900 | 572.088 | | 1.373 | | 250.25 |
| 220 | 1/20/00 | 101930 | 570.513 | | 1.426 | | 250.481 |
| 221 | 1/20/00 | 102000 | 570.513 | | 1.426 | | 250.481 |
| 222 | 1/20/00 | 102030 | 569.923 | | 1.437 | | 250.277 |
| 223 | 1/20/00 | 102100 | 569.923 | | 1.437 | | 250.277 |
| 224 | 1/20/00 | 102130 | 570.575 | | 1.44 | | 250.071 |
| 225 | 1/20/00 | 102200 | 570.575 | | 1.44 | | 250.071 |
| 226 | 1/20/00 | 102230 | 569.725 | | 1.437 | | 249.615 |
| 227 | 1/20/00 | 102300 | 569.725 | | 1.437 | | 249.615 |
| 228 | 1/20/00 | 102330 | 567.918 | | 1.436 | | 249.209 |
| 229 | 1/20/00 | 102400 | 567.918 | | 1.436 | | 249.209 |
| 230 | 1/20/00 | 102430 | 565.1 | | 1.437 | | 249.762 |
| 231 | 1/20/00 | 102500 | 565.1 | | 1.437 | | 249.762 |
| 232 | 1/20/00 | 102530 | | | | | 250.58 |
| 233 | 1/20/00 | 102600 | | | | | 250.58 |
| 234 | 1/20/00 | 102630 | | 607.467 | | 1.382 | 250.674 |
| 235 | 1/20/00 | 102700 | | 607.467 | | 1.382 | 250.674 |
| 236 | 1/20/00 | 102730 | | 584.087 | | 1.414 | 249.852 |
| 237 | 1/20/00 | 102800 | | 584.087 | | 1.414 | 249.852 |
| 238 | 1/20/00 | 102830 | | 575.412 | | 1.432 | 248.919 |
| 239 | 1/20/00 | 102900 | | 575.412 | | 1.432 | 248.919 |
| 240 | 1/20/00 | 102930 | | 570.919 | | 1.434 | 249.898 |
| 241 | 1/20/00 | 103000 | | 570.919 | | 1.434 | 249.898 |
| 242 | 1/20/00 | 103030 | | 570.038 | | 1.439 | 250.256 |
| 243 | 1/20/00 | 103100 | | 570.038 | | 1.439 | 250.256 |
| 244 | 1/20/00 | 103130 | | 570.341 | | 1.437 | 250.037 |
| 245 | 1/20/00 | 103200 | | 570.341 | | 1.437 | 250.037 |
| 246 | 1/20/00 | 103230 | | | | | 250.061 |
| 247 | 1/20/00 | 103300 | | | | | 250.061 |
| 248 | 1/20/00 | 103330 | 571.47 | | 1.369 | | 250.054 |
| 249 | 1/20/00 | 103400 | 571.47 | | 1.369 | | 250.054 |
| 250 | 1/20/00 | 103430 | 568.388 | | 1.421 | | 250.177 |
| 251 | 1/20/00 | 103500 | 568.388 | | 1.421 | | 250.177 |
| 252 | 1/20/00 | 103530 | 567.947 | | 1.43 | | 250.885 |
| 253 | 1/20/00 | 103600 | 567.947 | | 1.43 | | 250.885 |
| 254 | 1/20/00 | 103630 | 567.365 | | 1.436 | | 250.337 |
| 255 | 1/20/00 | 103700 | 567.365 | | 1.436 | | 250.337 |
| 256 | 1/20/00 | 103730 | 569.454 | | 1.436 | | 249.309 |
| 257 | 1/20/00 | 103800 | 569.454 | | 1.436 | | 249.309 |
| 258 | 1/20/00 | 103830 | 573.518 | | 1.43 | | 249.55 |
| 259 | 1/20/00 | 103900 | 573.518 | | 1.43 | | 249.55 |
| 260 | 1/20/00 | 103930 | 566.293 | | 1.423 | | 249.836 |
| 261 | 1/20/00 | 104000 | 566.293 | | 1.423 | | 249.836 |
| 262 | 1/20/00 | 104030 | | 618.239 | | 1.379 | 249.979 |
| 263 | 1/20/00 | 104100 | | 618.239 | | 1.379 | 249.979 |
| 264 | 1/20/00 | 104130 | | 599.046 | | 1.38 | 250.275 |
| 265 | 1/20/00 | 104200 | | 599.046 | | 1.38 | 250.275 |
| 266 | 1/20/00 | 104230 | | 582.772 | | 1.412 | 251.032 |
| 267 | 1/20/00 | 104300 | | 582.772 | | 1.412 | 251.032 |
| 268 | 1/20/00 | 104330 | | 570.382 | | 1.42 | 250.294 |
| 269 | 1/20/00 | 104400 | | 570.382 | | 1.42 | 250.294 |
| 270 | 1/20/00 | 104430 | | 565.436 | | 1.429 | 250.023 |
| 271 | 1/20/00 | 104500 | | 565.436 | | 1.429 | 250.023 |
| 272 | 1/20/00 | 104530 | | 562.025 | | 1.424 | 250.067 |
| 273 | 1/20/00 | 104600 | | 562.025 | | 1.424 | 250.067 |
| 274 | 1/20/00 | 104630 | | 564.275 | | 1.428 | 250.037 |
| 275 | 1/20/00 | 104700 | | 564.275 | | 1.428 | 250.037 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4SO2A3 | WT4SO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 276 | 1/20/00 | 104730 | | | | | 250.289 |
| 277 | 1/20/00 | 104800 | | | | | 250.289 |
| 278 | 1/20/00 | 104830 | 574.855 | | 1.375 | | 250.736 |
| 279 | 1/20/00 | 104900 | 574.855 | | 1.375 | | 250.736 |
| 280 | 1/20/00 | 104930 | 573.289 | | 1.422 | | 249.961 |
| 281 | 1/20/00 | 105000 | 573.289 | | 1.422 | | 249.961 |
| 282 | 1/20/00 | 105030 | 572.235 | | 1.428 | | 249.63 |
| 283 | 1/20/00 | 105100 | 572.235 | | 1.428 | | 249.63 |
| 284 | 1/20/00 | 105130 | 566.317 | | 1.422 | | 249.53 |
| 285 | 1/20/00 | 105200 | 566.317 | | 1.422 | | 249.53 |
| 286 | 1/20/00 | 105230 | 562.161 | | 1.428 | | 249.822 |
| 287 | 1/20/00 | 105300 | 562.161 | | 1.428 | | 249.822 |
| 288 | 1/20/00 | 105330 | 558.482 | | 1.424 | | 249.963 |
| 289 | 1/20/00 | 105400 | 558.482 | | 1.424 | | 249.963 |
| 290 | 1/20/00 | 105430 | 558.423 | | 1.429 | | 250.558 |
| 291 | 1/20/00 | 105500 | 558.423 | | 1.429 | | 250.558 |
| 292 | 1/20/00 | 105530 | | 622.404 | | 1.383 | 250.27 |
| 293 | 1/20/00 | 105600 | | 622.404 | | 1.383 | 250.27 |
| 294 | 1/20/00 | 105630 | | 605.023 | | 1.386 | 249.887 |
| 295 | 1/20/00 | 105700 | | 605.023 | | 1.386 | 249.887 |
| 296 | 1/20/00 | 105730 | | 587.969 | | 1.417 | 249.536 |
| 297 | 1/20/00 | 105800 | | 587.969 | | 1.417 | 249.536 |
| 298 | 1/20/00 | 105830 | | 582.983 | | 1.432 | 249.765 |
| 299 | 1/20/00 | 105900 | | 582.983 | | 1.432 | 249.765 |
| 300 | 1/20/00 | 105930 | | 577.742 | | 1.431 | 250.01 |
| 301 | 1/20/00 | 110000 | | 577.742 | | 1.431 | 250.01 |
| 302 | 1/20/00 | 110030 | | 574.61 | | 1.435 | 250.594 |
| 303 | 1/20/00 | 110100 | | 574.61 | | 1.435 | 250.594 |
| 304 | 1/20/00 | 110130 | | 566.581 | | 1.429 | 250.04 |
| 305 | 1/20/00 | 110200 | | 566.581 | | 1.429 | 250.04 |
| 306 | 1/20/00 | 110230 | | | | | 249.171 |
| 307 | 1/20/00 | 110300 | | | | | 249.171 |
| 308 | 1/20/00 | 110330 | 565.485 | | 1.371 | | 249.513 |
| 309 | 1/20/00 | 110400 | 565.485 | | 1.371 | | 249.513 |
| 310 | 1/20/00 | 110430 | 562.4 | | 1.421 | | 249.254 |
| 311 | 1/20/00 | 110500 | 562.4 | | 1.421 | | 249.254 |
| 312 | 1/20/00 | 110530 | 564.385 | | 1.43 | | 249.943 |
| 313 | 1/20/00 | 110600 | 564.385 | | 1.43 | | 249.943 |
| 314 | 1/20/00 | 110630 | 569.696 | | 1.433 | | 250.328 |
| 315 | 1/20/00 | 110700 | 569.696 | | 1.433 | | 250.328 |
| 316 | 1/20/00 | 110730 | 572.182 | | 1.433 | | 250.348 |
| 317 | 1/20/00 | 110800 | 572.182 | | 1.433 | | 250.348 |
| 318 | 1/20/00 | 110830 | 572.688 | | 1.439 | | 249.854 |
| 319 | 1/20/00 | 110900 | 572.688 | | 1.439 | | 249.854 |
| 320 | 1/20/00 | 110930 | 576.005 | | 1.434 | | 249.071 |
| 321 | 1/20/00 | 111000 | 576.005 | | 1.434 | | 249.071 |
| 322 | 1/20/00 | 111030 | | | | | 248.936 |
| 323 | 1/20/00 | 111100 | | | | | 248.936 |
| 324 | 1/20/00 | 111130 | | 615.673 | | 1.385 | 249.428 |
| 325 | 1/20/00 | 111200 | | 615.673 | | 1.385 | 249.428 |
| 326 | 1/20/00 | 111230 | | 593.938 | | 1.41 | 249.53 |
| 327 | 1/20/00 | 111300 | | 593.938 | | 1.41 | 249.53 |
| 328 | 1/20/00 | 111330 | | 584.639 | | 1.432 | 249.924 |
| 329 | 1/20/00 | 111400 | | 584.639 | | 1.432 | 249.924 |
| 330 | 1/20/00 | 111430 | | 584.739 | | 1.443 | 249.722 |
| 331 | 1/20/00 | 111500 | | 584.739 | | 1.443 | 249.722 |
| 332 | 1/20/00 | 111530 | | 584.441 | | 1.444 | 249.851 |
| 333 | 1/20/00 | 111600 | | 584.441 | | 1.444 | 249.851 |
| 334 | 1/20/00 | 111630 | | 579.013 | | 1.435 | 249.822 |
| 335 | 1/20/00 | 111700 | | 579.013 | | 1.435 | 249.822 |
| 336 | 1/20/00 | 111730 | | | | | 249.66 |
| 337 | 1/20/00 | 111800 | | | | | 249.66 |
| 338 | 1/20/00 | 111830 | 588.344 | | 1.384 | | 250.122 |
| 339 | 1/20/00 | 111900 | 588.344 | | 1.384 | | 250.122 |
| 340 | 1/20/00 | 111930 | 581.655 | | 1.427 | | 250.639 |
| 341 | 1/20/00 | 112000 | 581.655 | | 1.427 | | 250.639 |
| 342 | 1/20/00 | 112030 | 583.831 | | 1.443 | | 249.98 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4SO2A3 | WT4SO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 343 | 1/20/00 | 112100 | 583.831 | | 1.443 | | 249.98 |
| 344 | 1/20/00 | 112130 | 587.937 | | 1.449 | | 249.148 |
| 345 | 1/20/00 | 112200 | 587.937 | | 1.449 | | 249.148 |
| 346 | 1/20/00 | 112230 | 587.157 | | 1.445 | | 249.152 |
| 347 | 1/20/00 | 112300 | 587.157 | | 1.445 | | 249.152 |
| 348 | 1/20/00 | 112330 | 585.601 | | 1.439 | | 250.178 |
| 349 | 1/20/00 | 112400 | 585.601 | | 1.439 | | 250.178 |
| 350 | 1/20/00 | 112430 | 587.899 | | 1.443 | | 250.449 |
| 351 | 1/20/00 | 112500 | 587.899 | | 1.443 | | 250.449 |
| 352 | 1/20/00 | 112530 | | | | | 250.642 |
| 353 | 1/20/00 | 112600 | | | | | 250.642 |
| 354 | 1/20/00 | 112630 | | 618.836 | | 1.378 | 250.528 |
| 355 | 1/20/00 | 112700 | | 618.836 | | 1.378 | 250.528 |
| 356 | 1/20/00 | 112730 | | 604.41 | | 1.422 | 249.75 |
| 357 | 1/20/00 | 112800 | | 604.41 | | 1.422 | 249.75 |
| 358 | 1/20/00 | 112830 | | 599.716 | | 1.439 | 249.591 |
| 359 | 1/20/00 | 112900 | | 599.716 | | 1.439 | 249.591 |
| 360 | 1/20/00 | 112930 | | 591.47 | | 1.437 | 249.924 |
| 361 | 1/20/00 | 113000 | | 591.47 | | 1.437 | 249.924 |
| 362 | 1/20/00 | 113030 | | 591.084 | | 1.44 | 249.871 |
| 363 | 1/20/00 | 113100 | | 591.084 | | 1.44 | 249.871 |
| 364 | 1/20/00 | 113130 | | 596.189 | | 1.442 | 249.703 |
| 365 | 1/20/00 | 113200 | | 596.189 | | 1.442 | 249.703 |
| 366 | 1/20/00 | 113230 | | | | | 249.269 |
| 367 | 1/20/00 | 113300 | | | | | 249.269 |
| 368 | 1/20/00 | 113330 | 588.382 | | 1.378 | | 249.47 |
| 369 | 1/20/00 | 113400 | 588.382 | | 1.378 | | 249.47 |
| 370 | 1/20/00 | 113430 | 586.352 | | 1.428 | | 250.075 |
| 371 | 1/20/00 | 113500 | 586.352 | | 1.428 | | 250.075 |
| 372 | 1/20/00 | 113530 | 586.514 | | 1.437 | | 250.896 |
| 373 | 1/20/00 | 113600 | 586.514 | | 1.437 | | 250.896 |
| 374 | 1/20/00 | 113630 | 581.498 | | 1.432 | | 250.104 |
| 375 | 1/20/00 | 113700 | 581.498 | | 1.432 | | 250.104 |
| 376 | 1/20/00 | 113730 | 590.386 | | 1.441 | | 249.623 |
| 377 | 1/20/00 | 113800 | 590.386 | | 1.441 | | 249.623 |
| 378 | 1/20/00 | 113830 | 594.003 | | 1.439 | | 249.525 |
| 379 | 1/20/00 | 113900 | 594.003 | | 1.439 | | 249.525 |
| 380 | 1/20/00 | 113930 | 591.813 | | 1.433 | | 249.437 |
| 381 | 1/20/00 | 114000 | 591.813 | | 1.433 | | 249.437 |
| 382 | 1/20/00 | 114030 | | 644.146 | | 1.373 | 250.21 |
| 383 | 1/20/00 | 114100 | | 644.146 | | 1.373 | 250.21 |
| 384 | 1/20/00 | 114130 | | 621.098 | | 1.372 | 249.897 |
| 385 | 1/20/00 | 114200 | | 621.098 | | 1.372 | 249.897 |
| 386 | 1/20/00 | 114230 | | 601.082 | | 1.407 | 250.565 |
| 387 | 1/20/00 | 114300 | | 601.082 | | 1.407 | 250.565 |
| 388 | 1/20/00 | 114330 | | 600.562 | | 1.434 | 250.664 |
| 389 | 1/20/00 | 114400 | | 600.562 | | 1.434 | 250.664 |
| 390 | 1/20/00 | 114430 | | 599.337 | | 1.43 | 250.015 |
| 391 | 1/20/00 | 114500 | | 599.337 | | 1.43 | 250.015 |
| 392 | 1/20/00 | 114530 | | 595.559 | | 1.431 | 249.966 |
| 393 | 1/20/00 | 114600 | | 595.559 | | 1.431 | 249.966 |
| 394 | 1/20/00 | 114630 | | 594.638 | | 1.428 | 249.928 |
| 395 | 1/20/00 | 114700 | | 594.638 | | 1.428 | 249.928 |
| 396 | 1/20/00 | 114730 | | | | | 249.545 |
| 397 | 1/20/00 | 114800 | | | | | 249.545 |
| 398 | 1/20/00 | 114830 | 588.154 | | 1.37 | | 249.152 |
| 399 | 1/20/00 | 114900 | 588.154 | | 1.37 | | 249.152 |
| 400 | 1/20/00 | 114930 | 580.003 | | 1.417 | | 250.343 |
| 401 | 1/20/00 | 115000 | 580.003 | | 1.417 | | 250.343 |
| 402 / / | | | | | | | |
| 403 / / | | AVE | 573.2256162 | 582.4127284 | 1.430967742 | 1.424283951 | 249.9866599 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4SO2A3 | WT4SO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 1 | 1/20/2000 | 133000 | | 555.462 | | 1.4 | 250.18 |
| 2 | 1/20/2000 | 133030 | | 561.203 | | 1.406 | 250.613 |
| 3 | 1/20/2000 | 133100 | | 561.203 | | 1.406 | 250.613 |
| 4 | 1/20/2000 | 133130 | | 560.595 | | 1.409 | 250.306 |
| 5 | 1/20/2000 | 133200 | | 560.595 | | 1.409 | 250.306 |
| 6 | 1/20/2000 | 133230 | | | | | 249.824 |
| 7 | 1/20/2000 | 133300 | | | | | 249.824 |
| 8 | 1/20/2000 | 133330 | 549.681 | | 1.342 | | 249.572 |
| 9 | 1/20/2000 | 133400 | 549.681 | | 1.342 | | 249.572 |
| 10 | 1/20/2000 | 133430 | 546.115 | | 1.388 | | 249.9 |
| 11 | 1/20/2000 | 133500 | 546.115 | | 1.388 | | 249.9 |
| 12 | 1/20/2000 | 133530 | 548.913 | | 1.398 | | 250.208 |
| 13 | 1/20/2000 | 133600 | 548.913 | | 1.398 | | 250.208 |
| 14 | 1/20/2000 | 133630 | 550.81 | | 1.396 | | 249.9 |
| 15 | 1/20/2000 | 133700 | 550.81 | | 1.396 | | 249.9 |
| 16 | 1/20/2000 | 133730 | 554.29 | | 1.401 | | 250.244 |
| 17 | 1/20/2000 | 133800 | 554.29 | | 1.401 | | 250.244 |
| 18 | 1/20/2000 | 133830 | 555.181 | | 1.398 | | 250.192 |
| 19 | 1/20/2000 | 133900 | 555.181 | | 1.398 | | 250.192 |
| 20 | 1/20/2000 | 133930 | 554.864 | | 1.4 | | 250.447 |
| 21 | 1/20/2000 | 134000 | 554.864 | | 1.4 | | 250.447 |
| 22 | 1/20/2000 | 134030 | | 603.345 | | 1.347 | 250.253 |
| 23 | 1/20/2000 | 134100 | | 603.345 | | 1.347 | 250.253 |
| 24 | 1/20/2000 | 134130 | | 582.26 | | 1.346 | 250.016 |
| 25 | 1/20/2000 | 134200 | | 582.26 | | 1.346 | 250.016 |
| 26 | 1/20/2000 | 134230 | | 565.919 | | 1.385 | 249.687 |
| 27 | 1/20/2000 | 134300 | | 565.919 | | 1.385 | 249.687 |
| 28 | 1/20/2000 | 134330 | | 559.149 | | 1.398 | 249.137 |
| 29 | 1/20/2000 | 134400 | | 559.149 | | 1.398 | 249.137 |
| 30 | 1/20/2000 | 134430 | | 557.363 | | 1.405 | 249.752 |
| 31 | 1/20/2000 | 134500 | | 557.363 | | 1.405 | 249.752 |
| 32 | 1/20/2000 | 134530 | | 557.094 | | 1.408 | 250.648 |
| 33 | 1/20/2000 | 134600 | | 557.094 | | 1.408 | 250.648 |
| 34 | 1/20/2000 | 134630 | | 556.869 | | 1.405 | 250.667 |
| 35 | 1/20/2000 | 134700 | | 556.869 | | 1.405 | 250.667 |
| 36 | 1/20/2000 | 134730 | | | | | 249.911 |
| 37 | 1/20/2000 | 134800 | | | | | 249.911 |
| 38 | 1/20/2000 | 134830 | 570.379 | | 1.363 | | 249.109 |
| 39 | 1/20/2000 | 134900 | 570.379 | | 1.363 | | 249.109 |
| 40 | 1/20/2000 | 134930 | 562.42 | | 1.395 | | 249.558 |
| 41 | 1/20/2000 | 135000 | 562.42 | | 1.395 | | 249.558 |
| 42 | 1/20/2000 | 135030 | 562.528 | | 1.405 | | 250.253 |
| 43 | 1/20/2000 | 135100 | 562.528 | | 1.405 | | 250.253 |
| 44 | 1/20/2000 | 135130 | 566.2 | | 1.409 | | 250.332 |
| 45 | 1/20/2000 | 135200 | 566.2 | | 1.409 | | 250.332 |
| 46 | 1/20/2000 | 135230 | 565.544 | | 1.405 | | 250.441 |
| 47 | 1/20/2000 | 135300 | 565.544 | | 1.405 | | 250.441 |
| 48 | 1/20/2000 | 135330 | 566.202 | | 1.406 | | 250.169 |
| 49 | 1/20/2000 | 135400 | 566.202 | | 1.406 | | 250.169 |
| 50 | 1/20/2000 | 135430 | 567.488 | | 1.41 | | 250.195 |
| 51 | 1/20/2000 | 135500 | 567.488 | | 1.41 | | 250.195 |
| 52 | 1/20/2000 | 135530 | | 604.039 | | 1.344 | 249.81 |
| 53 | 1/20/2000 | 135600 | | 604.039 | | 1.344 | 249.81 |
| 54 | 1/20/2000 | 135630 | | 586.079 | | 1.351 | 249.989 |
| 55 | 1/20/2000 | 135700 | | 586.079 | | 1.351 | 249.989 |
| 56 | 1/20/2000 | 135730 | | 562.705 | | 1.375 | 249.84 |
| 57 | 1/20/2000 | 135800 | | 562.705 | | 1.375 | 249.84 |
| 58 | 1/20/2000 | 135830 | | 557.447 | | 1.394 | 249.832 |
| 59 | 1/20/2000 | 135900 | | 557.447 | | 1.394 | 249.832 |
| 60 | 1/20/2000 | 135930 | | 560.377 | | 1.404 | 249.588 |
| 61 | 1/20/2000 | 140000 | | 560.377 | | 1.404 | 249.588 |
| 62 | 1/20/2000 | 140030 | | 564.253 | | 1.41 | 249.837 |
| 63 | 1/20/2000 | 140100 | | 564.253 | | 1.41 | 249.837 |
| 64 | 1/20/2000 | 140130 | | 559.918 | | 1.402 | 249.92 |
| 65 | 1/20/2000 | 140200 | | 559.918 | | 1.402 | 249.92 |
| 66 | 1/20/2000 | 140230 | | | | | 250.25 |
| 67 | 1/20/2000 | 140300 | | | | | 250.25 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4SO2A3 | WT4SO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 68 | 1/20/2000 | 140330 | 566.967 | | 1.352 | | 250.486 |
| 69 | 1/20/2000 | 140400 | 566.967 | | 1.352 | | 250.486 |
| 70 | 1/20/2000 | 140430 | 562.697 | | 1.396 | | 250.498 |
| 71 | 1/20/2000 | 140500 | 562.697 | | 1.396 | | 250.498 |
| 72 | 1/20/2000 | 140530 | 563.169 | | 1.405 | | 250.836 |
| 73 | 1/20/2000 | 140600 | 563.169 | | 1.405 | | 250.836 |
| 74 | 1/20/2000 | 140630 | 561.21 | | 1.401 | | 249.694 |
| 75 | 1/20/2000 | 140700 | 561.21 | | 1.401 | | 249.694 |
| 76 | 1/20/2000 | 140730 | 557.863 | | 1.399 | | 249.163 |
| 77 | 1/20/2000 | 140800 | 557.863 | | 1.399 | | 249.163 |
| 78 | 1/20/2000 | 140830 | 559.324 | | 1.403 | | 250.366 |
| 79 | 1/20/2000 | 140900 | 559.324 | | 1.403 | | 250.366 |
| 80 | 1/20/2000 | 140930 | 558.222 | | 1.403 | | 250.822 |
| 81 | 1/20/2000 | 141000 | 558.222 | | 1.403 | | 250.822 |
| 82 | 1/20/2000 | 141030 | | 616.882 | | 1.353 | 250.237 |
| 83 | 1/20/2000 | 141100 | | 616.882 | | 1.353 | 250.237 |
| 84 | 1/20/2000 | 141130 | | 594.652 | | 1.349 | 249.927 |
| 85 | 1/20/2000 | 141200 | | 594.652 | | 1.349 | 249.927 |
| 86 | 1/20/2000 | 141230 | | 577.754 | | 1.386 | 249.864 |
| 87 | 1/20/2000 | 141300 | | 577.754 | | 1.386 | 249.864 |
| 88 | 1/20/2000 | 141330 | | 568.655 | | 1.396 | 249.867 |
| 89 | 1/20/2000 | 141400 | | 568.655 | | 1.396 | 249.867 |
| 90 | 1/20/2000 | 141430 | | 567.132 | | 1.404 | 249.855 |
| 91 | 1/20/2000 | 141500 | | 567.132 | | 1.404 | 249.855 |
| 92 | 1/20/2000 | 141530 | | 564.953 | | 1.401 | 249.849 |
| 93 | 1/20/2000 | 141600 | | 564.953 | | 1.401 | 249.849 |
| 94 | 1/20/2000 | 141630 | | 568.216 | | 1.406 | 249.737 |
| 95 | 1/20/2000 | 141700 | | 568.216 | | 1.406 | 249.737 |
| 96 | 1/20/2000 | 141730 | | 565.897 | | 1.399 | 250.087 |
| 97 | 1/20/2000 | 141800 | | 565.897 | | 1.399 | 250.087 |
| 98 | 1/20/2000 | 141830 | | 565.513 | | 1.4 | 250.042 |
| 99 | 1/20/2000 | 141900 | | 565.513 | | 1.4 | 250.042 |
| 100 | 1/20/2000 | 141930 | | 565.927 | | 1.404 | 250.216 |
| 101 | 1/20/2000 | 142000 | | 565.927 | | 1.404 | 250.216 |
| 102 | 1/20/2000 | 142030 | | 568.021 | | 1.405 | 249.834 |
| 103 | 1/20/2000 | 142100 | | 568.021 | | 1.405 | 249.834 |
| 104 | 1/20/2000 | 142130 | | 565.617 | | 1.402 | 249.702 |
| 105 | 1/20/2000 | 142200 | | 565.617 | | 1.402 | 249.702 |
| 106 | 1/20/2000 | 142230 | | 566.177 | | 1.404 | 249.764 |
| 107 | 1/20/2000 | 142300 | | 566.177 | | 1.404 | 249.764 |
| 108 | 1/20/2000 | 142330 | | 563.399 | | 1.4 | 250.142 |
| 109 | 1/20/2000 | 142400 | | 563.399 | | 1.4 | 250.142 |
| 110 | 1/20/2000 | 142430 | | | | | 250.255 |
| 111 | 1/20/2000 | 142500 | | | | | 250.255 |
| 112 | 1/20/2000 | 142530 | 537.746 | | 1.357 | | 250.242 |
| 113 | 1/20/2000 | 142600 | 537.746 | | 1.357 | | 250.242 |
| 114 | 1/20/2000 | 142630 | 537.976 | | 1.399 | | 250.556 |
| 115 | 1/20/2000 | 142700 | 537.976 | | 1.399 | | 250.556 |
| 116 | 1/20/2000 | 142730 | 539.474 | | 1.401 | | 250.343 |
| 117 | 1/20/2000 | 142800 | 539.474 | | 1.401 | | 250.343 |
| 118 | 1/20/2000 | 142830 | 541.375 | | 1.404 | | 250.228 |
| 119 | 1/20/2000 | 142900 | 541.375 | | 1.404 | | 250.228 |
| 120 | 1/20/2000 | 142930 | 540.3 | | 1.396 | | 250.231 |
| 121 | 1/20/2000 | 143000 | 540.3 | | 1.396 | | 250.231 |
| 122 | 1/20/2000 | 143030 | 542.487 | | 1.394 | | 249.898 |
| 123 | 1/20/2000 | 143100 | 542.487 | | 1.394 | | 249.898 |
| 124 | 1/20/2000 | 143130 | | | | | 249.707 |
| 125 | 1/20/2000 | 143200 | | | | | 249.707 |
| 126 | 1/20/2000 | 143230 | | | | | 249.652 |
| 127 | 1/20/2000 | 143300 | | | | | 249.652 |
| 128 | 1/20/2000 | 143330 | 550.492 | | 1.344 | | 249.809 |
| 129 | 1/20/2000 | 143400 | 550.492 | | 1.344 | | 249.809 |
| 130 | 1/20/2000 | 143430 | 547.314 | | 1.393 | | 250.587 |
| 131 | 1/20/2000 | 143500 | 547.314 | | 1.393 | | 250.587 |
| 132 | 1/20/2000 | 143530 | 551.358 | | 1.399 | | 250.449 |
| 133 | 1/20/2000 | 143600 | 551.358 | | 1.399 | | 250.449 |
| 134 | 1/20/2000 | 143630 | 553.771 | | 1.4 | | 250.675 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4SO2A3 | WT4SO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 135 | 1/20/2000 | 143700 | 553.771 | | 1.4 | | 250.675 |
| 136 | 1/20/2000 | 143730 | 554.232 | | 1.397 | | 250.027 |
| 137 | 1/20/2000 | 143800 | 554.232 | | 1.397 | | 250.027 |
| 138 | 1/20/2000 | 143830 | 554.033 | | 1.399 | | 249.561 |
| 139 | 1/20/2000 | 143900 | 554.033 | | 1.399 | | 249.561 |
| 140 | 1/20/2000 | 143930 | 552.489 | | 1.4 | | 250.176 |
| 141 | 1/20/2000 | 144000 | 552.489 | | 1.4 | | 250.176 |
| 142 | 1/20/2000 | 144030 | | | | | 250.223 |
| 143 | 1/20/2000 | 144100 | | | | | 250.223 |
| 144 | 1/20/2000 | 144130 | | 577.244 | | 1.354 | 250.138 |
| 145 | 1/20/2000 | 144200 | | 577.244 | | 1.354 | 250.138 |
| 146 | 1/20/2000 | 144230 | | 556.892 | | 1.372 | 249.802 |
| 147 | 1/20/2000 | 144300 | | 556.892 | | 1.372 | 249.802 |
| 148 | 1/20/2000 | 144330 | | 546.927 | | 1.391 | 249.6 |
| 149 | 1/20/2000 | 144400 | | 546.927 | | 1.391 | 249.6 |
| 150 | 1/20/2000 | 144430 | | 551.448 | | 1.401 | 249.233 |
| 151 | 1/20/2000 | 144500 | | 551.448 | | 1.401 | 249.233 |
| 152 | 1/20/2000 | 144530 | | 548.44 | | 1.395 | 249.798 |
| 153 | 1/20/2000 | 144600 | | 548.44 | | 1.395 | 249.798 |
| 154 | 1/20/2000 | 144630 | | 547.812 | | 1.402 | 250.368 |
| 155 | 1/20/2000 | 144700 | | 547.812 | | 1.402 | 250.368 |
| 156 | 1/20/2000 | 144730 | | 546.008 | | 1.394 | 250.61 |
| 157 | 1/20/2000 | 144800 | | 546.008 | | 1.394 | 250.61 |
| 158 | 1/20/2000 | 144830 | 557.551 | | 1.335 | | 249.642 |
| 159 | 1/20/2000 | 144900 | 557.551 | | 1.335 | | 249.642 |
| 160 | 1/20/2000 | 144930 | 553.449 | | 1.382 | | 249.271 |
| 161 | 1/20/2000 | 145000 | 553.449 | | 1.382 | | 249.271 |
| 162 | 1/20/2000 | 145030 | 555.263 | | 1.394 | | 249.971 |
| 163 | 1/20/2000 | 145100 | 555.263 | | 1.394 | | 249.971 |
| 164 | 1/20/2000 | 145130 | 553.927 | | 1.391 | | 250.065 |
| 165 | 1/20/2000 | 145200 | 553.927 | | 1.391 | | 250.065 |
| 166 | 1/20/2000 | 145230 | 549.603 | | 1.384 | | 250.227 |
| 167 | 1/20/2000 | 145300 | 549.603 | | 1.384 | | 250.227 |
| 168 | 1/20/2000 | 145330 | 549.984 | | 1.39 | | 250.372 |
| 169 | 1/20/2000 | 145400 | 549.984 | | 1.39 | | 250.372 |
| 170 | 1/20/2000 | 145430 | 551.002 | | 1.392 | | 249.801 |
| 171 | 1/20/2000 | 145500 | 551.002 | | 1.392 | | 249.801 |
| 172 | 1/20/2000 | 145530 | | | | | 249.212 |
| 173 | 1/20/2000 | 145600 | | | | | 249.212 |
| 174 | 1/20/2000 | 145630 | | 576.727 | | 1.329 | 249.365 |
| 175 | 1/20/2000 | 145700 | | 576.727 | | 1.329 | 249.365 |
| 176 | 1/20/2000 | 145730 | | 558.362 | | 1.362 | 249.225 |
| 177 | 1/20/2000 | 145800 | | 558.362 | | 1.362 | 249.225 |
| 178 | 1/20/2000 | 145830 | | 550.961 | | 1.378 | 250.181 |
| 179 | 1/20/2000 | 145900 | | 550.961 | | 1.378 | 250.181 |
| 180 | 1/20/2000 | 145930 | | 550.738 | | 1.388 | 250.814 |
| 181 | 1/20/2000 | 150000 | | 550.738 | | 1.388 | 250.814 |
| 182 | 1/20/2000 | 150030 | | 552.006 | | 1.394 | 250.629 |
| 183 | 1/20/2000 | 150100 | | 552.006 | | 1.394 | 250.629 |
| 184 | 1/20/2000 | 150130 | | 559.615 | | 1.397 | 249.785 |
| 185 | 1/20/2000 | 150200 | | 559.615 | | 1.397 | 249.785 |
| 186 | 1/20/2000 | 150230 | | 561.723 | | 1.399 | 249.555 |
| 187 | 1/20/2000 | 150300 | | 561.723 | | 1.399 | 249.555 |
| 188 | 1/20/2000 | 150330 | 554.628 | | 1.329 | | 249.618 |
| 189 | 1/20/2000 | 150400 | 554.628 | | 1.329 | | 249.618 |
| 190 | 1/20/2000 | 150430 | 547.903 | | 1.372 | | 250.326 |
| 191 | 1/20/2000 | 150500 | 547.903 | | 1.372 | | 250.326 |
| 192 | 1/20/2000 | 150530 | 551.662 | | 1.393 | | 250.638 |
| 193 | 1/20/2000 | 150600 | 551.662 | | 1.393 | | 250.638 |
| 194 | 1/20/2000 | 150630 | 552.426 | | 1.392 | | 250.049 |
| 195 | 1/20/2000 | 150700 | 552.426 | | 1.392 | | 250.049 |
| 196 | 1/20/2000 | 150730 | 559.033 | | 1.402 | | 249.801 |
| 197 | 1/20/2000 | 150800 | 559.033 | | 1.402 | | 249.801 |
| 198 | 1/20/2000 | 150830 | 565.299 | | 1.398 | | 249.146 |
| 199 | 1/20/2000 | 150900 | 565.299 | | 1.398 | | 249.146 |
| 200 | 1/20/2000 | 150930 | 564.318 | | 1.397 | | 249.695 |
| 201 | 1/20/2000 | 151000 | 564.318 | | 1.397 | | 249.695 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4SO2A3 | WT4SO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 202 | 1/20/2000 | 151030 | | | | | 249.912 |
| 203 | 1/20/2000 | 151100 | | | | | 249.912 |
| 204 | 1/20/2000 | 151130 | | 579.597 | | 1.329 | 250.611 |
| 205 | 1/20/2000 | 151200 | | 579.597 | | 1.329 | 250.611 |
| 206 | 1/20/2000 | 151230 | | 562.221 | | 1.367 | 250.987 |
| 207 | 1/20/2000 | 151300 | | 562.221 | | 1.367 | 250.987 |
| 208 | 1/20/2000 | 151330 | | 559.951 | | 1.395 | 250.384 |
| 209 | 1/20/2000 | 151400 | | 559.951 | | 1.395 | 250.384 |
| 210 | 1/20/2000 | 151430 | | 561.707 | | 1.393 | 249.832 |
| 211 | 1/20/2000 | 151500 | | 561.707 | | 1.393 | 249.832 |
| 212 | 1/20/2000 | 151530 | | 559.855 | | 1.395 | 249.386 |
| 213 | 1/20/2000 | 151600 | | 559.855 | | 1.395 | 249.386 |
| 214 | 1/20/2000 | 151630 | | 557.035 | | 1.392 | 249.828 |
| 215 | 1/20/2000 | 151700 | | 557.035 | | 1.392 | 249.828 |
| 216 | 1/20/2000 | 151730 | | 562.133 | | 1.405 | 250.312 |
| 217 | 1/20/2000 | 151800 | | 562.133 | | 1.405 | 250.312 |
| 218 | 1/20/2000 | 151830 | 559.444 | | 1.334 | | 250.531 |
| 219 | 1/20/2000 | 151900 | 559.444 | | 1.334 | | 250.531 |
| 220 | 1/20/2000 | 151930 | 554.508 | | 1.383 | | 249.651 |
| 221 | 1/20/2000 | 152000 | 554.508 | | 1.383 | | 249.651 |
| 222 | 1/20/2000 | 152030 | 558.561 | | 1.396 | | 249.24 |
| 223 | 1/20/2000 | 152100 | 558.561 | | 1.396 | | 249.24 |
| 224 | 1/20/2000 | 152130 | 560.893 | | 1.398 | | 250.311 |
| 225 | 1/20/2000 | 152200 | 560.893 | | 1.398 | | 250.311 |
| 226 | 1/20/2000 | 152230 | 559.584 | | 1.398 | | 250.242 |
| 227 | 1/20/2000 | 152300 | 557.813 | | 1.4 | | 250.242 |
| 228 | 1/20/2000 | 152330 | 557.813 | | 1.4 | | 250.531 |
| 229 | 1/20/2000 | 152400 | 557.813 | | 1.4 | | 250.531 |
| 230 | 1/20/2000 | 152430 | 563.128 | | 1.401 | | 250.422 |
| 231 | 1/20/2000 | 152500 | | | 1.401 | | 250.422 |
| 232 | 1/20/2000 | 152530 | | | | | 250.117 |
| 233 | 1/20/2000 | 152600 | | | | | 250.117 |
| 234 | 1/20/2000 | 152630 | | 597.069 | | 1.344 | 249.91 |
| 235 | 1/20/2000 | 152700 | | 597.069 | | 1.344 | 249.91 |
| 236 | 1/20/2000 | 152730 | | 576.725 | | 1.373 | 249.537 |
| 237 | 1/20/2000 | 152800 | | 576.725 | | 1.373 | 249.537 |
| 238 | 1/20/2000 | 152830 | | 567.287 | | 1.398 | 249.887 |
| 239 | 1/20/2000 | 152900 | | 567.287 | | 1.398 | 249.887 |
| 240 | 1/20/2000 | 152930 | | 563.615 | | 1.4 | 250.004 |
| 241 | 1/20/2000 | 153000 | | 563.615 | | 1.4 | 250.004 |
| 242 | 1/20/2000 | 153030 | | 562.254 | | 1.4 | 250.562 |
| 243 | 1/20/2000 | 153100 | | 562.254 | | 1.4 | 250.562 |
| 244 | 1/20/2000 | 153130 | | 565.6 | | 1.402 | 250.087 |
| 245 | 1/20/2000 | 153200 | | 565.6 | | 1.402 | 250.087 |
| 246 | 1/20/2000 | 153230 | | 568.223 | | 1.407 | 249.714 |
| 247 | 1/20/2000 | 153300 | | 568.223 | | 1.407 | 249.714 |
| 248 | 1/20/2000 | 153330 | 567.346 | | 1.349 | | 249.557 |
| 249 | 1/20/2000 | 153400 | 567.346 | | 1.349 | | 249.557 |
| 250 | 1/20/2000 | 153430 | 559.819 | | 1.393 | | 249.877 |
| 251 | 1/20/2000 | 153500 | 559.819 | | 1.393 | | 249.877 |
| 252 | 1/20/2000 | 153530 | 557.865 | | 1.41 | | 250.494 |
| 253 | 1/20/2000 | 153600 | 557.865 | | 1.41 | | 250.494 |
| 254 | 1/20/2000 | 153630 | 562.864 | | 1.412 | | 250.429 |
| 255 | 1/20/2000 | 153700 | 562.864 | | 1.412 | | 250.429 |
| 256 | 1/20/2000 | 153730 | 564.874 | | 1.41 | | 250.338 |
| 257 | 1/20/2000 | 153800 | 564.874 | | 1.41 | | 250.338 |
| 258 | 1/20/2000 | 153830 | 561.468 | | 1.403 | | 250.579 |
| 259 | 1/20/2000 | 153900 | 561.468 | | 1.403 | | 250.579 |
| 260 | 1/20/2000 | 153930 | 558.789 | | 1.403 | | 249.789 |
| 261 | 1/20/2000 | 154000 | 558.789 | | 1.403 | | 249.789 |
| 262 | 1/20/2000 | 154030 | | | | | 249.531 |
| 263 | 1/20/2000 | 154100 | | | | | 249.531 |
| 264 | 1/20/2000 | 154130 | | 600.868 | | 1.352 | 249.297 |
| 265 | 1/20/2000 | 154200 | | 600.868 | | 1.352 | 249.297 |
| 266 | 1/20/2000 | 154230 | | 577.245 | | 1.374 | 249.821 |
| 267 | 1/20/2000 | 154300 | | 577.245 | | 1.374 | 249.821 |
| 268 | 1/20/2000 | 154330 | | 572.219 | | 1.399 | 249.925 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4SO2A3 | WT4SO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 269 | 1/20/2000 | 154400 | | 572.219 | | 1.399 | 249.925 |
| 270 | 1/20/2000 | 154430 | | 572.184 | | 1.407 | 250.164 |
| 271 | 1/20/2000 | 154500 | | 572.184 | | 1.407 | 250.164 |
| 272 | 1/20/2000 | 154530 | | 576.678 | | 1.413 | 249.99 |
| 273 | 1/20/2000 | 154600 | | 576.678 | | 1.413 | 249.99 |
| 274 | 1/20/2000 | 154630 | | 567.677 | | 1.407 | 250.237 |
| 275 | 1/20/2000 | 154700 | | 567.677 | | 1.407 | 250.237 |
| 276 | 1/20/2000 | 154730 | | 563.648 | | 1.397 | 250.49 |
| 277 | 1/20/2000 | 154800 | | 563.648 | | 1.397 | 250.49 |
| 278 | 1/20/2000 | 154830 | 556.335 | | 1.331 | | 250.377 |
| 279 | 1/20/2000 | 154900 | 556.335 | | 1.331 | | 250.377 |
| 280 | 1/20/2000 | 154930 | 552.377 | | 1.383 | | 250.12 |
| 281 | 1/20/2000 | 155000 | 552.377 | | 1.383 | | 250.12 |
| 282 | 1/20/2000 | 155030 | 556.161 | | 1.404 | | 250.332 |
| 283 | 1/20/2000 | 155100 | 556.161 | | 1.404 | | 250.332 |
| 284 | 1/20/2000 | 155130 | 554.041 | | 1.399 | | 250.39 |
| 285 | 1/20/2000 | 155200 | 554.041 | | 1.399 | | 250.39 |
| 286 | 1/20/2000 | 155230 | 552.405 | | 1.404 | | 249.728 |
| 287 | 1/20/2000 | 155300 | 552.405 | | 1.404 | | 249.728 |
| 288 | 1/20/2000 | 155330 | 549.841 | | 1.401 | | 249.414 |
| 289 | 1/20/2000 | 155400 | 549.841 | | 1.401 | | 249.414 |
| 290 | 1/20/2000 | 155430 | 547.582 | | 1.398 | | 249.301 |
| 291 | 1/20/2000 | 155500 | 547.582 | | 1.398 | | 249.301 |
| 292 | 1/20/2000 | 155530 | | | | | 251.093 |
| 293 | 1/20/2000 | 155600 | | | | | 251.093 |
| 294 | 1/20/2000 | 155630 | | 596.059 | | 1.351 | 251.018 |
| 295 | 1/20/2000 | 155700 | | 596.059 | | 1.351 | 251.018 |
| 296 | 1/20/2000 | 155730 | | 565.769 | | 1.367 | 250.692 |
| 297 | 1/20/2000 | 155800 | | 565.769 | | 1.367 | 250.692 |
| 298 | 1/20/2000 | 155830 | | 556.31 | | 1.391 | 249.851 |
| 299 | 1/20/2000 | 155900 | | 556.31 | | 1.391 | 249.851 |
| 300 | 1/20/2000 | 155930 | | 556.055 | | 1.4 | 249.819 |
| 301 | 1/20/2000 | 160000 | | 556.055 | | 1.4 | 249.819 |
| 302 | 1/20/2000 | 160030 | | 556.014 | | 1.399 | 249.56 |
| 303 | 1/20/2000 | 160100 | | 556.014 | | 1.399 | 249.56 |
| 304 | 1/20/2000 | 160130 | | 557.922 | | 1.407 | 249.55 |
| 305 | 1/20/2000 | 160200 | | 557.922 | | 1.407 | 249.55 |
| 306 | 1/20/2000 | 160230 | | 563.679 | | 1.416 | 249.738 |
| 307 | 1/20/2000 | 160300 | | 563.679 | | 1.416 | 249.738 |
| 308 | 1/20/2000 | 160330 | 561.287 | | 1.346 | | 249.681 |
| 309 | 1/20/2000 | 160400 | 561.287 | | 1.346 | | 249.681 |
| 310 | 1/20/2000 | 160430 | 555.012 | | 1.386 | | 249.944 |
| 311 | 1/20/2000 | 160500 | 560.774 | | 1.386 | | 249.944 |
| 312 | 1/20/2000 | 160530 | 560.774 | | 1.404 | | 249.57 |
| 313 | 1/20/2000 | 160600 | 560.774 | | 1.404 | | 249.57 |
| 314 | 1/20/2000 | 160630 | 556.671 | | 1.402 | | 250.021 |
| 315 | 1/20/2000 | 160700 | 556.671 | | 1.402 | | 250.021 |
| 316 | 1/20/2000 | 160730 | 550.816 | | 1.395 | | 250.41 |
| 317 | 1/20/2000 | 160800 | 550.816 | | 1.395 | | 250.41 |
| 318 | 1/20/2000 | 160830 | 554.305 | | 1.407 | | 250.184 |
| 319 | 1/20/2000 | 160900 | 554.305 | | 1.407 | | 250.184 |
| 320 | 1/20/2000 | 160930 | 551.748 | | 1.398 | | 249.825 |
| 321 | 1/20/2000 | 161000 | 551.748 | | 1.398 | | 249.825 |
| 322 | 1/20/2000 | 161030 | | | | | 249.106 |
| 323 | 1/20/2000 | 161100 | | | | | 249.106 |
| 324 | 1/20/2000 | 161130 | | 590.182 | | 1.343 | 249.287 |
| 325 | 1/20/2000 | 161200 | | 590.182 | | 1.343 | 249.287 |
| 326 | 1/20/2000 | 161230 | | 569.427 | | 1.37 | 250.318 |
| 327 | 1/20/2000 | 161300 | | 569.427 | | 1.37 | 250.318 |
| 328 | 1/20/2000 | 161330 | | 565.056 | | 1.397 | 250.642 |
| 329 | 1/20/2000 | 161400 | | 565.056 | | 1.397 | 250.642 |
| 330 | 1/20/2000 | 161430 | | 565.444 | | 1.404 | 249.851 |
| 331 | 1/20/2000 | 161500 | | 565.444 | | 1.404 | 249.851 |
| 332 | 1/20/2000 | 161530 | | 561.578 | | 1.398 | 250.25 |
| 333 | 1/20/2000 | 161600 | | 561.578 | | 1.398 | 250.25 |
| 334 | 1/20/2000 | 161630 | | 559.252 | | 1.402 | 248.945 |
| 335 | 1/20/2000 | 161700 | | 559.252 | | 1.402 | 248.945 |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4SO2A3 | WT4SO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 336 | 1/20/2000 | 161730 | | 555.002 | | 1.397 | 249.286 |
| 337 | 1/20/2000 | 161800 | | 555.002 | | 1.397 | 249.286 |
| 338 | 1/20/2000 | 161830 | 567.946 | | 1.345 | | 249.8 |
| 339 | 1/20/2000 | 161900 | 567.946 | | 1.345 | | 249.8 |
| 340 | 1/20/2000 | 161930 | 561.088 | | 1.384 | | 249.992 |
| 341 | 1/20/2000 | 162000 | 561.088 | | 1.384 | | 249.992 |
| 342 | 1/20/2000 | 162030 | 564.93 | | 1.4 | | 250.538 |
| 343 | 1/20/2000 | 162100 | 564.93 | | 1.4 | | 250.538 |
| 344 | 1/20/2000 | 162130 | 563.404 | | 1.398 | | 250.612 |
| 345 | 1/20/2000 | 162200 | 563.404 | | 1.398 | | 250.612 |
| 346 | 1/20/2000 | 162230 | 565.917 | | 1.401 | | 250.223 |
| 347 | 1/20/2000 | 162300 | 565.917 | | 1.401 | | 250.223 |
| 348 | 1/20/2000 | 162330 | 567.36 | | 1.401 | | 250.036 |
| 349 | 1/20/2000 | 162400 | 567.36 | | 1.401 | | 250.036 |
| 350 | 1/20/2000 | 162430 | 562.601 | | 1.397 | | 249.839 |
| 351 | 1/20/2000 | 162500 | | | 1.397 | | 249.839 |
| 352 | 1/20/2000 | 162530 | | | | | 249.848 |
| 353 | 1/20/2000 | 162600 | | | | | 249.848 |
| 354 | 1/20/2000 | 162630 | | 580.159 | | 1.329 | 249.822 |
| 355 | 1/20/2000 | 162700 | | 580.159 | | 1.329 | 249.822 |
| 356 | 1/20/2000 | 162730 | | 562.923 | | 1.366 | 249.819 |
| 357 | 1/20/2000 | 162800 | | 562.923 | | 1.366 | 249.819 |
| 358 | 1/20/2000 | 162830 | | 556.584 | | 1.391 | 249.837 |
| 359 | 1/20/2000 | 162900 | | 556.584 | | 1.391 | 249.837 |
| 360 | 1/20/2000 | 162930 | | 557.037 | | 1.397 | 250.085 |
| 361 | 1/20/2000 | 163000 | | 557.037 | | 1.397 | 250.085 |
| 362 | 1/20/2000 | 163030 | | 561.079 | | 1.399 | 250.072 |
| 363 | 1/20/2000 | 163100 | | 561.079 | | 1.399 | 250.072 |
| 364 | 1/20/2000 | 163130 | | 563.406 | | 1.398 | 250.103 |
| 365 | 1/20/2000 | 163200 | | 563.406 | | 1.398 | 250.103 |
| 366 | 1/20/2000 | 163230 | | 559.879 | | 1.397 | 249.805 |
| 367 | 1/20/2000 | 163300 | | 559.879 | | 1.397 | 249.805 |
| 368 | 1/20/2000 | 163330 | 564.281 | | 1.333 | | 249.791 |
| 369 | 1/20/2000 | 163400 | 564.281 | | 1.333 | | 249.791 |
| 370 | 1/20/2000 | 163430 | 559.787 | | 1.382 | | 249.851 |
| 371 | 1/20/2000 | 163500 | 559.787 | | 1.382 | | 249.851 |
| 372 | 1/20/2000 | 163530 | 558.067 | | 1.39 | | 250.209 |
| 373 | 1/20/2000 | 163600 | 558.067 | | 1.39 | | 250.209 |
| 374 | 1/20/2000 | 163630 | 558.593 | | 1.396 | | 250.234 |
| 375 | 1/20/2000 | 163700 | 558.593 | | 1.396 | | 250.234 |
| 376 | 1/20/2000 | 163730 | 558.7 | | 1.395 | | 250.617 |
| 377 | 1/20/2000 | 163800 | 558.7 | | 1.395 | | 250.617 |
| 378 | 1/20/2000 | 163830 | 561.21 | | 1.397 | | 250.455 |
| 379 | 1/20/2000 | 163900 | 561.21 | | 1.397 | | 250.455 |
| 380 | 1/20/2000 | 163930 | 564.034 | | 1.399 | | 249.2 |
| 381 | 1/20/2000 | 164000 | 564.034 | | 1.399 | | 249.2 |
| 382 | 1/20/2000 | 164030 | | | | | 249.444 |
| 383 | 1/20/2000 | 164100 | | | | | 249.444 |
| 384 | 1/20/2000 | 164130 | | 603.115 | | 1.345 | 249.907 |
| 385 | 1/20/2000 | 164200 | | 603.115 | | 1.345 | 249.907 |
| 386 | 1/20/2000 | 164230 | | 574.54 | | 1.361 | 250.524 |
| 387 | 1/20/2000 | 164300 | | 574.54 | | 1.361 | 250.524 |
| 388 | 1/20/2000 | 164330 | | 564.548 | | 1.386 | 250.686 |
| 389 | 1/20/2000 | 164400 | | 564.548 | | 1.386 | 250.686 |
| 390 | 1/20/2000 | 164430 | | 563.833 | | 1.399 | 249.813 |
| 391 | 1/20/2000 | 164500 | | 563.833 | | 1.399 | 249.813 |
| 392 | 1/20/2000 | 164530 | | 564.258 | | 1.401 | 249.575 |
| 393 | 1/20/2000 | 164600 | | 564.258 | | 1.401 | 249.575 |
| 394 | 1/20/2000 | 164630 | | 557.995 | | 1.396 | 250.388 |
| 395 | 1/20/2000 | 164700 | | 557.995 | | 1.396 | 250.388 |
| 396 | 1/20/2000 | 164730 | | 555.065 | | 1.4 | 251.024 |
| 397 | 1/20/2000 | 164800 | | 555.065 | | 1.4 | 251.024 |
| 398 | 1/20/2000 | 164830 | 557.547 | | 1.338 | | 250.144 |
| 399 | 1/20/2000 | 164900 | 557.547 | | 1.338 | | 250.144 |
| 400 | 1/20/2000 | 164930 | 551.887 | | 1.384 | | 249.638 |
| 401 | 1/20/2000 | 165000 | 551.887 | | 1.384 | | 249.638 |
| 402 | / / | | | | | | |

| Record# | DATE | TIME | WT4SO2A1 | WT4SO2B2 | WT4SO2A3 | WT4SO2B4 | WT4GENA5 |
|---|---|---|---|---|---|---|---|
| 403 | / / | AVE | 556.614901 | 566.802193 | 1.3891087 | 1.38727273 | 250.018873 |

| Record# | DATE | TIME | WT4GENA1 | WT4OPAA2 |
|---|---|---|---|---|
| 1 | 1/19/2000 | 113500 | 249.596 | 5.375 |
| 2 | 1/19/2000 | 113530 | 249.89 | 5.361 |
| 3 | 1/19/2000 | 113600 | 249.89 | 5.361 |
| 4 | 1/19/2000 | 113630 | 250.077 | 5.206 |
| 5 | 1/19/2000 | 113700 | 250.077 | 5.206 |
| 6 | 1/19/2000 | 113730 | 248.785 | 4.999 |
| 7 | 1/19/2000 | 113800 | 248.785 | 4.999 |
| 8 | 1/19/2000 | 113830 | 248.98 | 5.057 |
| 9 | 1/19/2000 | 113900 | 248.98 | 5.057 |
| 10 | 1/19/2000 | 113930 | 249.747 | 6.255 |
| 11 | 1/19/2000 | 114000 | 249.747 | 6.255 |
| 12 | 1/19/2000 | 114030 | 250.187 | 5.901 |
| 13 | 1/19/2000 | 114100 | 250.187 | 5.901 |
| 14 | 1/19/2000 | 114130 | 250.242 | 5.958 |
| 15 | 1/19/2000 | 114200 | 250.242 | 5.958 |
| 16 | 1/19/2000 | 114230 | 249.812 | 6.603 |
| 17 | 1/19/2000 | 114300 | 249.812 | 6.603 |
| 18 | 1/19/2000 | 114330 | 250.359 | 6.101 |
| 19 | 1/19/2000 | 114400 | 250.359 | 6.101 |
| 20 | 1/19/2000 | 114430 | 249.905 | 8.437 |
| 21 | 1/19/2000 | 114500 | 249.905 | 8.437 |
| 22 | 1/19/2000 | 114530 | 249.325 | 7.964 |
| 23 | 1/19/2000 | 114600 | 249.325 | 7.964 |
| 24 | 1/19/2000 | 114630 | 249.249 | 6.456 |
| 25 | 1/19/2000 | 114700 | 249.249 | 6.456 |
| 26 | 1/19/2000 | 114730 | 250.224 | 6.167 |
| 27 | 1/19/2000 | 114800 | 250.224 | 6.167 |
| 28 | 1/19/2000 | 114830 | 250.232 | 7.564 |
| 29 | 1/19/2000 | 114900 | 250.232 | 7.564 |
| 30 | 1/19/2000 | 114930 | 249.54 | 6.377 |
| 31 | 1/19/2000 | 115000 | 249.54 | 6.377 |
| 32 | 1/19/2000 | 115030 | 249.793 | 8.01 |
| 33 | 1/19/2000 | 115100 | 249.793 | 8.01 |
| 34 | 1/19/2000 | 115130 | 249.917 | 8.374 |
| 35 | 1/19/2000 | 115200 | 249.917 | 8.374 |
| 36 | 1/19/2000 | 115230 | 249.819 | 7.494 |
| 37 | 1/19/2000 | 115300 | 249.819 | 7.494 |
| 38 | 1/19/2000 | 115330 | 249.371 | 5.913 |
| 39 | 1/19/2000 | 115400 | 249.371 | 5.913 |
| 40 | 1/19/2000 | 115430 | 249.761 | 5.625 |
| 41 | 1/19/2000 | 115500 | 249.761 | 5.625 |
| 42 | 1/19/2000 | 115530 | 249.898 | 5.992 |
| 43 | 1/19/2000 | 115600 | 249.898 | 5.992 |
| 44 | 1/19/2000 | 115630 | 249.977 | 6.191 |
| 45 | 1/19/2000 | 115700 | 249.977 | 6.191 |
| 46 | 1/19/2000 | 115730 | 250.021 | 6.154 |
| 47 | 1/19/2000 | 115800 | 250.021 | 6.154 |
| 48 | 1/19/2000 | 115830 | 249.728 | 6.028 |
| 49 | 1/19/2000 | 115900 | 249.728 | 6.028 |
| 50 | 1/19/2000 | 115930 | 250.072 | 6.239 |
| 51 | 1/19/2000 | 120000 | 250.072 | 6.239 |
| 52 | 1/19/2000 | 120030 | 249.431 | 6.03 |
| 53 | 1/19/2000 | 120100 | 249.431 | 6.03 |
| 54 | 1/19/2000 | 120130 | 248.69 | 5.921 |
| 55 | 1/19/2000 | 120200 | 248.69 | 5.921 |
| 56 | 1/19/2000 | 120230 | 248.982 | 7.674 |
| 57 | 1/19/2000 | 120300 | 248.982 | 7.674 |
| 58 | 1/19/2000 | 120330 | 249.634 | 8.056 |
| 59 | 1/19/2000 | 120400 | 249.634 | 8.056 |
| 60 | 1/19/2000 | 120430 | 249.853 | 8.571 |
| 61 | 1/19/2000 | 120500 | 249.853 | 8.571 |
| 62 | 1/19/2000 | 120530 | 250.259 | 7.636 |
| 63 | 1/19/2000 | 120600 | 250.259 | 7.636 |
| 64 | 1/19/2000 | 120630 | 249.365 | 7.436 |
| 65 | 1/19/2000 | 120700 | 249.365 | 7.436 |

| Record# | DATE | TIME | WT4GENA1 | WT4OPAA2 |
|---|---|---|---|---|
| 66 | 1/19/2000 | 120730 | 249.71 | 5.996 |
| 67 | 1/19/2000 | 120800 | 249.71 | 5.996 |
| 68 | 1/19/2000 | 120830 | 249.405 | 5.939 |
| 69 | 1/19/2000 | 120900 | 249.405 | 5.939 |
| 70 | 1/19/2000 | 120930 | 249.318 | 6.101 |
| 71 | 1/19/2000 | 121000 | 249.318 | 6.101 |
| 72 | 1/19/2000 | 121030 | 249.116 | 7.579 |
| 73 | 1/19/2000 | 121100 | 249.116 | 7.579 |
| 74 | 1/19/2000 | 121130 | 249.846 | 7.765 |
| 75 | 1/19/2000 | 121200 | 249.846 | 7.765 |
| 76 | 1/19/2000 | 121230 | 250.211 | 6.909 |
| 77 | 1/19/2000 | 121300 | 250.211 | 6.909 |
| 78 | 1/19/2000 | 121330 | 249.821 | 7.094 |
| 79 | 1/19/2000 | 121400 | 249.821 | 7.094 |
| 80 | 1/19/2000 | 121430 | 249.238 | 6.766 |
| 81 | 1/19/2000 | 121500 | 249.238 | 6.766 |
| 82 | 1/19/2000 | 121530 | 249.26 | 6.814 |
| 83 | 1/19/2000 | 121600 | 249.26 | 6.814 |
| 84 | 1/19/2000 | 121630 | 249.41 | 6.596 |
| 85 | 1/19/2000 | 121700 | 249.41 | 6.596 |
| 86 | 1/19/2000 | 121730 | 250.008 | 5.959 |
| 87 | 1/19/2000 | 121800 | 250.008 | 5.959 |
| 88 | 1/19/2000 | 121830 | 250.386 | 8.183 |
| 89 | 1/19/2000 | 121900 | 250.386 | 8.183 |
| 90 | 1/19/2000 | 121930 | 249.887 | 6.853 |
| 91 | 1/19/2000 | 122000 | 249.887 | 6.853 |
| 92 | 1/19/2000 | 122030 | 249.372 | 6.14 |
| 93 | 1/19/2000 | 122100 | 249.372 | 6.14 |
| 94 | 1/19/2000 | 122130 | 249.102 | 7.049 |
| 95 | 1/19/2000 | 122200 | 249.102 | 7.049 |
| 96 | 1/19/2000 | 122230 | 249.733 | 5.836 |
| 97 | 1/19/2000 | 122300 | 249.733 | 5.836 |
| 98 | 1/19/2000 | 122330 | 250.879 | 7.845 |
| 99 | 1/19/2000 | 122400 | 250.879 | 7.845 |
| 100 | 1/19/2000 | 122430 | 250.005 | 8.833 |
| 101 | 1/19/2000 | 122500 | 250.005 | 8.833 |
| 102 | 1/19/2000 | 122530 | 249.478 | 7.054 |
| 103 | 1/19/2000 | 122600 | 249.478 | 7.054 |
| 104 | 1/19/2000 | 122630 | 249.28 | 6.266 |
| 105 | 1/19/2000 | 122700 | 249.28 | 6.266 |
| 106 | 1/19/2000 | 122730 | 249.739 | 6.041 |
| 107 | 1/19/2000 | 122800 | 249.739 | 6.041 |
| 108 | 1/19/2000 | 122830 | 250.04 | 6.332 |
| 109 | 1/19/2000 | 122900 | 250.04 | 6.332 |
| 110 | 1/19/2000 | 122930 | 249.806 | 7.838 |
| 111 | 1/19/2000 | 123000 | 249.806 | 7.838 |
| 112 | 1/19/2000 | 123030 | 250.02 | 8.332 |
| 113 | 1/19/2000 | 123100 | 250.02 | 8.332 |
| 114 | 1/19/2000 | 123130 | 250.266 | 8.117 |
| 115 | 1/19/2000 | 123200 | 250.266 | 8.117 |
| 116 | 1/19/2000 | 123230 | 250.407 | 6.899 |
| 117 | 1/19/2000 | 123300 | 250.407 | 6.899 |
| 118 | 1/19/2000 | 123330 | 249.959 | 6.746 |
| 119 | 1/19/2000 | 123400 | 249.959 | 6.746 |
| 120 | 1/19/2000 | 123430 | 249.996 | 6.859 |
| 121 | 1/19/2000 | 123500 | 249.996 | 6.859 |
| 122 | 1/19/2000 | 123530 | 249.578 | 6.658 |
| 123 | 1/19/2000 | 123600 | 249.578 | 6.658 |
| 124 | 1/19/2000 | 123630 | 249.324 | 6.365 |
| 125 | 1/19/2000 | 123700 | 249.324 | 6.365 |
| 126 | 1/19/2000 | 123730 | 249.254 | 6.403 |
| 127 | 1/19/2000 | 123800 | 249.254 | 6.403 |
| 128 | 1/19/2000 | 123830 | 249.403 | 6.306 |
| 129 | 1/19/2000 | 123900 | 249.403 | 6.306 |
| 130 | 1/19/2000 | 123930 | 249.522 | 5.933 |

| Record# | DATE | TIME | WT4GENA1 | WT4OPAA2 |
|---|---|---|---|---|
| 131 | 1/19/2000 | 124000 | 249.522 | 5.933 |
| 132 | 1/19/2000 | 124030 | 249.514 | 6.18 |
| 133 | 1/19/2000 | 124100 | 249.514 | 6.18 |
| 134 | 1/19/2000 | 124130 | 250.092 | 6.687 |
| 135 | 1/19/2000 | 124200 | 250.092 | 6.687 |
| 136 | 1/19/2000 | 124230 | 249.919 | 6.558 |
| 137 | 1/19/2000 | 124300 | 249.919 | 6.558 |
| 138 | 1/19/2000 | 124330 | 249.789 | 8.746 |
| 139 | 1/19/2000 | 124400 | 249.789 | 8.746 |
| 140 | 1/19/2000 | 124430 | 249.844 | 8.899 |
| 141 | 1/19/2000 | 124500 | 249.844 | 8.899 |
| 142 | 1/19/2000 | 124530 | 249.343 | 6.465 |
| 143 | 1/19/2000 | 124600 | 249.343 | 6.465 |
| 144 | 1/19/2000 | 124630 | 249.15 | 5.876 |
| 145 | 1/19/2000 | 124700 | 249.15 | 5.876 |
| 146 | 1/19/2000 | 124730 | 250.14 | 6.19 |
| 147 | 1/19/2000 | 124800 | 250.14 | 6.19 |
| 148 | 1/19/2000 | 124830 | 250.095 | 7.024 |
| 149 | 1/19/2000 | 124900 | 250.095 | 7.024 |
| 150 | 1/19/2000 | 124930 | 250.646 | 9.52 |
| 151 | 1/19/2000 | 125000 | 250.646 | 9.52 |
| 152 | 1/19/2000 | 125030 | 249.472 | 9.451 |
| 153 | 1/19/2000 | 125100 | 249.472 | 9.451 |
| 154 | 1/19/2000 | 125130 | 249.083 | 8.005 |
| 155 | 1/19/2000 | 125200 | 249.083 | 8.005 |
| 156 | 1/19/2000 | 125230 | 249.389 | 6.635 |
| 157 | 1/19/2000 | 125300 | 249.389 | 6.635 |
| 158 | 1/19/2000 | 125330 | 249.805 | 6.734 |
| 159 | 1/19/2000 | 125400 | 249.805 | 6.734 |
| 160 | 1/19/2000 | 125430 | 250.123 | 6.872 |
| 161 | 1/19/2000 | 125500 | 250.123 | 6.872 |
| 162 | 1/19/2000 | 125530 | 249.661 | 6.526 |
| 163 | 1/19/2000 | 125600 | 249.661 | 6.526 |
| 164 | 1/19/2000 | 125630 | 249.511 | 6.511 |
| 165 | 1/19/2000 | 125700 | 249.511 | 6.511 |
| 166 | 1/19/2000 | 125730 | 249.519 | 6.405 |
| 167 | 1/19/2000 | 125800 | 249.519 | 6.405 |
| 168 | 1/19/2000 | 125830 | 249.702 | 6.848 |
| 169 | 1/19/2000 | 125900 | 249.702 | 6.848 |
| 170 | 1/19/2000 | 125930 | 250.364 | 6.458 |
| 171 | 1/19/2000 | 130000 | 250.364 | 6.458 |
| 172 | 1/19/2000 | 130030 | 250.62 | 7.524 |
| 173 | 1/19/2000 | 130100 | 250.62 | 7.524 |
| 174 | 1/19/2000 | 130130 | 249.652 | 6.66 |
| 175 | 1/19/2000 | 130200 | 249.652 | 6.66 |
| 176 | 1/19/2000 | 130230 | 249.091 | 7.617 |
| 177 | 1/19/2000 | 130300 | 249.091 | 7.617 |
| 178 | 1/19/2000 | 130330 | 249.411 | 8.983 |
| 179 | 1/19/2000 | 130400 | 249.411 | 8.983 |
| 180 | 1/19/2000 | 130430 | 249.898 | 6.367 |
| 181 | 1/19/2000 | 130500 | 249.898 | 6.367 |
| 182 | 1/19/2000 | 130530 | 249.99 | 6.279 |
| 183 | 1/19/2000 | 130600 | 249.99 | 6.279 |
| 184 | 1/19/2000 | 130630 | 249.805 | 8.099 |
| 185 | 1/19/2000 | 130700 | 249.805 | 8.099 |
| 186 | 1/19/2000 | 130730 | 249.585 | 6.902 |
| 187 | 1/19/2000 | 130800 | 249.585 | 6.902 |
| 188 | 1/19/2000 | 130830 | 249.52 | 9.225 |
| 189 | 1/19/2000 | 130900 | 249.52 | 9.225 |
| 190 | 1/19/2000 | 130930 | 250.121 | 8.56 |
| 191 | 1/19/2000 | 131000 | 250.121 | 8.56 |
| 192 | 1/19/2000 | 131030 | 250.219 | 8.538 |
| 193 | 1/19/2000 | 131100 | 250.219 | 8.538 |
| 194 | 1/19/2000 | 131130 | 249.522 | 6.352 |
| 195 | 1/19/2000 | 131200 | 249.522 | 6.352 |

| Record# | DATE | TIME | WT4GENA1 | WT4OPAA2 |
|---|---|---|---|---|
| 196 | 1/19/2000 | 131230 | 249.178 | 5.665 |
| 197 | 1/19/2000 | 131300 | 249.178 | 5.665 |
| 198 | 1/19/2000 | 131330 | 250.022 | 6.331 |
| 199 | 1/19/2000 | 131400 | 250.022 | 6.331 |
| 200 | 1/19/2000 | 131430 | 250.32 | 6.246 |
| 201 | 1/19/2000 | 131500 | 250.32 | 6.246 |
| 202 | 1/19/2000 | 131530 | 250.044 | 5.553 |
| 203 | 1/19/2000 | 131600 | 250.044 | 5.553 |
| 204 | 1/19/2000 | 131630 | 249.619 | 5.925 |
| 205 | 1/19/2000 | 131700 | 249.619 | 5.925 |
| 206 | 1/19/2000 | 131730 | 249.22 | 5.755 |
| 207 | 1/19/2000 | 131800 | 249.22 | 5.755 |
| 208 | 1/19/2000 | 131830 | 249.154 | 5.675 |
| 209 | 1/19/2000 | 131900 | 249.154 | 5.675 |
| 210 | 1/19/2000 | 131930 | 250.216 | 5.952 |
| 211 | 1/19/2000 | 132000 | 250.216 | 5.952 |
| 212 | 1/19/2000 | 132030 | 250.458 | 6.607 |
| 213 | 1/19/2000 | 132100 | 250.458 | 6.607 |
| 214 | 1/19/2000 | 132130 | 249.887 | 6.28 |
| 215 | 1/19/2000 | 132200 | 249.887 | 6.28 |
| 216 | 1/19/2000 | 132230 | 249.529 | 8.287 |
| 217 | 1/19/2000 | 132300 | 249.529 | 8.287 |
| 218 | 1/19/2000 | 132330 | 249.686 | 7.798 |
| 219 | 1/19/2000 | 132400 | 249.686 | 7.798 |
| 220 | 1/19/2000 | 132430 | 250.036 | 6.589 |
| 221 | 1/19/2000 | 132500 | 250.036 | 6.589 |
| 222 | 1/19/2000 | 132530 | 249.997 | 5.873 |
| 223 | 1/19/2000 | 132600 | 249.997 | 5.873 |
| 224 | 1/19/2000 | 132630 | 249.823 | 5.917 |
| 225 | 1/19/2000 | 132700 | 249.823 | 5.917 |
| 226 | 1/19/2000 | 132730 | 249.86 | 6.955 |
| 227 | 1/19/2000 | 132800 | 249.86 | 6.955 |
| 228 | 1/19/2000 | 132830 | 250.35 | 8.335 |
| 229 | 1/19/2000 | 132900 | 250.35 | 8.335 |
| 230 | 1/19/2000 | 132930 | 249.15 | 8.147 |
| 231 | 1/19/2000 | 133000 | 249.15 | 8.147 |
| 232 | 1/19/2000 | 133030 | 249.114 | 6.596 |
| 233 | 1/19/2000 | 133100 | 249.114 | 6.596 |
| 234 | 1/19/2000 | 133130 | 249.568 | 7.527 |
| 235 | 1/19/2000 | 133200 | 249.568 | 7.527 |
| 236 | 1/19/2000 | 133230 | 249.925 | 6.574 |
| 237 | 1/19/2000 | 133300 | 249.925 | 6.574 |
| 238 | 1/19/2000 | 133330 | 249.652 | 7.29 |
| 239 | 1/19/2000 | 133400 | 249.652 | 7.29 |
| 240 | 1/19/2000 | 133430 | 249.526 | 6.473 |
| 241 | 1/19/2000 | 133500 | 249.526 | 6.473 |
| 242 | 1/19/2000 | 133530 | 249.972 | 6.424 |
| 243 | 1/19/2000 | 133600 | 249.972 | 6.424 |
| 244 | 1/19/2000 | 133630 | 250.221 | 10.014 |
| 245 | 1/19/2000 | 133700 | 250.221 | 10.014 |
| 246 | 1/19/2000 | 133730 | 250.112 | 6.635 |
| 247 | 1/19/2000 | 133800 | 250.112 | 6.635 |
| 248 | 1/19/2000 | 133830 | 249.206 | 6.397 |
| 249 | 1/19/2000 | 133900 | 249.206 | 6.397 |
| 250 | 1/19/2000 | 133930 | 248.84 | 8.243 |
| 251 | 1/19/2000 | 134000 | 248.84 | 8.243 |
| 252 | 1/19/2000 | 134030 | 249.98 | 6.792 |
| 253 | 1/19/2000 | 134100 | 249.98 | 6.792 |
| 254 | 1/19/2000 | 134130 | 250.029 | 8.5 |
| 255 | 1/19/2000 | 134200 | 250.029 | 8.5 |
| 256 | 1/19/2000 | 134230 | 250.123 | 10.848 |
| 257 | 1/19/2000 | 134300 | 250.123 | 10.848 |
| 258 | 1/19/2000 | 134330 | 249.593 | 7.853 |
| 259 | 1/19/2000 | 134400 | 249.593 | 7.853 |
| 260 | 1/19/2000 | 134430 | 248.662 | 6.803 |

| Record# | DATE | TIME | WT4GENA1 | WT4OPAA2 |
|---|---|---|---|---|
| 261 | 1/19/2000 | 134500 | 248.662 | 6.803 |
| 262 | 1/19/2000 | 134530 | 249.448 | 7.315 |
| 263 | 1/19/2000 | 134600 | 249.448 | 7.315 |
| 264 | 1/19/2000 | 134630 | 250.186 | 6.882 |
| 265 | 1/19/2000 | 134700 | 250.186 | 6.882 |
| 266 | 1/19/2000 | 134730 | 250.368 | 9.184 |
| 267 | 1/19/2000 | 134800 | 250.368 | 9.184 |
| 268 | 1/19/2000 | 134830 | 250.096 | 9.064 |
| 269 | 1/19/2000 | 134900 | 250.096 | 9.064 |
| 270 | 1/19/2000 | 134930 | 249.529 | 7.301 |
| 271 | 1/19/2000 | 135000 | 249.529 | 7.301 |
| 272 | 1/19/2000 | 135030 | 249.524 | 5.861 |
| 273 | 1/19/2000 | 135100 | 249.524 | 5.861 |
| 274 | 1/19/2000 | 135130 | 248.847 | 5.638 |
| 275 | 1/19/2000 | 135200 | 248.847 | 5.638 |
| 276 | 1/19/2000 | 135230 | 249.701 | 6.393 |
| 277 | 1/19/2000 | 135300 | 249.701 | 6.393 |
| 278 | 1/19/2000 | 135330 | 250.249 | 6.466 |
| 279 | 1/19/2000 | 135400 | 250.249 | 6.466 |
| 280 | 1/19/2000 | 135430 | 250.016 | 9.231 |
| 281 | 1/19/2000 | 135500 | 250.016 | 9.231 |
| 282 | 1/19/2000 | 135530 | 249.55 | 7.503 |
| 283 | 1/19/2000 | 135600 | 249.55 | 7.503 |
| 284 | 1/19/2000 | 135630 | 249.671 | 6.257 |
| 285 | 1/19/2000 | 135700 | 249.671 | 6.257 |
| 286 | 1/19/2000 | 135730 | 249.448 | 5.929 |
| 287 | 1/19/2000 | 135800 | 249.448 | 5.929 |
| 288 | 1/19/2000 | 135830 | 249.327 | 6.363 |
| 289 | 1/19/2000 | 135900 | 249.327 | 6.363 |
| 290 | 1/19/2000 | 135930 | 250.143 | 6.602 |
| 291 | 1/19/2000 | 140000 | 250.143 | 6.602 |
| 292 | 1/19/2000 | 140030 | 250.507 | 6.123 |
| 293 | 1/19/2000 | 140100 | 250.507 | 6.123 |
| 294 | 1/19/2000 | 140130 | 249.716 | 7.863 |
| 295 | 1/19/2000 | 140200 | 249.716 | 7.863 |
| 296 | 1/19/2000 | 140230 | 249.163 | 7.791 |
| 297 | 1/19/2000 | 140300 | 249.163 | 7.791 |
| 298 | 1/19/2000 | 140330 | 250.109 | 5.624 |
| 299 | 1/19/2000 | 140400 | 250.109 | 5.624 |
| 300 | 1/19/2000 | 140430 | 250.241 | 5.585 |
| 301 | 1/19/2000 | 140500 | 250.241 | 5.585 |
| 302 | 1/19/2000 | 140530 | 250.574 | 6.201 |
| 303 | 1/19/2000 | 140600 | 250.574 | 6.201 |
| 304 | 1/19/2000 | 140630 | 249.814 | 7.528 |
| 305 | 1/19/2000 | 140700 | 249.814 | 7.528 |
| 306 | 1/19/2000 | 140730 | 249.544 | 8.854 |
| 307 | 1/19/2000 | 140800 | 249.544 | 8.854 |
| 308 | 1/19/2000 | 140830 | 249.609 | 7.818 |
| 309 | 1/19/2000 | 140900 | 249.609 | 7.818 |
| 310 | 1/19/2000 | 140930 | 249.779 | 6.42 |
| 311 | 1/19/2000 | 141000 | 249.779 | 6.42 |
| 312 | 1/19/2000 | 141030 | 249.664 | 6.373 |
| 313 | 1/19/2000 | 141100 | 249.664 | 6.373 |
| 314 | 1/19/2000 | 141130 | 249.28 | 6.089 |
| 315 | 1/19/2000 | 141200 | 249.28 | 6.089 |
| 316 | 1/19/2000 | 141230 | 249.824 | 6.786 |
| 317 | 1/19/2000 | 141300 | 249.824 | 6.786 |
| 318 | 1/19/2000 | 141330 | 249.166 | 5.836 |
| 319 | 1/19/2000 | 141400 | 249.166 | 5.836 |
| 320 | 1/19/2000 | 141430 | 249.479 | 6.079 |
| 321 | 1/19/2000 | 141500 | 249.479 | 6.079 |
| 322 | 1/19/2000 | 141530 | 250.577 | 6.693 |
| 323 | 1/19/2000 | 141600 | 250.577 | 6.693 |
| 324 | 1/19/2000 | 141630 | 250.191 | 6.148 |
| 325 | 1/19/2000 | 141700 | 250.191 | 6.148 |

| Record# | DATE | TIME | WT4GENA1 | WT4OPAA2 |
|---|---|---|---|---|
| 326 | 1/19/2000 | 141730 | 249.349 | 6.033 |
| 327 | 1/19/2000 | 141800 | 249.349 | 6.033 |
| 328 | 1/19/2000 | 141830 | 248.966 | 6.731 |
| 329 | 1/19/2000 | 141900 | 248.966 | 6.731 |
| 330 | 1/19/2000 | 141930 | 249.802 | 7.761 |
| 331 | 1/19/2000 | 142000 | 249.802 | 7.761 |
| 332 | 1/19/2000 | 142030 | 249.857 | 7.841 |
| 333 | 1/19/2000 | 142100 | 249.857 | 7.841 |
| 334 | 1/19/2000 | 142130 | 249.725 | 9.09 |
| 335 | 1/19/2000 | 142200 | 249.725 | 9.09 |
| 336 | 1/19/2000 | 142230 | 250.361 | 6.696 |
| 337 | 1/19/2000 | 142300 | 250.361 | 6.696 |
| 338 | 1/19/2000 | 142330 | 249.696 | 6.571 |
| 339 | 1/19/2000 | 142400 | 249.696 | 6.571 |
| 340 | 1/19/2000 | 142430 | 249.244 | 7.197 |
| 341 | 1/19/2000 | 142500 | 249.244 | 7.197 |
| 342 | 1/19/2000 | 142530 | 249.448 | 6.877 |
| 343 | 1/19/2000 | 142600 | 249.448 | 6.877 |
| 344 | 1/19/2000 | 142630 | 250.271 | 9.392 |
| 345 | 1/19/2000 | 142700 | 250.271 | 9.392 |
| 346 | 1/19/2000 | 142730 | 250.253 | 8.964 |
| 347 | 1/19/2000 | 142800 | 250.253 | 8.964 |
| 348 | 1/19/2000 | 142830 | 250.244 | 7.318 |
| 349 | 1/19/2000 | 142900 | 250.244 | 7.318 |
| 350 | 1/19/2000 | 142930 | 249.901 | 6.778 |
| 351 | 1/19/2000 | 143000 | 249.901 | 6.778 |
| 352 | 1/19/2000 | 143030 | 249.328 | 6.238 |
| 353 | 1/19/2000 | 143100 | 249.328 | 6.238 |
| 354 | 1/19/2000 | 143130 | 249.07 | 6.408 |
| 355 | 1/19/2000 | 143200 | 249.07 | 6.408 |
| 356 | 1/19/2000 | 143230 | 249.764 | 6.031 |
| 357 | 1/19/2000 | 143300 | 249.764 | 6.031 |
| 358 | 1/19/2000 | 143330 | 249.977 | 5.957 |
| 359 | 1/19/2000 | 143400 | 249.977 | 5.957 |
| 360 | 1/19/2000 | 143430 | 250.412 | 6.092 |
| 361 | 1/19/2000 | 143500 | 250.412 | 6.092 |
| 362 | 1/19/2000 | 143530 | 250.27 | 6.082 |
| 363 | 1/19/2000 | 143600 | 250.27 | 6.082 |
| 364 | 1/19/2000 | 143630 | 249.436 | 5.804 |
| 365 | 1/19/2000 | 143700 | 249.436 | 5.804 |
| 366 | 1/19/2000 | 143730 | 249.503 | 6.795 |
| 367 | 1/19/2000 | 143800 | 249.503 | 6.795 |
| 368 | 1/19/2000 | 143830 | 249.24 | 6.128 |
| 369 | 1/19/2000 | 143900 | 249.24 | 6.128 |
| 370 | 1/19/2000 | 143930 | 249.638 | 6.219 |
| 371 | 1/19/2000 | 144000 | 249.638 | 6.219 |
| 372 | 1/19/2000 | 144030 | 249.754 | 8.625 |
| 373 | 1/19/2000 | 144100 | 249.754 | 8.625 |
| 374 | 1/19/2000 | 144130 | 250.241 | 9.082 |
| 375 | 1/19/2000 | 144200 | 250.241 | 9.082 |
| 376 | 1/19/2000 | 144230 | 250.252 | 6.892 |
| 377 | 1/19/2000 | 144300 | 250.252 | 6.892 |
| 378 | 1/19/2000 | 144330 | 250.223 | 6.266 |
| 379 | 1/19/2000 | 144400 | 250.223 | 6.266 |
| 380 | 1/19/2000 | 144430 | 249.547 | 6.36 |
| 381 | 1/19/2000 | 144500 | 249.547 | 6.36 |
| 382 | 1/19/2000 | 144530 | 249.142 | 8.475 |
| 383 | 1/19/2000 | 144600 | 249.142 | 8.475 |
| 384 | 1/19/2000 | 144630 | 249.111 | 10.724 |
| 385 | 1/19/2000 | 144700 | 249.111 | 10.724 |
| 386 | 1/19/2000 | 144730 | 250.083 | 7.762 |
| 387 | 1/19/2000 | 144800 | 250.083 | 7.762 |
| 388 | 1/19/2000 | 144830 | 250.396 | 6.872 |
| 389 | 1/19/2000 | 144900 | 250.396 | 6.872 |
| 390 | 1/19/2000 | 144930 | 249.69 | 7.469 |

| Record# | DATE | TIME | WT4GENA1 | WT4OPAA2 |
|---|---|---|---|---|
| 391 | 1/19/2000 | 145000 | 249.69 | 7.469 |
| 392 | 1/19/2000 | 145030 | 249.158 | 6.377 |
| 393 | 1/19/2000 | 145100 | 249.158 | 6.377 |
| 394 | 1/19/2000 | 145130 | 249.53 | 7.046 |
| 395 | 1/19/2000 | 145200 | 249.53 | 7.046 |
| 396 | 1/19/2000 | 145230 | 250.354 | 6.399 |
| 397 | 1/19/2000 | 145300 | 250.354 | 6.399 |
| 398 | / / | | | |
| 399 | / / | AVE | 249.747834 | 6.96498992 |

| Record# | DATE | TIME | WT4GENA1 | WT4OPAA2 |
|---|---|---|---|---|
| 1 | 1/20/2000 | 83000 | 248.894 | 4.26 |
| 2 | 1/20/2000 | 83030 | 248.442 | 3.981 |
| 3 | 1/20/2000 | 83100 | 248.442 | 3.981 |
| 4 | 1/20/2000 | 83130 | 249.107 | 3.721 |
| 5 | 1/20/2000 | 83200 | 249.107 | 3.721 |
| 6 | 1/20/2000 | 83230 | 248.747 | 3.712 |
| 7 | 1/20/2000 | 83300 | 248.747 | 3.712 |
| 8 | 1/20/2000 | 83330 | 249.335 | 3.634 |
| 9 | 1/20/2000 | 83400 | 249.335 | 3.634 |
| 10 | 1/20/2000 | 83430 | 250.419 | 5.558 |
| 11 | 1/20/2000 | 83500 | 250.419 | 5.558 |
| 12 | 1/20/2000 | 83530 | 249.412 | 6.852 |
| 13 | 1/20/2000 | 83600 | 249.412 | 6.852 |
| 14 | 1/20/2000 | 83630 | 249.141 | 5.107 |
| 15 | 1/20/2000 | 83700 | 249.141 | 5.107 |
| 16 | 1/20/2000 | 83730 | 249.885 | 4.013 |
| 17 | 1/20/2000 | 83800 | 249.885 | 4.013 |
| 18 | 1/20/2000 | 83830 | 250.616 | 4.131 |
| 19 | 1/20/2000 | 83900 | 250.616 | 4.131 |
| 20 | 1/20/2000 | 83930 | 250.75 | 4.201 |
| 21 | 1/20/2000 | 84000 | 250.75 | 4.201 |
| 22 | 1/20/2000 | 84030 | 250.359 | 4.135 |
| 23 | 1/20/2000 | 84100 | 250.359 | 4.135 |
| 24 | 1/20/2000 | 84130 | 249.68 | 4.212 |
| 25 | 1/20/2000 | 84200 | 249.68 | 4.212 |
| 26 | 1/20/2000 | 84230 | 250.029 | 4.47 |
| 27 | 1/20/2000 | 84300 | 250.029 | 4.47 |
| 28 | 1/20/2000 | 84330 | 250.011 | 5.778 |
| 29 | 1/20/2000 | 84400 | 250.011 | 5.778 |
| 30 | 1/20/2000 | 84430 | 249.734 | 6.537 |
| 31 | 1/20/2000 | 84500 | 249.734 | 6.537 |
| 32 | 1/20/2000 | 84530 | 249.876 | 4.594 |
| 33 | 1/20/2000 | 84600 | 249.876 | 4.594 |
| 34 | 1/20/2000 | 84630 | 249.866 | 5.295 |
| 35 | 1/20/2000 | 84700 | 249.866 | 5.295 |
| 36 | 1/20/2000 | 84730 | 250.223 | 4.303 |
| 37 | 1/20/2000 | 84800 | 250.223 | 4.303 |
| 38 | 1/20/2000 | 84830 | 250.593 | 4.806 |
| 39 | 1/20/2000 | 84900 | 250.593 | 4.806 |
| 40 | 1/20/2000 | 84930 | 250.724 | 3.995 |
| 41 | 1/20/2000 | 85000 | 250.724 | 3.995 |
| 42 | 1/20/2000 | 85030 | 248.901 | 3.504 |
| 43 | 1/20/2000 | 85100 | 248.901 | 3.504 |
| 44 | 1/20/2000 | 85130 | 249.005 | 3.781 |
| 45 | 1/20/2000 | 85200 | 249.005 | 3.781 |
| 46 | 1/20/2000 | 85230 | 250.044 | 3.722 |
| 47 | 1/20/2000 | 85300 | 250.044 | 3.722 |
| 48 | 1/20/2000 | 85330 | 250.658 | 3.69 |
| 49 | 1/20/2000 | 85400 | 250.658 | 3.69 |
| 50 | 1/20/2000 | 85430 | 250.875 | 4.623 |
| 51 | 1/20/2000 | 85500 | 250.875 | 4.623 |
| 52 | 1/20/2000 | 85530 | 249.129 | 4.509 |
| 53 | 1/20/2000 | 85600 | 249.129 | 4.509 |
| 54 | 1/20/2000 | 85630 | 249.489 | 5.502 |
| 55 | 1/20/2000 | 85700 | 249.489 | 5.502 |
| 56 | 1/20/2000 | 85730 | 250.09 | 7.377 |
| 57 | 1/20/2000 | 85800 | 250.09 | 7.377 |
| 58 | 1/20/2000 | 85830 | 250.521 | 5.846 |
| 59 | 1/20/2000 | 85900 | 250.521 | 5.846 |
| 60 | 1/20/2000 | 85930 | 251.126 | 4.882 |
| 61 | 1/20/2000 | 90000 | 251.126 | 4.882 |
| 62 | 1/20/2000 | 90030 | 249.542 | 4.371 |
| 63 | 1/20/2000 | 90100 | 249.542 | 4.371 |
| 64 | 1/20/2000 | 90130 | 249.544 | 4.37 |
| 65 | 1/20/2000 | 90200 | 249.544 | 4.37 |
| 66 | 1/20/2000 | 90230 | 249.546 | 5.059 |
| 67 | 1/20/2000 | 90300 | 249.546 | 5.059 |

| Record# | DATE | TIME | WT4GENA1 | WT4OPAA2 |
|---|---|---|---|---|
| 68 | 1/20/2000 | 90330 | 250.268 | 6.039 |
| 69 | 1/20/2000 | 90400 | 250.268 | 6.039 |
| 70 | 1/20/2000 | 90430 | 250.719 | 5.798 |
| 71 | 1/20/2000 | 90500 | 250.719 | 5.798 |
| 72 | 1/20/2000 | 90530 | 250.962 | 4.32 |
| 73 | 1/20/2000 | 90600 | 250.962 | 4.32 |
| 74 | 1/20/2000 | 90630 | 250.037 | 4.368 |
| 75 | 1/20/2000 | 90700 | 250.037 | 4.368 |
| 76 | 1/20/2000 | 90730 | 249.801 | 4.104 |
| 77 | 1/20/2000 | 90800 | 249.801 | 4.104 |
| 78 | 1/20/2000 | 90830 | 249.144 | 4.16 |
| 79 | 1/20/2000 | 90900 | 249.144 | 4.16 |
| 80 | 1/20/2000 | 90930 | 250.223 | 3.631 |
| 81 | 1/20/2000 | 91000 | 250.223 | 3.631 |
| 82 | 1/20/2000 | 91030 | 249.849 | 4.183 |
| 83 | 1/20/2000 | 91100 | 249.849 | 4.183 |
| 84 | 1/20/2000 | 91130 | 249.876 | 4.667 |
| 85 | 1/20/2000 | 91200 | 249.876 | 4.667 |
| 86 | 1/20/2000 | 91230 | 250.342 | 4.306 |
| 87 | 1/20/2000 | 91300 | 250.342 | 4.306 |
| 88 | 1/20/2000 | 91330 | 250.467 | 4.203 |
| 89 | 1/20/2000 | 91400 | 250.467 | 4.203 |
| 90 | 1/20/2000 | 91430 | 250.027 | 4.228 |
| 91 | 1/20/2000 | 91500 | 250.027 | 4.228 |
| 92 | 1/20/2000 | 91530 | 249.418 | 4.013 |
| 93 | 1/20/2000 | 91600 | 249.418 | 4.013 |
| 94 | 1/20/2000 | 91630 | 249.1 | 5.959 |
| 95 | 1/20/2000 | 91700 | 249.1 | 5.959 |
| 96 | 1/20/2000 | 91730 | 249.238 | 6.135 |
| 97 | 1/20/2000 | 91800 | 249.238 | 6.135 |
| 98 | 1/20/2000 | 91830 | 250.754 | 4.827 |
| 99 | 1/20/2000 | 91900 | 250.754 | 4.827 |
| 100 | 1/20/2000 | 91930 | 250.702 | 4.993 |
| 101 | 1/20/2000 | 92000 | 250.702 | 4.993 |
| 102 | 1/20/2000 | 92030 | 251.042 | 6.063 |
| 103 | 1/20/2000 | 92100 | 251.042 | 6.063 |
| 104 | 1/20/2000 | 92130 | 250.379 | 5.741 |
| 105 | 1/20/2000 | 92200 | 250.379 | 5.741 |
| 106 | 1/20/2000 | 92230 | 249.689 | 5.986 |
| 107 | 1/20/2000 | 92300 | 249.689 | 5.986 |
| 108 | 1/20/2000 | 92330 | 249.356 | 7.719 |
| 109 | 1/20/2000 | 92400 | 249.356 | 7.719 |
| 110 | 1/20/2000 | 92430 | 249.133 | 6.611 |
| 111 | 1/20/2000 | 92500 | 249.133 | 6.611 |
| 112 | 1/20/2000 | 92530 | 250.256 | 4.99 |
| 113 | 1/20/2000 | 92600 | 250.256 | 4.99 |
| 114 | 1/20/2000 | 92630 | 250.644 | 4.538 |
| 115 | 1/20/2000 | 92700 | 250.644 | 4.538 |
| 116 | 1/20/2000 | 92730 | 250.226 | 5.378 |
| 117 | 1/20/2000 | 92800 | 250.226 | 5.378 |
| 118 | 1/20/2000 | 92830 | 249.521 | 4.493 |
| 119 | 1/20/2000 | 92900 | 249.521 | 4.493 |
| 120 | 1/20/2000 | 92930 | 249.519 | 4.427 |
| 121 | 1/20/2000 | 93000 | 249.519 | 4.427 |
| 122 | 1/20/2000 | 93030 | 249.751 | 4.717 |
| 123 | 1/20/2000 | 93100 | 249.751 | 4.717 |
| 124 | 1/20/2000 | 93130 | 250.153 | 4.737 |
| 125 | 1/20/2000 | 93200 | 250.153 | 4.737 |
| 126 | 1/20/2000 | 93230 | 249.961 | 4.458 |
| 127 | 1/20/2000 | 93300 | 249.961 | 4.458 |
| 128 | 1/20/2000 | 93330 | 249.87 | 4.715 |
| 129 | 1/20/2000 | 93400 | 249.87 | 4.715 |
| 130 | 1/20/2000 | 93430 | 250.19 | 4.306 |
| 131 | 1/20/2000 | 93500 | 250.19 | 4.306 |
| 132 | 1/20/2000 | 93530 | 250.589 | 6.054 |
| 133 | 1/20/2000 | 93600 | 250.589 | 6.054 |
| 134 | 1/20/2000 | 93630 | 250.124 | 6.808 |

| Record# | DATE | TIME | WT4GENA1 | WT4OPAA2 |
|---|---|---|---|---|
| 135 | 1/20/2000 | 93700 | 250.124 | 6.808 |
| 136 | 1/20/2000 | 93730 | 249.81 | 5.951 |
| 137 | 1/20/2000 | 93800 | 249.81 | 5.951 |
| 138 | 1/20/2000 | 93830 | 249.527 | 4.637 |
| 139 | 1/20/2000 | 93900 | 249.527 | 4.637 |
| 140 | 1/20/2000 | 93930 | 249.522 | 4.511 |
| 141 | 1/20/2000 | 94000 | 249.522 | 4.511 |
| 142 | 1/20/2000 | 94030 | 249.39 | 4.244 |
| 143 | 1/20/2000 | 94100 | 249.39 | 4.244 |
| 144 | 1/20/2000 | 94130 | 249.599 | 5.033 |
| 145 | 1/20/2000 | 94200 | 249.599 | 5.033 |
| 146 | 1/20/2000 | 94230 | 250.014 | 6.187 |
| 147 | 1/20/2000 | 94300 | 250.014 | 6.187 |
| 148 | 1/20/2000 | 94330 | 249.973 | 6.394 |
| 149 | 1/20/2000 | 94400 | 249.973 | 6.394 |
| 150 | 1/20/2000 | 94430 | 250.298 | 5.529 |
| 151 | 1/20/2000 | 94500 | 250.298 | 5.529 |
| 152 | 1/20/2000 | 94530 | 250.651 | 4.384 |
| 153 | 1/20/2000 | 94600 | 250.651 | 4.384 |
| 154 | 1/20/2000 | 94630 | 250.472 | 4.676 |
| 155 | 1/20/2000 | 94700 | 250.472 | 4.676 |
| 156 | 1/20/2000 | 94730 | 250.005 | 4.822 |
| 157 | 1/20/2000 | 94800 | 250.005 | 4.822 |
| 158 | 1/20/2000 | 94830 | 250.408 | 4.786 |
| 159 | 1/20/2000 | 94900 | 250.408 | 4.786 |
| 160 | 1/20/2000 | 94930 | 250.276 | 4.809 |
| 161 | 1/20/2000 | 95000 | 250.276 | 4.809 |
| 162 | 1/20/2000 | 95030 | 250.567 | 4.338 |
| 163 | 1/20/2000 | 95100 | 250.567 | 4.338 |
| 164 | 1/20/2000 | 95130 | 250.03 | 4.138 |
| 165 | 1/20/2000 | 95200 | 250.03 | 4.138 |
| 166 | 1/20/2000 | 95230 | 249.802 | 4.27 |
| 167 | 1/20/2000 | 95300 | 249.802 | 4.27 |
| 168 | 1/20/2000 | 95330 | 249.085 | 4.668 |
| 169 | 1/20/2000 | 95400 | 249.085 | 4.668 |
| 170 | 1/20/2000 | 95430 | 250.003 | 4.818 |
| 171 | 1/20/2000 | 95500 | 250.003 | 4.818 |
| 172 | 1/20/2000 | 95530 | 250.564 | 6.99 |
| 173 | 1/20/2000 | 95600 | 250.564 | 6.99 |
| 174 | 1/20/2000 | 95630 | 250.67 | 6.322 |
| 175 | 1/20/2000 | 95700 | 250.67 | 6.322 |
| 176 | 1/20/2000 | 95730 | 250.35 | 4.979 |
| 177 | 1/20/2000 | 95800 | 250.35 | 4.979 |
| 178 | 1/20/2000 | 95830 | 249.674 | 4.962 |
| 179 | 1/20/2000 | 95900 | 249.674 | 4.962 |
| 180 | 1/20/2000 | 95930 | 249.881 | 4.877 |
| 181 | 1/20/2000 | 100000 | 249.881 | 4.877 |
| 182 | 1/20/2000 | 100030 | 250.15 | 5.545 |
| 183 | 1/20/2000 | 100100 | 250.15 | 5.545 |
| 184 | 1/20/2000 | 100130 | 249.949 | 5.362 |
| 185 | 1/20/2000 | 100200 | 249.949 | 5.362 |
| 186 | 1/20/2000 | 100230 | 250.213 | 6.497 |
| 187 | 1/20/2000 | 100300 | 250.213 | 6.497 |
| 188 | 1/20/2000 | 100330 | 249.89 | 5.813 |
| 189 | 1/20/2000 | 100400 | 249.89 | 5.813 |
| 190 | 1/20/2000 | 100430 | 250.287 | 4.497 |
| 191 | 1/20/2000 | 100500 | 250.287 | 4.497 |
| 192 | 1/20/2000 | 100530 | 250.039 | 4.51 |
| 193 | 1/20/2000 | 100600 | 250.039 | 4.51 |
| 194 | 1/20/2000 | 100630 | 250.276 | 5.504 |
| 195 | 1/20/2000 | 100700 | 250.276 | 5.504 |
| 196 | 1/20/2000 | 100730 | 250.599 | 4.544 |
| 197 | 1/20/2000 | 100800 | 250.599 | 4.544 |
| 198 | 1/20/2000 | 100830 | 250.012 | 3.959 |
| 199 | 1/20/2000 | 100900 | 250.012 | 3.959 |
| 200 | 1/20/2000 | 100930 | 249.163 | 5.137 |
| 201 | 1/20/2000 | 101000 | 249.163 | 5.137 |

| Record# | DATE | TIME | WT4GENA1 | WT4OPAA2 |
|---|---|---|---|---|
| 202 | 1/20/2000 | 101030 | 249.736 | 5.474 |
| 203 | 1/20/2000 | 101100 | 249.736 | 5.474 |
| 204 | 1/20/2000 | 101130 | 250.954 | 4.894 |
| 205 | 1/20/2000 | 101200 | 250.954 | 4.894 |
| 206 | 1/20/2000 | 101230 | 250.359 | 5.23 |
| 207 | 1/20/2000 | 101300 | 250.359 | 5.23 |
| 208 | 1/20/2000 | 101330 | 249.804 | 4.687 |
| 209 | 1/20/2000 | 101400 | 249.804 | 4.687 |
| 210 | 1/20/2000 | 101430 | 249.55 | 6.33 |
| 211 | 1/20/2000 | 101500 | 249.55 | 6.33 |
| 212 | 1/20/2000 | 101530 | 250.013 | 6.319 |
| 213 | 1/20/2000 | 101600 | 250.013 | 6.319 |
| 214 | 1/20/2000 | 101630 | 249.989 | 6.355 |
| 215 | 1/20/2000 | 101700 | 249.989 | 6.355 |
| 216 | 1/20/2000 | 101730 | 250.261 | 4.762 |
| 217 | 1/20/2000 | 101800 | 250.261 | 4.762 |
| 218 | 1/20/2000 | 101830 | 250.25 | 4.642 |
| 219 | 1/20/2000 | 101900 | 250.25 | 4.642 |
| 220 | 1/20/2000 | 101930 | 250.481 | 4.681 |
| 221 | 1/20/2000 | 102000 | 250.481 | 4.681 |
| 222 | 1/20/2000 | 102030 | 250.277 | 4.351 |
| 223 | 1/20/2000 | 102100 | 250.277 | 4.351 |
| 224 | 1/20/2000 | 102130 | 250.071 | 3.945 |
| 225 | 1/20/2000 | 102200 | 250.071 | 3.945 |
| 226 | 1/20/2000 | 102230 | 249.615 | 4.403 |
| 227 | 1/20/2000 | 102300 | 249.615 | 4.403 |
| 228 | 1/20/2000 | 102330 | 249.209 | 4.534 |
| 229 | 1/20/2000 | 102400 | 249.209 | 4.534 |
| 230 | 1/20/2000 | 102430 | 249.762 | 5.692 |
| 231 | 1/20/2000 | 102500 | 249.762 | 5.692 |
| 232 | 1/20/2000 | 102530 | 250.58 | 7.033 |
| 233 | 1/20/2000 | 102600 | 250.58 | 7.033 |
| 234 | 1/20/2000 | 102630 | 250.674 | 4.712 |
| 235 | 1/20/2000 | 102700 | 250.674 | 4.712 |
| 236 | 1/20/2000 | 102730 | 249.852 | 4.429 |
| 237 | 1/20/2000 | 102800 | 249.852 | 4.429 |
| 238 | 1/20/2000 | 102830 | 248.919 | 4.472 |
| 239 | 1/20/2000 | 102900 | 248.919 | 4.472 |
| 240 | 1/20/2000 | 102930 | 249.898 | 4.635 |
| 241 | 1/20/2000 | 103000 | 249.898 | 4.635 |
| 242 | 1/20/2000 | 103030 | 250.256 | 4.644 |
| 243 | 1/20/2000 | 103100 | 250.256 | 4.644 |
| 244 | 1/20/2000 | 103130 | 250.037 | 4.46 |
| 245 | 1/20/2000 | 103200 | 250.037 | 4.46 |
| 246 | 1/20/2000 | 103230 | 250.061 | 4.219 |
| 247 | 1/20/2000 | 103300 | 250.061 | 4.219 |
| 248 | 1/20/2000 | 103330 | 250.054 | 5.679 |
| 249 | 1/20/2000 | 103400 | 250.054 | 5.679 |
| 250 | 1/20/2000 | 103430 | 250.177 | 6.291 |
| 251 | 1/20/2000 | 103500 | 250.177 | 6.291 |
| 252 | 1/20/2000 | 103530 | 250.885 | 6.057 |
| 253 | 1/20/2000 | 103600 | 250.885 | 6.057 |
| 254 | 1/20/2000 | 103630 | 250.337 | 4.827 |
| 255 | 1/20/2000 | 103700 | 250.337 | 4.827 |
| 256 | 1/20/2000 | 103730 | 249.309 | 4.108 |
| 257 | 1/20/2000 | 103800 | 249.309 | 4.108 |
| 258 | 1/20/2000 | 103830 | 249.55 | 4.062 |
| 259 | 1/20/2000 | 103900 | 249.55 | 4.062 |
| 260 | 1/20/2000 | 103930 | 249.836 | 4.683 |
| 261 | 1/20/2000 | 104000 | 249.836 | 4.683 |
| 262 | 1/20/2000 | 104030 | 249.979 | 4.232 |
| 263 | 1/20/2000 | 104100 | 249.979 | 4.232 |
| 264 | 1/20/2000 | 104130 | 250.275 | 4.639 |
| 265 | 1/20/2000 | 104200 | 250.275 | 4.639 |
| 266 | 1/20/2000 | 104230 | 251.032 | 5.004 |
| 267 | 1/20/2000 | 104300 | 251.032 | 5.004 |
| 268 | 1/20/2000 | 104330 | 250.294 | 5.857 |

| Record# | DATE | TIME | WT4GENA1 | WT4OPAA2 |
|---|---|---|---|---|
| 269 | 1/20/2000 | 104400 | 250.294 | 5.857 |
| 270 | 1/20/2000 | 104430 | 250.023 | 6.937 |
| 271 | 1/20/2000 | 104500 | 250.023 | 6.937 |
| 272 | 1/20/2000 | 104530 | 250.067 | 5.982 |
| 273 | 1/20/2000 | 104600 | 250.067 | 5.982 |
| 274 | 1/20/2000 | 104630 | 250.037 | 5.013 |
| 275 | 1/20/2000 | 104700 | 250.037 | 5.013 |
| 276 | 1/20/2000 | 104730 | 250.289 | 4.725 |
| 277 | 1/20/2000 | 104800 | 250.289 | 4.725 |
| 278 | 1/20/2000 | 104830 | 250.736 | 4.978 |
| 279 | 1/20/2000 | 104900 | 250.736 | 4.978 |
| 280 | 1/20/2000 | 104930 | 249.961 | 4.809 |
| 281 | 1/20/2000 | 105000 | 249.961 | 4.809 |
| 282 | 1/20/2000 | 105030 | 249.63 | 4.441 |
| 283 | 1/20/2000 | 105100 | 249.63 | 4.441 |
| 284 | 1/20/2000 | 105130 | 249.53 | 4.848 |
| 285 | 1/20/2000 | 105200 | 249.53 | 4.848 |
| 286 | 1/20/2000 | 105230 | 249.822 | 4.977 |
| 287 | 1/20/2000 | 105300 | 249.822 | 4.977 |
| 288 | 1/20/2000 | 105330 | 249.963 | 6.241 |
| 289 | 1/20/2000 | 105400 | 249.963 | 6.241 |
| 290 | 1/20/2000 | 105430 | 250.558 | 6.472 |
| 291 | 1/20/2000 | 105500 | 250.558 | 6.472 |
| 292 | 1/20/2000 | 105530 | 250.27 | 5.889 |
| 293 | 1/20/2000 | 105600 | 250.27 | 5.889 |
| 294 | 1/20/2000 | 105630 | 249.887 | 5.579 |
| 295 | 1/20/2000 | 105700 | 249.887 | 5.579 |
| 296 | 1/20/2000 | 105730 | 249.536 | 4.84 |
| 297 | 1/20/2000 | 105800 | 249.536 | 4.84 |
| 298 | 1/20/2000 | 105830 | 249.765 | 5.043 |
| 299 | 1/20/2000 | 105900 | 249.765 | 5.043 |
| 300 | 1/20/2000 | 105930 | 250.01 | 5.048 |
| 301 | 1/20/2000 | 110000 | 250.01 | 5.048 |
| 302 | 1/20/2000 | 110030 | 250.594 | 4.558 |
| 303 | 1/20/2000 | 110100 | 250.594 | 4.558 |
| 304 | 1/20/2000 | 110130 | 250.04 | 4.77 |
| 305 | 1/20/2000 | 110200 | 250.04 | 4.77 |
| 306 | 1/20/2000 | 110230 | 249.171 | 4.569 |
| 307 | 1/20/2000 | 110300 | 249.171 | 4.569 |
| 308 | 1/20/2000 | 110330 | 249.513 | 5.701 |
| 309 | 1/20/2000 | 110400 | 249.513 | 5.701 |
| 310 | 1/20/2000 | 110430 | 249.254 | 7.972 |
| 311 | 1/20/2000 | 110500 | 249.254 | 7.972 |
| 312 | 1/20/2000 | 110530 | 249.943 | 5.728 |
| 313 | 1/20/2000 | 110600 | 249.943 | 5.728 |
| 314 | 1/20/2000 | 110630 | 250.328 | 4.439 |
| 315 | 1/20/2000 | 110700 | 250.328 | 4.439 |
| 316 | 1/20/2000 | 110730 | 250.348 | 4.356 |
| 317 | 1/20/2000 | 110800 | 250.348 | 4.356 |
| 318 | 1/20/2000 | 110830 | 249.854 | 4.467 |
| 319 | 1/20/2000 | 110900 | 249.854 | 4.467 |
| 320 | 1/20/2000 | 110930 | 249.071 | 4.114 |
| 321 | 1/20/2000 | 111000 | 249.071 | 4.114 |
| 322 | 1/20/2000 | 111030 | 248.936 | 3.813 |
| 323 | 1/20/2000 | 111100 | 248.936 | 3.813 |
| 324 | 1/20/2000 | 111130 | 249.428 | 4.341 |
| 325 | 1/20/2000 | 111200 | 249.428 | 4.341 |
| 326 | 1/20/2000 | 111230 | 249.53 | 5.689 |
| 327 | 1/20/2000 | 111300 | 249.53 | 5.689 |
| 328 | 1/20/2000 | 111330 | 249.924 | 6.131 |
| 329 | 1/20/2000 | 111400 | 249.924 | 6.131 |
| 330 | 1/20/2000 | 111430 | 249.722 | 5.384 |
| 331 | 1/20/2000 | 111500 | 249.722 | 5.384 |
| 332 | 1/20/2000 | 111530 | 249.851 | 4.763 |
| 333 | 1/20/2000 | 111600 | 249.851 | 4.763 |
| 334 | 1/20/2000 | 111630 | 249.822 | 5.231 |
| 335 | 1/20/2000 | 111700 | 249.822 | 5.231 |

| Record# | DATE | TIME | WT4GENA1 | WT4OPAA2 |
|---|---|---|---|---|
| 336 | 1/20/2000 | 111730 | 249.66 | 4.627 |
| 337 | 1/20/2000 | 111800 | 249.66 | 4.627 |
| 338 | 1/20/2000 | 111830 | 250.122 | 4.124 |
| 339 | 1/20/2000 | 111900 | 250.122 | 4.124 |
| 340 | 1/20/2000 | 111930 | 250.639 | 3.538 |
| 341 | 1/20/2000 | 112000 | 250.639 | 3.538 |
| 342 | 1/20/2000 | 112030 | 249.98 | 3.579 |
| 343 | 1/20/2000 | 112100 | 249.98 | 3.579 |
| 344 | 1/20/2000 | 112130 | 249.148 | 3.256 |
| 345 | 1/20/2000 | 112200 | 249.148 | 3.256 |
| 346 | 1/20/2000 | 112230 | 249.152 | 4.185 |
| 347 | 1/20/2000 | 112300 | 249.152 | 4.185 |
| 348 | 1/20/2000 | 112330 | 250.178 | 5.939 |
| 349 | 1/20/2000 | 112400 | 250.178 | 5.939 |
| 350 | 1/20/2000 | 112430 | 250.449 | 5.663 |
| 351 | 1/20/2000 | 112500 | 250.449 | 5.663 |
| 352 | 1/20/2000 | 112530 | 250.642 | 5.537 |
| 353 | 1/20/2000 | 112600 | 250.642 | 5.537 |
| 354 | 1/20/2000 | 112630 | 250.528 | 3.722 |
| 355 | 1/20/2000 | 112700 | 250.528 | 3.722 |
| 356 | 1/20/2000 | 112730 | 249.75 | 3.409 |
| 357 | 1/20/2000 | 112800 | 249.75 | 3.409 |
| 358 | 1/20/2000 | 112830 | 249.591 | 3.742 |
| 359 | 1/20/2000 | 112900 | 249.591 | 3.742 |
| 360 | 1/20/2000 | 112930 | 249.924 | 3.73 |
| 361 | 1/20/2000 | 113000 | 249.924 | 3.73 |
| 362 | 1/20/2000 | 113030 | 249.871 | 4.41 |
| 363 | 1/20/2000 | 113100 | 249.871 | 4.41 |
| 364 | 1/20/2000 | 113130 | 249.703 | 4.879 |
| 365 | 1/20/2000 | 113200 | 249.703 | 4.879 |
| 366 | 1/20/2000 | 113230 | 249.269 | 5.786 |
| 367 | 1/20/2000 | 113300 | 249.269 | 5.786 |
| 368 | 1/20/2000 | 113330 | 249.47 | 5.786 |
| 369 | 1/20/2000 | 113400 | 249.47 | 5.786 |
| 370 | 1/20/2000 | 113430 | 250.075 | 5.786 |
| 371 | 1/20/2000 | 113500 | 250.075 | 5.786 |
| 372 | 1/20/2000 | 113530 | 250.896 | 5.786 |
| 373 | 1/20/2000 | 113600 | 250.896 | 5.786 |
| 374 | 1/20/2000 | 113630 | 250.104 | 5.786 |
| 375 | 1/20/2000 | 113700 | 250.104 | 5.786 |
| 376 | 1/20/2000 | 113730 | 249.623 | 4.106 |
| 377 | 1/20/2000 | 113800 | 249.623 | 4.106 |
| 378 | 1/20/2000 | 113830 | 249.525 | 3.752 |
| 379 | 1/20/2000 | 113900 | 249.525 | 3.752 |
| 380 | 1/20/2000 | 113930 | 249.437 | 3.444 |
| 381 | 1/20/2000 | 114000 | 249.437 | 3.444 |
| 382 | 1/20/2000 | 114030 | 250.21 | 3.76 |
| 383 | 1/20/2000 | 114100 | 250.21 | 3.76 |
| 384 | 1/20/2000 | 114130 | 249.897 | 4.21 |
| 385 | 1/20/2000 | 114200 | 249.897 | 4.21 |
| 386 | 1/20/2000 | 114230 | 250.565 | 5.777 |
| 387 | 1/20/2000 | 114300 | 250.565 | 5.777 |
| 388 | 1/20/2000 | 114330 | 250.664 | 6.876 |
| 389 | 1/20/2000 | 114400 | 250.664 | 6.876 |
| 390 | 1/20/2000 | 114430 | 250.015 | 4.057 |
| 391 | 1/20/2000 | 114500 | 250.015 | 4.057 |
| 392 | 1/20/2000 | 114530 | 249.966 | 3.535 |
| 393 | 1/20/2000 | 114600 | 249.966 | 3.535 |
| 394 | 1/20/2000 | 114630 | 249.928 | 3.981 |
| 395 | 1/20/2000 | 114700 | 249.928 | 3.981 |
| 396 | 1/20/2000 | 114730 | 249.545 | 4.658 |
| 397 | 1/20/2000 | 114800 | 249.545 | 4.658 |
| 398 | 1/20/2000 | 114830 | 249.152 | 4.768 |
| 399 | 1/20/2000 | 114900 | 249.152 | 4.768 |
| 400 | 1/20/2000 | 114930 | 250.343 | 4.864 |
| 401 | 1/20/2000 | 115000 | 250.343 | 4.864 |
| 402 | / / | | | |

| Record# | DATE | TIME | WT4GENA1 | WT4OPAA2 |
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| 403 | / / | AVE | 249.9656608 | 4.932753117 |

| Record# | DATE | TIME | WT4OPAA1 | WT4GENA2 |
|---|---|---|---|---|
| 1 | 1/20/2000 | 133000 | 9.475 | 250.18 |
| 2 | 1/20/2000 | 133030 | 6.82 | 250.613 |
| 3 | 1/20/2000 | 133100 | 6.82 | 250.613 |
| 4 | 1/20/2000 | 133130 | 6.933 | 250.306 |
| 5 | 1/20/2000 | 133200 | 6.933 | 250.306 |
| 6 | 1/20/2000 | 133230 | 6.177 | 249.824 |
| 7 | 1/20/2000 | 133300 | 6.177 | 249.824 |
| 8 | 1/20/2000 | 133330 | 6.177 | 249.572 |
| 9 | 1/20/2000 | 133400 | 6.177 | 249.572 |
| 10 | 1/20/2000 | 133430 | 6.177 | 249.9 |
| 11 | 1/20/2000 | 133500 | 6.177 | 249.9 |
| 12 | 1/20/2000 | 133530 | 5.969 | 250.208 |
| 13 | 1/20/2000 | 133600 | 5.969 | 250.208 |
| 14 | 1/20/2000 | 133630 | 6.381 | 249.9 |
| 15 | 1/20/2000 | 133700 | 6.381 | 249.9 |
| 16 | 1/20/2000 | 133730 | 6.092 | 250.244 |
| 17 | 1/20/2000 | 133800 | 6.092 | 250.244 |
| 18 | 1/20/2000 | 133830 | 6.058 | 250.192 |
| 19 | 1/20/2000 | 133900 | 6.058 | 250.192 |
| 20 | 1/20/2000 | 133930 | 7.006 | 250.447 |
| 21 | 1/20/2000 | 134000 | 7.006 | 250.447 |
| 22 | 1/20/2000 | 134030 | 8.512 | 250.253 |
| 23 | 1/20/2000 | 134100 | 8.512 | 250.253 |
| 24 | 1/20/2000 | 134130 | 5.842 | 250.016 |
| 25 | 1/20/2000 | 134200 | 5.842 | 250.016 |
| 26 | 1/20/2000 | 134230 | 5.389 | 249.687 |
| 27 | 1/20/2000 | 134300 | 5.389 | 249.687 |
| 28 | 1/20/2000 | 134330 | 6.219 | 249.137 |
| 29 | 1/20/2000 | 134400 | 6.219 | 249.137 |
| 30 | 1/20/2000 | 134430 | 6.012 | 249.752 |
| 31 | 1/20/2000 | 134500 | 6.012 | 249.752 |
| 32 | 1/20/2000 | 134530 | 5.455 | 250.648 |
| 33 | 1/20/2000 | 134600 | 5.455 | 250.648 |
| 34 | 1/20/2000 | 134630 | 6.207 | 250.667 |
| 35 | 1/20/2000 | 134700 | 6.207 | 250.667 |
| 36 | 1/20/2000 | 134730 | 7.182 | 249.911 |
| 37 | 1/20/2000 | 134800 | 7.182 | 249.911 |
| 38 | 1/20/2000 | 134830 | 8.621 | 249.109 |
| 39 | 1/20/2000 | 134900 | 8.621 | 249.109 |
| 40 | 1/20/2000 | 134930 | 6.854 | 249.558 |
| 41 | 1/20/2000 | 135000 | 6.854 | 249.558 |
| 42 | 1/20/2000 | 135030 | 6.234 | 250.253 |
| 43 | 1/20/2000 | 135100 | 6.234 | 250.253 |
| 44 | 1/20/2000 | 135130 | 5.974 | 250.332 |
| 45 | 1/20/2000 | 135200 | 5.974 | 250.332 |
| 46 | 1/20/2000 | 135230 | 6.291 | 250.441 |
| 47 | 1/20/2000 | 135300 | 6.291 | 250.441 |
| 48 | 1/20/2000 | 135330 | 6.525 | 250.169 |
| 49 | 1/20/2000 | 135400 | 6.525 | 250.169 |
| 50 | 1/20/2000 | 135430 | 6.587 | 250.195 |
| 51 | 1/20/2000 | 135500 | 6.587 | 250.195 |
| 52 | 1/20/2000 | 135530 | 5.874 | 249.81 |
| 53 | 1/20/2000 | 135600 | 5.874 | 249.81 |
| 54 | 1/20/2000 | 135630 | 5.711 | 249.989 |
| 55 | 1/20/2000 | 135700 | 5.711 | 249.989 |
| 56 | 1/20/2000 | 135730 | 5.575 | 249.84 |
| 57 | 1/20/2000 | 135800 | 5.575 | 249.84 |
| 58 | 1/20/2000 | 135830 | 5.887 | 249.832 |
| 59 | 1/20/2000 | 135900 | 5.887 | 249.832 |
| 60 | 1/20/2000 | 135930 | 9.33 | 249.588 |
| 61 | 1/20/2000 | 140000 | 9.33 | 249.588 |
| 62 | 1/20/2000 | 140030 | 6.824 | 249.837 |
| 63 | 1/20/2000 | 140100 | 6.824 | 249.837 |
| 64 | 1/20/2000 | 140130 | 5.168 | 249.92 |
| 65 | 1/20/2000 | 140200 | 5.168 | 249.92 |
| 66 | 1/20/2000 | 140230 | 4.835 | 250.25 |
| 67 | 1/20/2000 | 140300 | 4.835 | 250.25 |

| Record# | DATE | TIME | WT4OPAA1 | WT4GENA2 |
|---|---|---|---|---|
| 68 | 1/20/2000 | 140330 | 5.248 | 250.486 |
| 69 | 1/20/2000 | 140400 | 5.248 | 250.486 |
| 70 | 1/20/2000 | 140430 | 5.205 | 250.498 |
| 71 | 1/20/2000 | 140500 | 5.205 | 250.498 |
| 72 | 1/20/2000 | 140530 | 5.017 | 250.836 |
| 73 | 1/20/2000 | 140600 | 5.017 | 250.836 |
| 74 | 1/20/2000 | 140630 | 4.936 | 249.694 |
| 75 | 1/20/2000 | 140700 | 4.936 | 249.694 |
| 76 | 1/20/2000 | 140730 | 7.007 | 249.163 |
| 77 | 1/20/2000 | 140800 | 7.007 | 249.163 |
| 78 | 1/20/2000 | 140830 | 7.747 | 250.366 |
| 79 | 1/20/2000 | 140900 | 7.747 | 250.366 |
| 80 | 1/20/2000 | 140930 | 6.22 | 250.822 |
| 81 | 1/20/2000 | 141000 | 6.22 | 250.822 |
| 82 | 1/20/2000 | 141030 | 6.44 | 250.237 |
| 83 | 1/20/2000 | 141100 | 6.44 | 250.237 |
| 84 | 1/20/2000 | 141130 | 5.901 | 249.927 |
| 85 | 1/20/2000 | 141200 | 5.901 | 249.927 |
| 86 | 1/20/2000 | 141230 | 5.172 | 249.864 |
| 87 | 1/20/2000 | 141300 | 5.172 | 249.864 |
| 88 | 1/20/2000 | 141330 | 5.572 | 249.867 |
| 89 | 1/20/2000 | 141400 | 5.572 | 249.867 |
| 90 | 1/20/2000 | 141430 | 5.375 | 249.855 |
| 91 | 1/20/2000 | 141500 | 5.375 | 249.855 |
| 92 | 1/20/2000 | 141530 | 5.835 | 249.849 |
| 93 | 1/20/2000 | 141600 | 5.835 | 249.849 |
| 94 | 1/20/2000 | 141630 | 5.64 | 249.737 |
| 95 | 1/20/2000 | 141700 | 5.64 | 249.737 |
| 96 | 1/20/2000 | 141730 | 5.552 | 250.087 |
| 97 | 1/20/2000 | 141800 | 5.552 | 250.087 |
| 98 | 1/20/2000 | 141830 | 6.696 | 250.042 |
| 99 | 1/20/2000 | 141900 | 6.696 | 250.042 |
| 100 | 1/20/2000 | 141930 | 7.256 | 250.216 |
| 101 | 1/20/2000 | 142000 | 7.256 | 250.216 |
| 102 | 1/20/2000 | 142030 | 6.597 | 249.834 |
| 103 | 1/20/2000 | 142100 | 6.597 | 249.834 |
| 104 | 1/20/2000 | 142130 | 5.544 | 249.702 |
| 105 | 1/20/2000 | 142200 | 5.544 | 249.702 |
| 106 | 1/20/2000 | 142230 | 5.824 | 249.764 |
| 107 | 1/20/2000 | 142300 | 5.824 | 249.764 |
| 108 | 1/20/2000 | 142330 | 6.326 | 250.142 |
| 109 | 1/20/2000 | 142400 | 6.326 | 250.142 |
| 110 | 1/20/2000 | 142430 | 5.919 | 250.255 |
| 111 | 1/20/2000 | 142500 | 5.919 | 250.255 |
| 112 | 1/20/2000 | 142530 | 6.441 | 250.242 |
| 113 | 1/20/2000 | 142600 | 6.441 | 250.242 |
| 114 | 1/20/2000 | 142630 | 7.005 | 250.556 |
| 115 | 1/20/2000 | 142700 | 7.005 | 250.556 |
| 116 | 1/20/2000 | 142730 | 10.98 | 250.343 |
| 117 | 1/20/2000 | 142800 | 10.98 | 250.343 |
| 118 | 1/20/2000 | 142830 | 8.564 | 250.228 |
| 119 | 1/20/2000 | 142900 | 8.564 | 250.228 |
| 120 | 1/20/2000 | 142930 | 6.797 | 250.231 |
| 121 | 1/20/2000 | 143000 | 6.797 | 250.231 |
| 122 | 1/20/2000 | 143030 | 5.691 | 249.898 |
| 123 | 1/20/2000 | 143100 | 5.691 | 249.898 |
| 124 | 1/20/2000 | 143130 | 5.489 | 249.707 |
| 125 | 1/20/2000 | 143200 | 5.489 | 249.707 |
| 126 | 1/20/2000 | 143230 | 5.635 | 249.652 |
| 127 | 1/20/2000 | 143300 | 5.635 | 249.652 |
| 128 | 1/20/2000 | 143330 | 5.373 | 249.809 |
| 129 | 1/20/2000 | 143400 | 5.373 | 249.809 |
| 130 | 1/20/2000 | 143430 | 5.062 | 250.587 |
| 131 | 1/20/2000 | 143500 | 5.062 | 250.587 |
| 132 | 1/20/2000 | 143530 | 5.025 | 250.449 |
| 133 | 1/20/2000 | 143600 | 5.025 | 250.449 |
| 134 | 1/20/2000 | 143630 | 4.835 | 250.675 |

| Record# | DATE | TIME | WT4OPAA1 | WT4GENA2 |
|---|---|---|---|---|
| 135 | 1/20/2000 | 143700 | 4.835 | 250.675 |
| 136 | 1/20/2000 | 143730 | 4.814 | 250.027 |
| 137 | 1/20/2000 | 143800 | 4.814 | 250.027 |
| 138 | 1/20/2000 | 143830 | 7.412 | 249.561 |
| 139 | 1/20/2000 | 143900 | 7.412 | 249.561 |
| 140 | 1/20/2000 | 143930 | 6.873 | 250.176 |
| 141 | 1/20/2000 | 144000 | 6.873 | 250.176 |
| 142 | 1/20/2000 | 144030 | 4.776 | 250.223 |
| 143 | 1/20/2000 | 144100 | 4.776 | 250.223 |
| 144 | 1/20/2000 | 144130 | 5.03 | 250.138 |
| 145 | 1/20/2000 | 144200 | 5.03 | 250.138 |
| 146 | 1/20/2000 | 144230 | 4.88 | 249.802 |
| 147 | 1/20/2000 | 144300 | 4.88 | 249.802 |
| 148 | 1/20/2000 | 144330 | 4.783 | 249.6 |
| 149 | 1/20/2000 | 144400 | 4.783 | 249.6 |
| 150 | 1/20/2000 | 144430 | 4.648 | 249.233 |
| 151 | 1/20/2000 | 144500 | 4.648 | 249.233 |
| 152 | 1/20/2000 | 144530 | 4.755 | 249.798 |
| 153 | 1/20/2000 | 144600 | 4.755 | 249.798 |
| 154 | 1/20/2000 | 144630 | 6.183 | 250.368 |
| 155 | 1/20/2000 | 144700 | 6.183 | 250.368 |
| 156 | 1/20/2000 | 144730 | 7.926 | 250.61 |
| 157 | 1/20/2000 | 144800 | 7.926 | 250.61 |
| 158 | 1/20/2000 | 144830 | 5.744 | 249.642 |
| 159 | 1/20/2000 | 144900 | 5.744 | 249.642 |
| 160 | 1/20/2000 | 144930 | 5.844 | 249.271 |
| 161 | 1/20/2000 | 145000 | 5.844 | 249.271 |
| 162 | 1/20/2000 | 145030 | 5.193 | 249.971 |
| 163 | 1/20/2000 | 145100 | 5.193 | 249.971 |
| 164 | 1/20/2000 | 145130 | 5.437 | 250.065 |
| 165 | 1/20/2000 | 145200 | 5.437 | 250.065 |
| 166 | 1/20/2000 | 145230 | 5.554 | 250.227 |
| 167 | 1/20/2000 | 145300 | 5.554 | 250.227 |
| 168 | 1/20/2000 | 145330 | 5.387 | 250.372 |
| 169 | 1/20/2000 | 145400 | 5.387 | 250.372 |
| 170 | 1/20/2000 | 145430 | 5.483 | 249.801 |
| 171 | 1/20/2000 | 145500 | 5.483 | 249.801 |
| 172 | 1/20/2000 | 145530 | 5.368 | 249.212 |
| 173 | 1/20/2000 | 145600 | 5.368 | 249.212 |
| 174 | 1/20/2000 | 145630 | 5.499 | 249.365 |
| 175 | 1/20/2000 | 145700 | 5.499 | 249.365 |
| 176 | 1/20/2000 | 145730 | 6.322 | 249.225 |
| 177 | 1/20/2000 | 145800 | 6.322 | 249.225 |
| 178 | 1/20/2000 | 145830 | 8.312 | 250.181 |
| 179 | 1/20/2000 | 145900 | 8.312 | 250.181 |
| 180 | 1/20/2000 | 145930 | 7.583 | 250.814 |
| 181 | 1/20/2000 | 150000 | 7.583 | 250.814 |
| 182 | 1/20/2000 | 150030 | 5.503 | 250.629 |
| 183 | 1/20/2000 | 150100 | 5.503 | 250.629 |
| 184 | 1/20/2000 | 150130 | 5.909 | 249.785 |
| 185 | 1/20/2000 | 150200 | 5.909 | 249.785 |
| 186 | 1/20/2000 | 150230 | 5.438 | 249.555 |
| 187 | 1/20/2000 | 150300 | 5.438 | 249.555 |
| 188 | 1/20/2000 | 150330 | 5.672 | 249.618 |
| 189 | 1/20/2000 | 150400 | 5.672 | 249.618 |
| 190 | 1/20/2000 | 150430 | 5.257 | 250.326 |
| 191 | 1/20/2000 | 150500 | 5.257 | 250.326 |
| 192 | 1/20/2000 | 150530 | 5.961 | 250.638 |
| 193 | 1/20/2000 | 150600 | 5.961 | 250.638 |
| 194 | 1/20/2000 | 150630 | 8.666 | 250.049 |
| 195 | 1/20/2000 | 150700 | 8.666 | 250.049 |
| 196 | 1/20/2000 | 150730 | 7.405 | 249.801 |
| 197 | 1/20/2000 | 150800 | 7.405 | 249.801 |
| 198 | 1/20/2000 | 150830 | 5.629 | 249.146 |
| 199 | 1/20/2000 | 150900 | 5.629 | 249.146 |
| 200 | 1/20/2000 | 150930 | 5.021 | 249.695 |
| 201 | 1/20/2000 | 151000 | 5.021 | 249.695 |

| Record# | DATE | TIME | WT4OPAA1 | WT4GENA2 |
|---|---|---|---|---|
| 202 | 1/20/2000 | 151030 | 6.04 | 249.912 |
| 203 | 1/20/2000 | 151100 | 6.04 | 249.912 |
| 204 | 1/20/2000 | 151130 | 5.956 | 250.611 |
| 205 | 1/20/2000 | 151200 | 5.956 | 250.611 |
| 206 | 1/20/2000 | 151230 | 5.094 | 250.987 |
| 207 | 1/20/2000 | 151300 | 5.094 | 250.987 |
| 208 | 1/20/2000 | 151330 | 5.054 | 250.384 |
| 209 | 1/20/2000 | 151400 | 5.054 | 250.384 |
| 210 | 1/20/2000 | 151430 | 4.616 | 249.832 |
| 211 | 1/20/2000 | 151500 | 4.616 | 249.832 |
| 212 | 1/20/2000 | 151530 | 4.311 | 249.386 |
| 213 | 1/20/2000 | 151600 | 4.311 | 249.386 |
| 214 | 1/20/2000 | 151630 | 4.518 | 249.828 |
| 215 | 1/20/2000 | 151700 | 4.518 | 249.828 |
| 216 | 1/20/2000 | 151730 | 7.097 | 250.312 |
| 217 | 1/20/2000 | 151800 | 7.097 | 250.312 |
| 218 | 1/20/2000 | 151830 | 7.253 | 250.531 |
| 219 | 1/20/2000 | 151900 | 7.253 | 250.531 |
| 220 | 1/20/2000 | 151930 | 4.934 | 249.651 |
| 221 | 1/20/2000 | 152000 | 4.934 | 249.651 |
| 222 | 1/20/2000 | 152030 | 5.132 | 249.24 |
| 223 | 1/20/2000 | 152100 | 5.132 | 249.24 |
| 224 | 1/20/2000 | 152130 | 4.696 | 250.311 |
| 225 | 1/20/2000 | 152200 | 4.696 | 250.311 |
| 226 | 1/20/2000 | 152230 | 4.671 | 250.242 |
| 227 | 1/20/2000 | 152300 | 4.671 | 250.242 |
| 228 | 1/20/2000 | 152330 | 4.987 | 250.531 |
| 229 | 1/20/2000 | 152400 | 4.987 | 250.531 |
| 230 | 1/20/2000 | 152430 | 4.985 | 250.422 |
| 231 | 1/20/2000 | 152500 | 4.985 | 250.422 |
| 232 | 1/20/2000 | 152530 | 7.763 | 250.117 |
| 233 | 1/20/2000 | 152600 | 7.763 | 250.117 |
| 234 | 1/20/2000 | 152630 | 8.443 | 249.91 |
| 235 | 1/20/2000 | 152700 | 8.443 | 249.91 |
| 236 | 1/20/2000 | 152730 | 5.7 | 249.537 |
| 237 | 1/20/2000 | 152800 | 5.7 | 249.537 |
| 238 | 1/20/2000 | 152830 | 5.119 | 249.887 |
| 239 | 1/20/2000 | 152900 | 5.119 | 249.887 |
| 240 | 1/20/2000 | 152930 | 4.752 | 250.004 |
| 241 | 1/20/2000 | 153000 | 4.752 | 250.004 |
| 242 | 1/20/2000 | 153030 | 5.254 | 250.562 |
| 243 | 1/20/2000 | 153100 | 5.254 | 250.562 |
| 244 | 1/20/2000 | 153130 | 5.348 | 250.087 |
| 245 | 1/20/2000 | 153200 | 5.348 | 250.087 |
| 246 | 1/20/2000 | 153230 | 5.223 | 249.714 |
| 247 | 1/20/2000 | 153300 | 5.223 | 249.714 |
| 248 | 1/20/2000 | 153330 | 5.026 | 249.557 |
| 249 | 1/20/2000 | 153400 | 5.026 | 249.557 |
| 250 | 1/20/2000 | 153430 | 4.753 | 249.877 |
| 251 | 1/20/2000 | 153500 | 4.753 | 249.877 |
| 252 | 1/20/2000 | 153530 | 4.691 | 250.494 |
| 253 | 1/20/2000 | 153600 | 4.691 | 250.494 |
| 254 | 1/20/2000 | 153630 | 6.248 | 250.429 |
| 255 | 1/20/2000 | 153700 | 6.248 | 250.429 |
| 256 | 1/20/2000 | 153730 | 7.495 | 250.338 |
| 257 | 1/20/2000 | 153800 | 7.495 | 250.338 |
| 258 | 1/20/2000 | 153830 | 6.226 | 250.579 |
| 259 | 1/20/2000 | 153900 | 6.226 | 250.579 |
| 260 | 1/20/2000 | 153930 | 4.853 | 249.789 |
| 261 | 1/20/2000 | 154000 | 4.853 | 249.789 |
| 262 | 1/20/2000 | 154030 | 4.73 | 249.531 |
| 263 | 1/20/2000 | 154100 | 4.73 | 249.531 |
| 264 | 1/20/2000 | 154130 | 4.835 | 249.297 |
| 265 | 1/20/2000 | 154200 | 4.835 | 249.297 |
| 266 | 1/20/2000 | 154230 | 5.303 | 249.821 |
| 267 | 1/20/2000 | 154300 | 5.303 | 249.821 |
| 268 | 1/20/2000 | 154330 | 5.176 | 249.925 |

| Record# | DATE | TIME | WT4OPAA1 | WT4GENA2 |
|---|---|---|---|---|
| 269 | 1/20/2000 | 154400 | 5.176 | 249.925 |
| 270 | 1/20/2000 | 154430 | 7.608 | 250.164 |
| 271 | 1/20/2000 | 154500 | 7.608 | 250.164 |
| 272 | 1/20/2000 | 154530 | 7.587 | 249.99 |
| 273 | 1/20/2000 | 154600 | 7.587 | 249.99 |
| 274 | 1/20/2000 | 154630 | 5.99 | 250.237 |
| 275 | 1/20/2000 | 154700 | 5.99 | 250.237 |
| 276 | 1/20/2000 | 154730 | 5.19 | 250.49 |
| 277 | 1/20/2000 | 154800 | 5.19 | 250.49 |
| 278 | 1/20/2000 | 154830 | 5.56 | 250.377 |
| 279 | 1/20/2000 | 154900 | 5.56 | 250.377 |
| 280 | 1/20/2000 | 154930 | 6.881 | 250.12 |
| 281 | 1/20/2000 | 155000 | 6.881 | 250.12 |
| 282 | 1/20/2000 | 155030 | 5.584 | 250.332 |
| 283 | 1/20/2000 | 155100 | 5.584 | 250.332 |
| 284 | 1/20/2000 | 155130 | 4.627 | 250.39 |
| 285 | 1/20/2000 | 155200 | 4.627 | 250.39 |
| 286 | 1/20/2000 | 155230 | 4.512 | 249.728 |
| 287 | 1/20/2000 | 155300 | 4.512 | 249.728 |
| 288 | 1/20/2000 | 155330 | 4.567 | 249.414 |
| 289 | 1/20/2000 | 155400 | 4.567 | 249.414 |
| 290 | 1/20/2000 | 155430 | 5.015 | 249.301 |
| 291 | 1/20/2000 | 155500 | 5.015 | 249.301 |
| 292 | 1/20/2000 | 155530 | 5.123 | 251.093 |
| 293 | 1/20/2000 | 155600 | 5.123 | 251.093 |
| 294 | 1/20/2000 | 155630 | 7.457 | 251.018 |
| 295 | 1/20/2000 | 155700 | 7.457 | 251.018 |
| 296 | 1/20/2000 | 155730 | 13.763 | 250.692 |
| 297 | 1/20/2000 | 155800 | 13.763 | 250.692 |
| 298 | 1/20/2000 | 155830 | 7.656 | 249.851 |
| 299 | 1/20/2000 | 155900 | 7.656 | 249.851 |
| 300 | 1/20/2000 | 155930 | 5.973 | 249.819 |
| 301 | 1/20/2000 | 160000 | 5.973 | 249.819 |
| 302 | 1/20/2000 | 160030 | 5.72 | 249.56 |
| 303 | 1/20/2000 | 160100 | 5.72 | 249.56 |
| 304 | 1/20/2000 | 160130 | 5.441 | 249.55 |
| 305 | 1/20/2000 | 160200 | 5.441 | 249.55 |
| 306 | 1/20/2000 | 160230 | 5.268 | 249.738 |
| 307 | 1/20/2000 | 160300 | 5.268 | 249.738 |
| 308 | 1/20/2000 | 160330 | 5.21 | 249.681 |
| 309 | 1/20/2000 | 160400 | 5.21 | 249.681 |
| 310 | 1/20/2000 | 160430 | 7.922 | 249.944 |
| 311 | 1/20/2000 | 160500 | 7.922 | 249.944 |
| 312 | 1/20/2000 | 160530 | 7.817 | 249.57 |
| 313 | 1/20/2000 | 160600 | 7.817 | 249.57 |
| 314 | 1/20/2000 | 160630 | 5.849 | 250.021 |
| 315 | 1/20/2000 | 160700 | 5.849 | 250.021 |
| 316 | 1/20/2000 | 160730 | 5.578 | 250.41 |
| 317 | 1/20/2000 | 160800 | 5.578 | 250.41 |
| 318 | 1/20/2000 | 160830 | 4.982 | 250.184 |
| 319 | 1/20/2000 | 160900 | 4.982 | 250.184 |
| 320 | 1/20/2000 | 160930 | 5.112 | 249.825 |
| 321 | 1/20/2000 | 161000 | 5.112 | 249.825 |
| 322 | 1/20/2000 | 161030 | 4.944 | 249.106 |
| 323 | 1/20/2000 | 161100 | 4.944 | 249.106 |
| 324 | 1/20/2000 | 161130 | 5.348 | 249.287 |
| 325 | 1/20/2000 | 161200 | 5.348 | 249.287 |
| 326 | 1/20/2000 | 161230 | 5.196 | 250.318 |
| 327 | 1/20/2000 | 161300 | 5.196 | 250.318 |
| 328 | 1/20/2000 | 161330 | 4.939 | 250.642 |
| 329 | 1/20/2000 | 161400 | 4.939 | 250.642 |
| 330 | 1/20/2000 | 161430 | 5.347 | 249.851 |
| 331 | 1/20/2000 | 161500 | 5.347 | 249.851 |
| 332 | 1/20/2000 | 161530 | 6.812 | 250.25 |
| 333 | 1/20/2000 | 161600 | 6.812 | 250.25 |
| 334 | 1/20/2000 | 161630 | 8.14 | 248.945 |
| 335 | 1/20/2000 | 161700 | 8.14 | 248.945 |

| Record# | DATE | TIME | WT4OPAA1 | WT4GENA2 |
|---|---|---|---|---|
| 336 | 1/20/2000 | 161730 | 7.274 | 249.286 |
| 337 | 1/20/2000 | 161800 | 7.274 | 249.286 |
| 338 | 1/20/2000 | 161830 | 6.019 | 249.8 |
| 339 | 1/20/2000 | 161900 | 6.019 | 249.8 |
| 340 | 1/20/2000 | 161930 | 5.719 | 249.992 |
| 341 | 1/20/2000 | 162000 | 5.719 | 249.992 |
| 342 | 1/20/2000 | 162030 | 5.282 | 250.538 |
| 343 | 1/20/2000 | 162100 | 5.282 | 250.538 |
| 344 | 1/20/2000 | 162130 | 5.027 | 250.612 |
| 345 | 1/20/2000 | 162200 | 5.027 | 250.612 |
| 346 | 1/20/2000 | 162230 | 4.697 | 250.223 |
| 347 | 1/20/2000 | 162300 | 4.697 | 250.223 |
| 348 | 1/20/2000 | 162330 | 5.944 | 250.036 |
| 349 | 1/20/2000 | 162400 | 5.944 | 250.036 |
| 350 | 1/20/2000 | 162430 | 7.567 | 249.839 |
| 351 | 1/20/2000 | 162500 | 7.567 | 249.839 |
| 352 | 1/20/2000 | 162530 | 6.076 | 249.848 |
| 353 | 1/20/2000 | 162600 | 6.076 | 249.848 |
| 354 | 1/20/2000 | 162630 | 5.087 | 249.822 |
| 355 | 1/20/2000 | 162700 | 5.087 | 249.822 |
| 356 | 1/20/2000 | 162730 | 5.135 | 249.819 |
| 357 | 1/20/2000 | 162800 | 5.135 | 249.819 |
| 358 | 1/20/2000 | 162830 | 4.832 | 249.837 |
| 359 | 1/20/2000 | 162900 | 4.832 | 249.837 |
| 360 | 1/20/2000 | 162930 | 4.748 | 250.085 |
| 361 | 1/20/2000 | 163000 | 4.748 | 250.085 |
| 362 | 1/20/2000 | 163030 | 4.412 | 250.072 |
| 363 | 1/20/2000 | 163100 | 4.412 | 250.072 |
| 364 | 1/20/2000 | 163130 | 5.013 | 250.103 |
| 365 | 1/20/2000 | 163200 | 5.013 | 250.103 |
| 366 | 1/20/2000 | 163230 | 4.855 | 249.805 |
| 367 | 1/20/2000 | 163300 | 4.855 | 249.805 |
| 368 | 1/20/2000 | 163330 | 4.787 | 249.791 |
| 369 | 1/20/2000 | 163400 | 4.787 | 249.791 |
| 370 | 1/20/2000 | 163430 | 5.04 | 249.851 |
| 371 | 1/20/2000 | 163500 | 5.04 | 249.851 |
| 372 | 1/20/2000 | 163530 | 6.872 | 250.209 |
| 373 | 1/20/2000 | 163600 | 6.872 | 250.209 |
| 374 | 1/20/2000 | 163630 | 7.092 | 250.234 |
| 375 | 1/20/2000 | 163700 | 7.092 | 250.234 |
| 376 | 1/20/2000 | 163730 | 4.946 | 250.617 |
| 377 | 1/20/2000 | 163800 | 4.946 | 250.617 |
| 378 | 1/20/2000 | 163830 | 5.009 | 250.455 |
| 379 | 1/20/2000 | 163900 | 5.009 | 250.455 |
| 380 | 1/20/2000 | 163930 | 5.586 | 249.2 |
| 381 | 1/20/2000 | 164000 | 5.586 | 249.2 |
| 382 | 1/20/2000 | 164030 | 4.879 | 249.444 |
| 383 | 1/20/2000 | 164100 | 4.879 | 249.444 |
| 384 | 1/20/2000 | 164130 | 4.295 | 249.907 |
| 385 | 1/20/2000 | 164200 | 4.295 | 249.907 |
| 386 | 1/20/2000 | 164230 | 4.66 | 250.524 |
| 387 | 1/20/2000 | 164300 | 4.66 | 250.524 |
| 388 | 1/20/2000 | 164330 | 7.01 | 250.686 |
| 389 | 1/20/2000 | 164400 | 7.01 | 250.686 |
| 390 | 1/20/2000 | 164430 | 7.783 | 249.813 |
| 391 | 1/20/2000 | 164500 | 7.783 | 249.813 |
| 392 | 1/20/2000 | 164530 | 5.469 | 249.575 |
| 393 | 1/20/2000 | 164600 | 5.469 | 249.575 |
| 394 | 1/20/2000 | 164630 | 5.808 | 250.388 |
| 395 | 1/20/2000 | 164700 | 5.808 | 250.388 |
| 396 | 1/20/2000 | 164730 | 5.692 | 251.024 |
| 397 | 1/20/2000 | 164800 | 5.692 | 251.024 |
| 398 | 1/20/2000 | 164830 | 5.413 | 250.144 |
| 399 | 1/20/2000 | 164900 | 5.413 | 250.144 |
| 400 | 1/20/2000 | 164930 | 4.94 | 249.638 |
| 401 | 1/20/2000 | 165000 | 4.94 | 249.638 |
| 402 / / | | | | |

| Record# | DATE | TIME | WT4OPAA1 | WT4GENA2 |
|---|---|---|---|---|
| 403 | / / | AVE | 5.934147132 | 250.0188728 |

# APPENDIX C
# RAW TEST DATA

# ESP INLET

# ISOKINETIC FIELD DATA SHEET

## Ontario Hydro Method - Mercury



| | |
|---|---|
| Client | MISSISSIPPI POWER |
| W.O.# | 12251.001.001 |
| Project ID | MPWS |
| Mode/Source ID | ESP |
| Samp. Loc. ID | IN |
| Run No.ID | 1 |
| Test Method ID | OHM |
| Date ID | 17JAN2000 |
| Source/Location | ESP Inlet |
| Sample Date | 1-19-00 |
| Baro. Press (in Hg) | 30.03 |
| Operator | KA |

**Stack Conditions**

| | Assumed | Actual |
|---|---|---|
| % Moisture | 10% | |
| Impinger Vol (ml) | | |
| Silica gel (g) | | |
| CO2, % by Vol | 10 | 9.6 |
| O2, % by Vol | 10 | 7.4 |
| Temperature (°F) | 300 | |
| Meter Temp (°F) | 75 | |
| Static Press (in $H_2O$) | -16.5 | |
| Ambient Temp (°F) | 72 | |

| | |
|---|---|
| Meter Box ID | 15 |
| Meter Box Y | .9921 |
| Meter Box Del H | 2.0355 |
| Probe ID / Length | P301 15 |
| Probe Material | ~~Boro~~ TFE |
| Pitot / Thermocouple ID | P301 |
| Pitot Coefficient | 0.84 |
| Nozzle ID | .24 |
| Avg Nozzle Dia (in) | .247 |
| Area of Stack ($ft^2$) | 194.5 |
| Sample Time | 150 |
| Total Traverse Pts | 25 |

K Factor

| Leak Checks | Initial | Mid-Point | Final |
|---|---|---|---|
| Sample Train ($ft^3$) | 14 | 14 | 8 |
| Leak Check @ (in Hg) | .011 | .009 | .008 |
| Pitot good | yes / no | yes / no | yes / no |
| Orsat good | yes / no | yes / no | yes / no |

| Temp Check | Pre-Test Set | Post-Test Set |
|---|---|---|
| Meter Box Temp | 71 | |
| Reference Temp | 69 | |
| Pass/Fail (+/- 2°) | Pass / Fail | Pass / Fail |
| Temp Change Response | yes / no | yes / no |

| TRAVERSE POINT NO. | SAMPLE TIME (min) | CLOCK TIME (plant time) | VELOCITY PRESSURE Delta P (in H2O) | ORIFICE PRESSURE Delta H (in H2O) | DRY GAS METER READING ($ft^3$) | STACK TEMP (°F) | DGM INLET TEMP (°F) | DGM OUTLET TEMP (°F) | PROBE TEMP (°F) | FILTER BOX TEMP (F) | IMPINGER EXIT TEMP (°F) | SAMPLE TRAIN VAC (in Hg) | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1135 | | | 789.817 | | | | | | | | | |
| A 1 | 6 | | .35 | ~~.55~~ .72 | 793.17 | 265 | 79 | 77 | 280 | 272 | 70 | 3 | 272 | 2.72 |
| 2 | 12 | | .60 | 1.6 | 797.00 | 283 | 82 | 78 | 285 | 280 | 66 | 4 | 279 | |
| 3 | 18 | | .63 | 1.7 | 800.91 | 273 | 83 | 79 | 285 | 268 | 66 | 4 | 280 | |
| 4 | 24 | | .62 | 1.7 | 805.05 | 269 | 83 | 79 | 280 | 264 | 66 | 4 | 280 | |
| 5 | 30 | | .60 | 1.6 | 808.80 | 266 | 83 | 79 | 275 | 280 | 65 | 4 | 280 | |
| | | | | | 809.06 | | | | | | | | | |
| B 1 | 36 | 1208 | .28 | .76 | 811.79 | 280 | 84 | 80 | 282 | 303 | 70 | 3 | 279 | |
| 2 | 42 | | .37 | 1.0 | 815.04 | 315 | 85 | 80 | 275 | 293 | 66 | 3 | 285 | 2.75 |
| 3 | 48 | | .45 | 1.2 | 818.41 | 322 | 86 | 81 | 289 | 289 | 65 | 4 | 287 | |
| 4 | 54 | | .63 | 1.7 | 822.42 | 310 | 86 | 81 | 290 | 295 | 66 | 4 | 295 | |
| 5 | 60 | | .59 | 1.6 | 826.35 | 296 | 86 | 81 | 279 | 293 | 66 | 4 | 291 | |
| | | 1259 | | | ~~826.540~~ 826.540 | | | | | | | | | filter change |
| C 1 | 66 | | ~~.22~~ .16 | ~~.7~~ .44 | 828.62 | 281 | 83 | 79 | 285 | 291 | 74 | 3 | 297 | |
| 2 | 72 | | .17 | .47 | 830.90 | 322 | 83 | 79 | 296 | 296 | 68 | 3 | 299 | |
| 3 | 78 | | .26 | .72 | 833.62 | 327 | 84 | 80 | 299 | 300 | 66 | 3 | 301 | |
| 4 | 84 | | .36 | .99 | 836.81 | 335 | 85 | 80 | 305 | 310 | 65 | 4 | 309 | |
| 5 | 90 | | .32 | .88 | 839.903 | 328 | 86 | 80 | 306 | 309 | 65 | 4 | 309 | |
| | | 1345 | | | | | | | | | | | | |
| D 1 | 96 | | .08 | .22 | 841.45 | 300 | 85 | 81 | 300 | 305 | 73 | 3 | 310 | |
| 2 | 102 | | .1 | .28 | 843.21 | 328 | 85 | 82 | 301 | 305 | 67 | 3 | 307 | |
| 3 | 108 | | .27 | .74 | 846.09 | 340 | 86 | 82 | 312 | 309 | 65 | 4 | 315 | |
| 4 | 114 | | .39 | 1.1 | 849.34 | 339 | 87 | 82 | 315 | 311 | 65 | 4 | 318 | |
| 5 | 120 | | .56 | 1.5 | 852.96 | 335 | 88 | 83 | 314 | 317 | 65 | 5 | 320 | |
| | | | Avg Sqrt Delta P | Avg Delta H | Total Volume | Avg Ts | Avg Tm | | Min/Max | Min/Max | Max Temp | Max Vac | Max Temp | |
| | | | | Avg Sqrt Del H | Comments: | | | | | | Ontario Hydro Method | | | |

WESTON
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C-1

5595

# ISOKINETIC FIELD DATA SHEET

## Ontario Hydro Method - Mercury



Client: MISSISSIPPI POWER
Operator: HA
Source: ESP
Run No.: 1
Sample Loc.: Inlet
Date: 1-19-00
K Factor:

| TRAVERSE POINT NO. | SAMPLE TIME (min) | CLOCK TIME (plant time) | VELOCITY PRESSURE Delta P (in H2O) | ORIFICE PRESSURE Delta H (in H2O) | DRY GAS METER READING (ft³) | STACK TEMP (°F) | DGM INLET TEMP (°F) | DGM OUTLET TEMP (°F) | PROBE TEMP (°F) | FILTER BOX TEMP (F) | IMPING EXIT TEMP (°F) | SAMPLE TRAIN VAC (in Hg) | [illegible] | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1418 | | | 852.96 | | | | | | | | | |
| E 1 | 126 | | .20 | .55 | 855.60 | 300 | 87 | 83 | 312 | 315 | 66 | 3 | 320 | |
| 2 | 132 | | .35 | .96 | 858.63 | 328 | 87 | 83 | 311 | 314 | 65 | 4 | 318 | |
| 3 | 138 | | .53 | 1.5 | 862.40 | 338 | 87 | 83 | 312 | 314 | 65 | 5 | 317 | |
| 4 | 144 | | .64 | 1.8 | 866.40 | 346 | 88 | 84 | 318 | 319 | 65 | 5 | 320 | |
| 5 | 150 | 1448 | .79 | 2.2 | 870.65 | 345 | 88 | 84 | 319 | 322 | 66 | 6 | 321 | |
| | | | .5112 | | | | | | | | | | | |
| | | | Avg Sqrt Delta P | Avg Delta H | Total Volume | Avg Ts | Avg Tm | | Min/Max | Min/Max | Max Temp | Max Vac | Max Temp | |
| | | | .6211 | 1.1264 | 80.683 | 310.8 | 82.9 | | 275/319 | 264/322 | 74 | 6 | 272/321 | |
| | | | | Avg Sqrt Del H | Comments: | | | | | | | | | |
| | | | | 1.0273 | | | | | | | | | | |

WESTON
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# ISOKINETIC FIELD DATA SHEET

# Ontario Hydro Method - Mercury



| | |
|---|---|
| Client | MISSISSIPPI POWER |
| W.O.# | 12251.001.001 |
| Project ID | MPWS |
| Mode/Source ID | ESP |
| Samp. Loc. ID | IN |
| Run No.ID | 2 |
| Test Method ID | OHM |
| Date ID | 17JAN2000 |
| Source/Location | ESP Inlet |
| Sample Date | 20 Jan 2000 |
| Baro. Press (in Hg) | 30.00 |
| Operator | [illegible] |

**Stack Conditions**

| | Assumed | Actual |
|---|---|---|
| % Moisture | 9 | |
| Impinger Vol (ml) | | |
| Silica gel (g) | | |
| CO2, % by Vol | 10 | |
| O2, % by Vol | 10 | |
| Temperature (°F) | | |
| Meter Temp (°F) | 80 | |
| Static Press (in $H_2O$) | | -10.5 |
| Ambient Temp (°F) | 65 | |

| | |
|---|---|
| Meter Box ID | WC-15 |
| Meter Box Y | .9961 |
| Meter Box Del H | 2.0355 |
| Probe ID / Length | 15' |
| Probe Material | ~~Boro~~ TFE |
| Pitot / Thermocouple ID | 30 / WC15 |
| Pitot Coefficient | 0.84 |
| Nozzle ID | G/25 |
| Avg Nozzle Dia (in) | .247 |
| Area of Stack ($ft^2$) | |
| Sample Time | 150 |
| Total Traverse Pts | 25 |

K Factor 2.67

| Leak Checks | Initial | Mid-Point | Final |
|---|---|---|---|
| Sample Train ($ft^3$) | 0.018 | | 0.018 |
| Leak Check @ (in Hg) | 12" | | 9" |
| Pitot good | yes / no | yes / no | yes / no |
| Orsat good | yes / no | yes / no | yes / no |

| Temp Check | Pre-Test Set | Post-Test Set |
|---|---|---|
| Meter Box Temp | 62.0 | 71.0 |
| Reference Temp | 60.8 | 69.0 |
| Pass/Fail (+/- 2°) | Pass / Fail | Pass / Fail |
| Temp Change Response | yes / no | yes / no |

| TRAVERSE POINT NO. | SAMPLE TIME (min) | CLOCK TIME (plant time) | VELOCITY PRESSURE Delta P (in H2O) | ORIFICE PRESSURE Delta H (in H2O) | DRY GAS METER READING ($ft^3$) | STACK TEMP (°F) | DGM INLET TEMP (°F) | DGM OUTLET TEMP (°F) | PROBE TEMP (°F) | FILTER BOX TEMP (F) | IMPING EXIT TEMP (°F) | SAMPLE TRAIN VAC (in Hg) | [illegible] | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 831 | | | 871.794 | | | | | | | | | |
| A 1 | 6 | | .40 | 1.08 | 875.9 | 265 | 72 | 69 | 253 | 302 | 56 | 4 | 250 | |
| 2 | 12 | | .46 | 1.23 | 879.1 | 278 | 75 | 70 | 255 | 299 | 51 | 4 | 256 | |
| 3 | 18 | | .51 | 1.36 | 882.8 | 275 | 77 | 72 | 260 | 285 | 52 | 4 | 256 | |
| 4 | 24 | | .51 | 1.36 | 886.4 | 269 | 78 | 72 | 260 | 285 | 52 | 4 | 255 | |
| 5 | 30 | | .54 | 1.44 | 890.168 | 256 | 80 | 74 | 258 | 280 | 52 | 5 | 255 | |
| B 1 | 36 | | .30 | .90 | 893.1 | 285 | 80 | 75 | 260 | 280 | 54 | 4 | 258 | |
| 2 | 42 | | .35 | .93 | 896.1 | 297 | 81 | 75 | 272 | 285 | 54 | 4 | 269 | |
| 3 | 48 | | .44 | 1.17 | 899.5 | 304 | 81 | 75 | 280 | 296 | 54 | 4 | 280 | |
| 4 | 54 | | .49 | 1.31 | 903.2 | 292 | 81 | 76 | 281 | 296 | 54 | 5 | 278 | |
| 5 | 60 | | .60 | 1.60 | 907.101 | 285 | 81 | 76 | 281 | 295 | 54 | 5 | 278 | |
| C 1 | 66 | | .28 | .75 | 910.0 | 281 | 83 | 78 | 281 | 296 | 57 | 4 | 276 | |
| 2 | 72 | | .20 | .53 | 912.3 | 308 | 83 | 79 | 283 | 298 | 58 | 4 | 282 | |
| 3 | 78 | | .28 | .75 | 915.1 | 321 | 81 | 77 | 296 | 299 | 58 | 4 | 296 | |
| 4 | 84 | | .30 | .80 | 917.9 | 321 | 82 | 78 | 296 | 300 | 58 | 4 | 296 | |
| 5 | 90 | | .30 | .80 | 920.703 | 314 | 82 | 78 | 296 | 298 | 58 | 4 | 296 | |
| D 1 | 96 | | .12 | .32 | 922.7 | 297 | 81 | 78 | 296 | 302 | 61 | 3 | 268 | |
| 2 | 102 | 1058 | .12 | .32 | 924.0 | 296 | 79 | 77 | 296 | 300 | 62 | 3 | 270 | At 1030 |
| 3 | 108 | | .25 | .67 | 926.6 | 320 | 79 | 77 | 299 | 300 | 58 | 4 | 290 | went to take |
| 4 | 114 | | .34 | .91 | 929.6 | 328 | 80 | 77 | 299 | 298 | 56 | 4 | 294 | filters on |
| 5 | 120 | | .54 | 1.44 | 933.250 | 312 | 82 | 78 | 292 | 301 | 55 | 5 | 290 | Outlet |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | Avg Sqrt Delta P | Avg Delta H | Total Volume | Avg Ts | Avg Tm | | Min/Max | Min/Max | Max Temp | Max Vac | Max Temp | |

Avg Sqrt Del H

Comments:

Ontario Hydro Method

WESTON MANAGERS DESIGNERS/CONSULTANTS

# ISOKINETIC FIELD DATA SHEET

## Ontario Hydro Method - Mercury



Client: MISSISSIPPI POWER
Source: ESP
Sample Loc.: Inlet
Operator: P. ESQ.
Run No.: 2
Date: 20 JAN 2000
K Factor: 2.67

| TRAVERSE POINT NO. | SAMPLE TIME (min) | CLOCK TIME (plant time) | VELOCITY PRESSURE Delta P (in H2O) | ORIFICE PRESSURE Delta H (in H2O) | DRY GAS METER READING (ft³) | STACK TEMP (°F) | DGM INLET TEMP (°F) | DGM OUTLET TEMP (°F) | PROBE TEMP (°F) | FILTER BOX TEMP (F) | IMPING EXIT TEMP (°F) | SAMPLE TRAIN VAC (in Hg) | [illegible] | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | | 933.250 | | | | | | | | | |
| E 1 | 126 | ~~25~~ | .25 | .67 | 936.4 | 293 | 84 | 80 | 273 | 295 | 58 | 4 | 275 | |
| 2 | 132 | | .26 | .69 | 939.1 | 300 | 86 | 81 | 275 | 301 | 58 | 4 | 275 | |
| 3 | 138 | | .31 | .83 | 942.1 | 308 | 85 | 81 | 278 | 290 | 58 | 5 | 278 | |
| 4 | 144 | | .52 | 1.39 | 946.0 | 322 | 85 | 82 | 289 | 299 | 58 | 6 | 287 | |
| 5 | 150 | | .68 | 1.82 | 949.942 | 319 | 86 | 82 | 289 | 299 | 58 | 6 | 295 | |
| | | 1145 Stop Time | | | | | | | | | | | | |

| Avg Sqrt Delta P | Avg Delta H | Total Volume | Avg Ts | Avg Tm | Min/Max | Min/Max | Max Temp | Max Vac | Max Temp |
|---|---|---|---|---|---|---|---|---|---|
| .5990 | .9984 | 78.148 | 297.6 | 78.8 | 253/299 | 280/302 | 62 | 6 | 294 |

AVR: 3740

Avg Sqrt Del H: .9787

Comments:

276

WESTON MANAGERS DESIGNERS/CONSULTANTS

# ISOKINETIC FIELD DATA SHEET — Ontario Hydro Method - Mercury



| | |
|---|---|
| Client | MISSISSIPPI POWER |
| W.O.# | 12251.001.001 |
| Project ID | MPWS |
| Mode/Source ID | ESP |
| Samp. Loc. ID | IN |
| Run No.ID | 3 |
| Test Method ID | OHM |
| Date ID | 17JAN2000 |
| Source/Location | ESP Inlet |
| Sample Date | 20 JAN2000 |
| Baro. Press (in Hg) | 30.0 |
| Operator | [illegible] |

**Stack Conditions**

| | Assumed | Actual |
|---|---|---|
| % Moisture | 9 | |
| Impinger Vol (ml) | | |
| Silica gel (g) | | |
| CO2, % by Vol | 10 | |
| O2, % by Vol | 10 | |
| Temperature (°F) | 300 | |
| Meter Temp (°F) | 100 | |
| Static Press (in $H_2O$) | | -10.5 |
| Ambient Temp (°F) | 80 | |

| | |
|---|---|
| Meter Box ID | WC 15 |
| Meter Box Y | 0.9961 |
| Meter Box Del H | 2.0355 |
| Probe ID / Length | 15' |
| Probe Material | ~~Boro~~ Tfe |
| Pitot / Thermocouple ID | 301 |
| Pitot Coefficient | 0.84 |
| Nozzle ID | Glass |
| Avg Nozzle Dia (in) | .247 |
| Area of Stack ($ft^2$) | |
| Sample Time | 150 |
| Total Traverse Pts | 25 |

K Factor 2.8

| Leak Checks | Initial | Mid-Point | Final |
|---|---|---|---|
| Sample Train ($ft^3$) | 0.014 | | 0.012 |
| Leak Check @ (in Hg) | 12 | | 9 |
| Pitot good | yes / no | yes / no | yes / no |
| Orsat good | yes / no | yes / no | yes / no |

| Temp Check | Pre-Test Set | Post-Test Set |
|---|---|---|
| Meter Box Temp | 81.0 | 64.0 |
| Reference Temp | 82.0 | 65.4 |
| Pass/Fail (+/- 2°) | Pass / Fail | Pass / Fail |
| Temp Change Response | yes / no | yes / no |

| TRAVERSE POINT NO. | SAMPLE TIME (min) | CLOCK TIME (plant time) | VELOCITY PRESSURE Delta P (in H2O) | ORIFICE PRESSURE Delta H (in H2O) | DRY GAS METER READING ($ft^3$) | STACK TEMP (°F) | DGM INLET TEMP (°F) | DGM OUTLET TEMP (°F) | PROBE TEMP (°F) | FILTER BOX TEMP (F) | IMPINGER EXIT TEMP (°F) | SAMPLE TRAIN VAC (in Hg) | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1343 | | | 952.424 | | | | | | | | | |
| A 1 | 6 | | ~~.40~~ .37 | 1.03 | 955.8 | 254 | 95 | 88 | 275 | 270 | 63 | 3 | 260 | |
| 2 | 12 | | .51 | 1.43 | 959.6 | 275 | 96 | 89 | 270 | 275 | 60 | 4 | 258 | |
| 3 | 18 | | .48 | 1.34 | 963.2 | 265 | 97 | 90 | 272 | 278 | 59 | 4 | 260 | |
| 4 | 24 | | .49 | 1.37 | 967.1 | 264 | 98 | 91 | 272 | 280 | 59 | 4 | 262 | LKCH 0.012 |
| 5 | 30 | 1413 | .50 | 1.40 | 970.690 | 256 | 100 | 92 | 270 | 280 | 61 | 4 | 262 | @ 7" |
| B 1 | 36 | 1427 | .25 | .70 | 973.8 | 270 | 98 | 92 | 272 | 280 | 65 | 4 | 264 | Volume: 18.266 |
| 2 | 42 | | .33 | .92 | 976.9 | 293 | 99 | 93 | 275 | 290 | 65 | 4 | 268 | |
| 3 | 48 | | .41 | 1.15 | 980.4 | 303 | 99 | 92 | 287 | 293 | 62 | 5 | 278 | |
| 4 | 54 | | .45 | 1.26 | 984.0 | 287 | 100 | 93 | 287 | 294 | 62 | 5 | 278 | |
| 5 | 60 | 1457 | .57 | 1.60 | 988.190 | 282 | 100 | 93 | 285 | 295 | 62 | 5 | 275 | |
| C 1 | 66 | 1459 | .25 | .70 | 990.9 | 281 | 100 | 94 | 285 | 295 | 64 | 4 | 276 | |
| 2 | 72 | | .18 | .50 | 993.2 | 315 | 100 | 94 | 290 | 298 | 65 | 4 | 290 | |
| 3 | 78 | | .25 | .70 | 996.0 | 316 | 99 | 92 | 295 | 298 | 65 | 4 | 288 | |
| 4 | 84 | | .32 | .90 | 999.1 | 314 | 98 | 92 | 294 | 295 | 64 | 5 | 292 | |
| 5 | 90 | 1529 | .37 | .84 | 001.920 | 304 | 96 | 90 | 290 | 295 | 63 | 5 | 294 | |
| D 1 | 96 | 1540 | .20 | .56 | 004.4 | 263 | 93 | 88 | 280 | 284 | 64 | 4 | 285 | |
| 2 | 102 | ↑ | .55 | 1.54 | 008.2 | 310 | 94 | 88 | 295 | 290 | 63 | 6 | 285 | |
| 3 | 108 | | .24 | .67 | 011.0 | 316 | 93 | 89 | 291 | 292 | 61 | 5 | 291 | |
| 4 | 114 | | .42 | 1.18 | 013 | 322 | 93 | 89 | 295 | 298 | 62 | 6 | 298 | |
| 5 | 120 | 1610 | .55 | 1.54 | 018.200 | 308 | 92 | 88 | 295 | 294 | 63 | 6 | 287 | |
| | | | Avg Sqrt Delta P | Avg Delta H | Total Volume | Avg Ts | Avg Tm | | Min/Max | Min/Max | Max Temp | Max Vac | Max Temp | |

Avg Sqrt Del H

Comments:

Ontario Hydro Method

WESTON MANAGERS DESIGNERS/CONSULTANTS

# ISOKINETIC FIELD DATA SHEET

## Ontario Hydro Method - Mercury



Client: MISSISSIPPI POWER
Source: ESP
Sample Loc.: Inlet
Operator: R.E.L.
Run No.: 3
Date: 20 JAN 2000
K Factor: 2.8

| TRAVERSE POINT NO. | SAMPLE TIME (min) | CLOCK TIME (plant time) | VELOCITY PRESSURE Delta P (in H2O) | ORIFICE PRESSURE Delta H (in H2O) | DRY GAS METER READING (ft³) | STACK TEMP (°F) | DGM INLET TEMP (°F) | DGM OUTLET TEMP (°F) | PROBE TEMP (°F) | FILTER BOX TEMP (F) | IMPING EXIT TEMP (°F) | SAMPLE TRAIN VAC (in Hg) | [illegible] | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1612 | | | 018.200 | | | | | | | | | |
| E 1 | 126 | | .24 | .67 ~~.57~~ | 021.0 | 288 | 91 | 88 | 290 | 298 | 65 | 5 | 275 | |
| 2 | 132 | | .38 | 1.06 | 024.3 | 318 | 91 | 87 | 294 | 298 | 65 | 6 | 278 | |
| 3 | 138 | | .42 | 1.18 | 027.7 | 320 | 90 | 86 | 296 | 295 | 64 | 6 | 298 | |
| 4 | 144 | | .60 | 1.68 | 031.8 | 321 | 91 | 86 | 296 | 296 | 63 | 6 | 298 | |
| 5 | 150 | 1642 | .65 | 1.82 | 036.058 | 325 | 92 | 86 | 301 | 300 | 62 | 7 | 301 | |

| Avg Sqrt Delta P | Avg Delta H | Total Volume | Avg Ts | Avg Tm | Min/Max | Min/Max | Max Temp | Max Vac | Max Temp |
|---|---|---|---|---|---|---|---|---|---|
| .6202 | 1.1076 | 83.524 | 294.8 | 92.9 | 290/301 | 290/300 | 65 | 7 | 301 |

Avg Sqrt Del H: 1.0375

Comments: .634

Ave .3964

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INLET

# SAMPLE RECOVERY FIELD DATA

Method ONTARIO HYDRO MERCURY METHOD

Client Miss Power W.O. #

Location/Plant Source & Location INLET

**Run No.** ONE - Inlet **Sample Date** 1/19/00 **Recovery Date** 1/19/00

**Sample I.D.** MPWS-ZP-IN-1-OHM-17JAN2000 **Analyst** **Filter Number** W31 + W32

| | Impinger 1 | 2 | 3 | 4 | 5 | 6 | ~~Imp. Total~~ 7 | TOTAL LIQ 7 | ~~Total~~ Silica Gel |
|---|---|---|---|---|---|---|---|---|---|
| **Contents** | | | | | | | | | |
| **Final** | 749.4 | 701.4 | 601.1 | 704.1 | 681.0 | 714.7 | 713.2 | | 319.6 |
| **Initial** | 653.6 | 666.4 | 592.5 | 699.1 | 679.7 | 713.6 | 712.8 | | 300.0 |
| **Gain** | 95.8 | 35.0 | 8.6 | 5 | 1.3 | 1.1 | .4 | 147.2 | 19.6 |

Impinger Color 1-4 clear colorless 5-7 purple **Labeled?** ✓ T 166.8

Silica Gel Condition 1/2 Blue **Sealed?** ✓

**Run No.** TWO Inlet **Sample Date** 1/20/00 **Recovery Date** 1/20/00

**Sample I.D.** **Analyst** **Filter Number** W34

| | Impinger 1 | 2 | 3 | 4 | 5 | 6 | ~~Imp. Total~~ 7 | TOTAL LIQ | ~~Total~~ Silica Gel |
|---|---|---|---|---|---|---|---|---|---|
| **Contents** | | | | | | | | | |
| **Final** | 762.9 | 679.1 | 594.5 | 715.1 | 692.7 | 709.6 | 718.9 | | 317.3 |
| **Initial** | 666.3 | 655.7 | 587.8 | 709.8 | 692.2 | 709.4 | 718.9 | | 300.0 |
| **Gain** | 96.6 | 23.4 | 6.7 | 5.3 | .5 | .2 | 0 | 132.7 | 17.3 |

Impinger Color 1-4 clear colorless -5-7 purple **Labeled?** ✓ Total 150.0

Silica Gel Condition 1/2 Blue **Sealed?** ✓

**Run No.** 3 - Inlet **Sample Date** 1/20/00 **Recovery Date** 1/20/00

**Sample I.D.** **Analyst** **Filter Number** W29

| | Impinger 1 | 2 | 3 | 4 | 5 | 6 | ~~Imp. Total~~ 7 | TOTAL LIQ | ~~Total~~ Silica Gel |
|---|---|---|---|---|---|---|---|---|---|
| **Contents** | | | | | | | | | |
| **Final** | 721.3 | 712.8 | 610.5 | 705.3 | 690.6 | 709.6 | 714.4 | | 321.9 |
| **Initial** | 644.3 | 681.1 | 600.0 | 701.6 | 689.9 | 709.1 | 714.0 | | 300.0 |
| **Gain** | 77 | 31.7 | 10.5 | 3.7 | .7 | .5 | .4 | 124.5 | 21.9 |

Impinger Color 1-4 clear colorless 5-7 purple **Labeled?** ✓

Silica Gel Condition 1/2 Blue **Sealed?** ✓ T 146.4

Check COC for Sample IDs of Media Blanks

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# Source Gas Analysis Data Sheet - Method 3

Client Mississippi Power

Analyst JP

Location/Plant WATSON STATION

Date 11/20/99

Source #4 Inlet

Analytical Method (circle one) Orsat

W.O. Number

Run Number 01

Leak Check Good? (circle one) Yes No

| Analysis Number | Analysis Time | Percent $CO_2$ (A) | Percent Total (B) | Percent $O_2$ (B - A) | Percent $N_2$ (100 - B) |
|---|---|---|---|---|---|
| 1 | | 12.5 | 19.2 | 6.8 | |
| 2 | | 12.5 | 19.0 | 6.5 | |
| 3 | | 12.4 | 19.0 | 6.6 | |
| | Average | 12.5 | 19.1 | 6.7 | |

Run Number 02

Leak Check Good? (circle one) Yes No

| Analysis Number | Analysis Time | Percent $CO_2$ (A) | Percent Total (B) | Percent $O_2$ (B - A) | Percent $N_2$ (100 - B) |
|---|---|---|---|---|---|
| 1 | | ~~12.4~~ 12.6 | 19.2 ~~19.4~~ | 6.6 | |
| 2 | | 12.4 | 19.0 | 6.6 | |
| 3 | | 12.4 | 19.2 | 6.8 | |
| | Average | 12.5 | 19.1 | 6.7 | |

Run Number 03

Leak Check Good? (circle one) Yes No

| Analysis Number | Analysis Time | Percent $CO_2$ (A) | Percent Total (B) | Percent $O_2$ (B - A) | Percent $N_2$ (100 - B) |
|---|---|---|---|---|---|
| 1 | | ~~11.9~~ 12.4 | 19.0 ~~19.4~~ | ~~7.5~~ 6.6 | |
| 2 | | 12.4 | 19.2 | 6.8 | |
| 3 | | 12.2 | 19.1 | 6.9 | |
| | Average | 12.3 | 19.1 | 6.8 | |

Acceptable differences for repeat analysis:

if $CO_2$ > 4% than +/- 0.3%

if $CO_2$ < or = 4% than +/- 0.2%

if $O_2$ > or = 15% than +/- 0.2%

if $O_2$ < 15% than +/- 0.3%

**Ambient Check**

Oxygen 20.6

Carbon Dioxide 0.0

Report all values to the nearest 0.1 percent

Comments

Method3

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# Sample and Velocity Traverse Point Data Sheet - Method 1

Client: Miss Power
Loaction/Plant: WATSON
Source: ESP INLET

Operator: MJ/LS
Date: 1/18/00
W.O. Number: 12251-001-001

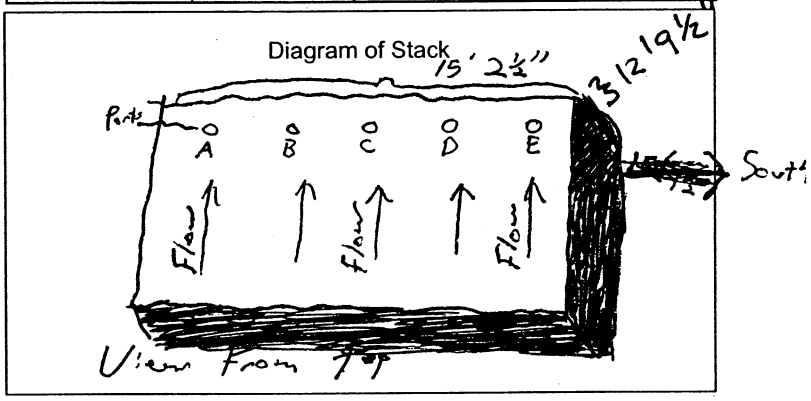
| | | | |
|---|---|---|---|
| **Duct Type** | ☐ Circular | ☒ Rectangular Duct | Indicate appropriate type |
| **Traverse Type** | ☐ Particulate Traverse | ☐ Velocity Traverse | |

| | |
|---|---|
| Distance from far wall to outside of port (in.) = C | 178.25 |
| Port Depth (in.) = D | 24.25 |
| Depth of Duct, diameter (in.) = C-D | 154 |
| Area of Duct ($ft^2$) | 144.53 |
| Total Traverse Points | 25 |
| Total Traverse Points per Port | 5 |

| **Rectangular Ducts Only** | |
|---|---|
| Width of Duct, rectangular duct only (in.) | 182.5 |
| Total Ports (rectangular duct only) | 5 |

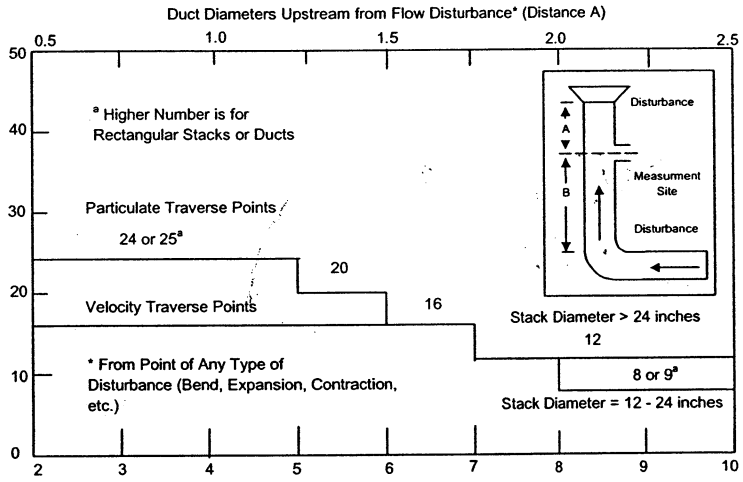
| **Flow Disturbances** | |
|---|---|
| Upstream - A (ft) | 2 FT |
| Downstream - B (ft) | 9 FT |
| Upstream - A (duct diameters) | < 1 |
| Downstream - B (duct diameters) | < 1 |

Diagram of Stack




**Traverse Point Locations**

| Traverse Point | % of Duct | Distance from Inside Duct Wall (in) | Distance from Outside of Port (in) | |
|---|---|---|---|---|
| 1 | 10 | 15.4 | 39.65 | 39 5/8 |
| 2 | 30 | 46.2 | 70.45 | 70 1/2 |
| 3 | 50 | 77 | 101.25 | 101 1/4 |
| 4 | 70 | 107.8 | 132.05 | 132 |
| 5 | 90 | 138.6 | 162.85 | 162 7/8 |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |




Equivalent Diameter = (2*L*W)/(L+W)

**Traverse Point Location Percent of Stack -Circular**

| Traverse Point Location | Number of Traverse Points 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 14.6 | | 6.7 | | 4.4 | | 3.2 | | 2.6 | | 2.1 |
| 2 | | 85.4 | | 25 | | 14.6 | | 10.5 | | 8.2 | | 6.7 |
| 3 | | | | 75 | | 29.6 | | 19.4 | | 14.6 | | 11.8 |
| 4 | | | | 93.3 | | 70.4 | | 32.3 | | 22.6 | | 17.7 |
| 5 | | | | | | 85.4 | | 67.7 | | 34.2 | | 25 |
| 6 | | | | | | 95.6 | | 80.6 | | 65.8 | | 35.6 |
| 7 | | | | | | | | 89.5 | | 77.4 | | 64.4 |
| 8 | | | | | | | | 96.8 | | 85.4 | | 75 |
| 9 | | | | | | | | | | 91.8 | | 82.3 |
| 10 | | | | | | | | | | 97.4 | | 88.2 |
| 11 | | | | | | | | | | | | 93.3 |
| 12 | | | | | | | | | | | | 97.9 |

**Traverse Point Location Percent of Stack -Rectangular**

| Traverse Point Location | Number of Traverse Points 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 25.0 | 16.7 | 12.5 | 10.0 | 8.3 | 7.1 | 6.3 | 5.6 | 5.0 | 4.5 | 4.2 |
| 2 | | 75.0 | 50.0 | 37.5 | 30.0 | 25.0 | 21.4 | 18.8 | 16.7 | 15.0 | 13.6 | 12.5 |
| 3 | | | 83.3 | 62.5 | 50.0 | 41.7 | 35.7 | 31.3 | 27.8 | 25.0 | 22.7 | 20.8 |
| 4 | | | | 87.5 | 70.0 | 58.3 | 50.0 | 43.8 | 38.9 | 35.0 | 31.8 | 29.2 |
| 5 | | | | | 90.0 | 75.0 | 64.3 | 56.3 | 50.0 | 45.0 | 40.9 | 37.5 |
| 6 | | | | | | 91.7 | 78.6 | 68.8 | 61.1 | 55.0 | 50.0 | 45.8 |
| 7 | | | | | | | 92.9 | 81.3 | 72.2 | 65.0 | 59.1 | 54.2 |
| 8 | | | | | | | | 93.8 | 83.3 | 75.0 | 68.2 | 62.5 |
| 9 | | | | | | | | | 94.4 | 85.0 | 77.3 | 70.8 |
| 10 | | | | | | | | | | 95.0 | 86.4 | 79.2 |
| 11 | | | | | | | | | | | 95.5 | 87.5 |
| 12 | | | | | | | | | | | | 95.8 |

| Rectangular Stack Points & Matrix |
|---|
| 9 - 3 x 3 |
| 12 - 4 x 3 |
| 16 - 4 x 4 |
| 20 - 5 x 4 |
| 25 - 5 x 5 |
| 30 - 6 x 5 |
| 36 - 6 x 6 |
| 42 - 7 x 6 |
| 49 - 7 x 7 |

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# ESP OUTLET

# ISOKINETIC FIELD DATA SHEET

## Ontario Hydro Method - Mercury



| | |
|---|---|
| Client | MISSISSIPPI POWER |
| W.O.# | 12251.001.001 |
| Project ID | MPWS |
| Mode/Source ID | ESP |
| Samp. Loc. ID | OUT |
| Run No ID | 1 |
| Test Method ID | OHM |
| Date ID | 17JAN2000 |
| Source/Location | ESP Outlet |
| Sample Date | 19 JAN 2000 |
| Baro. Press (in Hg) | 30.03 |
| Operator | GS/JW/JP |

| Stack Conditions | Assumed | Actual |
|---|---|---|
| % Moisture | 7.9 | |
| Impinger Vol (ml) | | |
| Silica gel (g) | | |
| CO2, % by Vol | 10 | |
| O2, % by Vol | 16 | |
| Temperature (°F) | 300 | |
| Meter Temp (°F) | 75 | |
| Static Press (in $H_2O$) | 0.30 | |
| Ambient Temp (°F) | 72 | |

| | |
|---|---|
| Meter Box ID | WC-7 |
| Meter Box Y | 0.9936 |
| Meter Box Del H | 1.8062 |
| Probe ID / Length | 12' |
| Probe Material | Boro |
| Pitot / Thermocouple ID | |
| Pitot Coefficient | 0.84 |
| Nozzle ID | |
| Avg Nozzle Dia (in) | 0.200 |
| Area of Stack ($ft^2$) | |
| Sample Time | 150 |
| Total Traverse Pts | 30 |

K Factor 1.11

| Leak Checks | Initial | Mid-Point | Final |
|---|---|---|---|
| Sample Train ($ft^3$) | 0.001 | below | 0.014 |
| Leak Check @ (in Hg) | 10 | | 10 |
| Pitot good | yes / no | yes / no | yes / no |
| Orsat good | yes / no | yes / no | yes / no |

| Temp Check | Pre-Test Set | Post-Test Set |
|---|---|---|
| Meter Box Temp | 68 | 75 |
| Reference Temp | 69 | 77 |
| Pass/Fail (+/- 2°) | Pass / Fail | Pass / Fail |
| Temp Change Response | yes / no | yes / no |

| TRAVERSE POINT NO. | | SAMPLE TIME (min) | CLOCK TIME (plant time) | VELOCITY PRESSURE Delta P (in H2O) | ORIFICE PRESSURE Delta H (in H2O) | DRY GAS METER READING ($ft^3$) | STACK TEMP (°F) | DGM INLET TEMP (°F) | DGM OUTLET TEMP (°F) | PROBE TEMP (°F) | FILTER BOX TEMP (F) | IMPINGER EXIT TEMP (°F) | SAMPLE TRAIN VAC (in Hg) | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0 | 1135 | | | 227.100 | | | | | | | | | |
| 6 | 1 | 5 | | 1.4 | 1.54 | 230.63 | 306 | 69 | 72 | 300 | 300 | 60 | 6 | 290 | |
| | 2 | 10 | | 1.1 | 1.22 | 233.8 | 306 | 66 | 73 | 296 | 299 | 46 | 5 | 293 | |
| | 3 | 15 | | 1.3 | 1.44 | 237.2 | 311 | 66 | 75 | 292 | 298 | 45 | 5 | 301 | |
| | 4 | 20 | | 0.54 | 0.60 | 239.64 | 315 | 72 | 76 | 294 | 299 | 47 | 4 | 300 | |
| | 5 | 25 | 1200 | 0.69 | 0.77 | 242.340 | 315 | 73 | 76 | 300 | 301 | 49 | 5 | 299 | |
| | | | | | | 15.240 | | | | | | | | | 0.010 @ 9" |
| | | | | | | 242.417 | | | | | | | | | |
| 5 | 1 | 30 | 1210 | 1.3 | 1.44 | 245.76 | 306 | 73 | 76 | 299 | 302 | 51 | 6 | 302 | |
| | 2 | 35 | | 1.3 | 1.44 | 249.1 | 308 | 74 | 76 | 295 | 299 | 51 | 6 | 301 | |
| | 3 | 40 | | 1.2 | 1.33 | 252.44 | 314 | 74 | 77 | 306 | 297 | 50 | 5 | 300 | |
| | 4 | 45 | | 1.3 | 1.44 | 255.9 | 318 | 75 | 80 | 305 | 299 | 51 | 5 | 303 | |
| | 5 | 50 | 1235 | 1.3 | 1.44 | 259.111 | 318 | 75 | 81 | 300 | 304 | 51 | 6 | 302 | |
| | | | | | | 16.694 | | | | | | | | | 0.009 @ 9" |
| | | | | | | 259.287 | | | | | | | | | |
| 4 | 1 | 55 | 1247 | 2.0 | 2.22 | 263.4 | 310 | 76 | 82 | 299 | 299 | 57 | 8 | 300 | |
| | 2 | 60 | | 1.7 | 1.89 | 267.3 | 310 | 75 | 76 | 300 | 300 | 55 | 7 | 301 | |
| | 3 | 65 | | 0.75 | 0.83 | 270.46 | 315 | 75 | 78 | 298 | 303 | 49 | 5 | 303 | |
| | 4 | 70 | | 1.1 | 1.22 | 273.0 | 316 | 76 | 79 | 301 | 302 | 49 | 6 | 302 | |
| | 5 | 75 | 1312 | 1.6 | 1.77 | 276.997 | 315 | 76 | 80 | 302 | 301 | 48 | 8 | 301 | |
| | | | | | | 17.710 | | | | | | | | | 0.010 @ 8" |

| Avg Sqrt Delta P | Avg Delta H | Total Volume | Avg Ts | Avg Tm | Min/Max | Min/Max | Max Temp | Max Vac | Max Temp |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

Avg Sqrt Del H

Comments

Ontario Hydro Method

# ISOKINETIC FIELD DATA SHEET

## Ontario Hydro Method - Mercury



Client: MISSISSIPPI POWER
Source: ESP
Sample Loc.: Outlet
Operator: JW, JP
Run No.: 1 1
Date: 19-JAN-2K
K Factor: 1.11

| TRAVERSE POINT NO. | SAMPLE TIME (min) | CLOCK TIME (plant time) | VELOCITY PRESSURE Delta P (in H2O) | ORIFICE PRESSURE Delta H (in H2O) | DRY GAS METER READING (ft³) | STACK TEMP (°F) | DGM INLET TEMP (°F) | DGM OUTLET TEMP (°F) | PROBE TEMP (°F) | FILTER BOX TEMP (F) | IMPING EXIT TEMP (°F) | SAMPLE TRAIN VAC (in Hg) | [illegible] | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1325 | | | 277.300 | | | | | | | | | |
| 3 - 1 | 80 | | 1.8 | 2.00 | 281.33 | 309 | 76 | 78 | 299 | 302 | 55 | 7.0 | 301 | |
| 2 | 85 | | 2.0 | 2.22 | 285.53 | 311 | 76 | 79 | 301 | 300 | 46 | 7.5 | 299 | |
| 3 | 90 | | .68 | .75 | 288.0 | 315 | 77 | 81 | 300 | 302 | 45 | 4.5 | 301 | |
| 4 | 95 | | 1.7 | 1.89 | 291.85 | 318 | 76 | 81 | 301 | 303 | 48 | 7.0 | 300 | |
| 5 | 100 | 1350 | 1.8 | 2.00 | 295.835 | 319 | 76 | 81 | 300 | 302 | 49 | 7.0 | 301 | LC=0.010@8 |
| | | | | | 18.535 | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | 1357 | | | 296.050 | | | | | | | | | |
| 2 - 1 | 105 | | 1.5 | 1.66 | 299.71 | 313 | 75 | 77 | 303 | 306 | 54 | 6.5 | 300 | |
| 2 | 110 | | .96 | 1.07 | 302.62 | 315 | 76 | 78 | 301 | 305 | 47 | 5.5 | 301 | |
| 3 | 115 | | .99 | 1.1 | 305.50 | 316 | 77 | 79 | 300 | 303 | 45 | 5.5 | 300 | |
| 4 | 120 | | .88 | .98 | 308.37 | 318 | 77 | 81 | 301 | 304 | 47 | 5.5 | 300 | |
| 5 | 125 | 1422 | 1.5 | 1.66 | 311.886 | 318 | 76 | 80 | 301 | 305 | 48 | 6.5 | 300 | LC=0.011@10 |
| | | | | | 15.836 | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | 1428 | | | 312.050 | | 76 | | | | | | | |
| 1 - 1 | 130 | | 1.8 | 2.00 | 315.1 | 314 | 75 | 77 | 304 | 312 | 54 | 8.0 | 300 | |
| 2 | 135 | | 1.5 | 1.66 | 319.65 | 315 | 77 | 80 | 302 | 310 | 51 | 6.5 | 300 | |
| 3 | 140 | | 1.5 | 1.66 | 323.15 | 316 | 77 | 81 | 303 | 305 | 51 | 6.5 | 300 | |
| 4 | 145 | | 1.6 | 1.78 | 326.80 | 318 | 78 | 83 | 304 | 307 | 55 | 6.5 | 301 | |
| 5 | 150 | 1453 | 2.0 | 2.22 | 330.988 | 317 | 77 | 83 | 302 | 306 | 54 | 8 | 300 | LC=0.014@10 |
| | | | | | 18.938 | | | | | | | | | |

| Avg Sqrt Delta P | Avg Delta H | Total Volume | Avg Ts | Avg Tm | Min/Max | Min/Max | Max Temp | Max Vac | Max Temp |
|---|---|---|---|---|---|---|---|---|---|
| 1.152 | 1.508 | 102.953 | 314 | 77 | 292 | 297 | [illegible] | 8 | 253 |
| | Avg Sqrt Del H 1.213 | Comments: | | | 306 | 307 | 60 | | 303 |

$CO_2$ 12.3
$O_2$ 6.3

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# ISOKINETIC FIELD DATA SHEET

# Ontario Hydro Method - Mercury



| | |
|---|---|
| Client | MISSISSIPPI POWER |
| W.O.# | 12291.001.001 |
| Project ID | MPWS |
| Mode/Source ID | ESP |
| Samp. Loc. ID | OUT |
| Run No.ID | 2 |
| Test Method ID | OHM |
| Date ID | 17JAN2000 |
| Source/Location | ESP Outlet |
| Sample Date | 20-Jan-2k |
| Baro. Press (in Hg) | 30.00 |
| Operator | JW, JP |

**Stack Conditions**

| | Assumed | Actual |
|---|---|---|
| % Moisture | 10 | |
| Impinger Vol (ml) | | |
| Silica gel (g) | | |
| $CO_2$, % by Vol | 10 | |
| $O_2$, % by Vol | 10 | |
| Temperature (°F) | 315 | |
| Meter Temp (°F) | 70 | |
| Static Press (in $H_2O$) | | -0.32 |
| Ambient Temp (°F) | 56 | |

| | |
|---|---|
| Meter Box ID | IVC-7 |
| Meter Box Y | 0.9936 |
| Meter Box Del H | 1.8062 |
| Probe ID / Length | 12 |
| Probe Material | Boro |
| Pitot / Thermocouple ID | |
| Pitot Coefficient | 0.84 |
| Nozzle ID | |
| Avg Nozzle Dia (in) | .140 |
| Area of Stack ($ft^2$) | |
| Sample Time | 150 |
| Total Traverse Pts | 30 |

K Factor 0.82

| Leak Checks | Initial | Mid-Point | Final |
|---|---|---|---|
| Sample Train ($ft^3$) | 0.012 | See Raw | 0.010 |
| Leak Check @ (in Hg) | 12 | LC | 12 |
| Pitot good | yes / no | yes / no | yes / no |
| Orsat good | yes / no | yes / no | yes / no |

| Temp Check | Pre-Test Set | Post-Test Set |
|---|---|---|
| Meter Box Temp | 59 | 63 |
| Reference Temp | 57 | 63 |
| Pass/Fail (+/- 2°) | Pass / Fail | Pass / Fail |
| Temp Change Response | yes / no | yes / no |

| TRAVERSE POINT NO. | SAMPLE TIME (min) | CLOCK TIME (plant time) | VELOCITY PRESSURE Delta P (in H2O) | ORIFICE PRESSURE Delta H (in H2O) | DRY GAS METER READING ($ft^3$) | STACK TEMP (°F) | DGM INLET TEMP (°F) | DGM OUTLET TEMP (°F) | PROBE TEMP (°F) | FILTER BOX TEMP (F) | IMPING EXIT TEMP (°F) | SAMPLE TRAIN VAC (In Hg) | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0841 | | | 333.800 | | | | | | | | | |
| 1 - 1 | 5 | | 1.2 | .98 | 336.53 | 295 | 54 | 54 | 299 | 295 | 54 | 5 | 300 | |
| 2 | 10 | | 1.1 | .90 | 339. | 301 | 58 | 56 | 298 | 296 | 42 | 5 | 300 | |
| 3 | 15 | | 1.4 | 1.15 | 342.06 | 301 | 60 | 57 | 301 | 299 | 42 | 5 | 300 | |
| 4 | 20 | | 1.5 | 1.23 | 345.12 | 304 | 61 | 58 | 300 | 302 | 42 | 5 | 300 | |
| 5 | 25 | 0906 | 1.6 | 1.31 | 348.251 | 304 | 64 | 58 | 299 | 297 | 40 | 5 | 300 | LC=0.011 @6 |
| | | | | | 14.451 | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | 0910 | | | 348.250 | | ~~59~~ | ~~58~~ | | | | | | |
| 2 - 1 | 30 | | 1.2 | .98 | 351.5 | 299 | 63 | 59 | 301 | 304 | 44 | 5 | 300 | |
| 2 | 35 | | .75 | .62 | 353.48 | 301 | 64 | 60 | 300 | 303 | 43 | 4 | 301 | |
| 3 | 40 | | .82 | .67 | 355.52 | 303 | 66 | 62 | 299 | 303 | 44 | 4 | 300 | |
| 4 | 45 | | .70 | .57 | 357.63 | 304 | 67 | 62 | 301 | 304 | 43 | 4 | 300 | |
| 5 | 50 | 0935 | .99 | .81 | 360.111 | 303 | 69 | 64 | 300 | 303 | 44 | 4 | 298 | LC=0.010@6 |
| | | | | | 11.761 | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | 360.200 | | | | | | | | | |
| 3 - 1 | 55 | 0937 | 1.7 | 1.39 | 363.47 | 299 | 66 | 64 | 301 | 302 | 47 | 6 | 300 | |
| 2 | 60 | | 1.1 | .90 | 366.1 | 301 | 69 | 65 | 301 | 304 | 42 | 5 | 300 | |
| 3 | 65 | | .47 | .39 | 367.97 | 304 | 70 | 66 | 300 | 304 | 44 | 3.5 | 300 | |
| 4 | 70 | | 1.1 | .90 | 370.50 | 306 | 70 | 67 | 299 | 297 | 45 | 5 | 300 | |
| 5 | 75 | 1002 | 1.3 | 1.07 | 373.437 | 307 | 71 | 67 | 302 | 303 | 44 | 5 | 299 | LC=0.011 @7 |
| | | | | | 13.237 | | | | | | | | | |

| Avg Sqrt Delta P | Avg Delta H | Total Volume | Avg Ts | Avg Tm | Min/Max | Min/Max | Max Temp | Max Vac | Max Temp |
|---|---|---|---|---|---|---|---|---|---|
| 1.0055 | .8563 | 76.258 | 301.7 | 65.4 | 298/303 | 293/307 | 54 | 6 | 298/301 |

Avg Sqrt Del H .9140

Comments:

Ontario Hydro Method

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Avg 1.0523

# ISOKINETIC FIELD DATA SHEET — Ontario Hydro Method - Mercury



Client: MISSISSIPPI POWER | Operator: JW, JP
Source: ESP | Run No.: 2
Sample Loc.: Outlet | Date: 20-Jan-2K | K Factor: 0.82

| TRAVERSE POINT NO. | SAMPLE TIME (min) | CLOCK TIME (plant time) | VELOCITY PRESSURE Delta P (in H2O) | ORIFICE PRESSURE Delta H (in H2O) | DRY GAS METER READING (ft³) | STACK TEMP (°F) | DGM INLET TEMP (°F) | DGM OUTLET TEMP (°F) | PROBE TEMP (°F) | FILTER BOX TEMP (F) | IMPING EXIT TEMP (°F) | SAMPLE TRAIN VAC (in Hg) | [illegible] | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1011 | | | 373.532 | | | | | | | | | |
| 4 - 1 | 80 | | 2.0 | 1.64 | 377.04 | 300 | 68 | 66 | 299 | 302 | 46 | 6. | 300 | |
| 2 | | | 1.1 | .90 | 379.66 | 301 | 72 | 68 | 302 | 304 | 45 | 5 | 300 | |
| 3 | | | .78 | .64 | 381.91 | 303 | 72 | 68 | 301 | 303 | 45 | 4 | 300 | |
| 4 | | | .90 | .74 | 384.34 | 307 | 71 | 67 | 301 | 304 | 44 | 4.5 | 301 | |
| 5 | | 1036 | 1.8 | .90 | 386.982 | 307 | 70 | 67 | 300 | 303 | 45 | 5.0 | 300 | LC = 0.0106.7 |
| | | | | | 12.432 | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | 387.050 | | | | | | | | | |
| 5 - 1 | | 1042 | 1.2 | .98 | 387.8 | 300 | 68 | 67 | 298 | 302 | 46 | 5 | 300 | |
| 2 | | | .98 | .80 | 392.4 | 300 | 70 | 67 | 299 | 303 | 47 | 5 | 301 | |
| 3 | | | .85 | .70 | 394.7 | 304 | 71 | 67 | 300 | 298 | 47 | 5 | 300 | |
| 4 | | | .88 | .72 | 397.08 | 308 | 70 | 67 | 298 | 297 | 47 | 5 | 300 | |
| 5 | | 1107 | .82 | .67 | 399.378 | 306 | 69 | 66 | 299 | 298 | 47 | 4.5 | 300 | LC = 0.0106.6 |
| | | | | | 12.328 | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | 399.450 | | | | | | | | | |
| 6 - 1 | | ~~[illegible]~~ 1117 | .98 | .80 | 402.02 | 294 | 65 | 65 | 303 | 307 | 50 | 4.5 | 300 | |
| 2 | | | .49 | .57 | 404.13 | 294 | 67 | 65 | 302 | 305 | 49 | 4 | 301 | |
| 3 | | | .80 | .66 | 406.40 | 298 | 68 | 65 | 299 | 302 | 48 | 4.5 | 300 | |
| 4 | | | .75 | .62 | 408.57 | 298 | 68 | 65 | 301 | 300 | 46 | 4.5 | 300 | |
| 5 | | 1142 | .58 | .48 | 410.499 | 298 | 68 | 65 | 300 | 301 | 46 | 4.5 | 300 | LC = 0.0106.2 |
| | | | | | 11.049 | | | | | | | | | |

| Avg Sqrt Delta P | Avg Delta H | Total Volume | Avg Ts | Avg Tm | Min/Max | Min/Max | Max Temp | Max Vac | Max Temp |
|---|---|---|---|---|---|---|---|---|---|
| 1.0293 | .8563 | 76.258 | 301.7 | 65.4 | 298/303 | 293/307 | 54 | 6 | 298/301 |
| 131 | Avg Sqrt Del H .9140 | Comments: | | | | | | | |

AVE = 1.0513

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# ISOKINETIC FIELD DATA SHEET

# Ontario Hydro Method - Mercury

Page ___ of ___

| | | | Stack Conditions | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Client | MISSISSIPPI POWER | | Assumed | Actual | Meter Box ID | ~~12295~~ WC-7 | | K Factor 0.32 | |
| W.O.# | 12261.001.001 | | | | Meter Box Y | ~~1.055~~ 0.99 | | | |
| Project ID | MPWS | % Moisture | 10 | | Meter Box Del H | ~~1.8~~ 1.8062 | **Leak Checks** | Initial | Mid-Point / Final |
| Mode/Source ID | ESP | Impinger Vol (ml) | | | Probe ID / Length | 12 | Sample Train (ft³) | 0.009 | 0.010 |
| Samp. Loc. ID | OUT | Silica gel (g) | | | Probe Material | Boro | Leak Check @ (in Hg) | 10 | |
| Run No.ID | 3 | CO2, % by Vol | 12 | | Pitot / Thermocouple ID | | Pitot good | (yes) / no | yes / no / (yes) / no |
| Test Method ID | OHM | O2, % by Vol | 8 | | Pitot Coefficient | 0.84 | Orsat good | (yes) / no | yes / no / (yes) / no |
| Date ID | 17JAN2000 | Temperature (°F) | 301 | | Nozzle ID | | **Temp Check** | Pre-Test Set | Post-Test Set |
| Source/Location | ESP Outlet | Meter Temp (°F) | 70 | | Avg Nozzle Dia (in) | .190 | Meter Box Temp | 70 | 66 |
| Sample Date | 20-Jan-2k | Static Press (in $H_2O$) | -0.30 | | Area of Stack (ft²) | | Reference Temp | 69 | 65 |
| Baro. Press (in Hg) | 30.00 | | | | Sample Time | 150 | Pass/Fail (+/- 2°) | (Pass) / Fail | (Pass) / Fail |
| Operator | JW, JP | Ambient Temp (°F) | 67 | | Total Traverse Pts | 30 | Temp Change Response | (yes) / no | (yes) / no |

| TRAVERSE POINT NO. | SAMPLE TIME (min) | CLOCK TIME (plant time) | VELOCITY PRESSURE Delta P (in H2O) | ORIFICE PRESSURE Delta H (in H2O) | DRY GAS METER READING (ft³) | STACK TEMP (°F) | DGM INLET TEMP (°F) | DGM OUTLET TEMP (°F) | PROBE TEMP (°F) | FILTER BOX TEMP (F) | IMPINGER EXIT TEMP (°F) | SAMPLE TRAIN VAC (in Hg) | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1343 | | | 411.504 | | | | | | | | | |
| 6-1 | 5 | | 1.1 | .90 | ~~414.40~~ | 300 | 64 | 64 | 300 | 302 | 48 | 4.5 | 300 | |
| 2 | 10 | | .78 | .64 | 416.81 | 303 | 65 | 64 | 299 | 303 | 51 | 4 | 300 | |
| 3 | 15 | | .97 | .80 | 419.28 | 307 | 67 | 65 | 301 | 301 | 46 | 4 | 300 | |
| 4 | 20 | | .53 | .43 | 421.11 | 308 | 69 | 65 | 303 | 304 | 46 | 4 | 300 | |
| 5 | 25 | 1408 | .58 | .48 | 422.901 | 309 | 70 | 66 | 301 | 298 | 46 | 3.5 | 300 | LC=0.01@5 |
| | | | | | 11.397 | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | 1412 | ~~1.28~~ | ~~.98~~ | ~~422.950~~ | | | | | | | | | |
| 5-1 | 30 | | 1.2 | .98 | 425.70 | 299 | 66 | 61 | 300 | 303 | 49 | 4 | 300 | |
| 2 | 35 | | 1.1 | .90 | 428.3 | 301 | 68 | 66 | 298 | 300 | 44 | 4 | 300 | |
| 3 | 40 | | .88 | .72 | 430.76 | 305 | 71 | 67 | 296 | 302 | 44 | 4 | 300 | |
| 4 | 45 | | .84 | .69 | 433.07 | 306 | 70 | 67 | 298 | 301 | 44 | 4 | 300 | |
| 5 | 50 | 1427 | .87 | .71 | 435.404 | 306 | 69 | 67 | 299 | 300 | 44 | 4 | 300 | LC=0.01@5 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | 1451 | ~~2.12~~ | | 435.520 | | | | | | | | | |
| 4-1 | 55 | | 2.1 | 1.72 | 439.10 | 297 | 66 | 66 | 300 | 303 | 48 | 5 | 300 | |
| 2 | 60 | | 1.1 | .90 | 441.71 | 299 | 69 | 67 | 311 | 309 | 44 | 4 | 300 | |
| 3 | 65 | | .65 | .53 | 443.75 | 302 | 71 | 67 | 302 | 305 | 44 | 4 | 301 | |
| 4 | 70 | | .96 | .79 | 446.22 | 305 | 68 | 66 | 300 | 301 | 44 | 4 | 300 | |
| 5 | 75 | 1516 | 1.1 | .90 | 448.855 | 306 | 70 | 67 | 301 | 300 | 44 | 4 | 300 | LC=0.01@6 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | Avg Sqrt Delta P | Avg Delta H | Total Volume | Avg Ts | Avg Tm | | Min/Max | Min/Max | Max Temp | Max Vac | Max Temp | |
| | | | 1.0103 | .86 | 76.421 | 302 | 67 | | 296/301 | 295/305 | 60 | 5 | 302 | |
| | | | | Avg Sqrt Del H .9145 | Comments: | | | | | | Ontario Hydro Method | | | |

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# ISOKINETIC FIELD DATA SHEET

## Ontario Hydro Method - Mercury

Page ___ of ___

Client: MISSISSIPPI POWER
Source: ESP
Sample Loc.: Outlet
Operator: JW, JP
Run No.: 3
Date: 20-Jan-2K
K Factor: 0.82

| TRAVERSE POINT NO. | SAMPLE TIME (min) | CLOCK TIME (plant time) | VELOCITY PRESSURE Delta P (in H2O) | ORIFICE PRESSURE Delta H (in H2O) | DRY GAS METER READING (ft³) | STACK TEMP (°F) | DGM INLET TEMP (°F) | DGM OUTLET TEMP (°F) | PROBE TEMP (°F) | FILTER BOX TEMP (F) | IMPING EXIT TEMP (°F) | SAMPLE TRAIN VAC (in Hg) | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1522 | | | 448.950 | | | | | | | | | |
| 3 - 1 | 80 | | 1.6 | 1.3 | 452.14 | 297 | 67 | 66 | 301 | 303 | 48 | 5 | 301 | |
| 2 | 85 | | 1.1 | .90 | 454.77 | 298 | 70 | 67 | 295 | 297 | 44 | 4.5 | 300 | |
| 3 | 90 | | .45 | .37 | 456.57 | 300 | 70 | 67 | 299 | 298 | 44 | 3.5 | 300 | |
| 4 | 95 | | .91 | .75 | 458.95 | 302 | 65 | 66 | 301 | 299 | 44 | 3.5 | 300 | |
| 5 | 100 | 1547 | 1.2 | .98 | 461.700 | 303 | 65 | 66 | 300 | 301 | 43 | 4 | 300 | Lc = 0.00705 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | 1553 | | | 461.500 | | | | | | | | | |
| 2 - 1 | 105 | 1556 | 1.1 | .90 | 464.44 | 300 | 65 | 65 | 300 | 299 | 48 | 4 | 302 | |
| 2 | 110 | | .73 | .60 | 466.60 | 301 | 66 | 65 | 297 | 297 | 45 | 4 | 301 | |
| 3 | 115 | | .70 | .66 | 468.83 | 302 | 67 | 65 | 299 | 301 | 45 | 4 | 300 | |
| 4 | 120 | | .80 | .66 | 471.02 | 301 | 66 | 64 | 301 | 300 | 44 | 4 | 300 | |
| 5 | 125 | 1603 | .95 | .78 | 473.315 | 302 | 67 | 64 | 300 | 298 | 44 | 4 | 300 | Lc = 0.01007 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | 1624 | | | 473.600 | | | | | | | | | |
| 1 - 1 | 130 | | 1.2 | .98 | 476.33 | 298 | 63 | 62 | 297 | 295 | 46 | 4.5 | 300 | |
| 2 | 135 | | 1.1 | .90 | 478.93 | 300 | 65 | 63 | 299 | 297 | 44 | 4.5 | 300 | |
| 3 | 140 | | 1.6 | 1.31 | 482.08 | 295 | 65 | 62 | 298 | 301 | 43 | 4.5 | 300 | |
| 4 | 145 | | 1.6 | 1.31 | 485.21 | 301 | 66 | 61 | 299 | 296 | 42 | 5 | 300 | |
| 5 | 150 | 1649 | 1.6 | 1.31 | 488.350 | 301 | 67 | 62 | 297 | 293 | 43 | 5 | 301 | |

| Avg Sqrt Delta P | Avg Delta H | Total Volume | Avg Ts | Avg Tm | Min/Max | Min/Max | Max Temp | Max Vac | Max Temp |
|---|---|---|---|---|---|---|---|---|---|
| 1.0103 | 0.86 | 76.421 | 302 | 67 | 296/301 | 293/305 | 60 | 5 | 302 |

Avg Sqrt Del H: 0.9145

Comments:

Acel. 05

WESTON MANAGERS DESIGNERS/CONSULTANTS

OUTLET

# SAMPLE RECOVERY FIELD DATA

Method Ontario Hydro Mercury Method

Client Miss Power W.O. #

Location/Plant Source & Location

**Run No.** One-outlet **Sample Date** 1/19/00 **Recovery Date** 1/19/00

Sample I.D. **Analyst** **Filter Number** W400

| | Impinger 1 | 2 | 3 | 4 | 5 | 6 | 7 ~~Imp. Total~~ | Total Liq | Silica Gel ~~Total~~ |
|---|---|---|---|---|---|---|---|---|---|
| **Contents** | | | | | | | | | |
| **Final** | 810.2 | 640.8 | 744.8 | 695.8 | 639.3 | 601.3 | 685.9 | | 320.9 |
| **Initial** | 678.4 | 606.6 | 732.4 | 689.9 | 636.7 | 601.1 | 682.5 | | 300.0 |
| **Gain** | 131.8 | 34.2 | 12.4 | 5.9 | 2.6 | 0.2 | 3.4 | 190.5 | 20.9 |

Impinger Color 1-4 clear colorless 5-7 purple **Labeled?** ✓ ~~196.5~~ TOT

Silica Gel Condition 1/2 Blue **Sealed?** ✓ 211.4

**Run No.** Two-outlet **Sample Date** 1/20/00 **Recovery Date** 1/20/00

Sample I.D. **Analyst** **Filter Number** W401

| | Impinger 1 | 2 | 3 | 4 | 5 | 6 | 7 ~~Imp. Total~~ | Total Liq | Silica Gel ~~Total~~ |
|---|---|---|---|---|---|---|---|---|---|
| **Contents** | | | | | | | | | |
| **Final** | 768.8 | 630.5 | 738.5 | 689.1 | 614.8 | 629.6 | 672.1 | | 316.5 |
| **Initial** | 678.4 | 604.3 | 730.5 | 684.2 | 613.9 | 630.4 | 670.8 | | 300.0 |
| **Gain** | 90.4 | 26.2 | 8 | 4.9 | 0.9 | -0.8 | 1.3 | 130.9 | 16.5 |

Impinger Color 1-4 Clear Colorless 5-7 purple **Labeled?** ✓ TOT

Silica Gel Condition 1/2 Blue **Sealed?** ✓ 147.4

**Run No.** Three Outlet **Sample Date** 1/20/00 **Recovery Date** 1/20/00

Sample I.D. **Analyst** **Filter Number** W403

| | Impinger 1 | 2 | 3 | 4 | 5 | 6 | 7 ~~Imp. Total~~ | Total Liq | Silica Gel ~~Total~~ |
|---|---|---|---|---|---|---|---|---|---|
| **Contents** | | | | | | | | | |
| **Final** | 678.7 | 726.2 | 706.1 | 630.7 | 710.1 | 696.3 | 669.5 | | 316.8 |
| **Initial** | 602.2 | 693.1 | 698.2 | 625.1 | 710.0 | 695.9 | 669.4 | | 300.0 |
| **Gain** | 76.5 | 33.1 | 7.9 | 5.6 | 0.1 | 0.4 | 0.1 | 123.7 | 16.8 |

Impinger Color 1-4 Clear Colorless 5-7 purple **Labeled?** ✓ TOT

Silica Gel Condition 1/2 Blue **Sealed?** ✓ 140.5

Check COC for Sample IDs of Media Blanks

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# Source Gas Analysis Data Sheet - Method 3

Client Mississippi Power

Analyst JP

Location/Plant WATSON STATION

Date 1/19/2000

Source #4 Outlet Asid

Analytical Method (circle one) Orsat

W.O. Number (225).001.001.0003

Run Number 01

Leak Check Good? (circle one) Yes No

| Analysis Number | Analysis Time | Percent $CO_2$ (A) | Percent Total (B) | Percent $O_2$ (B - A) | Percent $N_2$ (100 - B) |
|---|---|---|---|---|---|
| 1 | 1730 | 12.3 | 18.6 | 6.3 | |
| 2 | | 12.2 | 18.5 | 6.3 | |
| 3 | | 12.3 | 18.6 | 6.3 | |
| | Average | 12.3 | 18.6 | 6.3 | |

Run Number _____

Leak Check Good? (circle one) Yes No

| Analysis Number | Analysis Time | Percent $CO_2$ (A) | Percent Total (B) | Percent $O_2$ (B - A) | Percent $N_2$ (100 - B) |
|---|---|---|---|---|---|
| 1 | | ~~11.6~~ 12.2 | ~~14.2~~ 19.2 | 7 | |
| 2 | | ~~11.8~~ 11.8 | ~~19.0~~ 18.9 | 7.1 | |
| 3 | | 11.9 | 19.0 | 7.1 | |
| | Average | 12.0 | 19.0 | 7.1 | |

Run Number _____

Leak Check Good? (circle one) Yes No

| Analysis Number | Analysis Time | Percent $CO_2$ (A) | Percent Total (B) | Percent $O_2$ (B - A) | Percent $N_2$ (100 - B) |
|---|---|---|---|---|---|
| 1 | | 12.4 | 19.0 | 6.6 | |
| 2 | | 12.4 | 19.0 | 6.6 | |
| 3 | | 12.2 | 19.0 | 6.8 | |
| | Average | 12.3 | 19.0 | 6.7 | |

Acceptable differences for repeat analysis:

if $CO_2$ > 4% than +/- 0.3%

if $CO_2$ < or = 4% than +/- 0.2%

if $O_2$ > or = 15% than +/- 0.2%

if $O_2$ < 15% than +/- 0.3%

**Ambient Check**

Oxygen 20.6

Carbon Dioxide 0.0

Report all values to the nearest 0.1 percent

Comments _____

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Method3

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# Sample and Velocity Traverse Point Data Sheet - Method 1

Client Miss Power
Loaction/Plant WATSON
Source ESP OUTLET A side

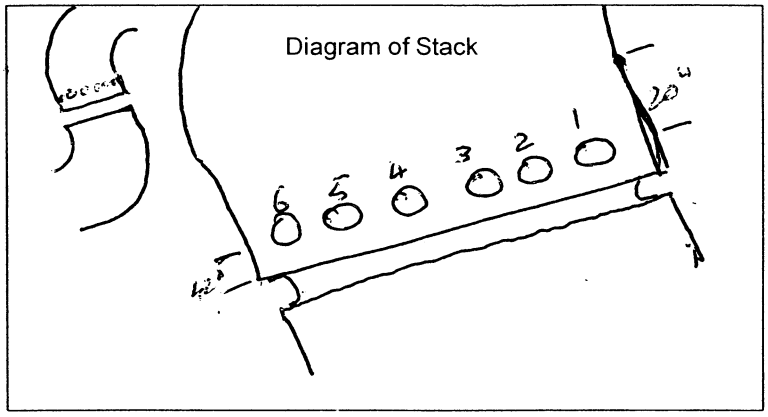
Operator JP/JW
Date 1/18/00
W.O. Number

| | | | |
|---|---|---|---|
| **Duct Type** | ☐ Circular | ☒ Rectangular Duct | Indicate appropriate type |
| **Traverse Type** | ☐ Particulate Traverse | ☐ Velocity Traverse | |

| | |
|---|---|
| Distance from far wall to outside of port (in.) = C | 159.5" |
| Port Depth (in.) = D | 18" |
| Depth of Duct, diameter (in.) = C-D | 141.5" |
| Area of Duct ($ft^2$) | 108.48 |
| Total Traverse Points | 30 |
| Total Traverse Points per Port | 5 |

| **Rectangular Ducts Only** | |
|---|---|
| Width of Duct, rectangular duct only (in.) 110 | ~~176~~ |
| Total Ports (rectangular duct only) | 6 |

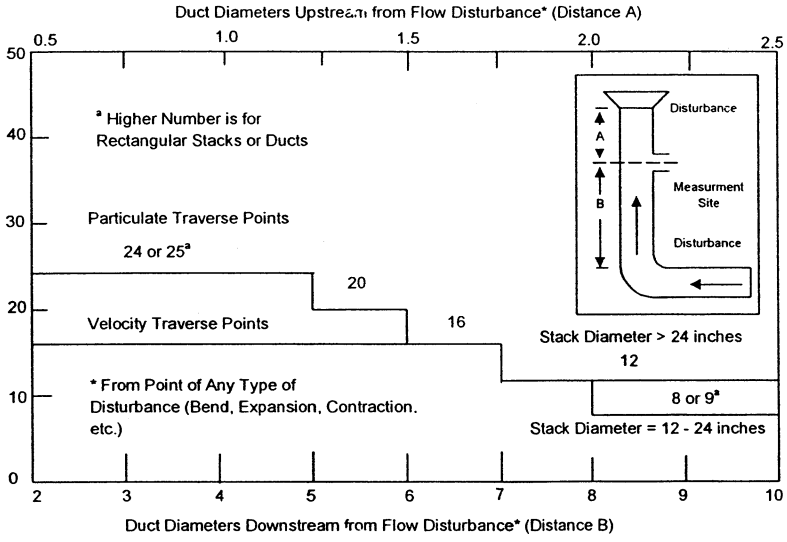
| **Flow Disturbances** | |
|---|---|
| Upstream - A (ft) | |
| Downstream - B (ft) | |
| Upstream - A (duct diameters) | |
| Downstream - B (duct diameters) | |




**Traverse Point Locations**

| Traverse Point | % of Duct | Distance from Inside Duct Wall (in) | Distance from Outside of Port (in) | |
|---|---|---|---|---|
| 1 | 10 | 14.15 | 32.15 | 32 1/8 |
| 2 | 30 | 42.45 | 60.45 | 60 1/2 |
| 3 | 50 | 70.75 | 88.75 | 88 3/4 |
| 4 | 70 | 99.05 | 117.05 | 117 |
| 5 | 90 | 127.35 | 145.35 | 145 3/8 |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |

Equivalent Diameter = (2*L*W)/(L+W)




**Traverse Point Location Percent of Stack -Circular**

| Traverse Point | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 14.6 | | 6.7 | | 4.4 | | 3.2 | | 2.6 | | 2.1 |
| 2 | | 85.4 | | 25 | | 14.6 | | 10.5 | | 8.2 | | 6.7 |
| 3 | | | | 75 | | 29.6 | | 19.4 | | 14.6 | | 11.8 |
| 4 | | | | 93.3 | | 70.4 | | 32.3 | | 22.6 | | 17.7 |
| 5 | | | | | | 85.4 | | 67.7 | | 34.2 | | 25 |
| 6 | | | | | | 95.6 | | 80.6 | | 65.8 | | 35.6 |
| 7 | | | | | | | | 89.5 | | 77.4 | | 64.4 |
| 8 | | | | | | | | 96.8 | | 85.4 | | 75 |
| 9 | | | | | | | | | | 91.8 | | 82.3 |
| 10 | | | | | | | | | | 97.4 | | 88.2 |
| 11 | | | | | | | | | | | | 93.3 |
| 12 | | | | | | | | | | | | 97.9 |

**Traverse Point Location Percent of Stack -Rectangular**

| Traverse Point | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 25.0 | 16.7 | 12.5 | 10.0 | 8.3 | 7.1 | 6.3 | 5.6 | 5.0 | 4.5 | 4.2 |
| 2 | | 75.0 | 50.0 | 37.5 | 30.0 | 25.0 | 21.4 | 18.8 | 16.7 | 15.0 | 13.6 | 12.5 |
| 3 | | | 83.3 | 62.5 | 50.0 | 41.7 | 35.7 | 31.3 | 27.8 | 25.0 | 22.7 | 20.8 |
| 4 | | | | 87.5 | 70.0 | 58.3 | 50.0 | 43.8 | 38.9 | 35.0 | 31.8 | 29.2 |
| 5 | | | | | 90.0 | 75.0 | 64.3 | 56.3 | 50.0 | 45.0 | 40.9 | 37.5 |
| 6 | | | | | | 91.7 | 78.6 | 68.8 | 61.1 | 55.0 | 50.0 | 45.8 |
| 7 | | | | | | | 92.9 | 81.3 | 72.2 | 65.0 | 59.1 | 54.2 |
| 8 | | | | | | | | 93.8 | 83.3 | 75.0 | 68.2 | 62.5 |
| 9 | | | | | | | | | 94.4 | 85.0 | 77.3 | 70.8 |
| 10 | | | | | | | | | | 95.0 | 86.4 | 79.2 |
| 11 | | | | | | | | | | | 95.5 | 87.5 |
| 12 | | | | | | | | | | | | 95.8 |

| Rectangular Stack Points & Matrix |
|---|
| 9 - 3 x 3 |
| 12 - 4 x 3 |
| 16 - 4 x 4 |
| 20 - 5 x 4 |
| 25 - 5 x 5 |
| 30 - 6 x 5 |
| 36 - 6 x 6 |
| 42 - 7 x 6 |
| 49 - 7 x 7 |

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Mississippi Power Company
Gulfport, MS
12251.001.001.0003
Unit 4, Outlet Duct B

## VOLUMETRIC FLOW RATE CALCULATIONS

| RUN # | 1 | | 2 | | 3 | | Average Mean |
|---|---|---|---|---|---|---|---|
| DATE | 19-Jan-00 | | 20-Jan-00 | | 20-Jan-00 | | |
| RUN TIMES | 1330-1412 | | 1028-1125 | | 1525-1600 | | xxx |
| Velocity Head, in. H2O | DP | SQRT DP | DP | SQRT DP | DP | SQRT DP | |
| Point 1 | 0.13 | 0.361 | 0.32 | 0.566 | 0.08 | 0.283 | 0.18 |
| Point 2 | 0.34 | 0.583 | 0.80 | 0.894 | 0.27 | 0.520 | 0.47 |
| Point 3 | 1.30 | 1.140 | 1.40 | 1.183 | 1.20 | 1.095 | 1.30 |
| Point 4 | 1.50 | 1.225 | 2.00 | 1.414 | 1.40 | 1.183 | 1.63 |
| Point 5 | 0.73 | 0.854 | 1.50 | 1.225 | 0.58 | 0.762 | 0.94 |
| Point 6 | 0.18 | 0.424 | 0.32 | 0.566 | 0.08 | 0.283 | 0.19 |
| Point 7 | 0.80 | 0.894 | 0.67 | 0.819 | 0.72 | 0.849 | 0.73 |
| Point 8 | 2.20 | 1.483 | 1.80 | 1.342 | 2.10 | 1.449 | 2.03 |
| Point 9 | 1.60 | 1.265 | 1.60 | 1.265 | 1.50 | 1.225 | 1.57 |
| Point 10 | 1.70 | 1.304 | 2.80 | 1.673 | 1.50 | 1.225 | 2.00 |
| Point 11 | 0.19 | 0.436 | 0.22 | 0.469 | 0.10 | 0.316 | 0.17 |
| Point 12 | 0.57 | 0.755 | 0.39 | 0.624 | 0.55 | 0.742 | 0.50 |
| Point 13 | 1.40 | 1.183 | 0.73 | 0.854 | 1.40 | 1.183 | 1.18 |
| Point 14 | 2.05 | 1.432 | 2.10 | 1.449 | 2.20 | 1.483 | 2.12 |
| Point 15 | 3.20 | 1.789 | 3.20 | 1.789 | 3.00 | 1.732 | 3.13 |
| Point 16 | 0.24 | 0.490 | 0.23 | 0.480 | 0.18 | 0.424 | 0.22 |
| Point 17 | 0.43 | 0.656 | 0.40 | 0.632 | 0.40 | 0.632 | 0.41 |
| Point 18 | 0.85 | 0.922 | 1.30 | 1.140 | 0.94 | 0.970 | 1.03 |
| Point 19 | 2.00 | 1.414 | 2.00 | 1.414 | 2.50 | 1.581 | 2.17 |
| Point 20 | 3.45 | 1.857 | 2.80 | 1.673 | 2.90 | 1.703 | 3.05 |
| Point 21 | 0.52 | 0.721 | 0.17 | 0.412 | 0.16 | 0.400 | 0.28 |
| Point 22 | 0.85 | 0.922 | 0.59 | 0.768 | 0.62 | 0.787 | 0.69 |
| Point 23 | 1.90 | 1.378 | 1.90 | 1.378 | 1.90 | 1.378 | 1.90 |
| Point 24 | 1.50 | 1.225 | 1.50 | 1.225 | 1.70 | 1.304 | 1.57 |
| Point 25 | 2.90 | 1.703 | 1.70 | 1.304 | 2.90 | 1.703 | 2.50 |
| Point 26 | 0.40 | 0.632 | 0.11 | 0.332 | 0.48 | 0.693 | 0.33 |
| Point 27 | 0.99 | 0.995 | 0.34 | 0.583 | 0.91 | 0.954 | 0.75 |
| Point 28 | 1.50 | 1.225 | 0.89 | 0.943 | 1.50 | 1.225 | 1.30 |
| Point 29 | 2.60 | 1.612 | 1.50 | 1.225 | 2.70 | 1.643 | 2.27 |
| Point 30 | 1.50 | 1.225 | 0.70 | 0.837 | 1.90 | 1.378 | 1.37 |
| Sq Rt of Delta P, (in. H20)^½ | | 1.070 | | 1.016 | | 1.037 | 1.043 |
| Pitot Tube Coefficient (Cp) | 0.84 | | 0.84 | | 0.84 | | 0.84 |
| Barometric Press (Pb), in. Hg | 30.03 | | 30.00 | | 30.00 | | 30.01 |
| Static Press (Pg), in. H2O | -1.30 | | -1.40 | | -0.88 | | -1.19 |
| Stack Press (Ps), in. Hg | 29.93 | | 29.90 | | 29.94 | | 29.92 |
| Stack Diameter (I.D.), in. | 141.5 X 110.4 | | 141.5 X 110.4 | | 141.5 X 110.4 | | 141.5 X 110.4 |
| Stack Area, ft^2 | 108.48 | | 108.48 | | 108.48 | | 108.48 |
| Temperature (ts), °F | 286 | | 280 | | 277 | | 281.0 |
| Moisture (Bws) | 0.089 | | 0.088 | | 0.089 | | 0.089 |
| CO2 Concentration (CO2), % | 11.9 | | 11.9 | | 12.0 | | 11.933 |
| O2 Concentration (O2), % | 7.1 | | 7.1 | | 7.0 | | 7.067 |
| Mol Wt (Ms), lb/lb-mole | 29.1 | | 29.1 | | 29.1 | | 29.1 |
| Velocity (Vs), ft/sec | 71.1 | | 67.3 | | 68.5 | | 69.0 |
| At Stack Cond (Qa), acfm | 462888 | | 437840 | | 445651 | | 448793 |
| At Std Cond (Qs), dscfm | 298486 | | 284581 | | 290889 | | 291319 |

K:\12251\001\001\Field\Vfr-4b

02/02/00

# Determination of Stack Gas Velocity - Method 2

Client: MISS Power
Location/Plant: WATSON PLANT
Source: B side outlet
Operator:
Date: 7/19/00
W.O. Number:
Pitot Coeff (Cp): 0.84
Stack Area, ft² (As): 108.4
Pitot Tube/Thermo ID: P 146

| | | | |
|---|---|---|---|
| Run Number | ONE | | |
| Time | 1330-1412 | | |
| Barometric Press, in Hg (Pb) | ~~29.91~~ 30.03 | | |
| Static Press, in $H_2O$ (Pstatic) | -1.3 | | |
| Source Moisture, % (BWS) | | | |
| $O_2$, % | | | |
| $CO_2$, % | | | |

Cyclonic Flow Determination / Traverse Location

| Delta P at 0° | Angle yeilding zero Delta P | Port | Point | Leak Check good ? Y / N: Delta P | Source Temp, F° (Ts) | Leak Check good ? Y / N: Delta P | Source Temp, F° (Ts) | Leak Check good ? Y / N: Delta P | Source Temp, F° (Ts) |
|---|---|---|---|---|---|---|---|---|---|
| -.02 | <5 | A | 1 | 0.13 | 275 | | | | |
| | | | 2 | 0.34 | 280 | | | | |
| 0 | — | | 3 | 1.3 | 282 | | | | |
| 0 | — | | 4 | 1.5 | 283 | | | | |
| 0 | — | | 5 | 0.73 | 284 | | | | |
| 0 | — | B | 1 | 0.18 | 283 | | | | |
| | | | 2 | 0.80 | 284 | | | | |
| 0 | — | | 3 | 2.2 | 284 | | | | |
| | | | 4 | 1.6 | 288 | | | | |
| -.02 | <5 | | 5 | 1.7 | 287 | | | | |
| | | C | 1 | 0.19 | 286 | | | | |
| 0 | — | | 2 | 0.57 | 287 | | | | |
| | | | 3 | 1.4 | 287 | | | | |
| 0 | — | | 4 | 2.05 | 288 | | | | |
| -.05 | <5 | | 5 | 3.20 | 289 | | | | |
| 0 | — | D | 1 | 0.24 | 287 | | | | |
| 0 | — | | 2 | 0.43 | 285 | | | | |
| | | | 3 | 0.85 | 286 | | | | |
| 0 | — | | 4 | 2.00 | 287 | | | | |
| <.08 | <5 | | 5 | 3.45 | 289 | | | | Cyclonic Check Port F |
| 0 | — | E | 1 | 0.52 | 287 | | | | |
| | | | 2 | 0.85 | 287 | F 1 | 0.40 | 286 | 0 — |
| 0 | — | | 3 | ~~2.0~~ 1.9 | 287 | 2 | 0.99 | 287 | |
| | | | 4 | 1.5 | 289 | 3 | 1.50 | 287 | 0 — |
| -.06 | <5 | | 5 | 2.9 | 289 | 4 | 2.60 | 288 | |
| Avg Angle | | Avg Delta P & Temp | | 0 | | 5 | 1.50 | 289 | -.06 <5 |
| | | avg √DeltaP | | | | 1.070 ✓ | | 286 ✓ | |
| Average gas stream velocity, ft/sec. | | | | | | | | | |
| Vol. flow rate @ actual conditions, wacf/min | | | | | | | | | |
| Vol. flow rate at standard conditions, dscf/min | | | | | | | | | |

STATIC 1.3

Besides

$$MWd = (0.32 * O_2) + (0.44 * CO_2) + (0.28 * (100 - (CO_2 + O_2)))$$

$$MWs = (MWd * (1 - (BWS/100))) + (18 * (BWS/100))$$

$$Tsa = Ts + 460$$

$$Ps = Pb + (Pstatic/13.6)$$

$$Vs = 85.49 * Cp * avg\sqrt{DeltaP} * \sqrt{Tsa/(Ps * MWs)}$$

$$Qs(act) = 60 * Vs * As$$

$$Qs(std) = 17.64 * (1 - (BWS/100)) * (Ps/Tsa) * Qs(act)$$

Comments _____

where:
MWd = Dry molecular weight source gas, lb/lb-mole.
MWs = Wet molecular weight source gas, lb/lb-mole.
Tsa = Source Temperature, absolute(oR)
Ps = Absolute stack static pressure, inches Hg.
Vs = Average gas stream velocity, ft/sec.
Qs(act) = Volumetric flow rate of wet stack gas at actual,
Qs(std) = Volumetric flow rate of dry stack gas at standard conditions, dscf/min

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# Determination of Stack Gas Velocity - Method 2

Client: Miss Power
Location/Plant: A-SIDE
Source:
Operator:
Date: 1/20/00
Pitot Tube/Thermo ID: 8 14L
Pitot Coeff (Cp): 0.84
Stack Area, ft² (As): 163.4

00000A
S 1

| | | | |
|---|---|---|---|
| Run Number | two | | |
| Time | 1028 - 1125 | | |
| Barometric Press, in Hg (Pb) | 30.00 | | |
| Static Press, in $H_2O$ (Pstatic) | -1.4 | | |
| Source Moisture, % (BWS) | | | |
| $O_2$, % | | | |
| $CO_2$, % | | | |

| Cyclonic Flow Determination | | Traverse Location | | Leak Check good ? (Y) N | | Leak Check good ? Y / N | | Leak Check good ? Y / N | |
|---|---|---|---|---|---|---|---|---|---|
| Delta P at 0° | Angle yeilding zero Delta P | Port | Point | Delta P | Source Temp, F° (Ts) | Delta P | Source Temp, F° (Ts) | Delta P | Source Temp, F° (Ts) |
| | | F | 1 | 0.32 | 280 | | | | |
| | | | 2 | 0.80 | 280 | | | | |
| | | | 3 | 1.40 | 279 | | | | |
| | | | 4 | 2.0 | 279 | | | | |
| | | | 5 | 1.50 | 279 | | | | |
| | | E | 1 | 0.32 | 277 | | | | |
| | | | 2 | 0.67 | 279 | | | | |
| | | | 3 | 1.80 | 277 | | | | |
| | | | 4 | 1.60 | 278 | | | | |
| | | | 5 | 2.80 | 282 | | | | |
| | | D | 1 | 0.22 | 277 | | | | |
| | | | 2 | 0.39 | 279 | | | | |
| | | | 3 | 0.73 | 279 | | | | |
| | | | 4 | 2.10 | 279 | | | | |
| | | | 5 | 3.20 | 279 | | | | |
| | | C | 1 | 0.23 | 278 | | | | |
| | | | 2 | 0.40 | 277 | | | | |
| | | | 3 | 1.[illegible] | 279 | | | | |
| | | | 4 | 2.0 | 279 | | | | |
| | | | 5 | 2.8 | 278 | | | | |
| | | B | 1 | 0.17 | 283 | A 1 | 0.11 | 281 | |
| | | | 2 | 0.59 | 282 | 2 | 0.34 | 283 | |
| | | | 3 | 1.90 | 282 | 3 | 0.89 | 282 | |
| | | | 4 | 1.50 | 283 | 4 | 1.50 | 282 | |
| | | | 5 | 1.70 | 284 | 5 | 0.70 | 283 | |
| Avg Angle | | avg√DeltaP & Temp | | 1.016 | | | | 280 | |
| Average gas stream velocity, ft/sec. | | | | ✓ | | | | ✓ | |
| Vol. flow rate @ actual conditions, wacf/min | | | | | | | | | |
| Vol. flow rate at standard conditions, dscf/min | | | | | | | | | |

$$MWd = (0.32 * O_2) + (0.44 * CO_2) + (0.28 * (100 - (CO_2 + O_2)))$$

$$MWs = (MWd * (1 - (BWS/100))) + (18 * (BWS/100))$$

$$Tsa = Ts + 460$$

$$Ps = Pb + (Pstatic/13.6)$$

$$Vs = 85.49 * Cp * avg\sqrt{DeltaP} * \sqrt{Tsa/(Ps * MWs)}$$

$$Qs(act) = 60 * Vs * As$$

$$Qs(std) = 17.64 * (1 - (BWS/100)) * (Ps/Tsa) * Qs(act)$$

where:
MWd = Dry molecular weight source gas, lb/lb-mole.
MWs = Wet molecular weight source gas, lb/lb-mole.
Tsa = Source Temperature, absolute(oR)
Ps = Absolute stack static pressure, inches Hg.
Vs = Average gas stream velocity, ft/sec.
Qs(act) = Volumetric flow rate of wet stack gas at actual,
Qs(std) = Volumetric flow rate of dry stack gas at standard conditions, dscf/min

Comments

Method2

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# Determination of Stack Gas Velocity - Method 2

Client: Mississippi Power Co. | Operator: JP/GS | Pitot Coeff (Cp): 0.84
Location/Plant: Gulfport MS (Watson) | Date: 1/20/2000 | Stack Area, ft² (As): 108.42
Source: Unit 4 Outlet B | Pitot Tube/Thermo ID: Pitot 146

| | | | |
|---|---|---|---|
| Run Number | 3 | | |
| Time | 1525 - 1600 | | |
| Barometric Press, in Hg (Pb) | 30. | | |
| Static Press, in $H_2O$ (Pstatic) | -0.88 | | |
| Source Moisture, % (BWS) | | | |
| $O_2$, % | | | |
| $CO_2$, % | | | |

| Cyclonic Flow Determination | | Traverse Location | | Leak Check good ? Y / N | | Leak Check good ? Y / N | | Leak Check good ? Y / N | |
|---|---|---|---|---|---|---|---|---|---|
| Delta P at 0° | Angle yeilding zero Delta P | Port | Point | Delta P | Source Temp, F° (Ts) | Delta P | Source Temp, F° (Ts) | Delta P | Source Temp, F° (Ts) |
| | | A | 1 | 0.08 | 254 | | | | |
| | | | 2 | 0.27 | 261 | | | | |
| | | | 3 | 1.2 | 276 | | | | |
| | | | 4 | 1.4 | 276 | | | | |
| | | | 5 | 0.58 | 277 | | | | |
| | | B | 1 | 0.08 | 275 | | | | |
| | | | 2 | 0.72 | 275 | | | | |
| | | | 3 | 2.10 | 276 | | | | |
| | | | 4 | 1.5 | 277 | | | | |
| | | | 5 | 1.5 | 278 | | | | |
| | | C | 1 | 0.10 | 274 | | | | |
| | | | 2 | 0.55 | 276 | | | | |
| | | | 3 | 1.4 | 275 | | | | |
| | | | 4 | 2.2 | 276 | | | | |
| | | | 5 | 3.0 | 277 | | | | |
| | | D | 1 | 0.18 | 275 | | | | |
| | | | 2 | 0.40 | 276 | | | | |
| | | | 3 | 0.94 | 274 | | | | |
| | | | 4 | 2.5 | 276 | | | | |
| | | | 5 | 2.9 | 278 | | | | |
| | | E | 1 | 0.16 | 275 | | | 0.18 | 274 |
| | | | 2 | 0.62 | 275 | | 2 | 0.91 | 274 |
| | | | 3 | 1.90 | 276 | | 3 | 1.5 | 275 |
| | | | 4 | 1.7 | 277 | | 4 | 2.7 | 277 |
| | | | 5 | 2.9 | 278 | | 5 | 1.9 | 278 |
| Avg Angle | | avg√DeltaP & Temp | | | | | | 1.037 | 277 |
| Average gas stream velocity, ft/sec. | | | | | | | | | |
| Vol. flow rate @ actual conditions, wacf/min | | | | | | | | | |
| Vol. flow rate at standard conditions, dscf/min | | | | | | | | | |

$$MWd = (0.32 * O_2) + (0.44 * CO_2) + (0.28 * (100 - (CO_2 + O_2)))$$

$$MWs = (MWd * (1 - (BWS/100))) + (18 * (BWS/100))$$

$$Tsa = Ts + 460$$

$$Ps = Pb + (Pstatic/13.6)$$

$$Vs = 85.49 * Cp * avg\sqrt{DeltaP} * \sqrt{Tsa/(Ps * MWs)}$$

$$Qs(act) = 60 * Vs * As$$

$$Qs(std) = 17.64 * (1 - (BWS/100)) * (Ps/Tsa) * Qs(act)$$

where:
MWd = Dry molecular weight source gas, lb/lb-mole.
MWs = Wet molecular weight source gas, lb/lb-mole.
Tsa = Source Temperature, absolute(oR)
Ps = Absolute stack static pressure, inches Hg.
Vs = Average gas stream velocity, ft/sec.
Qs(act) = Volumetric flow rate of wet stack gas at actual,
Qs(std) = Volumetric flow rate of dry stack gas at standard conditions, dscf/min

Comments _____

Method2

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# Determination of Moisture Content in Stack Gases - Method 4

| | | | | | |
|---|---|---|---|---|---|
| Client | Mississippi Power Company | | | | |
| Location/Plant | Gulfport, MS - Watson | Operator | JP/JM/GS | Date | 1/19-20/00 |
| Source | Unit 4 - Outlet Duct B | Meter Box ID | 13 | Meter Box Y | 0.9926 |
| W.O. Number | 12251.001.001.0003 | Temperature °C or °F | F | Sample Volume, ft³ or L | ft |

| Run Number | | Sample Time (min) | Meter Volume, Vm | Meter Temp (or ambient temp for rotometer) | | Meter Press, Delta H (in $H_2O$) | Impinger Volume, ml | Silica Gel Weight , g | Corrected Volume, Vm(std) | Leak Rate Check |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | Inlet | Outlet | | | | 77.2996 | Initial 0.006 @ 15 |
| | End Test | 1128 | 536.592 | 85 | 84 | 0.7 | 348 | 312.5 | | Final 0.008 @ 15 |
| Baro Press., Pb (in Hg) | Start Test | 1028 | 456.755 | 85 | 82 | 0.7 | 200 | 300 | Moisture Volume, Vw(std) | Percent Moisture (%), BWS |
| 30.03 | Avg. or Total | 163 | 79.837 | 84.00 | | 0.7 | 148.0 | 12.5 | 7.5628 | 8.91 |

| Run Number | | Sample Time (min) | Meter Volume, Vm | Meter Temp (or ambient temp for rotometer) | | Meter Press, Delta H (in $H_2O$) | Impinger Volume, ml | Silica Gel Weight , g | Corrected Volume, Vm(std) | Leak Rate Check |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | Inlet | Outlet | | | | 83.3686 | Initial 0.006 @ 15 |
| | End Test | 1130 | 574.295 | 86 | 83 | 0.7 | 360 | 310.5 | | Final 0.006 @ 10 |
| Baro Press., Pb (in Hg) | Start Test | 821 | 490.520 | 53 | 53 | 0.7 | 200 | 300 | Moisture Volume, Vw(std) | Percent Moisture (%), BWS |
| 30 | Avg. or Total | 179 | 83.775 | 68.75 | | 0.7 | 160.0 | 10.5 | 8.0322 | 8.79 |

| Run Number | | Sample Time (min) | Meter Volume, Vm | Meter Temp (or ambient temp for rotometer) | | Meter Press, Delta H (in $H_2O$) | Impinger Volume, ml | Silica Gel Weight , g | Corrected Volume, Vm(std) | Leak Rate Check |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | | | | Inlet | Outlet | | | | 76.0820 | Initial 0.006 @ 15" Hg |
| | End Test | 1649 | 658.316 | 71 | 66 | 0.7 | 342 | 316.5 | | Final 0.006 @ 10" |
| Baro Press., Pb (in Hg) | Start Test | 1340 | 581.574 | 73 | 73 | 0.7 | 200 | 300 | Moisture Volume, Vw(std) | Percent Moisture, % |
| 30 | Avg. or Total | 165 | 76.742 | 70.75 | | 0.7 | 142.0 | 16.5 | 7.4712 | 8.94 |

$$Vm(std) = \frac{17.64 * Y * Vm * (Pb + (deltaH/13.6))}{(Tm + 460)}$$

if Tm is C° than $Tm = (Tmc * 1.8) + 32$

if Vm is liters than $Vm = Vml * 28.32$

$$Vw(std) = (0.04707 * Vwc) + (0.04715 * Wwsg)$$

$$BWS = \left(\frac{Vw(std)}{Vw(std) + Vm(std)}\right) * 100$$

WHERE:

Vm(std)= Sample volume corrected to standard temp and pressure, scf or L
Vm= Actual sample volume, calculated, scf
Vml= Actual sample volume, calculated, Liters
Y= Dry gas meter calibration factor.
Pb= Barometric pressure, in. Hg
delta H= Meter pressure, in H2O
Tm= Average temperature of meter (DGM is used) or rotomter, degrees °F
Tmc= Average temperature of meter (DGM is used) or rotomter, degrees °C
Vw(std)= Volume of water vapor at standard conditions, scf or L
Vwc= Volume of water condensed, mL
Wwsg= Weight of Silica Gel, g
Bws= Water vapor in gas stream, percent

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Use either ft³ or liters in calculations. DO NOT MIX CUBIC FEET AND LITERS IN ANY CALCULATION.



moisture-4b

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# Source Gas Analysis Data Sheet - Method 3

Client Mississippi Power  Analyst JP

Location/Plant WATSON STATION  Date 11/19/2000

Source #4 Outlet B side  Analytical Method (~~circle one~~) Orsat

W.O. Number 12251.001.001.0023

Run Number 01  Leak Check Good? (circle one) Yes No

| Analysis Number | Analysis Time | Percent $CO_2$ (A) | Percent Total (B) | Percent $O_2$ (B - A) | Percent $N_2$ (100 - B) |
|---|---|---|---|---|---|
| 1 | 1745 | 11.9 | 19.0 | 7.1 | |
| 2 | | 11.9 | 19.0 | 7.1 | |
| 3 | | 11.9 | 19.0 | 7.1 | |
| | Average | 11.9 | 19.0 | 7.1 | |

Run Number _____  Leak Check Good? (circle one) Yes No

| Analysis Number | Analysis Time | Percent $CO_2$ (A) | Percent Total (B) | Percent $O_2$ (B - A) | Percent $N_2$ (100 - B) |
|---|---|---|---|---|---|
| 1 | | 12.0 | 19.0 | 7.0 | |
| 2 | | 11.9 | 19.0 | 7.1 | |
| 3 | | 11.9 | 19.0 | 7.1 | |
| | Average | | | | |

Run Number _____  Leak Check Good? (circle one) Yes No

| Analysis Number | Analysis Time | Percent $CO_2$ (A) | Percent Total (B) | Percent $O_2$ (B - A) | Percent $N_2$ (100 - B) |
|---|---|---|---|---|---|
| 1 | | 12.0 | 19.0 | 7.0 | |
| 2 | | 12.0 | 19.0 | 7.0 | |
| 3 | | 11.9 | 19.0 | 7.1 | |
| | Average | | | | |

Acceptable differences for repeat analysis:

if $CO_2$ > 4% than +/- 0.3%

if $CO_2$ < or = 4% than +/- 0.2%

if $O_2$ > or = 15% than +/- 0.2%

if $O_2$ < 15% than +/- 0.3%

**Ambient Check**

Oxygen 20.6

Carbon Dioxide 0.0

Report all values to the nearest 0.1 percent

Comments _____

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Method3

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# Sample and Velocity Traverse Point Data Sheet - Method 1

Client: Mississippi Power
Loaction/Plant: WATSON STATION
Source: #4 Outlet Beside

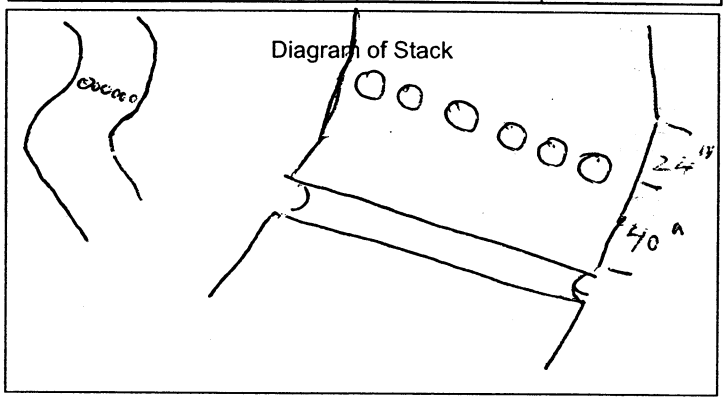
Operator: JP/JW
Date: 11/8/2000
W.O. Number:

| | | | |
|---|---|---|---|
| **Duct Type** | ☐ Circular | ☑ Rectangular Duct | Indicate appropriate type |
| **Traverse Type** | ☐ Particulate Traverse | ☑ Velocity Traverse | |

| | |
|---|---|
| Distance from far wall to outside of port (in.) = C | 153.5 |
| Port Depth (in.) = D | 18" |
| Depth of Duct, diameter (in.) = C-D | 141.5 |
| Area of Duct ($ft^2$) | 108.88 |
| Total Traverse Points | 30 |
| Total Traverse Points per Port | 5 |

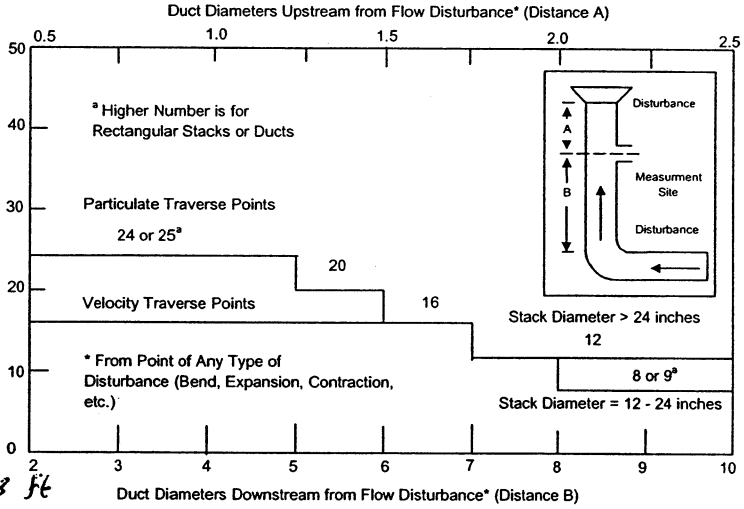
| **Rectangular Ducts Only** | |
|---|---|
| Width of Duct, rectangular duct only (in.) | 110.4 |
| Total Ports (rectangular duct only) | 6 |

| **Flow Disturbances** | |
|---|---|
| Upstream - A (ft) | ~2 |
| Downstream - B (ft) | ~4 |
| Upstream - A (duct diameters) | <1 |
| Downstream - B (duct diameters) | <1 |




**Traverse Point Locations**

| Traverse Point | % of Duct | Distance from Inside Duct Wall (in) | Distance from Outside of Port (in) | |
|---|---|---|---|---|
| 1 | 10 | 14.15 | 32.15 | 32 1/8 |
| 2 | 30 | 42.45 | 60.45 | 60 1/2 |
| 3 | 50 | 70.75 | 88.75 | 88 3/4 |
| 4 | 70 | 99.05 | 117.05 | 117 |
| 5 | 90 | 127.35 | 145.35 | 145 3/8 |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |




Equivalent Diameter = (2*L*W)/(L+W) = 10.33 ft

**Traverse Point Location Percent of Stack -Circular**

| Traverse Point Location | Number of Traverse Points: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 14.6 | | 6.7 | | 4.4 | | 3.2 | | 2.6 | | 2.1 |
| 2 | | 85.4 | | 25 | | 14.6 | | 10.5 | | 8.2 | | 6.7 |
| 3 | | | | 75 | | 29.6 | | 19.4 | | 14.6 | | 11.8 |
| 4 | | | | 93.3 | | 70.4 | | 32.3 | | 22.6 | | 17.7 |
| 5 | | | | | | 85.4 | | 67.7 | | 34.2 | | 25 |
| 6 | | | | | | 95.6 | | 80.6 | | 65.8 | | 35.6 |
| 7 | | | | | | | | 89.5 | | 77.4 | | 64.4 |
| 8 | | | | | | | | 96.8 | | 85.4 | | 75 |
| 9 | | | | | | | | | | 91.8 | | 82.3 |
| 10 | | | | | | | | | | 97.4 | | 88.2 |
| 11 | | | | | | | | | | | | 93.3 |
| 12 | | | | | | | | | | | | 97.9 |

**Traverse Point Location Percent of Stack -Rectangular**

| Traverse Point Location | Number of Traverse Points: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 25.0 | 16.7 | 12.5 | 10.0 | 8.3 | 7.1 | 6.3 | 5.6 | 5.0 | 4.5 | 4.2 |
| 2 | | 75.0 | 50.0 | 37.5 | 30.0 | 25.0 | 21.4 | 18.8 | 16.7 | 15.0 | 13.6 | 12.5 |
| 3 | | | 83.3 | 62.5 | 50.0 | 41.7 | 35.7 | 31.3 | 27.8 | 25.0 | 22.7 | 20.8 |
| 4 | | | | 87.5 | 70.0 | 58.3 | 50.0 | 43.8 | 38.9 | 35.0 | 31.8 | 29.2 |
| 5 | | | | | 90.0 | 75.0 | 64.3 | 56.3 | 50.0 | 45.0 | 40.9 | 37.5 |
| 6 | | | | | | 91.7 | 78.6 | 68.8 | 61.1 | 55.0 | 50.0 | 45.8 |
| 7 | | | | | | | 92.9 | 81.3 | 72.2 | 65.0 | 59.1 | 54.2 |
| 8 | | | | | | | | 93.8 | 83.3 | 75.0 | 68.2 | 62.5 |
| 9 | | | | | | | | | 94.4 | 85.0 | 77.3 | 70.8 |
| 10 | | | | | | | | | | 95.0 | 86.4 | 79.2 |
| 11 | | | | | | | | | | | 95.5 | 87.5 |
| 12 | | | | | | | | | | | | 95.8 |

| Rectangular Stack Points & Matrix |
|---|
| 9 - 3 x 3 |
| 12 - 4 x 3 |
| 16 - 4 x 4 |
| 20 - 5 x 4 |
| 25 - 5 x 5 |
| 30 - 6 x 5 |
| 36 - 6 x 6 |
| 42 - 7 x 6 |
| 49 - 7 x 7 |

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# Sample and Velocity Traverse Point Data Sheet - Method 1

| | | | |
|---|---|---|---|
| Client | Mississippi Power | Operator | Sims |
| Loaction/Plant | ulfport, MS - Watson Pla | Date | 18-Jan-00 |
| Source | Unit 4 | W.O. Number | 12251.001.001.0003 |

| | | | | |
|---|---|---|---|---|
| **Duct Type** | ☐ Circular | ☑ Rectangular Duct | | Indicate appropriate type |
| **Traverse Type** | ☑ Particulate Traverse | ☐ Velocity Traverse | | |

| | |
|---|---|
| Distance from far wall to outside of port (in.) = C | 159.5 |
| Port Depth (in.) = D | 18.0 |
| Depth of Duct, diameter (in.) = C-D | 141.5 |
| Area of Duct ($ft^2$) | 108.48 |
| Total Traverse Points | 24 |
| Total Traverse Points per Port | 5 |

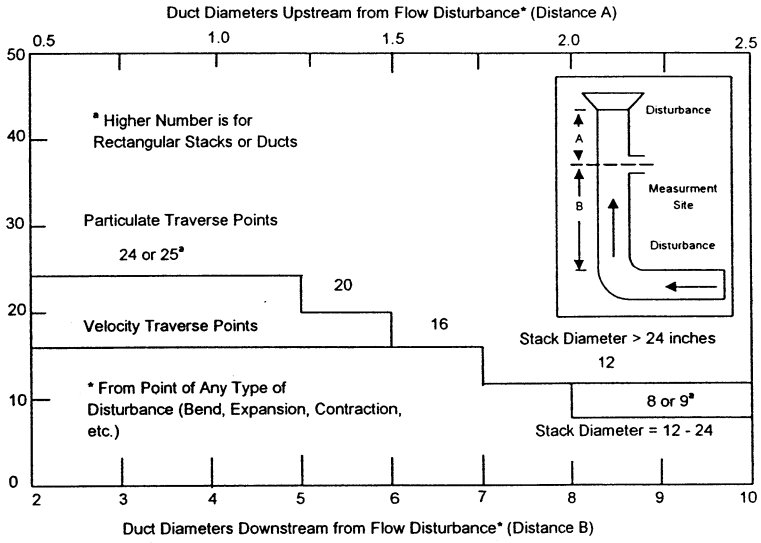
| **Rectangular Ducts Only** | |
|---|---|
| Width of Duct, rectangular duct only (in.) | 110.4 |
| Total Ports (rectangular duct only) | ~~8~~ 6 (6x5) |

| **Flow Disturbances** | |
|---|---|
| Upstream - A (ft) | 2.0 |
| Downstream - B (ft) | 4.0 |
| Upstream - A (duct diameters) | 0.02 |
| Downstream - B (duct diameters) | 0.03 |

Diagram of Stack

**Traverse Point Locations**

| Traverse Point | % of Duct | Distance from Inside Duct Wall (in) | Distance from Outside of Port (in) |
|---|---|---|---|
| 1 | 10.0 | 14 | 32 |
| 2 | 30.0 | 42 1/2 | 60 1/2 |
| 3 | 50.0 | 71 | 89 |
| 4 | 70.0 | 99 | 117 |
| 5 | 90.0 | 127 1/2 | 145 1/2 |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |




Equivalent Diameter = (2*L*W)/(L+W)

**Traverse Point Location Percent of Stack -Circular**

| Traverse Point Location | Number of Traverse Points: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 14.6 | | 6.7 | | 4.4 | | 3.2 | | 2.6 | | 2.1 |
| 2 | | 85.4 | | 25 | | 14.6 | | 10.5 | | 8.2 | | 6.7 |
| 3 | | | | 75 | | 29.6 | | 19.4 | | 14.6 | | 11.8 |
| 4 | | | | 93.3 | | 70.4 | | 32.3 | | 22.6 | | 17.7 |
| 5 | | | | | | 85.4 | | 67.7 | | 34.2 | | 25 |
| 6 | | | | | | 95.6 | | 80.6 | | 65.8 | | 35.6 |
| 7 | | | | | | | | 89.5 | | 77.4 | | 64.4 |
| 8 | | | | | | | | 96.8 | | 85.4 | | 75 |
| 9 | | | | | | | | | | 91.8 | | 82.3 |
| 10 | | | | | | | | | | 97.4 | | 88.2 |
| 11 | | | | | | | | | | | | 93.3 |
| 12 | | | | | | | | | | | | 97.9 |

**Traverse Point Location Percent of Stack -Rectangular**

| Traverse Point Location | Number of Traverse Points: 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 25.0 | 16.7 | 12.5 | 10.0 | 8.3 | 7.1 | 6.3 | 5.6 | 5.0 | 4.5 | 4.2 |
| 2 | | 75.0 | 50.0 | 37.5 | 30.0 | 25.0 | 21.4 | 18.8 | 16.7 | 15.0 | 13.6 | 12.5 |
| 3 | | | 83.3 | 62.5 | 50.0 | 41.7 | 35.7 | 31.3 | 27.8 | 25.0 | 22.7 | 20.8 |
| 4 | | | | 87.5 | 70.0 | 58.3 | 50.0 | 43.8 | 38.9 | 35.0 | 31.8 | 29.2 |
| 5 | | | | | 90.0 | 75.0 | 64.3 | 56.3 | 50.0 | 45.0 | 40.9 | 37.5 |
| 6 | | | | | | 91.7 | 78.6 | 68.8 | 61.1 | 55.0 | 50.0 | 45.8 |
| 7 | | | | | | | 92.9 | 81.3 | 72.2 | 65.0 | 59.1 | 54.2 |
| 8 | | | | | | | | 93.8 | 83.3 | 75.0 | 68.2 | 62.5 |
| 9 | | | | | | | | | 94.4 | 85.0 | 77.3 | 70.8 |
| 10 | | | | | | | | | | 95.0 | 86.4 | 79.2 |
| 11 | | | | | | | | | | | 95.5 | 87.5 |
| 12 | | | | | | | | | | | | 95.8 |

| Rectangular Stack Points & Matrix |
|---|
| 9 - 3 x 3 |
| 12 - 4 x 3 |
| 16 - 4 x 4 |
| 20 - 5 x 4 |
| 25 - 5 x 5 |
| 30 - 6 x 5 |
| 36 - 6 x 6 |
| 42 - 7 x 6 |
| 49 - 7 x 7 |

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# APPENDIX D
# LABORATORY ANALYTICAL REPORTS

# COAL SAMPLE ANALYTICAL REPORT

**PHILIP**
**ANALYTICAL SERVICES**

**INDUSTRIAL HYGIENE** **ENVIRONMENTAL TESTING**

• EPA/NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NY DOH 10903
• PA DER 06-353
• NJ DEP 77678

February 8, 2000

Jeff O'Neill
Roy F. Weston, Inc.
One Weston Way
Bldg. 5-1
West Chester PA 19380

Laboratory Project: 189938
Client Reference: 12251.001.001/Mississippi Power
3 Coal Runs

Dear Mr. O'Neill:

The samples which were logged in on 24-JAN-00 have been analyzed as requested. The analytical results are enclosed in the attached report.

Please note that any unused portion of the samples will be disposed after 08-MAR-00, unless you have requested otherwise.

Thank you for the opportunity to provide these services to you. If you have any questions concerning this report, please contact a Client Services representative at 610/921-8833.

Sincerely,

Fred Usbeck, CIH
Director, Laboratory Services



4418 POTTSVILLE PIKE, READING, PENNSYLVANIA 19605 610-921-8833 FAX 610-921-9667

PHILIP ANALYTICAL SERVICES

INDUSTRIAL HYGIENE ENVIRONMENTAL TESTING

• EPA/NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NY DOH 10903
• PA DER 06-353
• NJ DEP 77678

# ANALYTICAL REPORT

Client: Roy F. Weston, Inc.

Report to: Jeff O'Neill
Roy F. Weston, Inc.
One Weston Way
Bldg. 5-1
West Chester PA 19380

Project: 189938
Received: 24-JAN-00
Reported: 08-FEB-00

PURCHASE ORDER: 0008214

Project Description: 12251.001.001/Mississippi Power
3 Coal Runs

| | AS RECEIVED BASIS | DRY BASIS | UNITS | METHOD | DATE | ANALYST |
|---|---|---|---|---|---|---|
| **Coal Run 1** | | | | | | |
| Lab Sample: 1390574 | | | | | | |
| sampled: 19-JAN-00 | | | | | | |
| **Moisture, Total** | 4.00 | | % | D 3302 | 26-JAN-00 | GLB |
| **Mercury, Total** | 0.048 | 0.050 | mg/kg | 7471 | 28-JAN-00 | SMW |
| **Chlorine, Total** | 0.08 | 0.08 | % | 300.0 | 04-FEB-00 | DRK |
| **SHORT PROX - COAL** | | | | | | |
| **Ash** | 6.57 | 6.84 | % | D 3174 | 01-FEB-00 | VJO |
| **Sulfur** | 0.98 | 1.02 | % | D 4239 | 27-JAN-00 | VJO |
| **Heating Value** | 12560 | 13080 | BTU/lb | D 3286 | 28-JAN-00 | VJO |
| **Coal Run 2** | | | | | | |
| Lab Sample: 1390575 | | | | | | |
| sampled: 20-JAN-00 | | | | | | |
| **Moisture, Total** | 3.40 | | % | D 3302 | 26-JAN-00 | GLB |
| **Mercury, Total** | 0.050 | 0.052 | mg/kg | 7471 | 28-JAN-00 | SMW |
| **Chlorine, Total** | 0.07 | 0.07 | % | 300.0 | 04-FEB-00 | DRK |
| **SHORT PROX - COAL** | | | | | | |
| **Ash** | 6.73 | 6.97 | % | D 3174 | 01-FEB-00 | VJO |
| **Sulfur** | 1.02 | 1.06 | % | D 4239 | 27-JAN-27 | VJO |
| **Heating Value** | 12640 | 13080 | BTU/lb | D 3286 | 28-JAN-00 | VJO |
| **Coal Run 3** | | | | | | |
| Lab Sample: 1390576 | | | | | | |
| sampled: 20-JAN-00 | | | | | | |
| **Moisture, Total** | 3.34 | | % | D 3302 | 26-JAN-00 | GLB |
| **Mercury, Total** | 0.057 | 0.059 | mg/kg | 7471 | 28-JAN-00 | SMW |
| **Chlorine, Total** | 0.07 | 0.07 | % | 300.0 | 04-FEB-00 | DRK |

.054



4418 POTTSVILLE PIKE, READING, PENNSYLVANIA 19605 610-921-8833 FAX 610-921-9667

PHILIP ANALYTICAL SERVICES

INDUSTRIAL HYGIENE ENVIRONMENTAL TESTING

• EPA/NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NY DOH 10903
• PA DER 06-353
• NJ DEP 77678

Client: Roy F. Weston, Inc.
Project: 189938

| | AS RECEIVED BASIS | DRY BASIS | UNITS | METHOD | DATE | ANALYST |
|---|---|---|---|---|---|---|
| **Coal Run 3** | | | | | | |
| Lab Sample: 1390576 - continued | | | | | | |
| **SHORT PROX - COAL** | | | | | | |
| **Ash** | 6.88 | 7.12 | % | D 3174 | 01-FEB-00 | VJO |
| **Sulfur** | 0.99 | 1.03 | % | D 4239 | 27-JAN-00 | VJO |
| **Heating Value** | 12630 | 13070 | BTU/lb | D 3286 | 28-JAN-00 | VJO |

< Indicates less than the limit of quantitation.



4418 POTTSVILLE PIKE, READING, PENNSYLVANIA 19605 610-921-8833 FAX 610-921-9667

# Philip Analytical Services
## Quality Assurance Protocol

PAS Sample# 1390576

Client Name: Weston

PAS Project #: 189938

Job ID : 12251.001.001

Units: mg/l

O1 SUMMARY FORM

| Sample # & Parameter | Matrix Spike | | | | Matrix Spike Duplicate | | | | Laboratory Control Sample | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sample Conc. | Spike Conc. | Matrix Spike Conc. | Matrix Spike Recovery | Matrix Spike Dup Conc. | Matrix Spike Dup Recovery | Precision RPD | Method Blank | Spikes Conc. | Found Conc. | Recovery |
| 1390576-Chloride | 6.554 | 10.00 | 16.632 | 101 | 16.731 | 102 | 1 | 0.113 | 10.000 | 9.741 | 97 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| Sample # & Parameter | Matrix Spike | | | | Duplicate | | | Laboratory Control Sample | | | Method Blank | Detection Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sample Conc. | Spike Conc. | Matrix Spike Conc. | Matrix Spike Recovery | Sample Conc. | Sample Duplicate Conc. | Precision RPD | Spikes Conc. | Found Conc. | Recovery | | |
| 1390576-Chloride | 6.554 | 10.00 | 16.632 | 101 | 6.554 | 6.234 | 5 | 10.00 | 9.741 | 97 | 0.113 | 1.00 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

| | |
|---|---|
| Matrix Spike | 75 - 125 |
| Laboratory Control Sample | 80 - 120 |
| Duplicate | 0 - 20 |

# Philip Analytical Services
## Quality Assurance Protocol

PAS Sample# 1390574,1390575,1390576

Client Name: Weston

PAS Project #:189938

Job ID : 12251.001.001

Units: %,BTU/lb

O1 SUMMARY FORM

| Sample # & Parameter | Matrix Spike | | | | Matrix Spike Duplicate | | | | Laboratory Control Sample | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sample Conc. | Spike Conc. | Matrix Spike Conc. | Recovery | Matrix Spike Dup Conc. | Recovery | Precision RPD | Method Blank | Spikes Conc. | Found Conc. | Recovery |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| Sample # & Parameter | Matrix Spike | | | | Duplicate | | | Laboratory Control Sample | | | Method Blank | Detection Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sample Conc. | Spike Conc. | Matrix Spike Conc. | Recovery | Sample Conc. | Sample Duplicate Conc. | Precision RPD | Spikes Conc. | Found Conc. | Recovery | | |
| 1390576-Sulfur | | | | | 1.02 | 1.00 | 2.0 | 1.78 | 1.86 | 104 | N/A | 0.01 |
| 1390576-Heating Value | | | | | 13005 | 12975 | 0.23 | 13370 | 13339 | 98 | N/A | 0.01 |
| 1390576-Ash | | | | | 7.07 | 7.09 | 0.28 | 11.8 | 11.9 | 101 | N/A | 0.01 |
| | | | | | | | | | | | | |

| | |
|---|---|
| Matrix Spike | 75 - 125 |
| Laboratory Control Sample | 80 - 120 |
| Duplicate | 0 - 20 |

| | |
|---|---|
| Philip # | 1390576 |
| QC Batch # | 1390576 |

| | |
|---|---|
| Philip Report # | 189938 |
| Client Name | Weston |

| | MATRIX SPIKE(mg/kg) | | | | SAMPLE DUPLICATE(mg/kg) | | | METHOD BLANK | LABORATORY CONTROL SAMPLE(mg/L) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample Conc | Spike Conc | Matrix Conc | Spike Recovery % | Sample Conc | Duplicate Conc | Precision RPD % | mg/L | Spike Conc | Found Conc | Recovery % |
| Mercury | 0.059 | 0.333 | 0.345 | 86 | 0.059 | 0.052 | 13 | < 0.0002 | 0.0020 | 0.00214 | 107 |

WESTON Analytics Use Only

# Custody Transfer Record/Lab Work Request

189938

WESTON MANAGERS DESIGNERS/CONSULTANTS

Page 1 of 1

Client: Mississippi Power
Est. Final Proj. Sampling Date:
Work Order #: 12251.001.001
Project Contact/Phone #: Greg Sims / Jeff O'Neill
AD Project Manager:
QC: Del: TAT: STD
Date Rec'd: Date Due:
Account #:

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrigerator # | | | | | | | | | | | | | | | | |
| #/Type Container | Liquid | | | | | | | | | | | | | | | |
| | Solid | | | | | | | | | | | | | | | |
| Volume | Liquid | | | | | | | | | | | | | | | |
| | Solid | | | | | | | | | | | | | | | |
| Preservatives | | | | | | | | | | | | | | | | |
| ANALYSES REQUESTED → | | ORGANIC | | | | | | | INORG | | | | | | | |
| | | VOA | BNA | Pest/PCB | Herb | | | | Metal | CN | | | | | | |
| | | WESTON Analytics Use Only | | | | | | | | | | | | | | |
| | | Mercury D2013/7471 | | Chlorine E726/300 | | | Heating Value D3286 | | | Ash D3174 | | Sulfur D4239 | | | | |

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

| Lab ID | Client ID/Description | Matrix QC Chosen (✓) MS | MSD | Matrix | Date Collected | Time Collected | Mercury | BNA | | Herb | | | | | Ash | | Sulfur | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | COAL Run 1 | | | SO | 1/19/00 | | | X | | X | | | X | | | X | | | X | |
| | | | | | | | | | | | | | | | | | | | | |
| | COAL Run 2 | | | SO | 1/20/00 | | | X | | X | | | X | | | X | | | X | |
| | | | | | | | | | | | | | | | | | | | | |
| | COAL Run 3 | | | SO | ↓ | | | X | | X | | | X | | | X | | | X | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | |

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ✓
Airbill #
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved NA Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

| Relinquished by | Received by | Date | Time |
|---|---|---|---|
| [illegible] | D. Britsch | 1/24/00 | 11:45 am |
| | G. Maat | 1/24/00 | 14:45 |

| Relinquished by | Received by | Date | Time |
|---|---|---|---|
| | | | |
| | | | |

RFW 21-21-001/A-7/91 ____ L372 ____ L373 ____ L375 ____ L377 ____ L378 Ref# ____ Cooler# ____ 381-596a

^ 2/8/00 + page 1

Weston
18 9938
#1 139057 6

| SAMPLE ID: | | INPUT AIR DRY | AS RECEIVED | DRY BASIS |
|---|---|---|---|---|
| AIR DRY LOSS: | % | 2.70 | 2.70 | **** |
| MOISTURE: | % | 0.66 | 0.64 3.34 | **** |
| VOLATILE MATTER: | % | 0.00 | 0.00 | 0.00 |
| FIXED CARBON: | % | **** | 89.78 | 92.88 |
| ASH: | % | 7.07 | 6.88 | 7.12 |
| PROXIMATE TOTAL: | % | **** | 100.00 | 100.00 |
| HEATING VALUE: | BTU/LB | 12982 | 12630 | 13070 |
| SULFUR: | % | 1.02 | 0.99 | 1.03 |
| CARBON: | % | 0.00 | 0.00 | 0.00 |
| HYDROGEN EXCL WATER: | % | 0.00 | -0.07 | -0.07 |
| HYDROGEN INCL WATER: | % | 0.00 | 0.30 | **** |
| NITROGEN: | % | 0.00 | 0.00 | 0.00 |
| CHLORINE: | % | 0.07 | 0.07 | 0.07 |
| OXYGEN EXCL WATER: | % | **** | 88.79 | 91.86 |
| OXYGEN INCL WATER: | % | 91.84 | 91.76 | **** |
| ULT TOTAL EXCL WATER: | % | **** | 100.00 | 100.00 |
| ULT TOTAL INCL WATER: | % | 100.00 | 100.00 | **** |

^ 2/8/00 + page 1

Westec
PN 189938
#1390575

| SAMPLE ID: | | INPUT AIR DRY | AS RECEIVED | DRY BASIS |
|---|---|---|---|---|
| AIR DRY LOSS: | % | 2.58 | 2.58 | **** |
| MOISTURE: | % | 0.84 | 0.82 > 3.40 | **** |
| VOLATILE MATTER: | % | 0.00 | 0.00 | 0.00 |
| FIXED CARBON: | % | **** | 89.87 | 93.03 |
| ASH: | % | 6.91 | 6.73 | 6.97 |
| PROXIMATE TOTAL: | % | **** | 100.00 | 100.00 |
| HEATING VALUE: | BTU/LB | 12971 | 12640 | 13080 |
| SULFUR: | % | 1.05 | 1.02 | 1.06 |
| CARBON: | % | 0.00 | 0.00 | 0.00 |
| HYDROGEN EXCL WATER: | % | 0.00 | -0.09 | -0.09 |
| HYDROGEN INCL WATER: | % | 0.00 | 0.29 | **** |
| NITROGEN: | % | 0.00 | 0.00 | 0.00 |
| CHLORINE: | % | 0.07 | 0.07 | 0.07 |
| OXYGEN EXCL WATER: | % | **** | 88.87 | 92.00 |
| OXYGEN INCL WATER: | % | 91.97 | 91.89 | **** |
| ULT TOTAL EXCL WATER: | % | **** | 100.00 | 100.00 |
| ULT TOTAL INCL WATER: | % | 100.00 | 100.00 | **** |

^ 2/8/00 + page 1

Weston
184938
# 1390574

| SAMPLE ID: | | INPUT AIR DRY | AS RECEIVED | DRY BASIS |
|---|---|---|---|---|
| AIR DRY LOSS: | % | 3.03 | 3.03 | **** |
| MOISTURE: | % | 1.00 | 0.97 | **** |
| VOLATILE MATTER: | % | 0.00 | 0.00 | 0.00 |
| FIXED CARBON: | % | **** | 89.43 | 93.15 |
| ASH: | % | 6.78 | 6.57 | 6.85 |
| PROXIMATE TOTAL: | % | **** | 100.00 | 100.00 |
| HEATING VALUE: | BTU/LB | 12953 | 12560 | 13080 |
| SULFUR: | % | 1.01 | 0.98 | 1.02 |
| CARBON: | % | 0.00 | 0.00 | 0.00 |
| HYDROGEN EXCL WATER: | % | 0.00 | -0.11 | -0.11 |
| HYDROGEN INCL WATER: | % | 0.00 | 0.34 | **** |
| NITROGEN: | % | 0.00 | 0.00 | 0.00 |
| CHLORINE: | % | 0.08 | 0.08 | 0.08 |
| OXYGEN EXCL WATER: | % | **** | 88.48 | 92.16 |
| OXYGEN INCL WATER: | % | 92.13 | 92.03 | **** |
| ULT TOTAL EXCL WATER: | % | **** | 100.00 | 100.00 |
| ULT TOTAL INCL WATER: | % | 100.00 | 100.00 | **** |

4.60

ID CODE C00000005 WT0.245 CAL#
SULFUR 1.67
STANDARD 1.67
10:23 01/27/0

ID CODE C00000098 WT0.275 CAL#
SULFUR 1.86
10:26 01/27/0

ID CODE C01389793 WT0.288 CAL#
SULFUR .683
*** CHANGE FILTERS **

10:29 01/27/0

ID CODE C01389793 WT0.230 CAL#
Catalyst SULFUR .673
189733 10:49 01/27/0

ID CODE C01389612 WT0.297 CAL#
Kimberly SULFUR 1.63
189705 10:55 01/27/0

ID CODE C01390451 WT0.298 CAL#
SULFUR 1.70
189879 10:58 01/27/0

ID CODE C01389372 WT0.260 CAL#
SULFUR .549
11:01 01/27/0

ID CODE C01389372 WT0.309 CAL#
SULFUR .555
11:12 01/27/0

ID CODE C01389373 WT0.174 CAL#
SULFUR .213
11:20 01/27/0

ID CODE C01390574 WT0.281 CAL#
Weston SULFUR 1.01
11:22 01/27/0

ID CODE C01390575 WT0.248 CAL#
SULFUR 1.05
11:25 01/27/0

ID CODE C01390576 WT0.291 CAL#
189938 SULFUR 1.02
11:27 01/27/0

ID CODE C01390576 WT0.266 CAL#
SULFUR 1.00
11:38 01/27/0

ID CODE C01390682 WT0.160 CAL#
PAS SULFUR 21.1
189965 11:44 01/27/0

ID CODE C01390682 WT0.111 CAL#
SULFUR 20.5

| Date | Lab No | Client | BTU/Lbs | BTU/Lbs Sulfur | BTU/Gals | Remarks | Dept |
|---|---|---|---|---|---|---|---|
| 1/17/00 | 1387978 | ETS | Spiked | 20707 | 931 | 189261 | 140 |
| | 1387981 | " | " | 21392 | 1616 | " | |
| | 1389380 | Merck | 19308 | | 137,800 | 189679 | |
| | 1389381 | " | 19402 | | 138,460 | " | |
| | 1389382 | " 19380 | 19380 | | 138,320 | " | |
| | 1389383 | " | 19431 | | 138,670 | " | |
| | 1389372 | Direnzo | 12557 | | | 189673 | |
| | 1389372 | " | 12573 | Dup | | " | |
| | 1389373 | " | 114 | | | " | |
| | 1389373 | " | 21860 | Spiked | 208[illegible] | " | |
| | 1389373 | " | 22252 | Dup Spike | 2476 | " | |
| | 1389373 | " | 22587 | SPIKED | 2813 | " | |
| 1/28/00 | 1389955 | International | 8747 | | | 189778 | |
| | 1389955 | " | 8856 | | | " | |
| | 1389956 | " | 8441 | | | " | |
| Dup | 1389956 | " | 8750 | 8791 Dup | | " | |
| | 1389779 | Maine Env. | 7785 | | | 189729 | |
| | 1389780 | CRR | 7590 | | | 189730 | |
| | 1389781 | " | 7157 | | | " | |
| | 1389782 | " | 7474 | | | " | |
| | 1389793 | Catalyst A | 13925 | | | 189733 | |
| | 1389612 | Kimberly C | 7854 | | | 189705 | |
| | 1390016 | ENSR | 19244 | | | 189802 | |
| | 1390017 | " | ~~19804~~ | 19377 | | " | |
| | 1390018 | " | 19804 | | | " | |
| | 1390451 | Kimberly | 8153 | | | 189879 | |
| Dup | 1390451 | " | 8051 | | | " | |
| | 1390627 | Rye gate | 9734 | | | 189943 | |
| | 1390574 | Weston | 12976 | | | 189938 | |
| | 1390575 | " | 12995 | | | " | |
| | 1390576 | " | 13005 | | | " | |
| | 1390885 | Merck | 19420 | | | 190015 | |
| | 1390886 | " | 19566 | | | " | |
| | 1390887 | " | 19622 | | | " | |
| 2/4/00 | 1385714 | PAS | 6561 | Dup. | | 188620 | |
| | 1390576 | Weston | 12975 | " | | 189938 | |
| | 1390988 | Kimberly | 8338 | | | 190047 | |
| | 1391425 | CRR | 7675 | | | 190125 | |
| | 1391426 | " | 7432 | | | " | |
| | 1391427 | " | 7867 | | | " | |
| | 1391427 | " | ~~10891~~ | Dup. 7780 | | " | |
| | 1385714 | PAS | 6568 | Dup | | 188620 | |

# Coal/RDF Proximate Analysis

DATE: 2/1/00

Signature: V O'Neill

| CLIENT | Central | Kimberly | Weston → | | | | Ryegate → | |
|---|---|---|---|---|---|---|---|---|
| Laboratory Number | | 1390451 | 1390574 | 1390575 | 1390576 | (Dup 1057x) | 1390627 | (Dup 1062x) |
| % Air-dry Loss | | 10.5 | 3.03 | 2.58 | 2.70 | | TM=3.05 | |
| Weight of Crucible and Sample | 22.9426 | 19.2608 | 22.8188 | 18.6755 | 21.2010 | 22.3893 | 18.0299 | 21.5072 |
| Weight of Crucible | 21.7895 | 18.2913 | 21.9056 | 17.6668 | 20.1924 | 21.3823 | 17.1527 | 20.6033 |
| Weight of Sample | 1.1531 | .9695 | .9132 | 1.0087 | 1.0086 | 1.0070 | .8772 | .9039 |
| Weight of Crucible and Sample | 22.9424 | 19.2608 | 22.8188 | 18.6755 | 21.2010 | 22.3893 | | |
| Weight after 105 deg. C | 22.9358 | 19.2235 | 22.8097 | 18.6670 | 21.1943 | 22.3820 | | |
| Weight loss (moisture) | .0068 | .0373 | .0091 | .0085 | .0067 | .0073 | | |
| % Residual Moisture | 0.59 | 3.85 | 1.00 | 0.84 | 0.66 | 0.72 | | |
| Weight of Crucible and Sample | | 22.2038 | | | | | | |
| Weight of Crucible | | 21.3338 | | | | | | |
| Weight of Sample | | .8700 | | | | | | |
| Weight of Crucible and Sample | | 22.2038 | | | | | | |
| Weight after 950 deg. C for 7 min. | | 22.1111 | | | | | | |
| Weight loss (Volatiles) | | .0927 | | | | | | |
| % Volatiles | | 10.65 | | | | | | |
| % Residual Moisture | | 3.85 | | | | | | |
| % Volatile Matter | | 6.80 | | | | | | |
| Weight after 750 deg. C | 21.7269 | 18.6385 | 21.9675 | 17.7365 | 20.2637 | 21.4537 | 17.2056 | 20.6542 |
| Weight of Crucible | 21.7895 | 18.2913 | 21.9056 | 17.6668 | 20.1924 | 21.3823 | 17.1527 | 20.6033 |
| Weight of Ash | .1374 | .3472 | .0619 | .0697 | .0713 | .0714 | .0529 | .0559 |
| % Ash | 11.9 | 35.8 | 6.78 | 6.91 | 7.07 | 7.09 | 6.03 | 6.18 |
| % Sulfur | | 1.70 | 1.01 | 1.05 | 1.02 | 1.00 | 0.13 | |
| BTU per pound | | 8153 | 12974 | 12995 | 13005 | 12975 | 9734 | |
| BTU sulfur correction | | 39 | 23 | 24 | 23 | 23 | 3 | |
| BTU per pound, corrected | | 8114 | 12953 | 12971 | 12982 | 12952 | 9731 | |
| BTU per pound, Moisture Ash Free | | | | | | | | |

## AIR DRY MOISTURE LOSS

| Date In | Weighed By | Pan # | Pan Wt. (g) | Original Pan & Sample Weight (g) | Original Sample Weight (g) | Date Out | Weighed By | Final Pan & Sample Wt. (g) | AIR DRY LOSS Weight (g) | AIR DRY LOSS % | Sample Identification Client | Sample Identification Lab # | Special Analysis | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/26/00 | GB | 2 | 428.8 | 1155.8 | 727.0 | 1/27 | GB | 1133.8 | 22.0 | 3.03 | Weston | 1390574 | S/● | |
| | | 3 | 422.1 | 1088.6 | 466.5 | | | 1071.4 | 17.2 | 2.58 | | 0575 | S/● | |
| | | 4 | 427.9 | 1042.4 | 614.5 | | | 1025.8 | 16.6 | 2.70 | | 0576 | S/● | |
| | | | | | | | | | | | | | S/G | |
| 1/26/00 | GB | K | 368.4 | 722.1 | 353.7 | 1/27 | GB | 711.3 | 10.8 | 3.05 | Rycgate | 1390627 | S/● | 10 |
| | | | | | | | | | | | | | S/G | |
| 1/26/00 | GB | 14 | 242.8 | 248.2 | 5.4 | 1/27 | GB | 247.2 | 1.0 | 18.5 | PAS | 1390682 | S/● | 10 |
| | | | | | | | | | | | | | S/G | |
| 1/27/00 | GB | A | 244.4 | 285.1 | | 1/28 | GB | 285.0 | | | Raytheon | 1390708 | S/● | |
| | | B | 242.1 | 282.5 | | | | 282.1 | | | | 0709 | S/● | |
| | | C | 233.4 | 255.3 | | | | 255.2 | | | | 0760 | S/● | |
| | | D | 238.6 | 267.6 | | | | 267.5 | | | | 0711 | S/● | |
| | | E | 238.9 | 266.5 | | | | 266.3 | | | | 0712 | S/● | |
| | | F | 247.5 | 274.6 | | | | 274.4 | | | | 0713 | S/● | |
| | | G | 250.1 | 276.7 | | | | 276.5 | | | | 0714 | S/● | |
| | | H | 253.5 | 287.2 | | | | 287.0 | | | | 0715 | S/● | |
| | | I | 243.4 | 272.1 | | | | 269.8 | | | | 0716 | S/● | |
| | | J | 242.7 | 276.6 | | | | 271.9 | | | | 0717 | S/● | |
| | | K | 239.8 | 272.4 | | | | 272.3 | | | | 0718 | S/● | |
| | | L | 245.5 | 290.9 | | | | 284.9 | | | | 0719 | S/● | |
| | | M | 246.7 | 305.3 | | | | 296.0 | | | | 0720 | S/● | |
| | | N | 241.1 | 341.0 | | | | 307.5 | | | | 0721 | S/● | |
| | | 1 | 242.4 | 364.3 | | | | 316.9 | | | | 0722 | S/● | |
| | | 2 | 246.1 | 301.1 | | | | 289.4 | | | | 0723 | S/● | |

189900
189936
189960
189938
MDL - 2000

# Data Package Cover Sheet for Atomic Absorption Spectroscopy by Automated Cold Vapor Analysis

| | |
|---|---|
| Date of Analysis: 1/28/00 | Element: HG |
| Analyst: SMW | Time of Analysis: 08:45 |
| Data Validated by: [signature] 1/28/00 | Instrument: Leeman PS 200 |

Calibration Standard Preparation Records

| Preparation Record is in Notebook # | Date of Preparation |
|---|---|
| 360-37-12-17 | 1/27/00 |

Quality Control Sample Preparation Records

| Name | Preparation is in Notebook # | Date of Preparation |
|---|---|---|
| QCS/ICV | 360-37-19 | 1/27/00 |
| IPC/CCV | 360-37-18 | ↓ |

The computer for this instrument is not Y2K compliant.
The date had to be backdated to the 1980's.
The correct date and time of analysis is stated on this coversheet.

I Certify that all QA/QC results were acceptable and that there were no problems except as noted.

Susan M. Wedenhorne 1/28/00
Signature of Analyst and Date

Reagents, QC, Standards Preparation Log #360

| Date/Time | Initials | Exp. Date | Solution | Vol/Wt of Reagents # | Vol/Wt of Reagents Units | Reagent SSM ID # | Reagent SSM ID # Conc. | Final Volume # | Final Volume Units | Dilution Matrix | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) 1/24/00 0950 | JH | | 0.50 ug/l Hg std. | 50.0 | ul | 360-36-23 | 100 mg/l Hg | 100 | ml | | |
| 2) | | | 1.00 ug/l Hg std | 100.0 | ul | | | | | | |
| 3) | | | 2.00 | 200.0 | | | | | | | |
| 4) | | | 5.00 | 500.0 | | | | | | | |
| 5) | | | 10.0 | 1000.0 | | | | | | | |
| 6) | | | IPC/CCV 5.00 ug/l | 500.0 | | | | | | | |
| 7) | | | QCS/ICV 5.00 ug/l | 500.0 | | 360-36-24 | | | | | |
| 8) | | | ICB/CCB | — | — | — | — | | | | |
| 9) | | | Low Report Limit 0.20 ug/l | 20.0 | ul | Hg 360-36-23 | 100 mg/l Hg | | | | |
| 10) 1/27/00 11:15 | SMW | 1/28/00 | 1.00 mg/l Hg Stock | 100 | ul | Hg 995150001 | 1000 mg/l | 100 | ml | | |
| 11) | | | 1.00 mg/l Hg QCS Stock | | | Hg 995123301 | | | | | |
| 12) | | | Cal BLK | — | — | — | — | | | | |
| 13) | | | 0.50 ug/l Hg | 50 | ul | 360-37-10 | 1.00 mg/l | | | | |
| 14) | | | 1.00 ug/l Hg Std | 100 | | | | | | | |
| 15) | | | 2.00 | 200 | | | | | | | |
| 16) | | | 5.00 | 500 | | | | | | | |
| 17) | | | 10.0 | 1000 | | | | | | | |
| 18) | | | IPC/CCV 5.0 ug/l | 500 | | | | | | | |
| 19) | | | ICV/QCS 5.0 ug/l | 500 | | 360-37-11 | | | | | |
| 20) | | | ICB/CCB | — | — | — | | | | | |
| 21) | | | | | | | | | | | |
| 22) | | | | | | | | | | | |
| 23) | | | | | | | | | | | |
| 24) | | | | | | | | | | | |
| 25) | | | | | | | | | | | |

# Sample Preparation Log #422

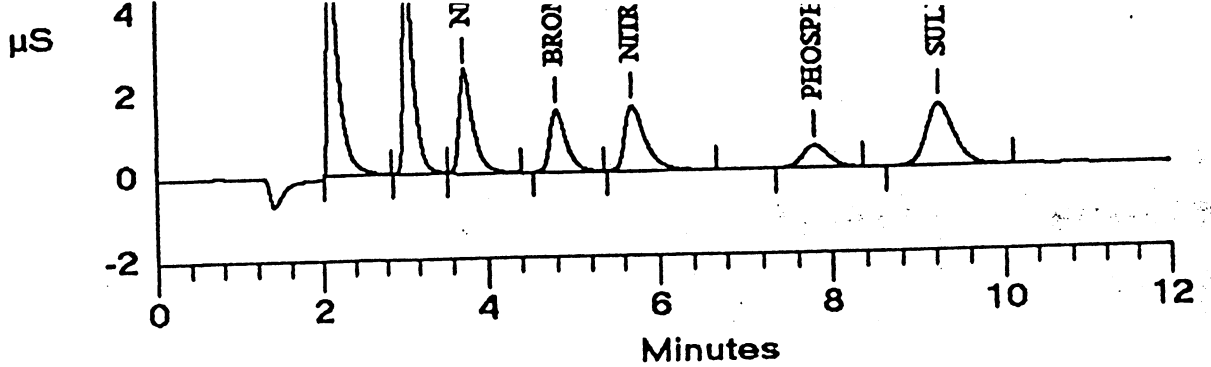
| Date / Time | Project # | Sample # | Prep Method | Initial Wt. / Vol. | Units | Final Volume | Units | Sample Type | Remarks (QA\QC) | Initials |
|---|---|---|---|---|---|---|---|---|---|---|
| 1/24/00 0425 | 189800 | 1390012 | 245.1 | 100 | ml | 100 | ml | H2O | | gp |
| | 189844 | 1390336 | | | | | | | | |
| | | 0336 DUP | | | | | | | | |
| | | 0336 MS | | | | | | | spiked w/ 200ul of 1.00mg/L Hg stock | |
| | | 0336 MSD | | | | | | | | |
| | – | LRB#3-SG/SOIL | 7471 | | | | | – | | |
| | – | LFB#3-SG/SOIL | | | | | | – | | |
| | 189791 | 1389999 | | 40.88 | g | | | SG | 42ml | |
| | 189877 | 1390452 | | 0.62 | | | | SOIL | | |
| | | 0452 DUP | | 0.72 | | | | | | |
| | | 0452 MS | | 0.61 | | | | | spiked w/ 200ul of 1.00mg/L Hg stock | |
| | | 0452 MSD | | 0.62 | | | | | | |
| | – | NIST 1633B | | 0.68 | | | | | | |
| 1/27/00 13:10 | | LRB MDL | 245.1 | 100 | ml | 100 | ml | DI H2O | | SMW |
| | | LFB MDL | | | | | | | 200ul 1.00mg/L Hg stock | |
| | | MDL-1 | | | | | | | 200ul 1.00mg/L Hg stock | |
| | | MDL-2 | | | | | | | | |
| | | MDL-3 | | | | | | | | |
| | | MDL-4 | | | | | | | | |
| | | MDL-5 | | | | | | | | |
| | | MDL-6 | | | | | | | | |
| | | MDL-7 | | | | | | | | |
| | | LRB-TCLP | 7470 | | | | | | | |
| | | LFB-TCLP | | | | | | | 200ul Hg stock | |
| | 189900 | 1390544 | | 20 | | | | TCLP | | |
| | 189936 | 0512 | | | | | | | | |
| | | 0512 DUP | | | | | | | 200ul Hg stock | |
| | | 0512 MS | | | | | | | | |
| | | 0512 MSD | | | | | | | | |
| | | LRB-H2O | 245.1 | 100 | | | | | 200ul Hg stock | |
| | | LFB-H2O | | 100 | | | | | | |

Comments : Samples prepared 1/24/00 were placed in a 95°C waterbath at 12:30 and removed at 14:30. gp.

# Sample Preparation Log

| Date / Time | Project # | Sample # | Prep Method | Initial Wt. / Vol. | Units | Final Volume | Units | Sample Type | Remarks (QA/QC) | Initia |
|---|---|---|---|---|---|---|---|---|---|---|
| 1/27/00 13:10 | 189960 | 1390655 | 245.1 | 100 | ml | 100 | ml | WW | | Smu |
| | | 0655 Dup | | | | | | | | |
| | | 0655 MS | | | | | | | 200 ul Hg Stock | |
| | | 0655 MSD | | | | | | | Not enough sample vol. | |
| | | LRB-soil | 7471 | 100 | ml | 100 | ml | | | |
| | | LFB soil | | | | | | | 200 ul Hg stock | |
| | | Soil 1633B Kraain | | 0.53 | g | | | | | |
| | 189938 | 1390574 | | 0.60 | | | | Co | | |
| | | 0575 | | 0.62 | | | | | | |
| | | 0576 | | 0.63 | | | | | | |
| | | 0576 Dup | | 0.60 | | | | | | |
| | | 0576 MS | | 0.60 | | | | | 200 ul Hg Stock | |
| | | 0576 MSD | | 0.60 | | | | | | |

Comments :




Schedule: \peaknet\schedule\02040001.sch
Release 4.30



2/5/80 3:00:20 PM

| | | | |
|---|---|---|---|
| Data File | : C:\PEAKNET\DATA\02040028.DXD | Report Date | : 2/5/80 3:13:56 PM |
| Sample Name | : 1391448 - B18 | Collected | : 2/5/80 3:01:49 PM |
| Inject # | : 28 | Vial # | : B18 |
| Method File | : c:\peaknet\method\acidscan.met | Calibrated | : 2/5/80 10:27:48 AM |
| System Name | : ANIONS | Detector | : CD20 |
| Column Type | : | Operator | : DK |
| Data Points | : 3600 | Rate | : 5.00 Hz |
| Module Name | : S/N 96020568 ID:24 Of 15 | Moduleware | : 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delt |
|---|---|---|---|---|---|---|---|
| | | | [illegible] | 1057 | 35487 | 1 | -0 [illegible] |

D-98

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 4.800 | 81854 | 661552 | 1 | -0.79 |
| 2 | 3.07 | CHLORIDE | 4.861 | 58867 | 489589 | 2 | -0.54 |
| 3 | 3.73 | NITRITE | 4.897 | 24657 | 284104 | 2 | 0.00 |
| 4 | 4.80 | BROMIDE | 4.888 | 14833 | 201550 | 2 | 0.70 |
| 5 | 5.68 | NITRATE | 4.930 | 15767 | 272310 | 2 | 1.19 |
| 6 | 7.80 | PHOSPHATE | 4.762 | 5380 | 113800 | 1 | 0.86 |
| 7 | 9.23 | SULFATE | 4.938 | 15133 | 347613 | 1 | 0.91 |
| | | Totals | 34.077 | 216491 | 2370518 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 4.800 | 81854 | 661552 | 1 | -0.79 |
| 2 | 3.07 | CHLORIDE | 4.861 | 58867 | 489589 | 2 | -0.54 |
| 3 | 3.73 | NITRITE | 4.897 | 24657 | 284104 | 2 | 0.00 |
| 4 | 4.80 | BROMIDE | 4.888 | 14833 | 201550 | 2 | 0.70 |
| 5 | 5.68 | NITRATE | 4.930 | 15767 | 272310 | 2 | 1.19 |
| 6 | 7.80 | PHOSPHATE | 4.762 | 5380 | 113800 | 1 | 0.86 |
| 7 | 9.23 | SULFATE | 4.938 | 15133 | 347613 | 1 | 0.91 |
| | | Totals | 34.077 | 216491 | 2370518 | | |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 4.800 | 81854 | 661552 | 1 | -0.79 |
| 2 | 3.07 | CHLORIDE | 4.861 | 58867 | 489589 | 2 | -0.54 |
| 3 | 3.73 | NITRITE | 4.897 | 24657 | 284104 | 2 | 0.00 |
| 4 | 4.80 | BROMIDE | 4.888 | 14833 | 201550 | 2 | 0.70 |
| 5 | 5.68 | NITRATE | 4.930 | 15767 | 272310 | 2 | 1.19 |
| 6 | 7.80 | PHOSPHATE | 4.762 | 5380 | 113800 | 1 | 0.86 |

Schedule: \peaknet\schedule\02040001.sch
Release 4.30



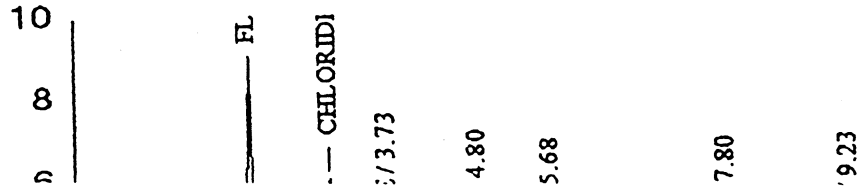
2/5/80 3:00:20 PM

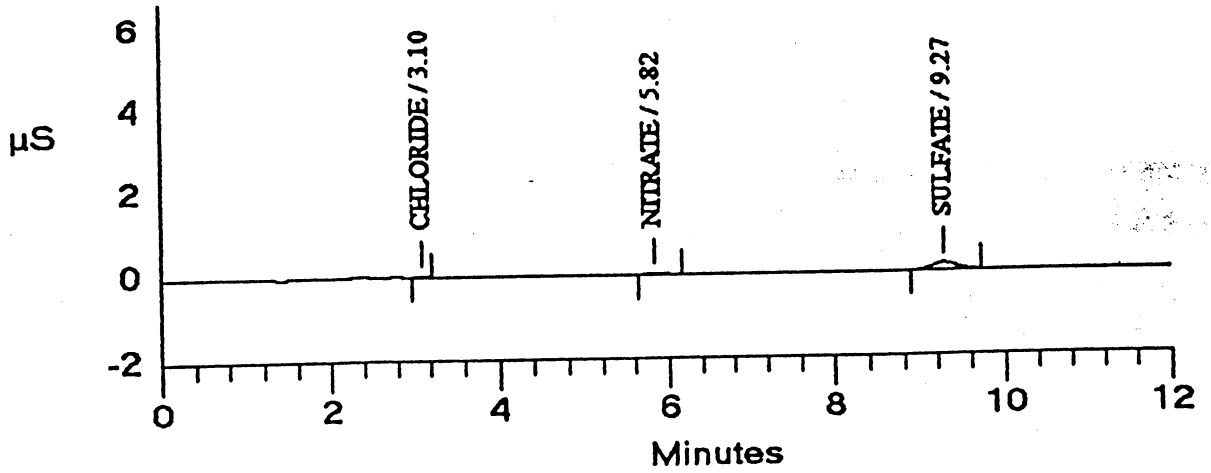
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7 | 9.23 | SULFATE | 4.938 | 15133 | 347613 | 1 | 0.9 |
| | | Totals | 34.077 | 216491 | 2370518 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delt |
|---|---|---|---|---|---|---|---|
| | | Totals | 0.000 | 0 | 0 | | |

*File: 02040027.DXD Sample ipc - B02*






Schedule: \peaknet\schedule\02040001.sch
Release 4.30



2/5/80 2:46:38 PM

| | | | |
|---|---|---|---|
| Data File | C:\PEAKNET\DATA\02040027.DXD | Report Date | 2/5/80 3:00:20 PM |
| Sample Name | ipc - B02 | Collected | 2/5/80 2:48:13 PM |
| Inject # | 27 | Vial # | B02 |
| Method File | c:\peaknet\method\acidscan.met | Calibrated | 2/5/80 10:27:48 AM |
| System Name | ANIONS | Detector | CD20 |
| Column Type | | Operator | DK |
| Data Points | 3600 | Rate | 5.00 Hz |
| Module Name | S/N 96020568 ID:24 Of 15 | Moduleware | 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0:00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

D-96

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delt |
|---|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | 0.00 | FLUORIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 1 | 3.10 | CHLORIDE | 0.112 | 300 | 2044 | 1 | 0.54 |
| 0 | 0.00 | NITRITE | 0.000 | 0 | 0 | 0 | 0.00 |
| 0 | 0.00 | BROMIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 2 | 5.82 | NITRATE | 0.235 | 313 | 4650 | 1 | 3.56 |
| 0 | 0.00 | PHOSPHATE | 0.000 | 0 | 0 | 0 | 0.00 |
| 3 | 9.27 | SULFATE | 0.552 | 1732 | 37304 | 1 | 1.28 |
| | | Totals | 0.899 | 2345 | 43997 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 3.10 | CHLORIDE | 0.112 | 300 | 2044 | 1 | 0.54 |
| 2 | 5.82 | NITRATE | 0.235 | 313 | 4650 | 1 | 3.56 |
| 3 | 9.27 | SULFATE | 0.552 | 1732 | 37304 | 1 | 1.28 |
| | | Totals | 0.899 | 2345 | 43997 | | |

********** Components Not Found In This Run **********

| Name | Adjusted Ret Time | Reference Peak |
|---|---|---|
| FLUORIDE | 2.12 | 0 |
| NITRITE | 3.73 | 0 |
| BROMIDE | 4.77 | 0 |
| PHOSPHATE | 7.73 | 0 |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|

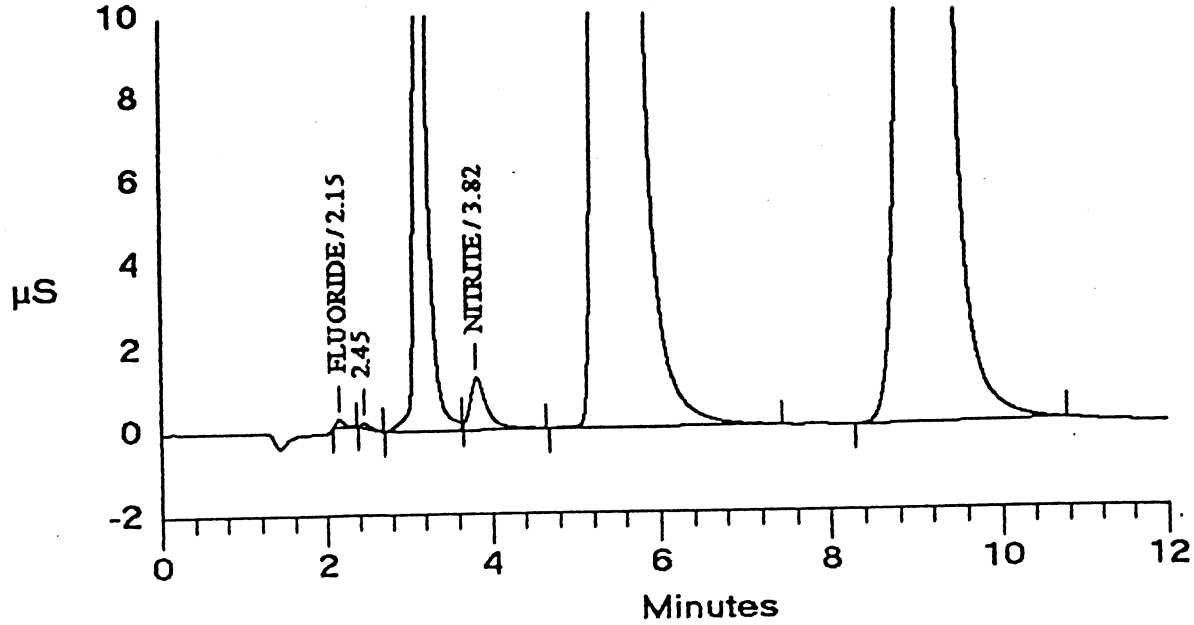
Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 1 of 2 2/5/80 2:46:37 PM

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 3.10 | CHLORIDE | 0.112 | 300 | 2044 | 1 | 0.54 |
| 2 | 5.82 | NITRATE | 0.235 | 313 | 4650 | 1 | 3.56 |
| 3 | 9.27 | SULFATE | 0.552 | 1732 | 37304 | 1 | 1.28 |
| | | Totals | 0.899 | 2345 | 43997 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| | | Totals | 0.000 | 0 | 0 | | |

*File: 02040026.DXD Sample meth blk - B01*




T.V. SPIKE = 10.00 mg/L

Chloride $\frac{16.731 \text{ mg/L} - 6.554 \text{ mg/L}}{10.00} \times 100 = 102\%$

Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 2 of 2 2/5/80 2:33:01 PM

| | | | |
|---|---|---|---|
| Data File | C:\PEAKNET\DATA\02040026.DXD | Report Date | 2/5/80 2:46:37 PM |
| Sample Name | meth blk - B01 | Collected | 2/5/80 2:34:30 PM |
| Inject # | 26 | Vial # | B01 |
| Method File | c:\peaknet\method\acidscan.met | Calibrated | 2/5/80 10:27:48 AM |
| System Name | ANIONS | Detector | CD20 |
| Column Type | | Operator | DK |
| Data Points | 3600 | Rate | 5.00 Hz |
| Module Name | S/N 96020568 ID:24 Of 15 | Moduleware | 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

D-94

| Pk | Ret | Component | Concentration | Height | Area | Bl. | %Delt |
|---|---|---|---|---|---|---|---|

| Pk. Num | Ret Time | Component Name | MG/L | | | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.15 | FLUORIDE | 0.377 | 1858 | 14009 | 1 | 1.57 |
| 3 | 3.15 | CHLORIDE | 16.731 | 210475 | 1892849 | 2 | 2.16 |
| 4 | 3.82 | NITRITE | 3.290 | 12580 | 188304 | 2 | 2.23 |
| 0 | 0.00 | BROMIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 5 | 5.32 | NITRATE | -1417.280 | 2942361 | 49308019 | 2 | -5.34 |
| 0 | 0.00 | PHOSPHATE | 0.000 | 0 | 0 | 0 | 0.00 |
| 6 | 8.98 | SULFATE | -164.235 | 1168090 | 27537810 | 1 | -1.82 |
| | | Totals | -1561.117 | 4335363 | 78940990 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.15 | FLUORIDE | 0.377 | 1858 | 14009 | 1 | 1.57 |
| 3 | 3.15 | CHLORIDE | 16.731 | 210475 | 1892849 | 2 | 2.16 |
| 4 | 3.82 | NITRITE | 3.290 | 12580 | 188304 | 2 | 2.23 |
| 5 | 5.32 | NITRATE | -1417.280 | 2942361 | 49308019 | 2 | -5.34 |
| 6 | 8.98 | SULFATE | -164.235 | 1168090 | 27537810 | 1 | -1.82 |
| | | Totals | -1561.117 | 4335363 | 78940990 | | |

********** Components Not Found In This Run **********

| Name | Adjusted Ret Time | Reference Peak |
|---|---|---|
| BROMIDE | 4.77 | 0 |
| PHOSPHATE | 7.73 | 0 |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|

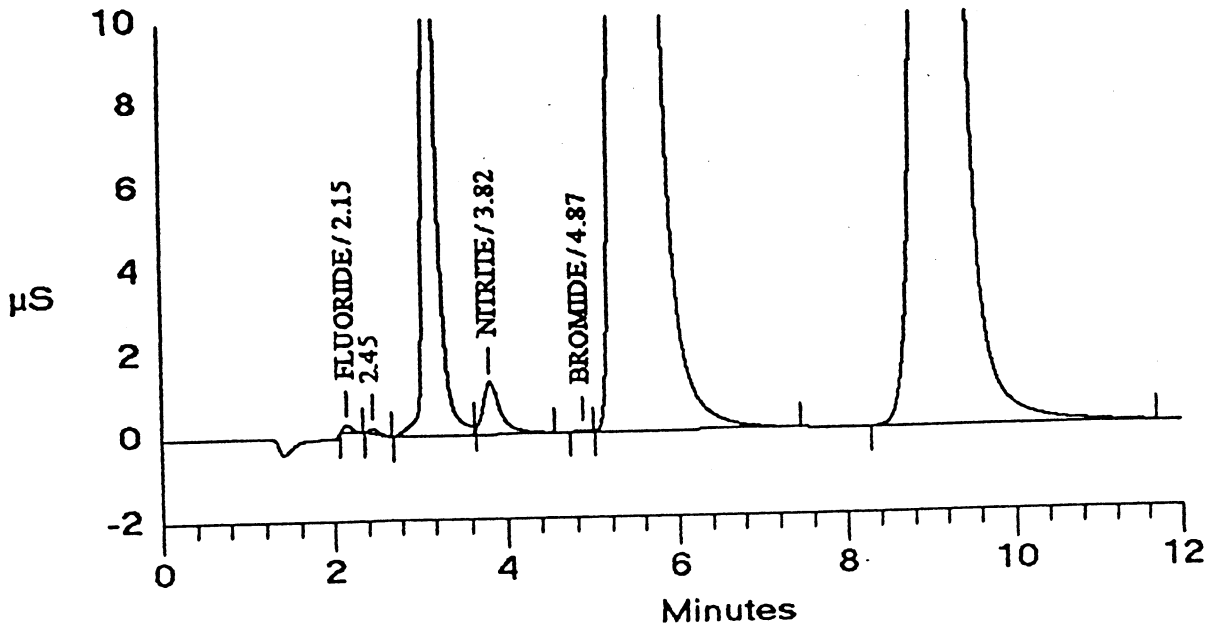
Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 1 of 2 2/5/80 2:33:01 PM

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2.15 | FLUORIDE | 0.377 | 1858 | 14009 | 1 | 1.57 |
| 2 | 2.45 | | 0.000 | 1073 | 9010 | 1 | |
| 3 | 3.15 | CHLORIDE | 16.731 | 210475 | 1892849 | 2 | 2.16 |
| 4 | 3.82 | NITRITE | 3.290 | 12580 | 188304 | 2 | 2.23 |
| 5 | 5.32 | NITRATE | -1417.280 | 2942361 | 49308019 | 2 | -5.34 |
| 6 | 8.98 | SULFATE | -164.235 | 1168090 | 27537810 | 1 | -1.82 |
| | | Totals | -1561.117 | 4336437 | 78950000 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.45 | | 0.000 | 1073 | 9010 | 1 | |
| | | Totals | 0.000 | 1073 | 9010 | | |

File: 02040024.DXD Sample 1390576 ms - B16




T.V. SPIKE = 10.00 mg/L

Chloride $\frac{16.632 \text{ mg/L} - 6.554 \text{ mg/L}}{10.00} \times 100 = 101\%$

Schedule: \peaknet\schedule\02040001.sch
Release 4.30



2/5/80 2:19:25 PM

| | | | |
|---|---|---|---|
| Data File | C:\PEAKNET\DATA\02040025.DXD | Report Date | 2/5/80 2:33:01 PM |
| Sample Name | 1390576 msd - B17 | Collected | 2/5/80 2:20:53 PM |
| Inject # | 25 | Vial # | B17 |
| Method File | c:\peaknet\method\acidscan.met | Calibrated | 2/5/80 10:27:48 AM |
| System Name | ANIONS | Detector | CD20 |
| Column Type | | Operator | DK |
| Data Points | 3600 | Rate | 5.00 Hz |
| Module Name | S/N 96020568 ID:24 Of 15 | Moduleware | 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

D-92

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.15 | FLUORIDE | 0.375 | 1888 | 13690 | 1 | 1.57 |
| 3 | 3.13 | CHLORIDE | 16.632 | 200324 | 1879654 | 2 | 1.62 |
| 4 | 3.82 | NITRITE | 3.201 | 12536 | 183040 | 3 | 2.23 |
| 5 | 4.87 | BROMIDE | 0.212 | 412 | 4948 | 4 | 2.10 |
| 6 | 5.33 | NITRATE | -1335.581 | 2890449 | 48207844 | 2 | -5.04 |
| 0 | 0.00 | PHOSPHATE | 0.000 | 0 | 0 | 0 | 0.00 |
| 7 | 9.00 | SULFATE | -144.756 | 1138163 | 26782495 | 1 | -1.64 |
| | | Totals | -1459.918 | 4243772 | 77071670 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.15 | FLUORIDE | 0.375 | 1888 | 13690 | 1 | 1.57 |
| 3 | 3.13 | CHLORIDE | 16.632 | 200324 | 1879654 | 2 | 1.62 |
| 4 | 3.82 | NITRITE | 3.201 | 12536 | 183040 | 3 | 2.23 |
| 5 | 4.87 | BROMIDE | 0.212 | 412 | 4948 | 4 | 2.10 |
| 6 | 5.33 | NITRATE | -1335.581 | 2890449 | 48207844 | 2 | -5.04 |
| 7 | 9.00 | SULFATE | -144.756 | 1138163 | 26782495 | 1 | -1.64 |
| | | Totals | -1459.918 | 4243772 | 77071670 | | |

********** Components Not Found In This Run **********

| Name | Adjusted Ret Time | Reference Peak |
|---|---|---|
| PHOSPHATE | 7.73 | 0 |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|

Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 1 of 2 2/5/80 2:19:25 PM

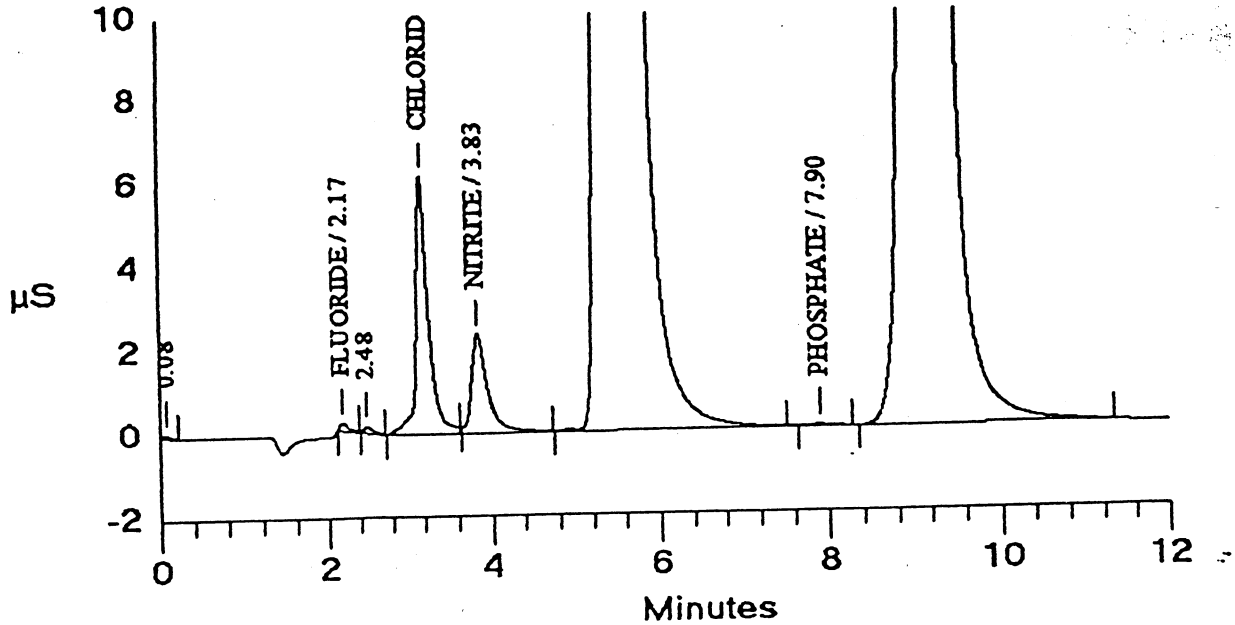
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2.15 | FLUORIDE | 0.375 | 1888 | 13690 | 1 | 1.57 |
| 2 | 2.45 | | 0.000 | 1124 | 9983 | 1 | |
| 3 | 3.13 | CHLORIDE | 16.632 | 200324 | 1879654 | 2 | 1.62 |
| 4 | 3.82 | NITRITE | 3.201 | 12536 | 183040 | 3 | 2.23 |
| 5 | 4.87 | BROMIDE | 0.212 | 412 | 4948 | 4 | 2.10 |
| 6 | 5.33 | NITRATE | -1335.581 | 2890449 | 48207844 | 2 | -5.04 |
| 7 | 9.00 | SULFATE | -144.756 | 1138163 | 26782495 | 1 | -1.64 |
| | | Totals | -1459.918 | 4244896 | 77081653 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.45 | | 0.000 | 1124 | 9983 | 1 | |
| | | Totals | 0.000 | 1124 | 9983 | | |

| | | | |
|---|---|---|---|
| Totals | 0.000 | 2215 | 18276 |

File: 02040023.DXD Sample 1390576 dup - B15




Chloride $\frac{6.234\ mg/L \times 0.050L}{0.0004944} = 630\ mg/kg$

0.06 %

$RPD = \frac{662 - 630}{(662 + 630) \div 2} \times 100 = 5\%$

Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 2 of 2 2/5/80 2:05:49 PM

| | | | |
|---|---|---|---|
| Data File | C:\PEAKNET\DATA\02040024.DXD | Report Date | 2/5/80 2:19:25 PM |
| Sample Name | 1390576 ms - B16 | Collected | 2/5/80 2:07:17 PM |
| Inject # | 24 | Vial # | B16 |
| Method File | c:\peaknet\method\acidscan.met | Calibrated | 2/5/80 10:27:48 AM |
| System Name | ANIONS | Detector | CD20 |
| Column Type | | Operator | DK |
| Data Points | 3600 | Rate | 5.00 Hz |
| Module Name | S/N 96020568 ID:24 Of 15 | Moduleware | 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

D-90

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.17 | FLUORIDE | 0.403 | 1899 | 17718 | 2 | 2.36 |
| 4 | 3.17 | CHLORIDE | 6.234 | 61426 | 637115 | 2 | 2.70 |
| 5 | 3.83 | NITRITE | 5.406 | 23394 | 314650 | 2 | 2.68 |
| 0 | 0.00 | BROMIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 6 | 5.35 | NITRATE | -1289.985 | 2804928 | 47580041 | 2 | -4.75 |
| 7 | 7.90 | PHOSPHATE | 0.720 | 449 | 9198 | 2 | 2.16 |
| 8 | 9.03 | SULFATE | -98.395 | 1068153 | 24833555 | 1 | -1.28 |
| | | Totals | -1375.617 | 3960249 | 73392277 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.17 | FLUORIDE | 0.403 | 1899 | 17718 | 2 | 2.36 |
| 4 | 3.17 | CHLORIDE | 6.234 | 61426 | 637115 | 2 | 2.70 |
| 5 | 3.83 | NITRITE | 5.406 | 23394 | 314650 | 2 | 2.68 |
| 6 | 5.35 | NITRATE | -1289.985 | 2804928 | 47580041 | 2 | -4.75 |
| 7 | 7.90 | PHOSPHATE | 0.720 | 449 | 9198 | 2 | 2.16 |
| 8 | 9.03 | SULFATE | -98.395 | 1068153 | 24833555 | 1 | -1.28 |
| | | Totals | -1375.617 | 3960249 | 73392277 | | |

********** Components Not Found In This Run **********

| Name | Adjusted Ret Time | Reference Peak |
|---|---|---|
| BROMIDE | 4.77 | 0 |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|

Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 1 of 2 2/5/80 2:05:49 PM

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 0.08 | | 0.000 | 747 | 4182 | 1 | |
| 2 | 2.17 | FLUORIDE | 0.403 | 1899 | 17718 | 2 | 2.36 |
| 3 | 2.48 | | 0.000 | 1468 | 14095 | 2 | |
| 4 | 3.17 | CHLORIDE | 6.234 | 61426 | 637115 | 2 | 2.70 |
| 5 | 3.83 | NITRITE | 5.406 | 23394 | 314650 | 2 | 2.68 |
| 6 | 5.35 | NITRATE | -1289.985 | 2804928 | 47580041 | 2 | -4.75 |
| 7 | 7.90 | PHOSPHATE | 0.720 | 449 | 9198 | 2 | 2.16 |
| 8 | 9.03 | SULFATE | -98.395 | 1068153 | 24833555 | 1 | -1.28 |
| | | Totals | -1375.617 | 3962464 | 73410553 | | |

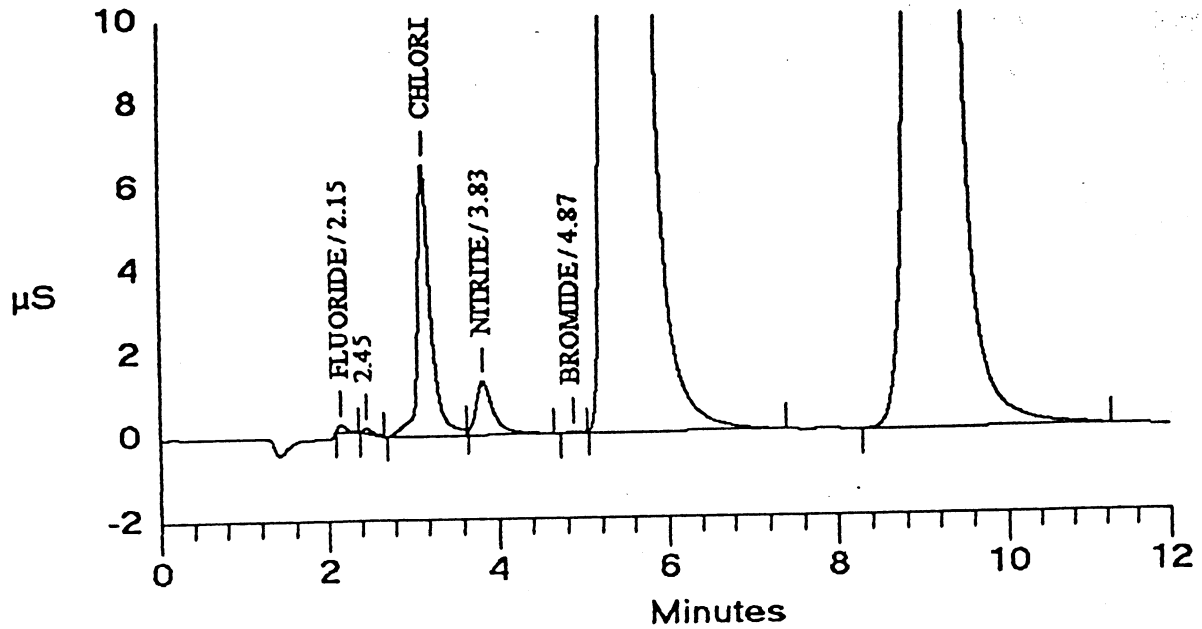
********** Peak Report: Unknown Peaks **********

D-89

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 0.08 | | 0.000 | 747 | 4182 | 1 | |

Totals 0.000

*File: 02040022.DXD Sample 1390576 - B14*




Chloride $\frac{6.554 \text{ mg/L} \times 0.050 \text{ L}}{0.0004951} = 662 \text{ mg/kg}$

0.07 %

Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 2 of 2 2/5/80 1:52:13 PM

| | | | |
|---|---|---|---|
| Data File | C:\PEAKNET\DATA\02040023.DXD | Report Date | 2/5/80 2:05:49 PM |
| Sample Name | 1390576 dup - B15 | Collected | 2/5/80 1:53:41 PM |
| Inject # | 23 | Vial # | B15 |
| Method File | c:\peaknet\method\acidscan.met | Calibrated | 2/5/80 10:27:48 AM |
| System Name | ANIONS | Detector | CD20 |
| Column Type | | Operator | DK |
| Data Points | 3600 | Rate | 5.00 Hz |
| Module Name | S/N 96020568 ID:24 Of 15 | Moduleware | 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.15 | FLUORIDE | 0.367 | 1760 | 12624 | 1 | 1.57 |
| 3 | 3.15 | CHLORIDE | 6.554 | 64859 | 671943 | 2 | 2.16 |
| 4 | 3.83 | NITRITE | 3.130 | 12659 | 178869 | 2 | 2.68 |
| 5 | 4.87 | BROMIDE | 0.190 | 335 | 4033 | 2 | 2.10 |
| 6 | 5.33 | NITRATE | -1390.000 | 2927623 | 48944065 | 2 | -5.04 |
| 0 | 0.00 | PHOSPHATE | 0.000 | 0 | 0 | 0 | 0.00 |
| 7 | 9.00 | SULFATE | -155.141 | 1151666 | 27189261 | 1 | -1.64 |
| | | Totals | -1534.899 | 4158902 | 77000795 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.15 | FLUORIDE | 0.367 | 1760 | 12624 | 1 | 1.57 |
| 3 | 3.15 | CHLORIDE | 6.554 | 64859 | 671943 | 2 | 2.16 |
| 4 | 3.83 | NITRITE | 3.130 | 12659 | 178869 | 2 | 2.68 |
| 5 | 4.87 | BROMIDE | 0.190 | 335 | 4033 | 2 | 2.10 |
| 6 | 5.33 | NITRATE | -1390.000 | 2927623 | 48944065 | 2 | -5.04 |
| 7 | 9.00 | SULFATE | -155.141 | 1151666 | 27189261 | 1 | -1.64 |
| | | Totals | -1534.899 | 4158902 | 77000795 | | |

********** Components Not Found In This Run **********

| Name | Adjusted Ret Time | Reference Peak |
|---|---|---|
| PHOSPHATE | 7.73 | 0 |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|

Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 1 of 2 2/5/80 1:52:13 PM

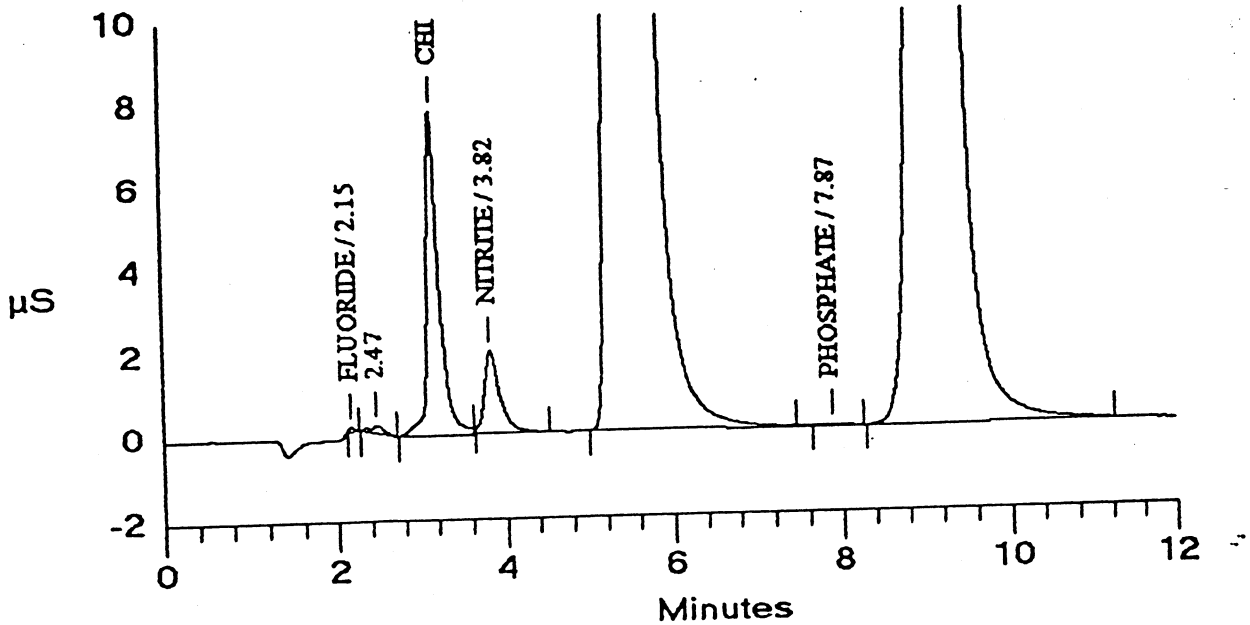
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2.15 | FLUORIDE | 0.367 | 1760 | 12624 | 1 | 1.57 |
| 2 | 2.45 | | 0.000 | 1033 | 8695 | 1 | |
| 3 | 3.15 | CHLORIDE | 6.554 | 64859 | 671943 | 2 | 2.16 |
| 4 | 3.83 | NITRITE | 3.130 | 12659 | 178869 | 2 | 2.68 |
| 5 | 4.87 | BROMIDE | 0.190 | 335 | 4033 | 2 | 2.10 |
| 6 | 5.33 | NITRATE | -1390.000 | 2927623 | 48944065 | 2 | -5.04 |
| 7 | 9.00 | SULFATE | -155.141 | 1151666 | 27189261 | 1 | -1.64 |
| | | Totals | -1534.899 | 4159934 | 77009490 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| [illegible] | [illegible] | [illegible] | 0.000 | 1033 | 8695 | 1 | |

| | | | |
|---|---|---|---|
| Totals | 0.000 | 1873 | 22251 |

File: 02040021.DXD Sample 1390575 - B13




Chloride $\frac{7.541\ mg/L \times 0.050L}{0.0005218} = 722\ mg/kg$

0.07 %

Schedule: \peaknet\schedule\02040001.sch
Release 4.30

Page 2 of 2

2/5/80 1:38:37 PM

| | | | |
|---|---|---|---|
| Data File | C:\PEAKNET\DATA\02040022.DXD | Report Date | 2/5/80 1:52:12 PM |
| Sample Name | 1390576 - B14 | Collected | 2/5/80 1:40:05 PM |
| Inject # | 22 | Vial # | B14 |
| Method File | c:\peaknet\method\acidscan.met | Calibrated | 2/5/80 10:27:48 AM |
| System Name | ANIONS | Detector | CD20 |
| Column Type | | Operator | DK |
| Data Points | 3600 | Rate | 5.00 Hz |
| Module Name | S/N 96020568 ID:24 Of 15 | Moduleware | 1.17 |

D-86

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size: [illegible] points [illegible]

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.15 | FLUORIDE | 0.314 | 983 | 4985 | 1 | 1.57 |
| 3 | 3.15 | CHLORIDE | 7.541 | 77822 | 780435 | 2 | 2.16 |
| 4 | 3.82 | NITRITE | 4.521 | 19705 | 261555 | 2 | 2.23 |
| 0 | 0.00 | BROMIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 5 | 5.33 | NITRATE | -1616.248 | 3122298 | 51868224 | 2 | -5.04 |
| 6 | 7.87 | PHOSPHATE | 0.652 | 372 | 7485 | 2 | 1.72 |
| 7 | 9.02 | SULFATE | -117.692 | 1098586 | 25673741 | 1 | -1.46 |
| | | Totals | -1720.913 | 4319765 | 78596425 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.15 | FLUORIDE | 0.314 | 983 | 4985 | 1 | 1.57 |
| 3 | 3.15 | CHLORIDE | 7.541 | 77822 | 780435 | 2 | 2.16 |
| 4 | 3.82 | NITRITE | 4.521 | 19705 | 261555 | 2 | 2.23 |
| 5 | 5.33 | NITRATE | -1616.248 | 3122298 | 51868224 | 2 | -5.04 |
| 6 | 7.87 | PHOSPHATE | 0.652 | 372 | 7485 | 2 | 1.72 |
| 7 | 9.02 | SULFATE | -117.692 | 1098586 | 25673741 | 1 | -1.46 |
| | | Totals | -1720.913 | 4319765 | 78596425 | | |

********** Components Not Found In This Run **********

| Name | Adjusted Ret Time | Reference Peak |
|---|---|---|
| BROMIDE | 4.77 | 0 |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|

Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 1 of 2 2/5/80 1:38:36 PM

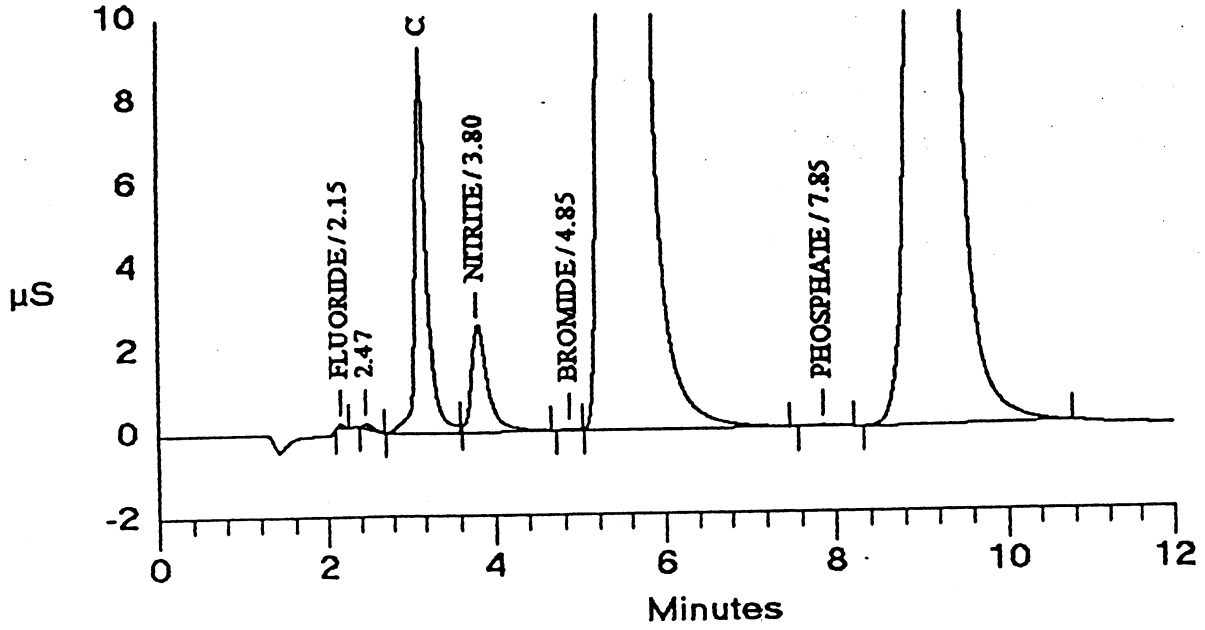
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2.15 | FLUORIDE | 0.314 | 983 | 4985 | 1 | 1.57 |
| 2 | 2.47 | | 0.000 | 1873 | 22251 | 1 | |
| 3 | 3.15 | CHLORIDE | 7.541 | 77822 | 780435 | 2 | 2.16 |
| 4 | 3.82 | NITRITE | 4.521 | 19705 | 261555 | 2 | 2.23 |
| 5 | 5.33 | NITRATE | -1616.248 | 3122298 | 51868224 | 2 | -5.04 |
| 6 | 7.87 | PHOSPHATE | 0.652 | 372 | 7485 | 2 | 1.72 |
| 7 | 9.02 | SULFATE | -117.692 | 1098586 | 25673741 | 1 | -1.46 |
| | | Totals | -1720.913 | 4321638 | 78618676 | | |

********** Peak Report: Unknown Peaks **********



| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|

File: 02040020.DXD Sample 1390574 - B12




Chloride $\frac{8.151\ mg/L \times 0.050\ L}{0.0004874} = 836\ mg/kg$

0.08 %

Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 2 of 2 2/5/80 1:25:01 PM

| | | | |
|---|---|---|---|
| Data File | C:\PEAKNET\DATA\02040021.DXD | Report Date | 2/5/80 1:38:36 PM |
| Sample Name | 1390575 - B13 | Collected | 2/5/80 1:26:29 PM |
| Inject # | 21 | Vial # | B13 |
| Method File | c:\peaknet\method\acidscan.met | Calibrated | 2/5/80 10:27:48 AM |
| System Name | ANIONS | Detector | CD20 |
| Column Type | | Operator | DK |
| Data Points | 3600 | Rate | 5.00 Hz |
| Module Name | S/N 96020568 ID:24 Of 15 | Moduleware | 1.17 |

D-84

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.15 | FLUORIDE | 0.313 | 962 | 4888 | 1 | 1.57 |
| 3 | 3.13 | CHLORIDE | 8.151 | 84482 | 848551 | 2 | 1.62 |
| 4 | 3.80 | NITRITE | 5.829 | 25232 | 340131 | 2 | 1.79 |
| 5 | 4.85 | BROMIDE | 0.246 | 470 | 6371 | 2 | 1.75 |
| 6 | 5.33 | NITRATE | -1503.892 | 3026103 | 50442146 | 2 | -5.04 |
| 7 | 7.85 | PHOSPHATE | 0.654 | 340 | 7536 | 2 | 1.51 |
| 8 | 9.03 | SULFATE | -40.583 | 963551 | 21975771 | 1 | -1.28 |
| | | Totals | -1529.282 | 4101140 | 73625394 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.15 | FLUORIDE | 0.313 | 962 | 4888 | 1 | 1.57 |
| 3 | 3.13 | CHLORIDE | 8.151 | 84482 | 848551 | 2 | 1.62 |
| 4 | 3.80 | NITRITE | 5.829 | 25232 | 340131 | 2 | 1.79 |
| 5 | 4.85 | BROMIDE | 0.246 | 470 | 6371 | 2 | 1.75 |
| 6 | 5.33 | NITRATE | -1503.892 | 3026103 | 50442146 | 2 | -5.04 |
| 7 | 7.85 | PHOSPHATE | 0.654 | 340 | 7536 | 2 | 1.51 |
| 8 | 9.03 | SULFATE | -40.583 | 963551 | 21975771 | 1 | -1.28 |
| | | Totals | -1529.282 | 4101140 | 73625394 | | |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.15 | FLUORIDE | 0.313 | 962 | 4888 | 1 | 1.57 |
| 2 | 2.47 | | 0.000 | 1119 | 9107 | 1 | |
| 3 | 3.13 | CHLORIDE | 8.151 | 84482 | 848551 | 2 | 1.62 |
| 4 | 3.80 | NITRITE | 5.829 | 25232 | 340131 | 2 | 1.79 |
| 5 | 4.85 | BROMIDE | 0.246 | 470 | 6371 | 2 | 1.75 |
| 6 | 5.33 | NITRATE | -1503.892 | 3026103 | 50442146 | 2 | -5.04 |

Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 1 of 2 2/5/80 1:25:00 PM

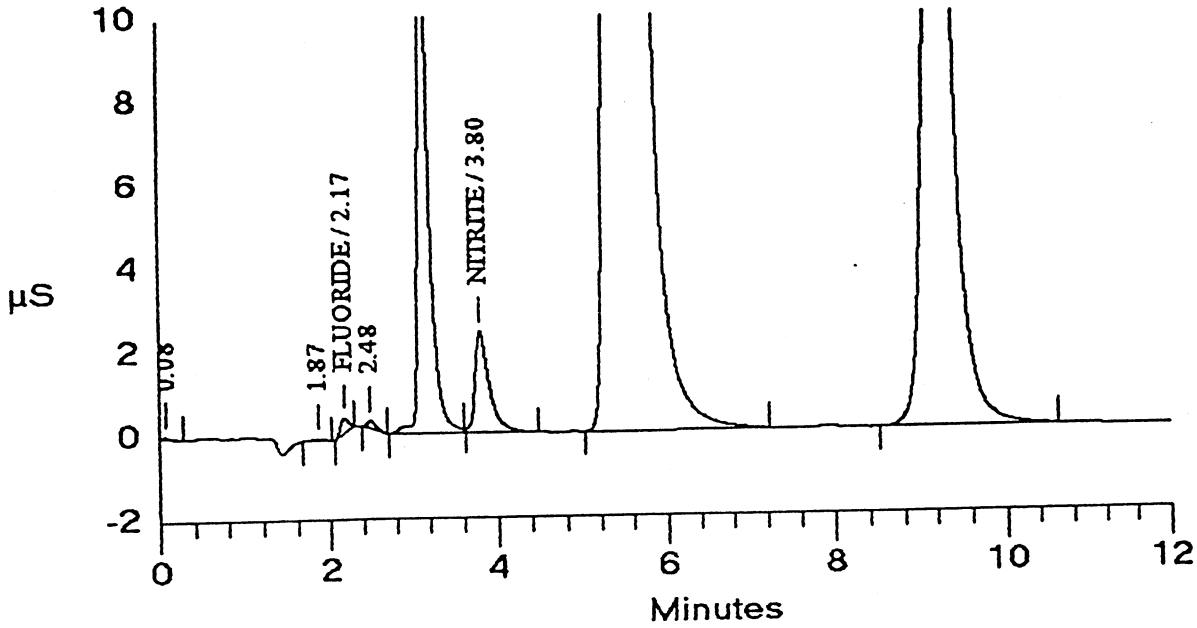
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7 | 7.85 | PHOSPHATE | 0.654 | 340 | 7536 | 2 | 1.51 |
| 8 | 9.03 | SULFATE | -40.583 | 963551 | 21975771 | 1 | -1.28 |
| | | Totals | -1529.282 | 4102258 | 73634502 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.47 | | 0.000 | 1119 | 9107 | 1 | |
| | | Totals | 0.000 | 1119 | 9107 | | |

| Pk. Num | Ret Time | Component Name | MG/L | | | Code |
|---|---|---|---|---|---|---|
| 1 | 0.08 | | 0.000 | 603 | 3339 | 1 |
| 2 | 1.87 | | 0.000 | 502 | 5949 | 1 |
| 4 | 2.48 | | 0.000 | 1921 | 13813 | 1 |
| | | Totals | 0.000 | 3026 | 23101 | |

*File: 02040019.DXD Sample 1391370 msd - B11*




T.V. SPIKE = 10.00 mg/L

Chloride $\frac{10.638 - 1.025}{10.00} \times 100 = 96\%$

Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 2 of 2 2/5/80 1:11:24 PM

| | | | |
|---|---|---|---|
| Data File | : C:\PEAKNET\DATA\02040020.DXD | Report Date | : 2/5/80 1:25:00 PM |
| Sample Name | : 1390574 - B12 | Collected | : 2/5/80 1:12:53 PM |
| Inject # | : 20 | Vial # | : B12 |
| Method File | : c:\peaknet\method\acidscan.met | Calibrated | : 2/5/80 10:27:48 AM |
| System Name | : ANIONS | Detector | : CD20 |
| Column Type | : | Operator | : DK |
| Data Points | : 3600 | Rate | : 5.00 Hz |
| Module Name | : S/N 96020568 ID:24 Of 15 | Moduleware | : 1.17 D-82 |

| Calibration | Volume | Dilution | Start | Stop | Area | Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|---|

External 50 1 0.00 12.00

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 3 | 2.17 | FLUORIDE | 0.451 | 3600 | 24657 | 1 | 2.36 |
| 5 | 3.13 | CHLORIDE | 10.638 | 131891 | 1133368 | 2 | 1.62 |
| 6 | 3.80 | NITRITE | 4.905 | 24089 | 284540 | 2 | 1.79 |
| 0 | 0.00 | BROMIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 7 | 5.37 | NITRATE | -497.585 | 2013046 | 34251761 | 1 | -4.45 |
| 0 | 0.00 | PHOSPHATE | 0.000 | 0 | 0 | 0 | 0.00 |
| 8 | 9.20 | SULFATE | 50.480 | 213973 | 4573572 | 1 | 0.55 |
| | | Totals | -431.112 | 2386599 | 40267898 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 3 | 2.17 | FLUORIDE | 0.451 | 3600 | 24657 | 1 | 2.36 |
| 5 | 3.13 | CHLORIDE | 10.638 | 131891 | 1133368 | 2 | 1.62 |
| 6 | 3.80 | NITRITE | 4.905 | 24089 | 284540 | 2 | 1.79 |
| 7 | 5.37 | NITRATE | -497.585 | 2013046 | 34251761 | 1 | -4.45 |
| 8 | 9.20 | SULFATE | 50.480 | 213973 | 4573572 | 1 | 0.55 |
| | | Totals | -431.112 | 2386599 | 40267898 | | |

********** Components Not Found In This Run **********

| Name | Adjusted Ret Time | Reference Peak |
|---|---|---|
| BROMIDE | 4.77 | 0 |
| PHOSPHATE | 7.73 | 0 |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|

Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 1 of 2 2/5/80 1:11:24 PM

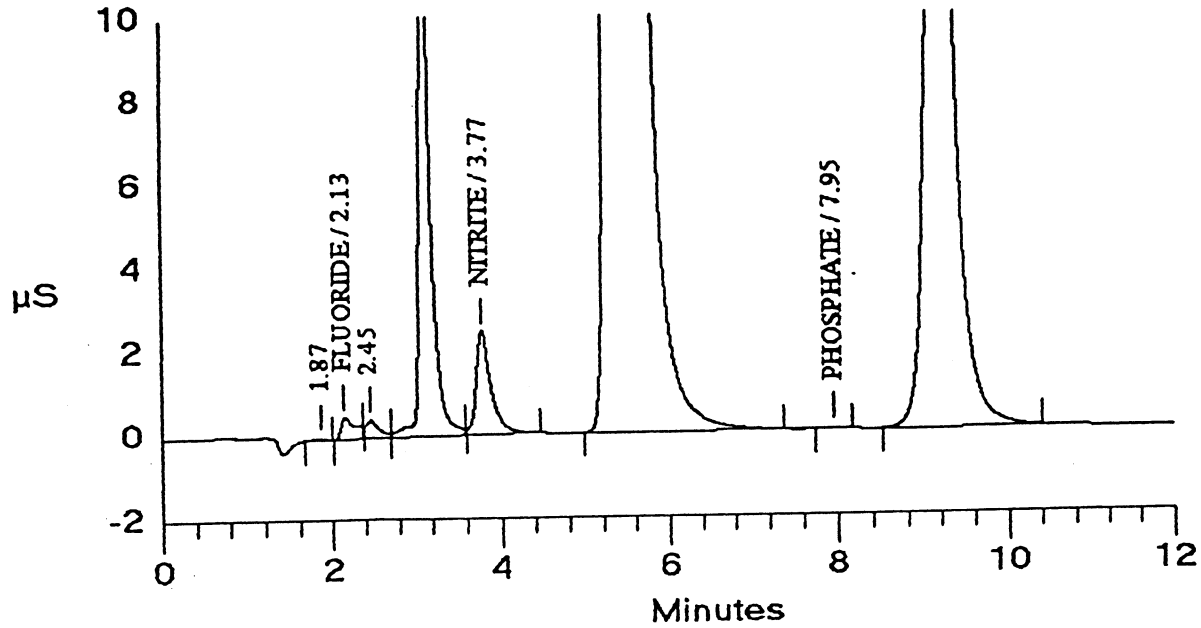
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 0.08 | | 0.000 | 603 | 3339 | 1 | |
| 2 | 1.87 | | 0.000 | 502 | 5949 | 1 | |
| 3 | 2.17 | FLUORIDE | 0.451 | 3600 | 24657 | 1 | 2.36 |
| 4 | 2.48 | | 0.000 | 1921 | 13813 | 1 | |
| 5 | 3.13 | CHLORIDE | 10.638 | 131891 | 1133368 | 2 | 1.62 |
| 6 | 3.80 | NITRITE | 4.905 | 24089 | 284540 | 2 | 1.79 |
| 7 | 5.37 | NITRATE | -497.585 | 2013046 | 34251761 | 1 | -4.45 |
| 8 | 9.20 | SULFATE | 50.480 | 213973 | 4573572 | 1 | 0.55 |
| | | Totals | -431.112 | 2389625 | 40290999 | | |



********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 1.87 | | 0.000 | 436 | 4928 | 1 | |
| 3 | 2.45 | | 0.000 | 4186 | 49964 | 2 | |
| | | Totals | 0.000 | 4623 | 54892 | | |

*File: 02040018.DXD Sample 1391370 ms - B10*




T.V. SPIKE = 10.00 mg/L

CHLORIDE $\frac{11.552\ mg/L - 1.025\ mg/L}{10.00} \times 100 = 105\ \%$

Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 2 of 2 2/5/80 12:57:48 PM

| | | | |
|---|---|---|---|
| Data File | C:\PEAKNET\DATA\02040019.DXD | Report Date | 2/5/80 1:11:24 PM |
| Sample Name | 1391370 msd - B11 | Collected | 2/5/80 12:59:17 PM |
| Inject # | 19 | Vial # | B11 |
| Method File | c:\peaknet\method\acidscan.met | Calibrated | 2/5/80 10:27:48 AM |
| System Name | ANIONS | Detector | CD20 |
| Column Type | | Operator | DK |
| Data Points | 3600 | Rate | 5.00 Hz |
| Module Name | S/N 96020568 ID:24 Of 15 | Moduleware | 1.17 D-80 |

Vial Injection Volume Dilution Start Stop Area Reject Pk. Width Threshold

| Calibration | Volume | Dilution | Start | Stop | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.13 | FLUORIDE | 0.745 | 5180 | 66759 | 2 | 0.79 |
| 4 | 3.12 | CHLORIDE | 11.552 | 141826 | 1241342 | 2 | 1.08 |
| 5 | 3.77 | NITRITE | 5.176 | 24440 | 300795 | 2 | 0.89 |
| 0 | 0.00 | BROMIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 6 | 5.33 | NITRATE | -502.509 | 2015079 | 34356593 | 2 | -5.04 |
| 7 | 7.95 | PHOSPHATE | 0.529 | 273 | 4380 | 2 | 2.80 |
| 8 | 9.17 | SULFATE | 50.462 | 213480 | 4571217 | 1 | 0.18 |
| | | Totals | -434.046 | 2400277 | 40541086 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.13 | FLUORIDE | 0.745 | 5180 | 66759 | 2 | 0.79 |
| 4 | 3.12 | CHLORIDE | 11.552 | 141826 | 1241342 | 2 | 1.08 |
| 5 | 3.77 | NITRITE | 5.176 | 24440 | 300795 | 2 | 0.89 |
| 6 | 5.33 | NITRATE | -502.509 | 2015079 | 34356593 | 2 | -5.04 |
| 7 | 7.95 | PHOSPHATE | 0.529 | 273 | 4380 | 2 | 2.80 |
| 8 | 9.17 | SULFATE | 50.462 | 213480 | 4571217 | 1 | 0.18 |
| | | Totals | -434.046 | 2400277 | 40541086 | | |

********** Components Not Found In This Run **********

| Name | Adjusted Ret Time | Reference Peak |
|---|---|---|
| BROMIDE | 4.77 | 0 |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|

Schedule: \peaknet\schedule\02040001.sch
Release 4.30



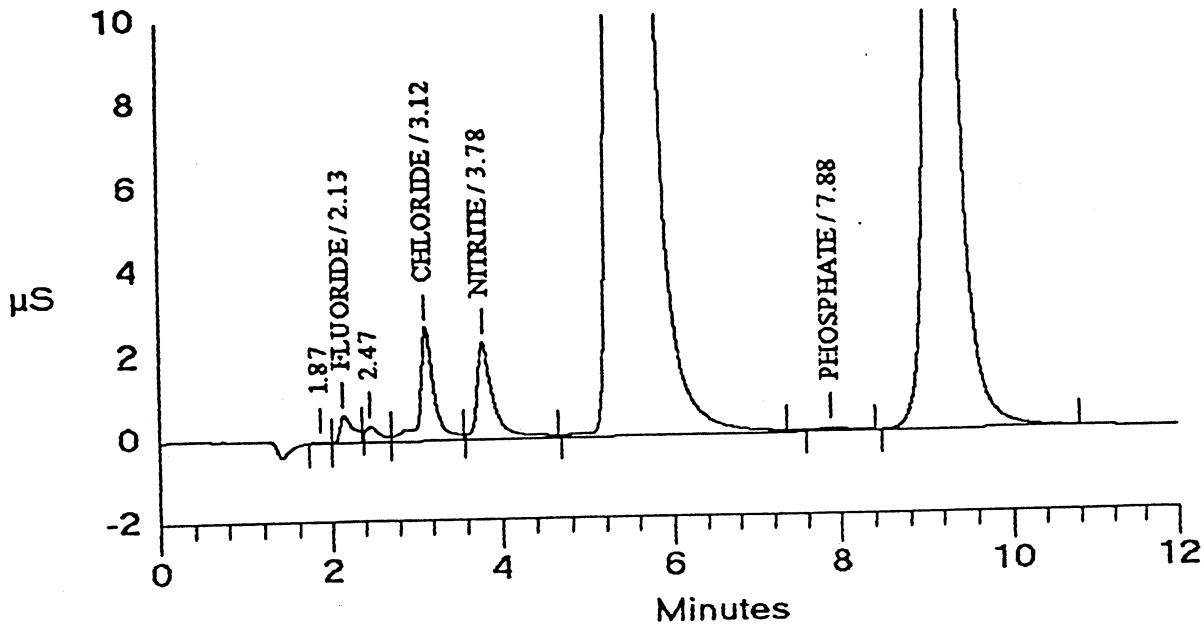
2/5/80 12:57:48 PM

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 1.87 | | 0.000 | 436 | 4928 | 1 | |
| 2 | 2.13 | FLUORIDE | 0.745 | 5180 | 66759 | 2 | 0.79 |
| 3 | 2.45 | | 0.000 | 4186 | 49964 | 2 | |
| 4 | 3.12 | CHLORIDE | 11.552 | 141826 | 1241342 | 2 | 1.08 |
| 5 | 3.77 | NITRITE | 5.176 | 24440 | 300795 | 2 | 0.89 |
| 6 | 5.33 | NITRATE | -502.509 | 2015079 | 34356593 | 2 | -5.04 |
| 7 | 7.95 | PHOSPHATE | 0.529 | 273 | 4380 | 2 | 2.80 |
| 8 | 9.17 | SULFATE | 50.462 | 213480 | 4571217 | 1 | 0.18 |
| | | Totals | -434.046 | 2404900 | 40595978 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 1.87 | | 0.000 | 349 | 3424 | 1 | |
| 3 | 2.47 | | 0.000 | 3726 | 45865 | 2 | |
| | | Totals | 0.000 | 4075 | 49289 | | |

*File: 02040017.DXD Sample 1391370 dup - B09*




Chloride $\frac{3.216\ mg/L \times 0.050\ L}{0.0005305} = 303\ mg/kg$

$303\ mg/kg \times 0.0001 = 0.03\%$

Schedule: \peaknet\schedule\02040001.sch
Release 4.30



2/5/80 12:44:12 PM

| | | | |
|---|---|---|---|
| Data File | C:\PEAKNET\DATA\02040018.DXD | Report Date | 2/5/80 12:57:48 PM |
| Sample Name | 1391370 ms - B10 | Collected | 2/5/80 12:45:41 PM |
| Inject # | 18 | Vial # | B10 |
| Method File | c:\peaknet\method\acidscan.met | Calibrated | 2/5/80 10:27:48 AM |
| System Name | ANIONS | Detector | CD20 |
| Column Type | | Operator | DK |
| Data Points | 3600 | Rate | 5.00 Hz D-78 |
| Module Name | S/N 96020568 ID:24 Of 15 | Moduleware | 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.13 | FLUORIDE | 0.800 | 6361 | 74675 | 2 | 0.79 |
| 4 | 3.12 | CHLORIDE | 3.216 | 26620 | 316879 | 2 | 1.08 |
| 5 | 3.78 | NITRITE | 5.407 | 23014 | 314686 | 2 | 1.34 |
| 0 | 0.00 | BROMIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 6 | 5.35 | NITRATE | -570.402 | 2095147 | 35759579 | 3 | -4.75 |
| 7 | 7.88 | PHOSPHATE | 1.217 | 711 | 21850 | 4 | 1.94 |
| 8 | 9.17 | SULFATE | 60.025 | 282330 | 6025703 | 2 | 0.18 |
| | | Totals | -499.737 | 2434183 | 42513372 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.13 | FLUORIDE | 0.800 | 6361 | 74675 | 2 | 0.79 |
| 4 | 3.12 | CHLORIDE | 3.216 | 26620 | 316879 | 2 | 1.08 |
| 5 | 3.78 | NITRITE | 5.407 | 23014 | 314686 | 2 | 1.34 |
| 6 | 5.35 | NITRATE | -570.402 | 2095147 | 35759579 | 3 | -4.75 |
| 7 | 7.88 | PHOSPHATE | 1.217 | 711 | 21850 | 4 | 1.94 |
| 8 | 9.17 | SULFATE | 60.025 | 282330 | 6025703 | 2 | 0.18 |
| | | Totals | -499.737 | 2434183 | 42513372 | | |

********** Components Not Found In This Run **********

| Name | Adjusted Ret Time | Reference Peak |
|---|---|---|
| BROMIDE | 4.77 | 0 |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|

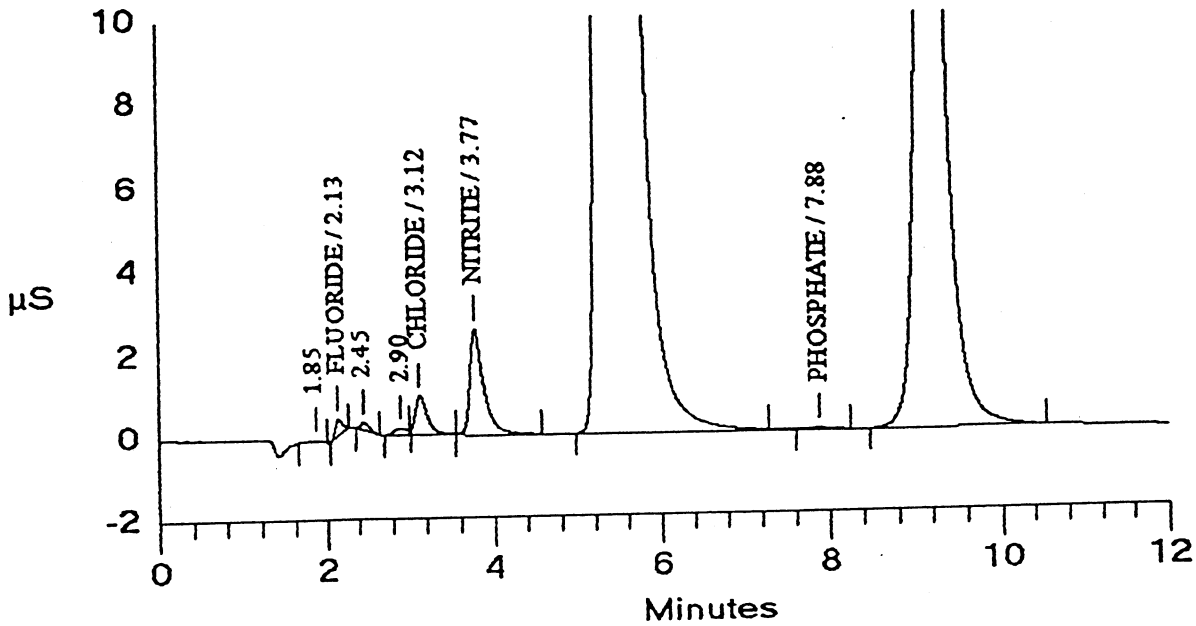
Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 1 of 2 2/5/80 12:44:12 PM

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 1.87 | | 0.000 | 349 | 3424 | 1 | |
| 2 | 2.13 | FLUORIDE | 0.800 | 6361 | 74675 | 2 | 0.79 |
| 3 | 2.47 | | 0.000 | 3726 | 45865 | 2 | |
| 4 | 3.12 | CHLORIDE | 3.216 | 26620 | 316879 | 2 | 1.08 |
| 5 | 3.78 | NITRITE | 5.407 | 23014 | 314686 | 2 | 1.34 |
| 6 | 5.35 | NITRATE | -570.402 | 2095147 | 35759579 | 3 | -4.75 |
| 7 | 7.88 | PHOSPHATE | 1.217 | 711 | 21850 | 4 | 1.94 |
| 8 | 9.17 | SULFATE | 60.025 | 282330 | 6025703 | 2 | 0.18 |
| | | Totals | -499.737 | 2438258 | 42562662 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 1.85 | | 0.000 | 512 | 6030 | 1 | |
| 3 | 2.45 | | 0.000 | 1762 | 13178 | 1 | |
| 4 | 2.90 | | 0.000 | 1634 | 17742 | 2 | |
| | | Totals | 0.000 | 3908 | 36949 | | |

*File: 02040016.DXD Sample 1391370 - B08*




Chloride $\frac{1.025 \text{ mg/L} \times 0.050 \text{ L}}{0.0005284} = 97 \text{ mg/kg}$

$97 \text{ mg/kg} \times 0.0001 = 0.01\%$

Schedule: \peaknet\schedule\02040001.sch
Release 4.30



2/5/80 12:30:36 PM

| | | | |
|---|---|---|---|
| Data File | : C:\PEAKNET\DATA\02040017.DXD | Report Date | : 2/5/80 12:44:12 PM |
| Sample Name | : 1391370 dup - B09 | Collected | : 2/5/80 12:32:05 PM |
| Inject # | : 17 | Vial # | : B09 |
| Method File | : c:\peaknet\method\acidscan.met | Calibrated | : 2/5/80 10:27:48 AM |
| System Name | : ANIONS | Detector | : CD20 |
| Column Type | : | Operator | : DK |
| Data Points | : 3600 | Rate | : 5.00 Hz |
| Module Name | : S/N 96020568 ID:24 Of 15 | Moduleware | : 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.13 | FLUORIDE | 0.462 | 3909 | 26185 | 1 | 0.79 |
| 5 | 3.12 | CHLORIDE | 1.025 | 9372 | 93263 | 2 | 1.08 |
| 6 | 3.77 | NITRITE | 5.116 | 25144 | 297198 | 2 | 0.89 |
| 0 | 0.00 | BROMIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 7 | 5.33 | NITRATE | -526.120 | 2050588 | 34853299 | 2 | -5.04 |
| 8 | 7.88 | PHOSPHATE | 0.684 | 380 | 8305 | 2 | 1.94 |
| 9 | 9.17 | SULFATE | 51.017 | 217310 | 4644290 | 1 | 0.18 |
| | | Totals | -467.817 | 2306704 | 39922539 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.13 | FLUORIDE | 0.462 | 3909 | 26185 | 1 | 0.79 |
| 5 | 3.12 | CHLORIDE | 1.025 | 9372 | 93263 | 2 | 1.08 |
| 6 | 3.77 | NITRITE | 5.116 | 25144 | 297198 | 2 | 0.89 |
| 7 | 5.33 | NITRATE | -526.120 | 2050588 | 34853299 | 2 | -5.04 |
| 8 | 7.88 | PHOSPHATE | 0.684 | 380 | 8305 | 2 | 1.94 |
| 9 | 9.17 | SULFATE | 51.017 | 217310 | 4644290 | 1 | 0.18 |
| | | Totals | -467.817 | 2306704 | 39922539 | | |

********** Components Not Found In This Run **********

| Name | Adjusted Ret Time | Reference Peak |
|---|---|---|
| BROMIDE | 4.77 | 0 |

********** Peak Report: All Peaks **********

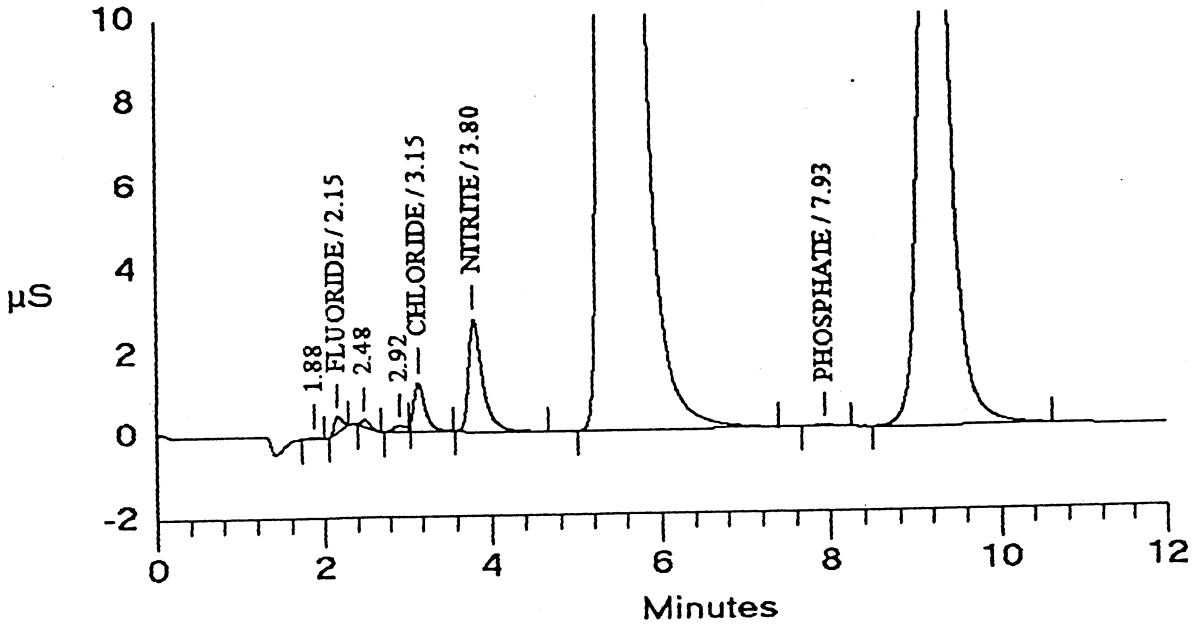
| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 1.85 | | 0.000 | 512 | 6030 | 1 | |
| 2 | 2.13 | FLUORIDE | 0.462 | 3909 | 26185 | 1 | 0.79 |
| 3 | 2.45 | | 0.000 | 1762 | 13178 | 1 | |
| 4 | 2.90 | | 0.000 | 1634 | 17742 | 2 | |
| 5 | 3.12 | CHLORIDE | 1.025 | 9372 | 93263 | 2 | 1.08 |
| 6 | 3.77 | NITRITE | 5.116 | 25144 | 297198 | 2 | 0.89 |
| 7 | 5.33 | NITRATE | -526.120 | 2050588 | 34853299 | 2 | -5.04 |
| 8 | 7.88 | PHOSPHATE | 0.684 | 380 | 8305 | 2 | 1.94 |
| 9 | 9.17 | SULFATE | 51.017 | 217310 | 4644290 | 1 | 0.18 |

| | | | | |
|---|---|---|---|---|
| Totals | -367.633 | 2183175 | 37996281 | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 1.88 | | 0.000 | 389 | 3820 | 1 | |
| 3 | 2.48 | | 0.000 | 1731 | 13037 | 1 | |
| 4 | 2.92 | | 0.000 | 1571 | 17794 | 2 | |
| | | Totals | 0.000 | 3691 | 34651 | | |

*File: 02040015.DXD Sample 1391369 - B07*




Chloride $\frac{1.265\ mg/L \times 0.050\ L}{0.0005365} = 120\ mg/kg$

$120\ mg/kg \times 0.0001 = 0.01\ \%$

Schedule: \peaknet\schedule\02040001.sch
Release 4.30



2/5/80 12:17:00 PM

| | | | |
|---|---|---|---|
| Data File | : C:\PEAKNET\DATA\02040016.DXD | Report Date | : 2/5/80 12:30:36 PM |
| Sample Name | : 1391370 - B08 | Collected | : 2/5/80 12:18:28 PM |
| Inject # | : 16 | Vial # | : B08 D-74 |
| Method File | : c:\peaknet\method\acidscan.met | Calibrated | : 2/5/80 10:27:48 AM |
| System Name | : ANIONS | Detector | : CD20 |
| Column Type | : | Operator | : DK |
| Data Points | : 3600 | Rate | : 5.00 Hz |

Data Points: 3000
Module Name: S/N 96020568 ID:24 Of 15 Moduleware : 1.17

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.15 | FLUORIDE | 0.459 | 3894 | 25741 | 1 | 1.57 |
| 5 | 3.15 | CHLORIDE | 1.265 | 12335 | 117432 | 2 | 2.16 |
| 6 | 3.80 | NITRITE | 5.491 | 27480 | 319779 | 2 | 1.79 |
| 0 | 0.00 | BROMIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 7 | 5.37 | NITRATE | -427.542 | 1911066 | 32709403 | 2 | -4.45 |
| 8 | 7.93 | PHOSPHATE | 0.655 | 375 | 7554 | 2 | 2.59 |
| 9 | 9.20 | SULFATE | 52.040 | 224335 | 4781722 | 1 | 0.55 |
| | | Totals | -367.633 | 2179485 | 37961631 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.15 | FLUORIDE | 0.459 | 3894 | 25741 | 1 | 1.57 |
| 5 | 3.15 | CHLORIDE | 1.265 | 12335 | 117432 | 2 | 2.16 |
| 6 | 3.80 | NITRITE | 5.491 | 27480 | 319779 | 2 | 1.79 |
| 7 | 5.37 | NITRATE | -427.542 | 1911066 | 32709403 | 2 | -4.45 |
| 8 | 7.93 | PHOSPHATE | 0.655 | 375 | 7554 | 2 | 2.59 |
| 9 | 9.20 | SULFATE | 52.040 | 224335 | 4781722 | 1 | 0.55 |
| | | Totals | -367.633 | 2179485 | 37961631 | | |

********** Components Not Found In This Run **********

| Name | Adjusted Ret Time | Reference Peak |
|---|---|---|
| BROMIDE | 4.77 | 0 |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|

Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 1 of 2 2/5/80 12:17:00 PM

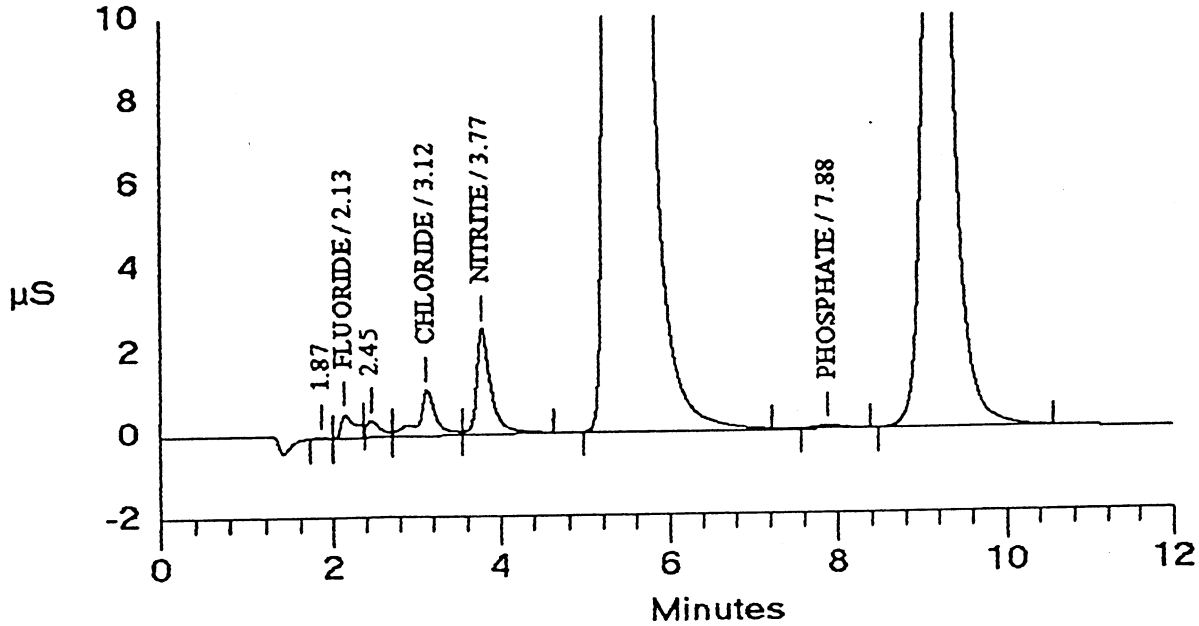
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 1.88 | | 0.000 | 389 | 3820 | 1 | |
| 2 | 2.15 | FLUORIDE | 0.459 | 3894 | 25741 | 1 | 1.57 |
| 3 | 2.48 | | 0.000 | 1731 | 13037 | 1 | |
| 4 | 2.92 | | 0.000 | 1571 | 17794 | 2 | |
| 5 | 3.15 | CHLORIDE | 1.265 | 12335 | 117432 | 2 | 2.16 |
| 6 | 3.80 | NITRITE | 5.491 | 27480 | 319779 | 2 | 1.79 |
| 7 | 5.37 | NITRATE | -427.542 | 1911066 | 32709403 | 2 | -4.45 |
| 8 | 7.93 | PHOSPHATE | 0.655 | 375 | 7554 | 2 | 2.59 |

| | | | | |
|---|---|---|---|---|
| Totals | -596.170 | 2457411 | 42946700 | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 1.87 | | 0.000 | 323 | 3122 | 1 | |
| 3 | 2.45 | | 0.000 | 3949 | 48113 | 2 | |
| | | Totals | 0.000 | 4272 | 51235 | | |

*File: 02040014.DXD Sample 1391368 - B06*




Chloride $\frac{1.709\ mg/L \times 0.050\ L}{0.0005444} = 157\ mg/kg$

$157\ mg/kg \times 0.0001 = 0.02\ \%$

Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 2 of 2 2/5/80 12:03:24 PM

| | | | |
|---|---|---|---|
| Data File : | C:\PEAKNET\DATA\02040015.DXD | Report Date: | 2/5/80 12:17:00 PM |
| Sample Name: | 1391369 - B07 | Collected : | 2/5/80 12:04:52 PM |
| Inject # : | 15 | Vial # : | B07 |
| Method File: | c:\peaknet\method\acidscan.met | Calibrated : | 2/5/80 10:27:48 AM |
| System Name: | ANIONS | Detector : | CD20 D-72 |
| Column Type: | | Operator : | DK |

Column Type:
Data Points: 3600 Rate : 5.00 Hz
Module Name: S/N 96020568 ID:24 Of 15 Moduleware : 1.17

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.13 | FLUORIDE | 0.777 | 5795 | 71484 | 2 | 0.79 |
| 4 | 3.12 | CHLORIDE | 1.709 | 10977 | 162362 | 2 | 1.08 |
| 5 | 3.77 | NITRITE | 5.405 | 25242 | 314585 | 2 | 0.89 |
| 0 | 0.00 | BROMIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 6 | 5.32 | NITRATE | -657.784 | 2182509 | 37462161 | 2 | -5.34 |
| 7 | 7.88 | PHOSPHATE | 1.063 | 744 | 17920 | 2 | 1.94 |
| 8 | 9.17 | SULFATE | 52.660 | 227872 | 4866952 | 2 | 0.18 |
| | | Totals | -596.170 | 2453140 | 42895465 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.13 | FLUORIDE | 0.777 | 5795 | 71484 | 2 | 0.79 |
| 4 | 3.12 | CHLORIDE | 1.709 | 10977 | 162362 | 2 | 1.08 |
| 5 | 3.77 | NITRITE | 5.405 | 25242 | 314585 | 2 | 0.89 |
| 6 | 5.32 | NITRATE | -657.784 | 2182509 | 37462161 | 2 | -5.34 |
| 7 | 7.88 | PHOSPHATE | 1.063 | 744 | 17920 | 2 | 1.94 |
| 8 | 9.17 | SULFATE | 52.660 | 227872 | 4866952 | 2 | 0.18 |
| | | Totals | -596.170 | 2453140 | 42895465 | | |

********** Components Not Found In This Run **********

| Name | Adjusted Ret Time | Reference Peak |
|---|---|---|
| BROMIDE | 4.77 | 0 |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|

Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 1 of 2 2/5/80 12:03:24 PM

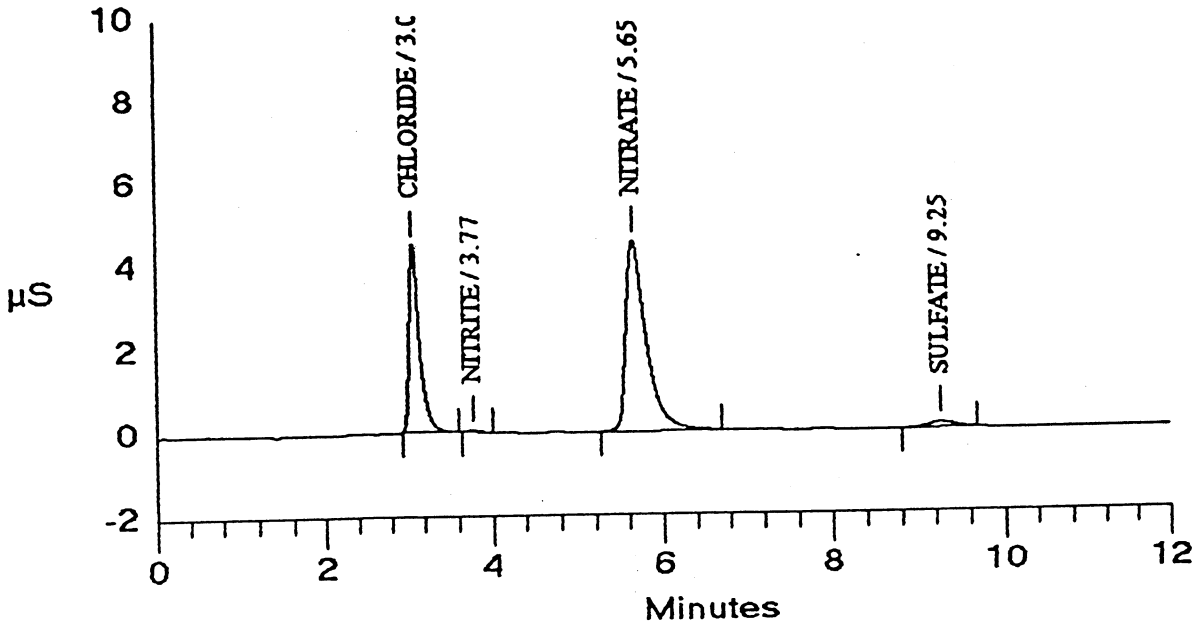
D-71

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 1.87 | | 0.000 | 323 | 3122 | 1 | |
| 2 | 2.13 | FLUORIDE | 0.777 | 5795 | 71484 | 2 | 0.79 |
| 3 | 2.45 | | 0.000 | 3949 | 48113 | 2 | |
| 4 | 3.12 | CHLORIDE | 1.709 | 10977 | 162362 | 2 | 1.08 |
| 5 | 3.77 | NITRITE | 5.405 | 25242 | 314585 | 2 | 0.89 |
| 6 | 5.32 | NITRATE | -657.784 | 2182509 | 37462161 | 2 | -5.34 |
| 7 | 7.88 | PHOSPHATE | 1.063 | 744 | 17920 | 2 | 1.94 |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| | | Totals | 0.000 | 0 | 0 | | |

File: 02040013.DXD Sample cl2 cont 1:50 - B05






| | | | |
|---|---|---|---|
| Data File | : C:\PEAKNET\DATA\02040014.DXD | Report Date | : 2/5/80 12:03:24 PM |
| Sample Name | : 1391368 - B06 | Collected | : 2/5/80 11:51:16 AM |
| Inject # | : 14 | Vial # | : B06 D-70 |
| Method File | : c:\peaknet\method\acidscan.met | Calibrated | : 2/5/80 10:27:48 AM |
| | | Detector | : CD20 |

Column Type:
Data Points: 3600
Module Name: S/N 96020568 ID:24 Of 15

Operator : DK
Rate : 5.00 Hz
Moduleware : 1.17

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 0 | 0.00 | FLUORIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 1 | 3.07 | CHLORIDE | 3.859 | 44839 | 383882 | 1 | -0.54 |
| 2 | 3.77 | NITRITE | 0.162 | 491 | 4932 | 1 | 0.89 |
| 0 | 0.00 | BROMIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 3 | 5.65 | NITRATE | 13.051 | 45480 | 754616 | 1 | 0.59 |
| 0 | 0.00 | PHOSPHATE | 0.000 | 0 | 0 | 0 | 0.00 |
| 4 | 9.25 | SULFATE | 0.433 | 1309 | 29008 | 1 | 1.09 |
| | | Totals | 17.504 | 92119 | 1172438 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 3.07 | CHLORIDE | 3.859 | 44839 | 383882 | 1 | -0.54 |
| 2 | 3.77 | NITRITE | 0.162 | 491 | 4932 | 1 | 0.89 |
| 3 | 5.65 | NITRATE | 13.051 | 45480 | 754616 | 1 | 0.59 |
| 4 | 9.25 | SULFATE | 0.433 | 1309 | 29008 | 1 | 1.09 |
| | | Totals | 17.504 | 92119 | 1172438 | | |

********** Components Not Found In This Run **********

| Name | Adjusted Ret Time | Reference Peak |
|---|---|---|
| FLUORIDE | 2.12 | 0 |
| BROMIDE | 4.77 | 0 |
| PHOSPHATE | 7.73 | 0 |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|

Schedule: \peaknet\schedule\02040001.sch
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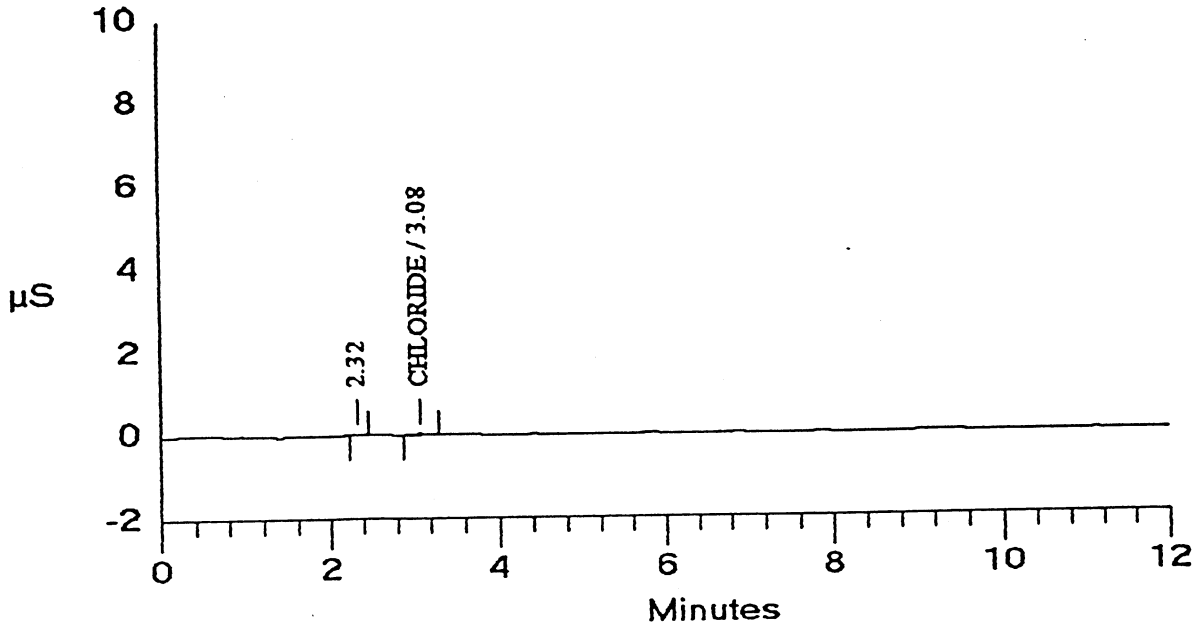
D-69

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 3.07 | CHLORIDE | 3.859 | 44839 | 383882 | 1 | -0.54 |
| 2 | 3.77 | NITRITE | 0.162 | 491 | 4932 | 1 | 0.89 |
| 3 | 5.65 | NITRATE | 13.051 | 45480 | 754616 | 1 | 0.59 |
| 4 | 9.25 | SULFATE | 0.433 | 1309 | 29008 | 1 | 1.09 |
| | | Totals | 17.504 | 92119 | 1172438 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.32 | | 0.000 | 189 | 1336 | 1 | |
| | | Totals | 0.000 | 189 | 1336 | | |

*File: 02040012.DXD Sample meth blk - B01*




Schedule: \peaknet\schedule\02040001.sch
Release 4.30



2/5/80 11:36:07 AM

D-68

| | |
|---|---|
| Data File : C:\PEAKNET\DATA\02040013.DXD | Report Date: 2/5/80 11:49:47 AM |
| Sample Name: cl2 cont 1:50 - B05 | Collected : 2/5/80 11:37:40 AM |
| Inject # : 13 | Vial # : B05 |

Method File: C:\peaknet...
System Name: ANIONS
Column Type:
Data Points: 3600
Module Name: S/N 96020568 ID:24 Of 15

Detector : CD20
Operator : DK
Rate : 5.00 Hz
Moduleware : 1.17

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 0 | 0.00 | FLUORIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 2 | 3.08 | CHLORIDE | 0.123 | 328 | 3162 | 1 | 0.00 |
| 0 | 0.00 | NITRITE | 0.000 | 0 | 0 | 0 | 0.00 |
| 0 | 0.00 | BROMIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 0 | 0.00 | NITRATE | 0.000 | 0 | 0 | 0 | 0.00 |
| 0 | 0.00 | PHOSPHATE | 0.000 | 0 | 0 | 0 | 0.00 |
| 0 | 0.00 | SULFATE | 0.000 | 0 | 0 | 0 | 0.00 |
| | | Totals | 0.123 | 328 | 3162 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 3.08 | CHLORIDE | 0.123 | 328 | 3162 | 1 | 0.00 |
| | | Totals | 0.123 | 328 | 3162 | | |

********** Components Not Found In This Run **********

| Name | Adjusted Ret Time | Reference Peak |
|---|---|---|
| FLUORIDE | 2.12 | 0 |
| NITRITE | 3.73 | 0 |
| BROMIDE | 4.77 | 0 |
| NITRATE | 5.62 | 0 |
| PHOSPHATE | 7.73 | 0 |
| SULFATE | 9.15 | 0 |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|

Schedule: \peaknet\schedule\02040001.sch
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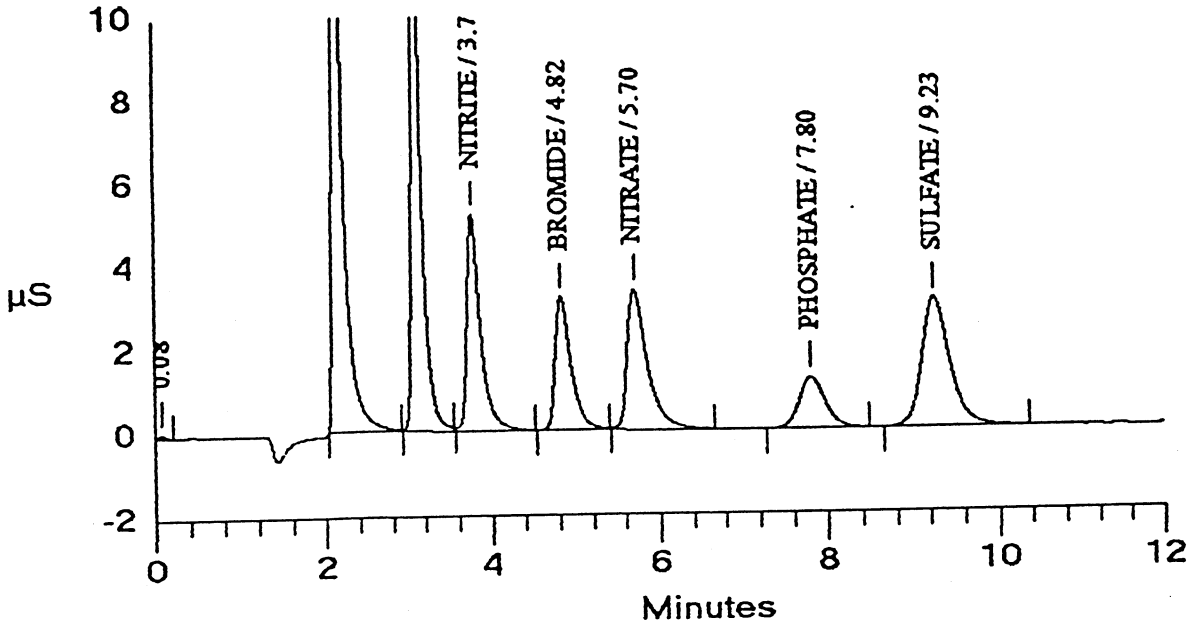
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2.32 | | 0.000 | 189 | 1336 | 1 | |
| 2 | 3.08 | CHLORIDE | 0.123 | 328 | 3162 | 1 | 0.00 |
| | | Totals | 0.123 | 517 | 4499 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 0.08 | | 0.000 | 800 | 4295 | 1 | |
| | | Totals | 0.000 | 800 | 4295 | | |

*File: 02040011.DXD Sample lcs - B04*






Data File : C:\PEAKNET\DATA\02040012.DXD
Sample Name: meth blk - B01

Report Date: 2/5/80 11:36:07 AM
Collected : 2/5/80 11:24:00 AM

| | | | |
|---|---|---|---|
| Sample Name: | [illegible] | Vial # | : B04 |
| Inject # | : 11 | Calibrated | : 2/5/80 10:27:48 AM |
| Method File: | c:\peaknet\method\acidscan.met | Detector | : CD20 |
| System Name: | ANIONS | Operator | : DK |
| Column Type: | | Rate | : 5.00 Hz |
| Data Points: | 3600 | Moduleware | : 1.17 |
| Module Name: | S/N 96020568 ID:24 Of 15 | | |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.13 | FLUORIDE | 9.850 | 187560 | 1439712 | 2 | 0.79 |
| 3 | 3.10 | CHLORIDE | 10.155 | 133186 | 1077063 | 2 | 0.54 |
| 4 | 3.77 | NITRITE | 9.841 | 51765 | 585819 | 2 | 0.89 |
| 5 | 4.82 | BROMIDE | 9.944 | 31788 | 421592 | 2 | 1.05 |
| 6 | 5.70 | NITRATE | 9.806 | 33498 | 558738 | 2 | 1.48 |
| 7 | 7.80 | PHOSPHATE | 10.143 | 12300 | 260204 | 2 | 0.86 |
| 8 | 9.23 | SULFATE | 9.897 | 30985 | 711308 | 2 | 0.91 |
| | | Totals | 69.637 | 481081 | 5054435 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 2 | 2.13 | FLUORIDE | 9.850 | 187560 | 1439712 | 2 | 0.79 |
| 3 | 3.10 | CHLORIDE | 10.155 | 133186 | 1077063 | 2 | 0.54 |
| 4 | 3.77 | NITRITE | 9.841 | 51765 | 585819 | 2 | 0.89 |
| 5 | 4.82 | BROMIDE | 9.944 | 31788 | 421592 | 2 | 1.05 |
| 6 | 5.70 | NITRATE | 9.806 | 33498 | 558738 | 2 | 1.48 |
| 7 | 7.80 | PHOSPHATE | 10.143 | 12300 | 260204 | 2 | 0.86 |
| 8 | 9.23 | SULFATE | 9.897 | 30985 | 711308 | 2 | 0.91 |
| | | Totals | 69.637 | 481081 | 5054435 | | |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 0.08 | | 0.000 | 800 | 4295 | 1 | |
| 2 | 2.13 | FLUORIDE | 9.850 | 187560 | 1439712 | 2 | 0.79 |
| 3 | 3.10 | CHLORIDE | 10.155 | 133186 | 1077063 | 2 | 0.54 |
| 4 | 3.77 | NITRITE | 9.841 | 51765 | 585819 | 2 | 0.89 |
| 5 | 4.82 | BROMIDE | 9.944 | 31788 | 421592 | 2 | 1.05 |
| 6 | 5.70 | NITRATE | 9.806 | 33498 | 558738 | 2 | 1.48 |



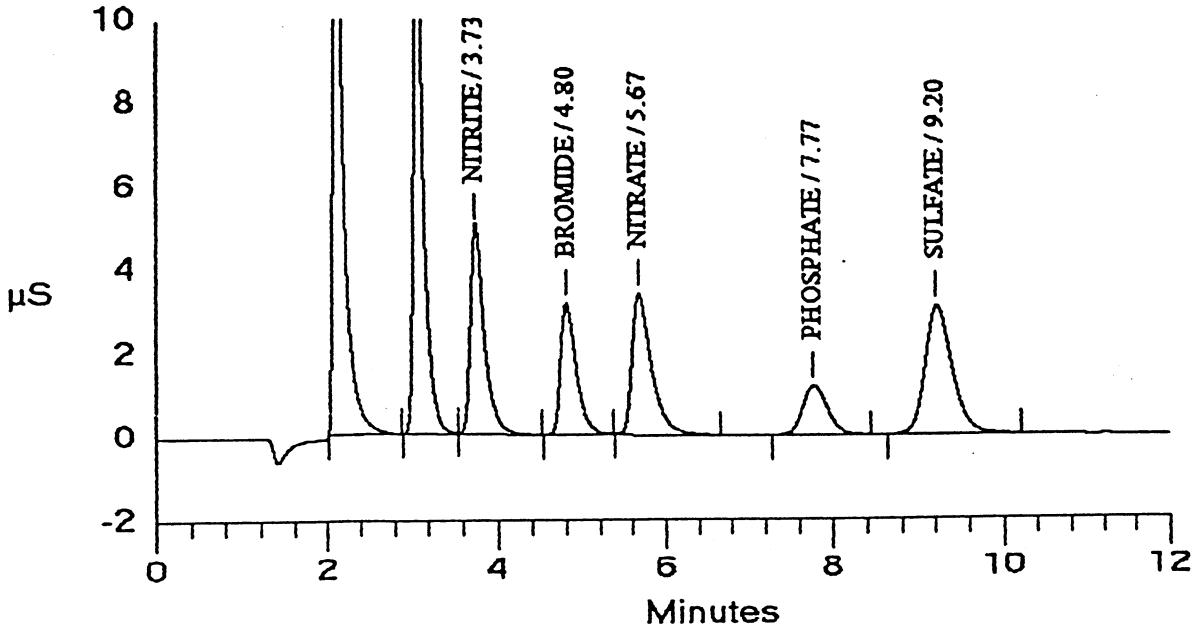


| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7 | 7.80 | PHOSPHATE | 10.143 | 12300 | 260204 | 2 | 0.86 |
| 8 | 9.23 | SULFATE | 9.897 | 30985 | 711308 | 2 | 0.91 |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| | | Totals | 0.000 | 0 | 0 | | |

*File: 02040010.DXD Sample qcs - B03*




Schedule: \peaknet\schedule\02040001.sch
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Data File : C:\PEAKNET\DATA\02040011.DXD Report Date: 2/5/80 11:22:31 AM

| | | | |
|---|---|---|---|
| Sample Name: | qcs - B03 | Collected | : 2/5/80 [illegible] |
| Inject # | : 10 | Vial # | : B03 |
| Method File: | c:\peaknet\method\acidscan.met | Calibrated | : 2/5/80 10:27:48 AM |
| System Name: | ANIONS | Detector | : CD20 |
| Column Type: | | Operator | : DK |
| Data Points: | 3600 | Rate | : 5.00 Hz |
| Module Name: | S/N 96020568 ID:24 Of 15 | Moduleware | : 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delt |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 9.742 | 173703 | 1422672 | 1 | -0.7 |
| 2 | 3.07 | CHLORIDE | 9.741 | 124247 | 1029120 | 2 | -0.5 |
| 3 | 3.73 | NITRITE | 9.485 | 49195 | 563684 | 2 | 0.0 |
| 4 | 4.80 | BROMIDE | 9.764 | 31264 | 413628 | 2 | 0.7 |
| 5 | 5.67 | NITRATE | 9.843 | 33596 | 560979 | 2 | 0.8 |
| 6 | 7.77 | PHOSPHATE | 9.640 | 11718 | 246116 | 1 | 0.4 |
| 7 | 9.20 | SULFATE | 9.706 | 30577 | 697025 | 1 | 0.5 |
| | | Totals | 67.921 | 454301 | 4933224 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delt |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 9.742 | 173703 | 1422672 | 1 | -0.7 |
| 2 | 3.07 | CHLORIDE | 9.741 | 124247 | 1029120 | 2 | -0.5 |
| 3 | 3.73 | NITRITE | 9.485 | 49195 | 563684 | 2 | 0.0 |
| 4 | 4.80 | BROMIDE | 9.764 | 31264 | 413628 | 2 | 0.7 |
| 5 | 5.67 | NITRATE | 9.843 | 33596 | 560979 | 2 | 0.8 |
| 6 | 7.77 | PHOSPHATE | 9.640 | 11718 | 246116 | 1 | 0.4 |
| 7 | 9.20 | SULFATE | 9.706 | 30577 | 697025 | 1 | 0.5 |
| | | Totals | 67.921 | 454301 | 4933224 | | |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delt |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 9.742 | 173703 | 1422672 | 1 | -0.7 |
| 2 | 3.07 | CHLORIDE | 9.741 | 124247 | 1029120 | 2 | -0.5 |
| 3 | 3.73 | NITRITE | 9.485 | 49195 | 563684 | 2 | 0.0 |
| 4 | 4.80 | BROMIDE | 9.764 | 31264 | 413628 | 2 | 0.7 |
| 5 | 5.67 | NITRATE | 9.843 | 33596 | 560979 | 2 | 0.8 |
| 6 | 7.77 | PHOSPHATE | 9.640 | 11718 | 246116 | 1 | 0.4 |

Schedule: \peaknet\schedule\02040001.sch
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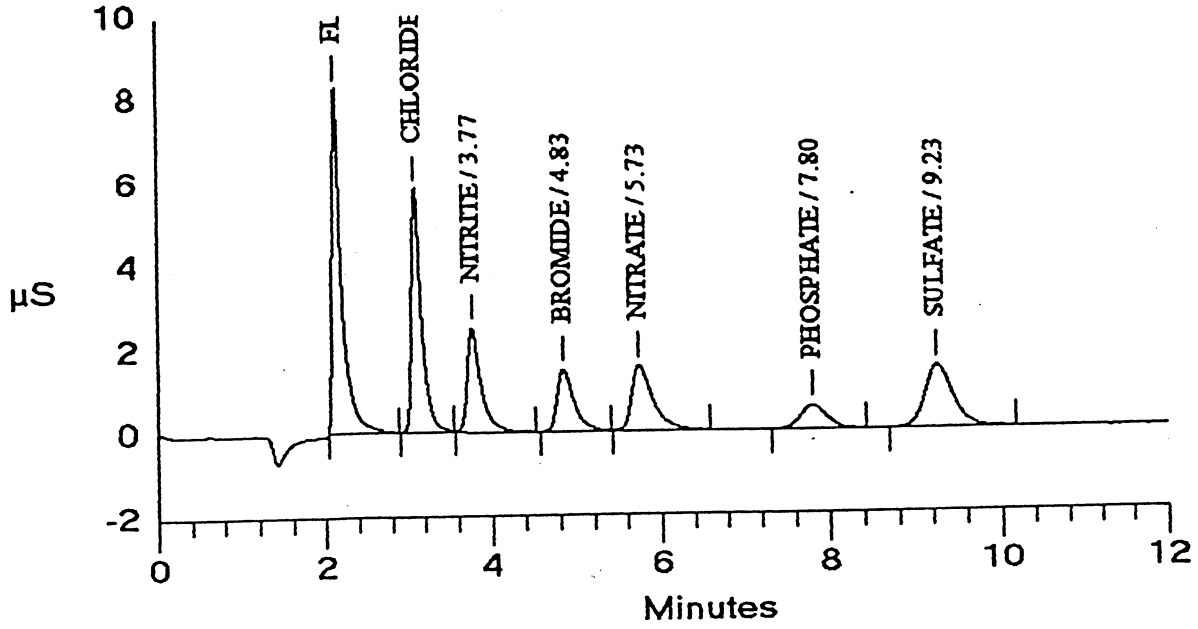
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7 | 9.20 | SULFATE | 9.706 | 30577 | 697025 | 1 | 0.5 |

Totals

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| | | Totals | 0.000 | 0 | 0 | | |

*File: 02040009.DXD Sample ipc - B02*



| | | | |
|---|---|---|---|
| Data File | : C:\PEAKNET\DATA\02040009.DXD | Report Date | : 2/5/80 10:55:07 AM |
| Sample Name | : ipc - B02 | Collected | : 2/5/80 10:42:59 AM |
| Inject # | : 9 | Vial # | : B02 |
| Method File | : c:\peaknet\method\acidscan.met | Calibrated | : 2/5/80 10:27:48 AM |
| System Name | : ANIONS | Detector | : CD20 |
| Column Type | : | Operator | : DK |
| Data Points | : 3600 | Rate | : 5.00 Hz |
| Module Name | : S/N 96020568 ID:24 Of 15 | Moduleware | : 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.12 | FLUORIDE | 4.785 | 82246 | 659395 | 1 | 0.00 |
| 2 | 3.08 | CHLORIDE | 4.850 | 57901 | 488376 | 2 | 0.00 |
| 3 | 3.77 | NITRITE | 4.916 | 24751 | 285199 | 2 | 0.89 |
| 4 | 4.83 | BROMIDE | 4.858 | 14671 | 200261 | 2 | 1.40 |
| 5 | 5.73 | NITRATE | 4.861 | 15511 | 268275 | 2 | 2.08 |
| 6 | 7.80 | PHOSPHATE | 4.945 | 5611 | 118626 | 1 | 0.86 |
| 7 | 9.23 | SULFATE | 4.861 | 14884 | 342042 | 1 | 0.91 |
| | | Totals | 34.075 | 215575 | 2362174 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.12 | FLUORIDE | 4.785 | 82246 | 659395 | 1 | 0.00 |
| 2 | 3.08 | CHLORIDE | 4.850 | 57901 | 488376 | 2 | 0.00 |
| 3 | 3.77 | NITRITE | 4.916 | 24751 | 285199 | 2 | 0.89 |
| 4 | 4.83 | BROMIDE | 4.858 | 14671 | 200261 | 2 | 1.40 |
| 5 | 5.73 | NITRATE | 4.861 | 15511 | 268275 | 2 | 2.08 |
| 6 | 7.80 | PHOSPHATE | 4.945 | 5611 | 118626 | 1 | 0.86 |
| 7 | 9.23 | SULFATE | 4.861 | 14884 | 342042 | 1 | 0.91 |
| | | Totals | 34.075 | 215575 | 2362174 | | |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.12 | FLUORIDE | 4.785 | 82246 | 659395 | 1 | 0.00 |
| 2 | 3.08 | CHLORIDE | 4.850 | 57901 | 488376 | 2 | 0.00 |
| 3 | 3.77 | NITRITE | 4.916 | 24751 | 285199 | 2 | 0.89 |
| 4 | 4.83 | BROMIDE | 4.858 | 14671 | 200261 | 2 | 1.40 |
| 5 | 5.73 | NITRATE | 4.861 | 15511 | 268275 | 2 | 2.08 |
| 6 | 7.80 | PHOSPHATE | 4.945 | 5611 | 118626 | 1 | 0.86 |

Schedule: \peaknet\schedule\02040001.sch
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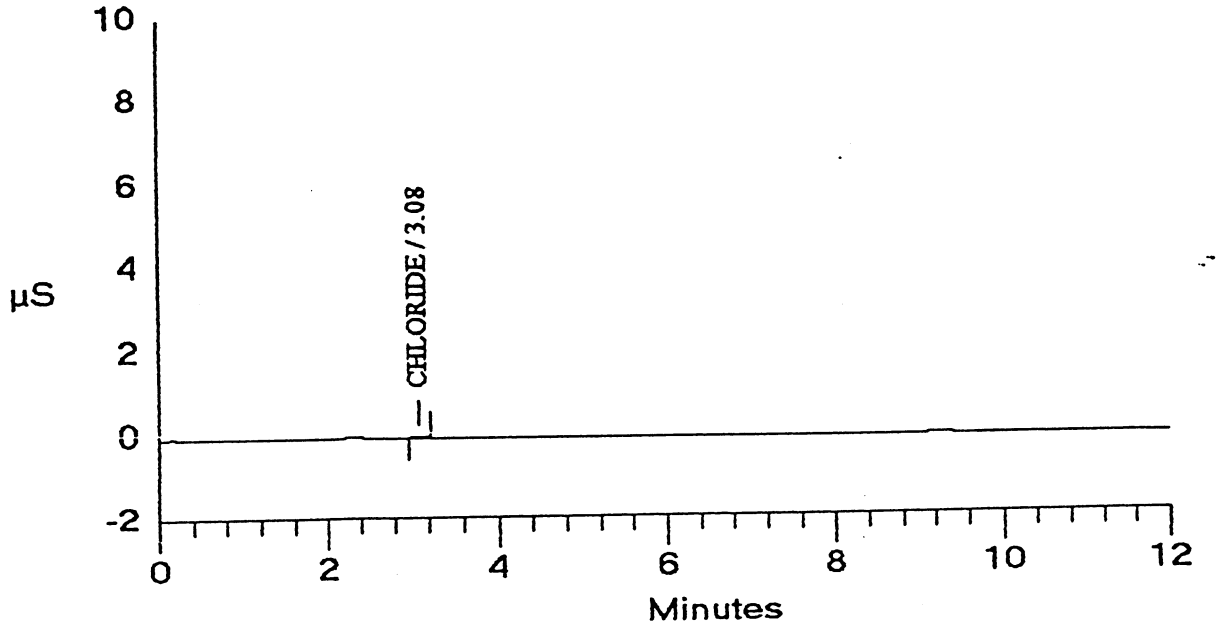
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7 | 9.23 | SULFATE | 4.861 | 14884 | 342042 | 1 | 0.91 |

| | | | |
|---|---|---|---|
| Totals | 0.113 | 285 | 2124 |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| | | Totals | 0.000 | 0 | 0 | | |

*File: 02040008.DXD Sample meth blk - B01*



| | | | |
|---|---|---|---|
| Data File | : C:\PEAKNET\DATA\02040008.DXD | Report Date | : 2/5/80 10:41:24 AM |
| Sample Name | : meth blk - B01 | Collected | : 2/5/80 10:29:17 AM |
| Inject # | : 8 | Vial # | : B01 |
| Method File | : c:\peaknet\method\acidscan.met | Calibrated | : 2/5/80 10:27:48 AM |
| System Name | : ANIONS | Detector | : CD20 |
| Column Type | : | Operator | : DK |
| Data Points | : 3600 | Rate | : 5.00 Hz |
| Module Name | : S/N 96020568 ID:24 Of 15 | Moduleware | : 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 0 | 0.00 | FLUORIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 1 | 3.08 | CHLORIDE | 0.113 | 285 | 2124 | 1 | 0.00 |
| 0 | 0.00 | NITRITE | 0.000 | 0 | 0 | 0 | 0.00 |
| 0 | 0.00 | BROMIDE | 0.000 | 0 | 0 | 0 | 0.00 |
| 0 | 0.00 | NITRATE | 0.000 | 0 | 0 | 0 | 0.0C |
| 0 | 0.00 | PHOSPHATE | 0.000 | 0 | 0 | 0 | 0.0C |
| 0 | 0.00 | SULFATE | 0.000 | 0 | 0 | 0 | 0.0C |
| | | Totals | 0.113 | 285 | 2124 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 3.08 | CHLORIDE | 0.113 | 285 | 2124 | 1 | 0.0( |
| | | Totals | 0.113 | 285 | 2124 | | |

********** Components Not Found In This Run **********

| Name | Adjusted Ret Time | Reference Peak |
|---|---|---|
| FLUORIDE | 2.12 | 0 |
| NITRITE | 3.73 | 0 |
| BROMIDE | 4.77 | 0 |
| NITRATE | 5.62 | 0 |
| PHOSPHATE | 7.73 | 0 |
| SULFATE | 9.15 | 0 |

********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delt |
|---|---|---|---|---|---|---|---|

Component: SULFATE; Fit Type: Quadratic

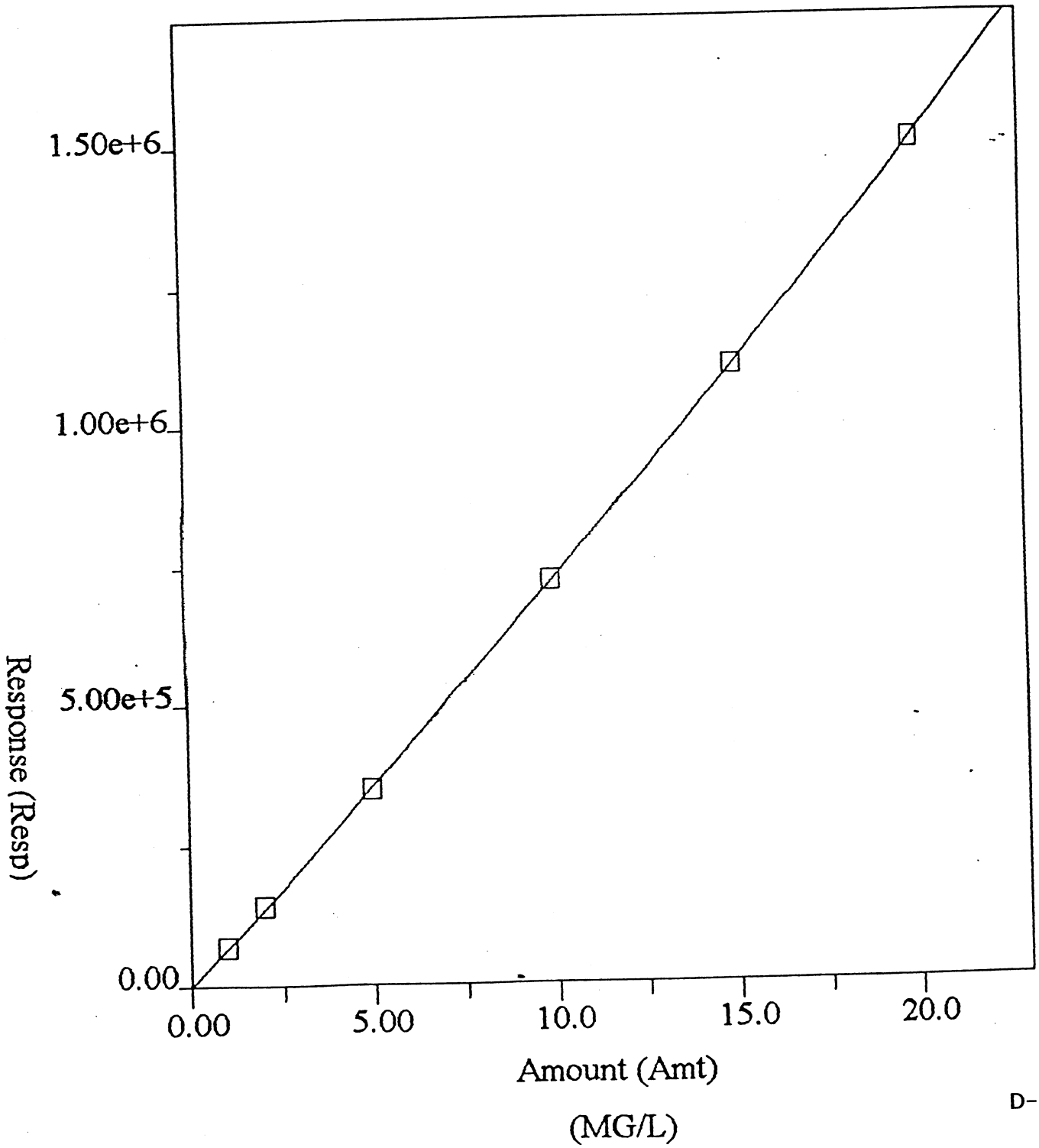
Method: c:\peaknet\method\acidscan.met; Updated: 2/5/80 10:27:48 A

$r^2 = 0.999986$

$Amt = -7.402140e\text{-}013 * Resp^2 + 1.441935e\text{-}005 * Resp + 0.01526$

Standard: External

Calibration: Area



Component: PHOSPHATE; Fit Type: Quadratic

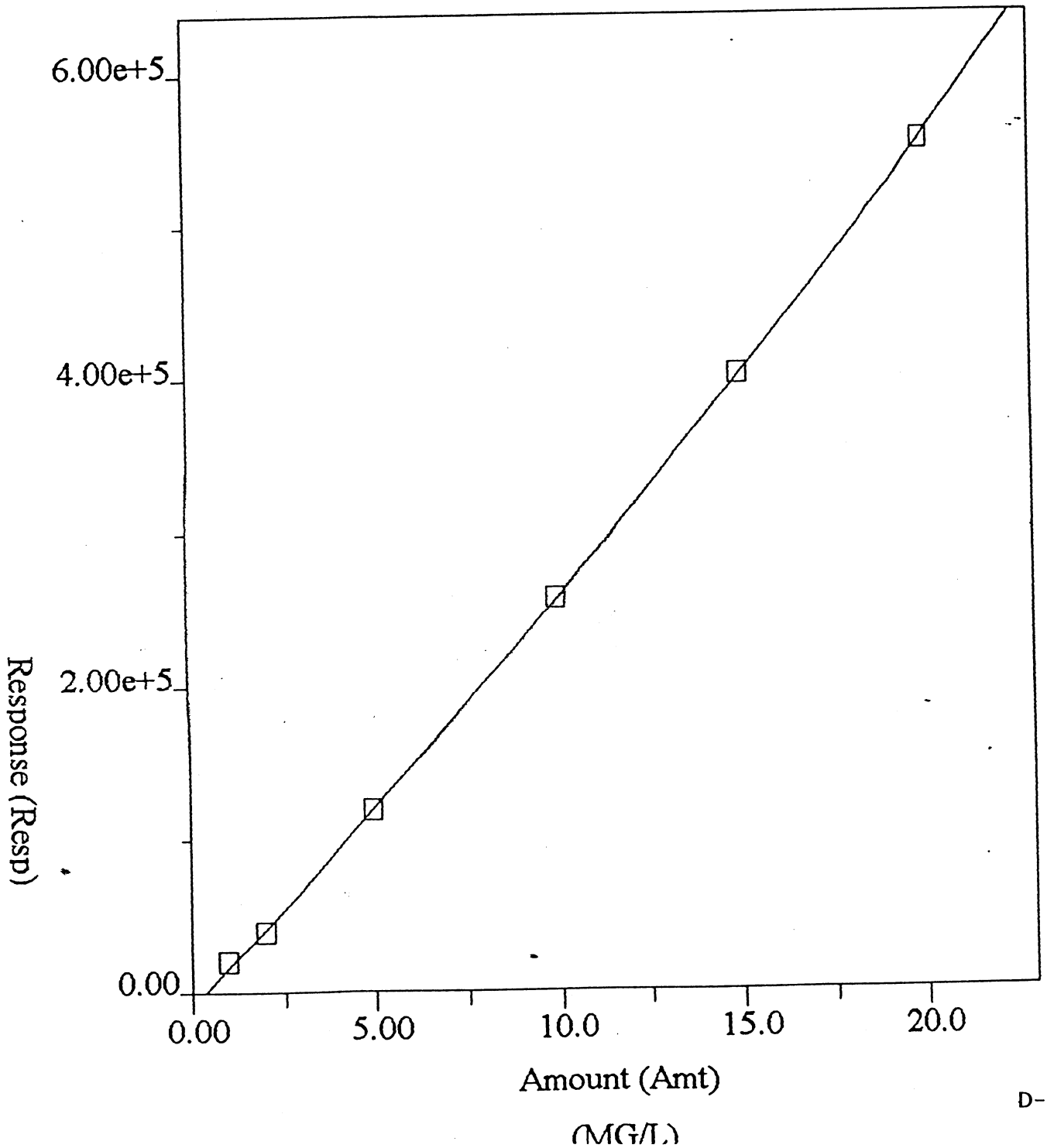
Method: c:\peaknet\method\acidscan.met; Updated: 2/5/80 10:27:48 Al

$r^2 = 0.999853$

$Amt = -7.560274e\text{-}012 * Resp^2 + 3.958074e\text{-}005 * Resp + 0.3561$

Standard: External

Calibration: Area



Component: NITRATE; Fit Type: Quadratic

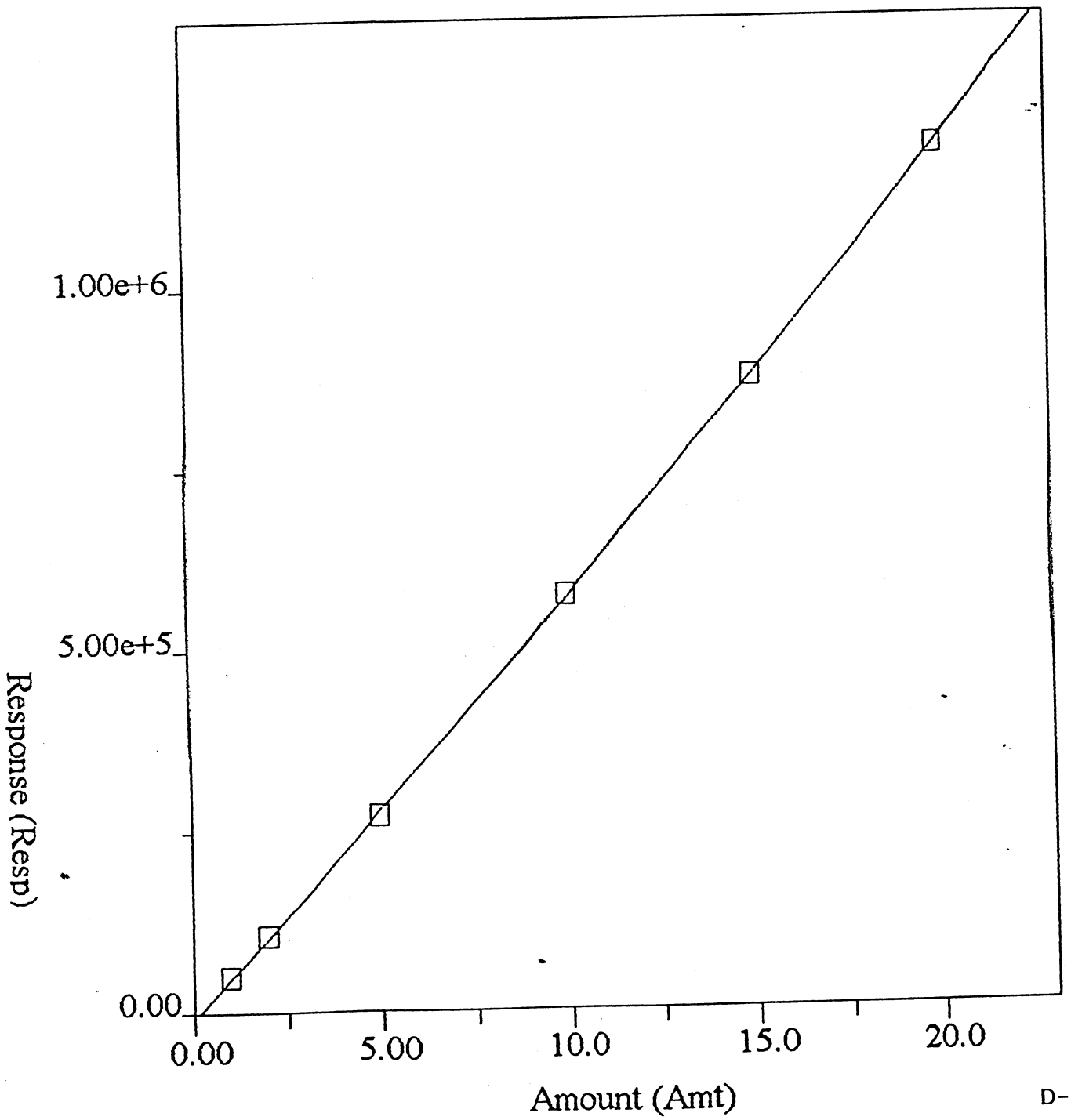
Method: c:\peaknet\method\acidscan.met; Updated: 2/5/80 10:27:48 A

$r^2 = 0.999945$

$Amt = -9.441095e\text{-}013 * Resp^2 + 1.780570e\text{-}005 * Resp + 0.1518$

Standard: External

Calibration: Area



(MG/L)

Component: BROMIDE; Fit Type: Quadratic

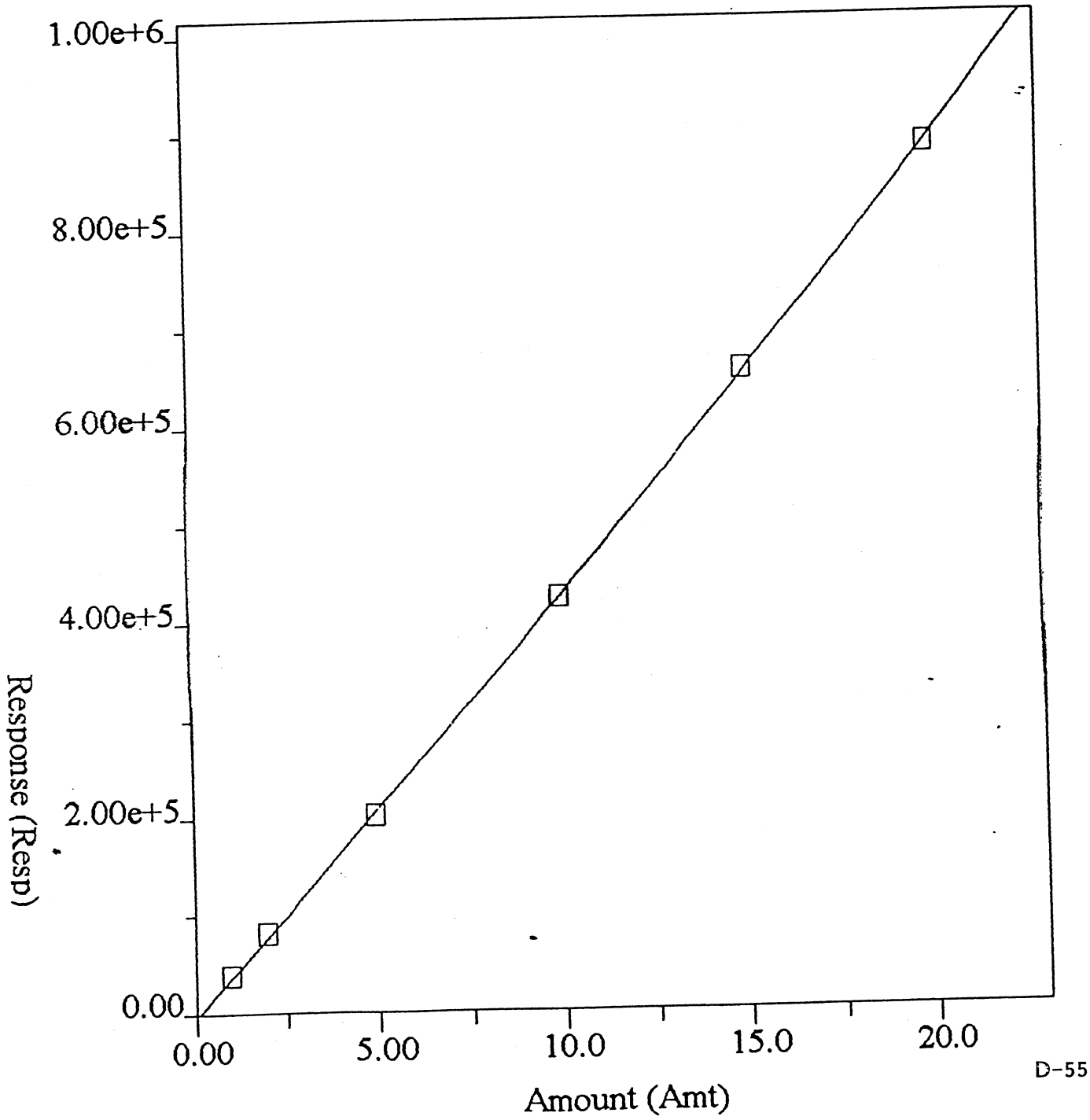
Method: c:\peaknet\method\acidscan.met; Updated: 2/5/80 10:27:48 A

$r^2 = 0.999907$

$Amt = -1.934619e\text{-}012 * Resp^2 + 2.418394e\text{-}005 * Resp + 0.09219$

Standard: External

Calibration: Area



(MG/L)

Component: NITRITE; Fit Type: Quadratic

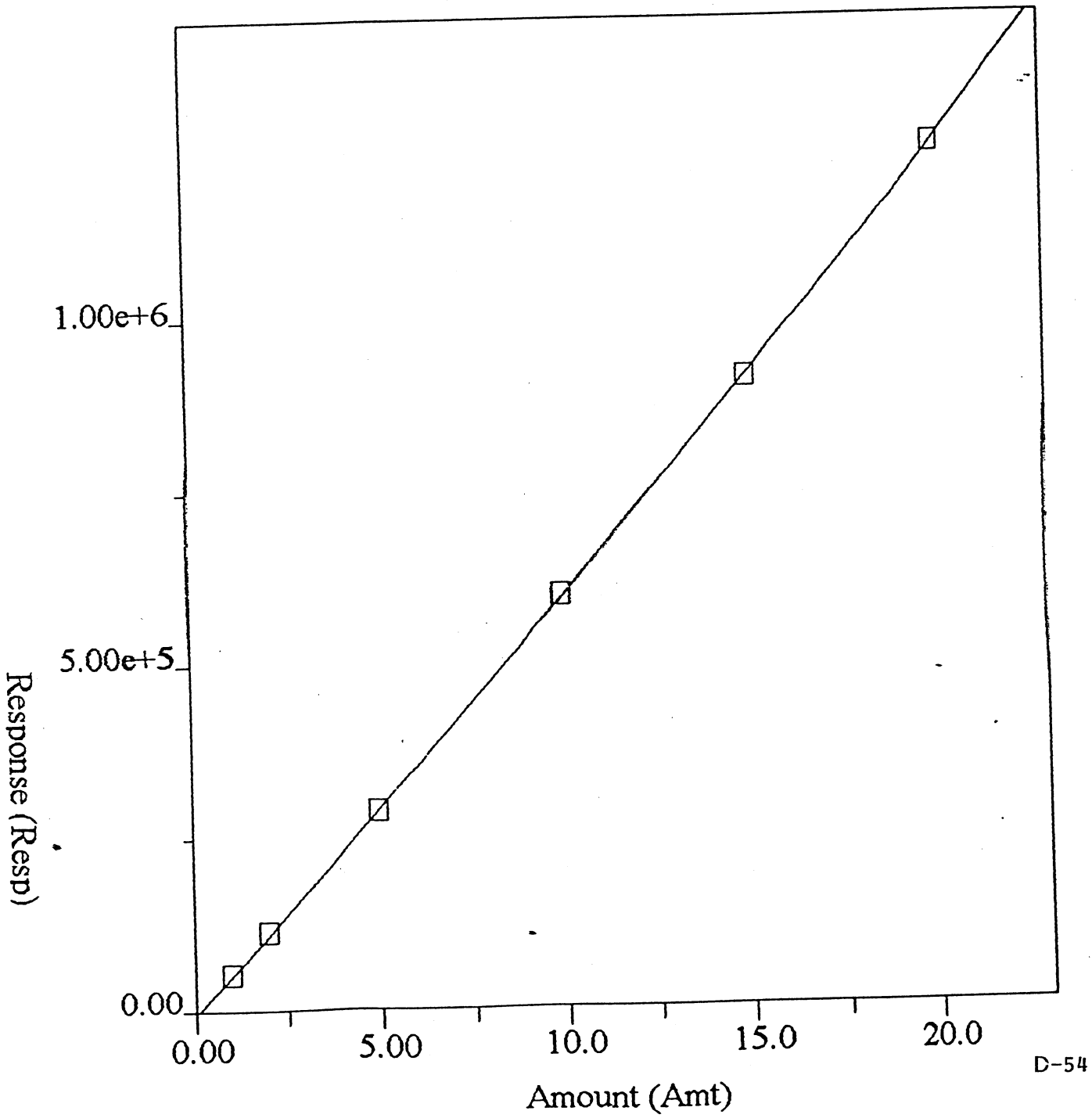
Method: c:\peaknet\method\acidscan.met; Updated: 2/5/80 10:27:48 A

$r^2 = 0.999969$

$Amt = -9.909129e\text{-}013 * Resp^2 + 1.724833e\text{-}005 * Resp + 0.07701$

Standard: External

Calibration: Area



(MG/L)

Component: CHLORIDE; Fit Type: Quadratic

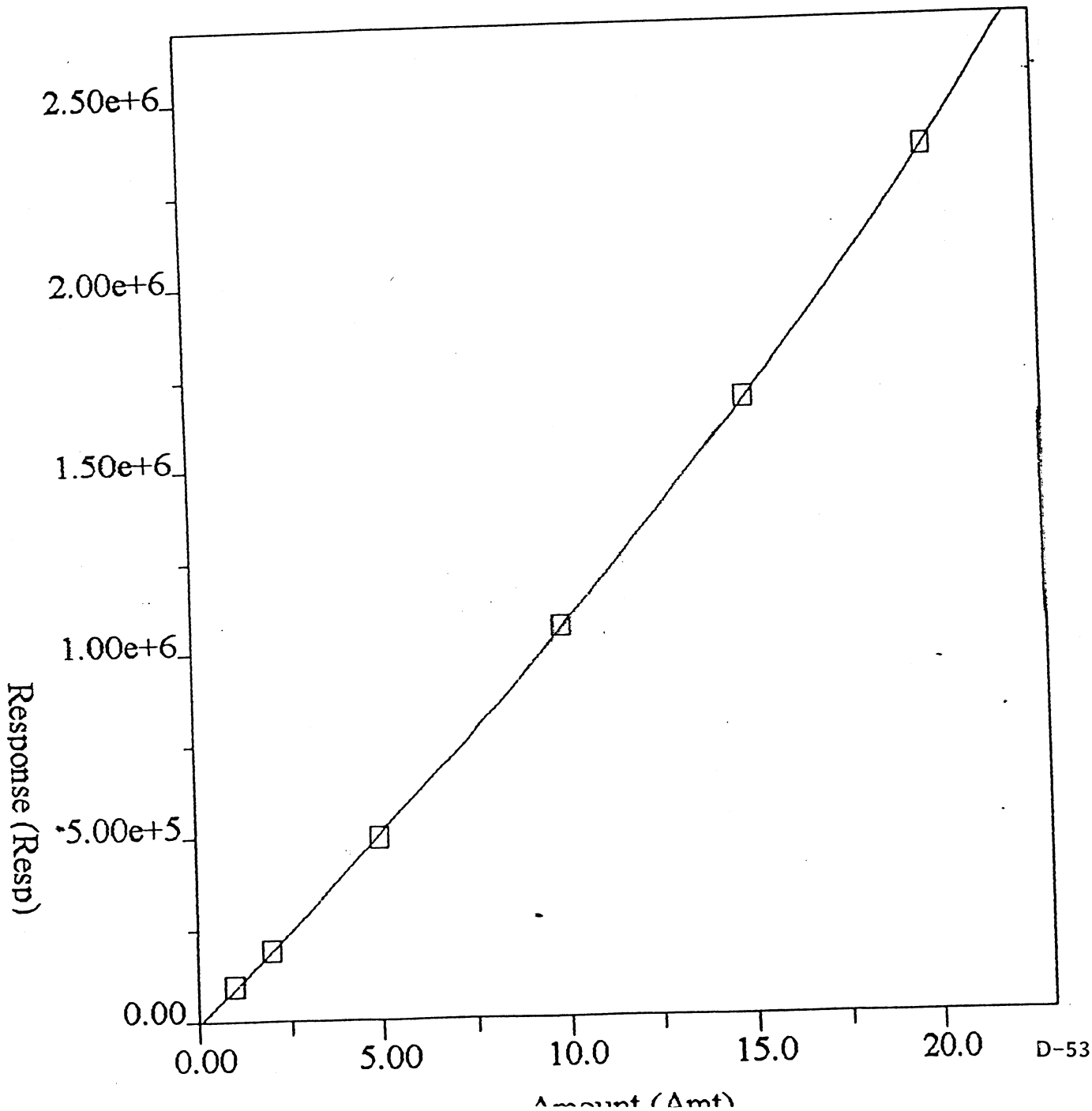
Method: c:\peaknet\method\acidscan.met; Updated: 2/5/80 10:27:48 AM

$r^2 = 0.999942$

$Amt = -6.778822e\text{-}013 * Resp^2 + 1.007378e\text{-}005 * Resp + 0.09146$

Standard: External

Calibration: Area



Component: FLUORIDE; Fit Type: Quadratic

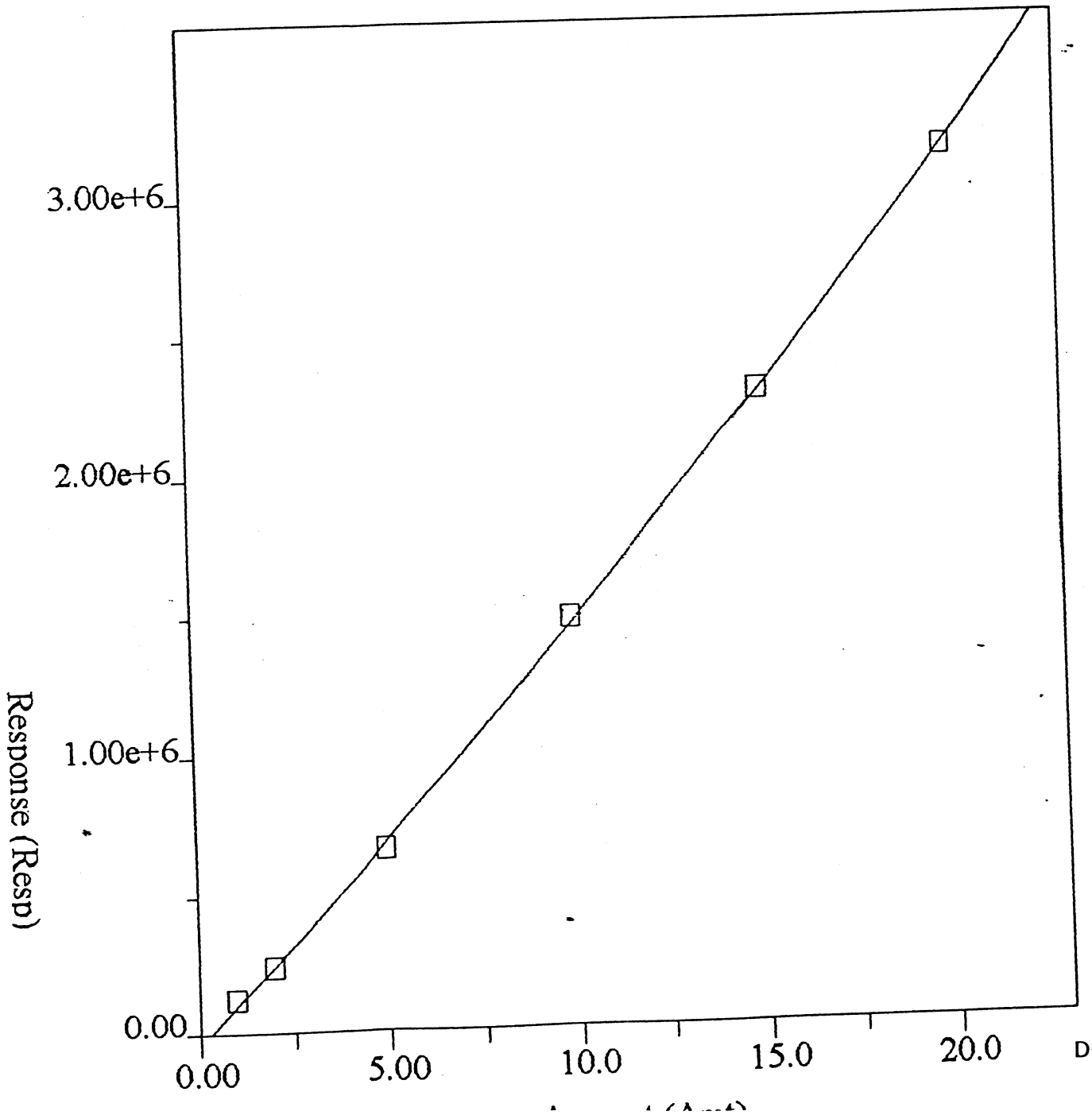
Method: c:\peaknet\method\acidscan.met; Updated: 2/5/80 10:27:48 AM

$r^2 = 0.999762$

$Amt = -2.392617e\text{-}013 * Resp^2 + 6.992136e\text{-}006 * Resp + 0.2789$

Standard: External

Calibration: Area



| | | | | | | |
|---|---|---|---|---|---|---|
| 7 | 9.15 | SULFATE | 20.000 | 67160 | [illegible] | [illegible] |
| | | Totals | 140.000 | 1072295 | 10875101 | |

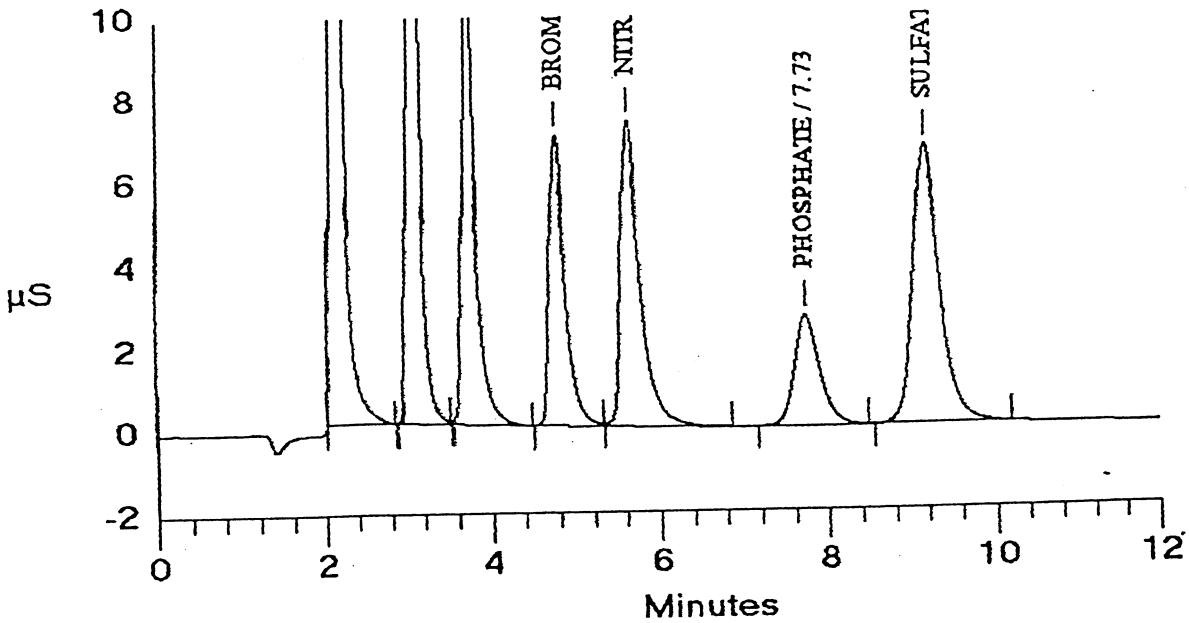
********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.12 | FLUORIDE | 20.000 | 415695 | 3157766 | 1 | 0.79 |
| 2 | 3.08 | CHLORIDE | 20.000 | 303363 | 2343565 | 2 | 0.54 |
| 3 | 3.73 | NITRITE | 20.000 | 115419 | 1245102 | 2 | 0.00 |
| 4 | 4.77 | BROMIDE | 20.000 | 70125 | 883864 | 2 | 0.00 |
| 5 | 5.62 | NITRATE | 20.000 | 73750 | 1188981 | 2 | -0.30 |
| 6 | 7.73 | PHOSPHATE | 20.000 | 26784 | 554496 | 2 | -0.22 |
| 7 | 9.15 | SULFATE | 20.000 | 67160 | 1501329 | 2 | -0.18 |
| | | Totals | 140.000 | 1072295 | 10875101 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| | | Totals | 0.000 | 0 | 0 | | |

*File: 02040007.DXD Sample autocal6R - A06*



| | | | |
|---|---|---|---|
| Sample Name: | autocal6R - A06 | Vial # | : A06 |
| Inject # | : 7 | Last Update: | 2/5/80 10:14:12 AM |
| Method File: | c:\peaknet\method\acidscan.met | Detector | : CD20 |
| System Name: | ANIONS | Analyst | : |
| Cal. Level | : 6 | | |

********** COMPONENTS FOUND IN THIS RUN **********

| COMP NUM | COMPONENT NAME | OLD RET.TIME | MEASURED RET.TIME | NEW RET.TIME | OLD RESPONSE | MEASURED RESPONSE | NEW RESPONSE |
|---|---|---|---|---|---|---|---|
| 1 | FLUORIDE | 2.10 | 2.12 | 2.12 | 3.136e+006 | 3.158e+006 | 3.158e+006 |
| 2 | CHLORIDE | 3.07 | 3.08 | 3.08 | 2.299e+006 | 2.344e+006 | 2.344e+006 |
| 3 | NITRITE | 3.73 | 3.73 | 3.73 | 1.229e+006 | 1.245e+006 | 1.245e+006 |
| 4 | BROMIDE | 4.77 | 4.77 | 4.77 | 8.628e+005 | 8.839e+005 | 8.839e+005 |
| 5 | NITRATE | 5.63 | 5.62 | 5.62 | 1.136e+006 | 1.189e+006 | 1.189e+006 |
| 6 | PHOSPHATE | 7.75 | 7.73 | 7.73 | 5.394e+005 | 5.545e+005 | 5.545e+005 |
| 7 | SULFATE | 9.17 | 9.15 | 9.15 | 1.488e+006 | 1.501e+006 | 1.501e+006 |

| | | | |
|---|---|---|---|
| Data File | : C:\PEAKNET\DATA\02040007.DXD | Report Date: | 2/5/80 10:27:48 AM |
| Sample Name: | autocal6R - A06 | Collected | : 2/5/80 10:15:41 AM |
| Inject # | : 7 | Vial # | : A06 |
| Method File: | c:\peaknet\method\acidscan.met | Calibrated | : 2/5/80 10:27:48 AM |
| System Name: | ANIONS | Detector | : CD20 |
| Column Type: | | Operator | : DK |
| Data Points: | 3600 | Rate | : 5.00 Hz |
| Module Name: | S/N 96020568 ID:24 Of 15 | Moduleware | : 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.12 | FLUORIDE | 20.000 | 415695 | 3157766 | 1 | 0.79 |
| 2 | 3.08 | CHLORIDE | 20.000 | 303363 | 2343565 | 2 | 0.54 |
| 3 | 3.73 | NITRITE | 20.000 | 115419 | 1245102 | 2 | 0.00 |
| 4 | 4.77 | BROMIDE | 20.000 | 70125 | 883864 | 2 | 0.00 |
| 5 | 5.62 | NITRATE | 20.000 | 73750 | 1188981 | 2 | -0.30 |
| 6 | 7.73 | PHOSPHATE | 20.000 | 26784 | 554496 | 2 | -0.22 |
| 7 | 9.15 | SULFATE | 20.000 | 67160 | 1501329 | 2 | -0.18 |
| | | Totals | 140.000 | 1072295 | 10875101 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2.12 | FLUORIDE | 20.000 | 415695 | 3157766 | 1 | 0.79 |
| 2 | 3.08 | CHLORIDE | 20.000 | 303363 | 2343565 | 2 | 0.54 |
| 3 | 3.73 | NITRITE | 20.000 | 115419 | 1245102 | 2 | 0.00 |
| 4 | 4.77 | BROMIDE | 20.000 | 70125 | 883864 | 2 | 0.00 |
| 5 | 5.62 | NITRATE | 20.000 | 73750 | 1188981 | 2 | -0.30 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5 | 5.63 | NITRATE | 15.000 | 19165 | 401870 | 2 | 0.00 |
| 6 | 7.75 | PHOSPHATE | 15.000 | 48701 | 1101851 | 2 | -0.18 |
| 7 | 9.17 | SULFATE | | | | | |
| | | Totals | 105.000 | 757358 | 7904509 | | |

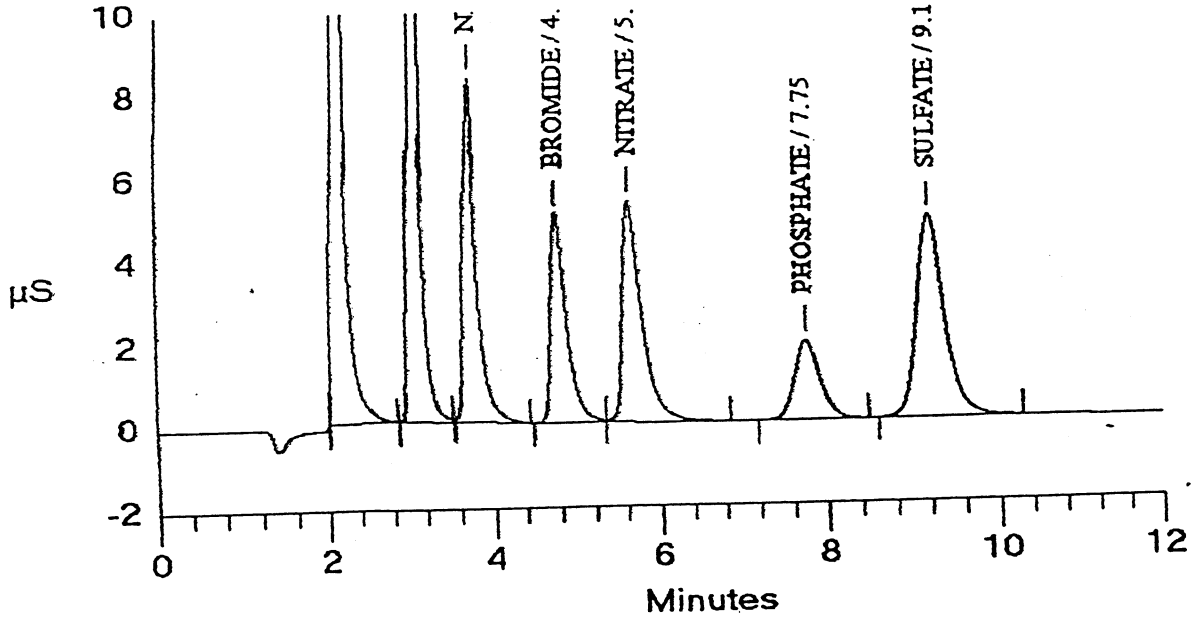
********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 15.000 | 291016 | 2288882 | 1 | 0.00 |
| 2 | 3.07 | CHLORIDE | 15.000 | 211688 | 1672729 | 2 | 0.00 |
| 3 | 3.73 | NITRITE | 15.000 | 83025 | 909496 | 2 | 0.00 |
| 4 | 4.77 | BROMIDE | 15.000 | 50370 | 654721 | 2 | -0.35 |
| 5 | 5.63 | NITRATE | 15.000 | 53392 | 874960 | 2 | -0.29 |
| 6 | 7.75 | PHOSPHATE | 15.000 | 19165 | 401870 | 2 | 0.00 |
| 7 | 9.17 | SULFATE | 15.000 | 48701 | 1101851 | 2 | -0.18 |
| | | Totals | 105.000 | 757358 | 7904509 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| | | Totals | 0.000 | 0 | 0 | | |

*File: 02040006.DXD Sample autocal5R - A05*




Schedule: \peaknet\schedule\02040001.sch
Release 4.30



2/5/80 10:14:12 AM



********** AUTOMATIC CALIBRATION UPDATE **********

| | | | |
|---|---|---|---|
| Data File | : C:\PEAKNET\DATA\02040006.DXD | Report Date: | 2/5/80 [illegible] |
| Sample Name: | autocal5R - A05 | Collected | : 2/5/80 10:02:05 AM |
| Inject # | : 6 | Vial # | : A05 |
| Method File: | c:\peaknet\method\acidscan.met | Last Update: | 2/5/80 10:00:36 AM |
| System Name: | ANIONS | Detector | : CD20 |
| Cal. Level | : 5 | Analyst | : |

********** COMPONENTS FOUND IN THIS RUN **********

| COMP NUM | COMPONENT NAME | OLD RET.TIME | MEASURED RET.TIME | NEW RET.TIME | OLD RESPONSE | MEASURED RESPONSE | NEW RESPONSE |
|---|---|---|---|---|---|---|---|
| 1 | FLUORIDE | 2.10 | 2.10 | 2.10 | 2.291e+006 | 2.289e+006 | 2.289e+006 |
| 2 | CHLORIDE | 3.07 | 3.07 | 3.07 | 1.653e+006 | 1.673e+006 | 1.673e+006 |
| 3 | NITRITE | 3.73 | 3.73 | 3.73 | 9.009e+005 | 9.095e+005 | 9.095e+005 |
| 4 | BROMIDE | 4.78 | 4.77 | 4.77 | 6.436e+005 | 6.547e+005 | 6.547e+005 |
| 5 | NITRATE | 5.65 | 5.63 | 5.63 | 8.455e+005 | 8.750e+005 | 8.750e+005 |
| 6 | PHOSPHATE | 7.75 | 7.75 | 7.75 | 3.837e+005 | 4.019e+005 | 4.019e+005 |
| 7 | SULFATE | 9.18 | 9.17 | 9.17 | 1.094e+006 | 1.102e+006 | 1.102e+006 |

| | | | |
|---|---|---|---|
| Data File | : C:\PEAKNET\DATA\02040006.DXD | Report Date: | 2/5/80 10:14:12 AM |
| Sample Name: | autocal5R - A05 | Collected | : 2/5/80 10:02:05 AM |
| Inject # | : 6 | Vial # | : A05 |
| Method File: | c:\peaknet\method\acidscan.met | Calibrated | : 2/5/80 10:14:12 AM |
| System Name: | ANIONS | Detector | : CD20 |
| Column Type: | | Operator | : DK |
| Data Points: | 3600 | Rate | : 5.00 Hz |
| Module Name: | S/N 96020568 ID:24 Of 15 | Moduleware | : 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 15.000 | 291016 | 2288882 | 1 | 0.00 |
| 2 | 3.07 | CHLORIDE | 15.000 | 211688 | 1672729 | 2 | 0.00 |
| 3 | 3.73 | NITRITE | 15.000 | 83025 | 909496 | 2 | 0.00 |
| 4 | 4.77 | BROMIDE | 15.000 | 50370 | 654721 | 2 | -0.35 |
| 5 | 5.63 | NITRATE | 15.000 | 53392 | 874960 | 2 | -0.29 |
| 6 | 7.75 | PHOSPHATE | 15.000 | 19165 | 401870 | 2 | 0.00 |
| 7 | 9.17 | SULFATE | 15.000 | 48701 | 1101851 | 2 | -0.18 |
| | | Totals | 105.000 | 757358 | 7904509 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 15.000 | 291016 | 2288882 | 1 | 0.00 |
| 2 | 3.07 | CHLORIDE | 15.000 | 211688 | 1672729 | 2 | 0.00 |
| 3 | 3.73 | NITRITE | 15.000 | 83025 | 909496 | 2 | 0.00 |
| | | | | 50370 | 654721 | 2 | -0.35 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5 | 5.65 | NITRATE | 10.000 | 34194 | 573650 | 2 | -0.88 |
| 6 | 7.75 | PHOSPHATE | 10.000 | 12305 | 256394 | 1 | 0.00 |
| 7 | 9.18 | SULFATE | 10.000 | 32016 | 720594 | 1 | -0.18 |
| | | Totals | 70.000 | 495101 | 5113066 | | |

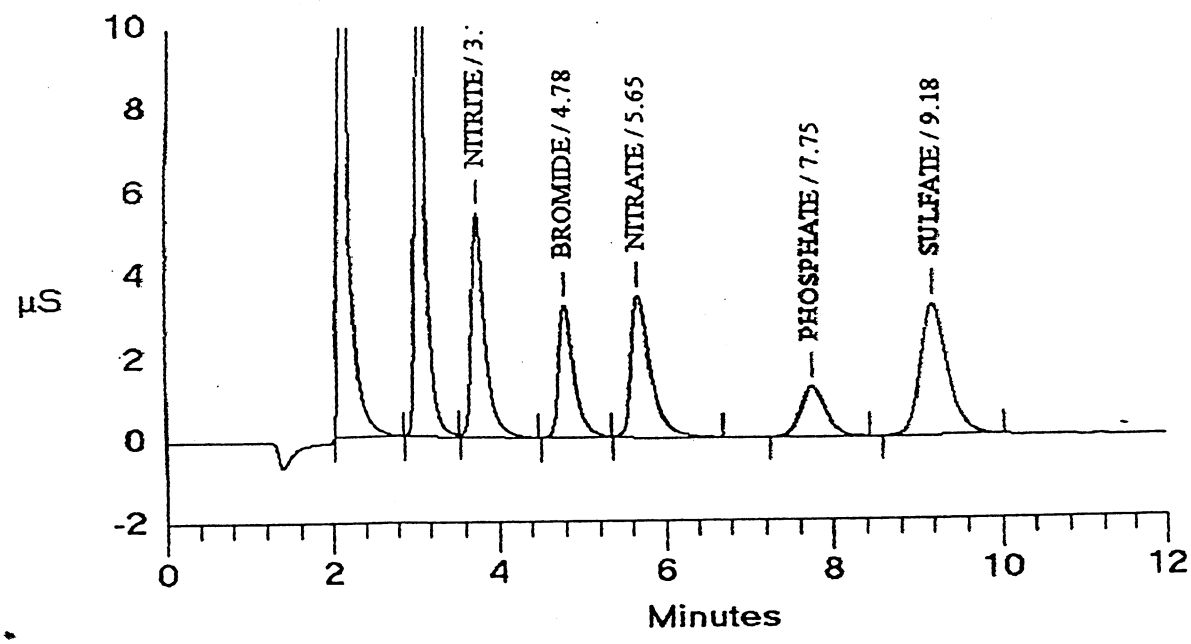
********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 10.000 | 196562 | 1478045 | 1 | 0.00 |
| 2 | 3.07 | CHLORIDE | 10.000 | 133904 | 1061508 | 2 | 0.00 |
| 3 | 3.73 | NITRITE | 10.000 | 54064 | 599559 | 2 | 0.00 |
| 4 | 4.78 | BROMIDE | 10.000 | 32056 | 423317 | 2 | -0.35 |
| 5 | 5.65 | NITRATE | 10.000 | 34194 | 573650 | 2 | -0.88 |
| 6 | 7.75 | PHOSPHATE | 10.000 | 12305 | 256394 | 1 | 0.00 |
| 7 | 9.18 | SULFATE | 10.000 | 32016 | 720594 | 1 | -0.18 |
| | | Totals | 70.000 | 495101 | 5113066 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| | | Totals | 0.000 | 0 | 0 | | |

*File: 02040005.DXD Sample autocal4R - A04*




Schedule: \peaknet\schedule\02040001.sch
Release 4.30 Page 2 of 2 2/5/80 10:00:36 AM



********** AUTOMATIC CALIBRATION UPDATE **********

| | | | |
|---|---|---|---|
| Data File : | C:\PEAKNET\DATA\02040005.DXD | Report Date: | 2/5/80 10:00:36 AM |
| Sample Name: | autocal4R - A04 | Collected : | 2/5/80 9:48:29 AM |
| Inject # : | 5 | Vial # : | A04 |
| Method File: | c:\peaknet\method\acidscan.met | Last Update: | 2/5/80 9:47:00 AM |
| System Name: | ANIONS | Detector : | CD20 |
| Cal. Level : | 4 | Analyst : | |

********** COMPONENTS FOUND IN THIS RUN **********

| COMP NUM | COMPONENT NAME | OLD RET.TIME | MEASURED RET.TIME | NEW RET.TIME | OLD RESPONSE | MEASURED RESPONSE | NEW RESPONSE |
|---|---|---|---|---|---|---|---|
| 1 | FLUORIDE | 2.10 | 2.10 | 2.10 | 1.499e+006 | 1.478e+006 | 1.478e+006 |
| 2 | CHLORIDE | 3.07 | 3.07 | 3.07 | 1.060e+006 | 1.062e+006 | 1.062e+006 |
| 3 | NITRITE | 3.73 | 3.73 | 3.73 | 6.094e+005 | 5.996e+005 | 5.996e+005 |
| 4 | BROMIDE | 4.80 | 4.78 | 4.78 | 4.253e+005 | 4.233e+005 | 4.233e+005 |
| 5 | NITRATE | 5.70 | 5.65 | 5.65 | 5.670e+005 | 5.736e+005 | 5.736e+005 |
| 6 | PHOSPHATE | 7.75 | 7.75 | 7.75 | 2.491e+005 | 2.564e+005 | 2.564e+005 |
| 7 | SULFATE | 9.20 | 9.18 | 9.18 | 7.173e+005 | 7.206e+005 | 7.206e+005 |

| | | | |
|---|---|---|---|
| Data File : | C:\PEAKNET\DATA\02040005.DXD | Report Date: | 2/5/80 10:00:36 AM |
| Sample Name: | autocal4R - A04 | Collected : | 2/5/80 9:48:29 AM |
| Inject # : | 5 | Vial # : | A04 |
| Method File: | c:\peaknet\method\acidscan.met | Calibrated : | 2/5/80 10:00:36 AM |
| System Name: | ANIONS | Detector : | CD20 |
| Column Type: | | Operator : | DK |
| Data Points: | 3600 | Rate : | 5.00 Hz |
| Module Name: | S/N 96020568 ID:24 Of 15 | Moduleware : | 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 10.000 | 196562 | 1478045 | 1 | 0.00 |
| 2 | 3.07 | CHLORIDE | 10.000 | 133904 | 1061508 | 2 | 0.00 |
| 3 | 3.73 | NITRITE | 10.000 | 54064 | 599559 | 2 | 0.00 |
| 4 | 4.78 | BROMIDE | 10.000 | 32056 | 423317 | 2 | -0.35 |
| 5 | 5.65 | NITRATE | 10.000 | 34194 | 573650 | 2 | -0.88 |
| 6 | 7.75 | PHOSPHATE | 10.000 | 12305 | 256394 | 1 | 0.00 |
| 7 | 9.18 | SULFATE | 10.000 | 32016 | 720594 | 1 | -0.18 |
| | | Totals | 70.000 | 495101 | 5113066 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|



| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 10.000 | 196562 | 1478045 | 1 | 0.00 |
| 2 | 3.07 | CHLORIDE | 10.000 | 133904 | 1061508 | 2 | 0.00 |
| 3 | 3.73 | NITRITE | 10.000 | 54064 | 599559 | 2 | 0.00 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | 3.73 | NITRITE | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 4 | 4.80 | BROMIDE | 5.000 | 14733 | 201645 | 2 | -0.69 |
| 5 | 5.70 | NITRATE | 5.000 | 15771 | 270307 | 2 | -0.87 |
| 6 | 7.75 | PHOSPHATE | 5.000 | 5679 | 119061 | 1 | -0.21 |
| 7 | 9.20 | SULFATE | 5.000 | 15241 | 348520 | 1 | -0.36 |
| | | Totals | 35.000 | 221519 | 2386207 | | |

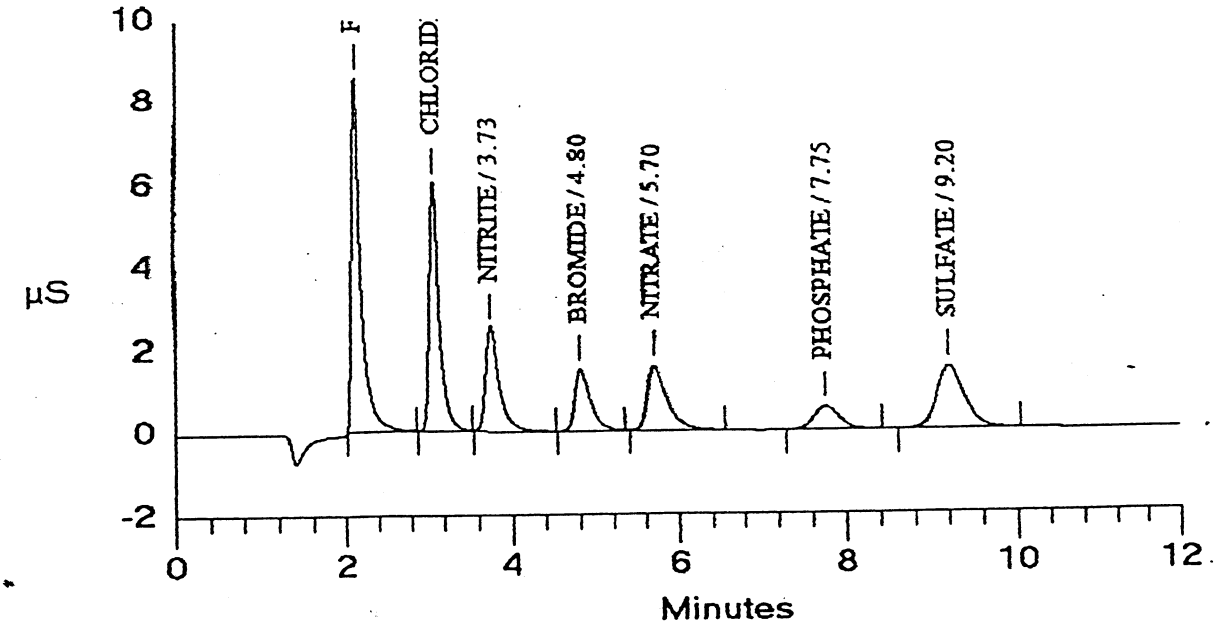
********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 5.000 | 85178 | 664689 | 1 | 0.00 |
| 2 | 3.07 | CHLORIDE | 5.000 | 60010 | 493686 | 2 | -0.54 |
| 3 | 3.73 | NITRITE | 5.000 | 24907 | 288297 | 2 | -0.88 |
| 4 | 4.80 | BROMIDE | 5.000 | 14733 | 201645 | 2 | -0.69 |
| 5 | 5.70 | NITRATE | 5.000 | 15771 | 270307 | 2 | -0.87 |
| 6 | 7.75 | PHOSPHATE | 5.000 | 5679 | 119061 | 1 | -0.21 |
| 7 | 9.20 | SULFATE | 5.000 | 15241 | 348520 | 1 | -0.36 |
| | | Totals | 35.000 | 221519 | 2386207 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| | | Totals | 0.000 | 0 | 0 | | |

*File: 02040004.DXD Sample autocal3R - A03*



**********

| | | | |
|---|---|---|---|
| Data File : | C:\PEAKNET\DATA\02040004.DXD | Report Date: | 2/5/80 9:47:00 AM |
| Sample Name: | autocal3R - A03 | Collected : | 2/5/80 9:34:53 AM |
| Inject # : | 4 | Vial # : | A03 |
| Method File: | c:\peaknet\method\acidscan.met | Last Update: | 2/5/80 9:33:24 AM |
| System Name: | ANIONS | Detector : | CD20 |
| Cal. Level : | 3 | Analyst : | |

********** COMPONENTS FOUND IN THIS RUN **********

| COMP NUM | COMPONENT NAME | OLD RET.TIME | MEASURED RET.TIME | NEW RET.TIME | OLD RESPONSE | MEASURED RESPONSE | NEW RESPONSE |
|---|---|---|---|---|---|---|---|
| 1 | FLUORIDE | 2.10 | 2.10 | 2.10 | 6.803e+005 | 6.647e+005 | 6.647e+005 |
| 2 | CHLORIDE | 3.08 | 3.07 | 3.07 | 4.932e+005 | 4.937e+005 | 4.937e+005 |
| 3 | NITRITE | 3.77 | 3.73 | 3.73 | 2.901e+005 | 2.883e+005 | 2.883e+005 |
| 4 | BROMIDE | 4.83 | 4.80 | 4.80 | 2.046e+005 | 2.016e+005 | 2.016e+005 |
| 5 | NITRATE | 5.75 | 5.70 | 5.70 | 2.640e+005 | 2.703e+005 | 2.703e+005 |
| 6 | PHOSPHATE | 7.77 | 7.75 | 7.75 | 1.097e+005 | 1.191e+005 | 1.191e+005 |
| 7 | SULFATE | 9.23 | 9.20 | 9.20 | 3.517e+005 | 3.485e+005 | 3.485e+005 |

| | | | |
|---|---|---|---|
| Data File : | C:\PEAKNET\DATA\02040004.DXD | Report Date: | 2/5/80 9:47:00 AM |
| Sample Name: | autocal3R - A03 | Collected : | 2/5/80 9:34:53 AM |
| Inject # : | 4 | Vial # : | A03 |
| Method File: | c:\peaknet\method\acidscan.met | Calibrated : | 2/5/80 9:47:00 AM |
| System Name: | ANIONS | Detector : | CD20 |
| Column Type: | | Operator : | DK |
| Data Points: | 3600 | Rate : | 5.00 Hz |
| Module Name: | S/N 96020568 ID:24 Of 15 | Moduleware : | 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 5.000 | 85178 | 664689 | 1 | 0.00 |
| 2 | 3.07 | CHLORIDE | 5.000 | 60010 | 493686 | 2 | -0.54 |
| 3 | 3.73 | NITRITE | 5.000 | 24907 | 288297 | 2 | -0.88 |
| 4 | 4.80 | BROMIDE | 5.000 | 14733 | 201645 | 2 | -0.69 |
| 5 | 5.70 | NITRATE | 5.000 | 15771 | 270307 | 2 | -0.87 |
| 6 | 7.75 | PHOSPHATE | 5.000 | 5679 | 119061 | 1 | -0.21 |
| 7 | 9.20 | SULFATE | 5.000 | 15241 | 348520 | 1 | -0.36 |
| | | Totals | 35.000 | 221519 | 2386207 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|



1 2.10 FLUORIDE 5.000 85178 664689 1 0.00

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | 3.08 | CHLORIDE | 2.000 | 22571 | 191797 | 2 | 0.00 |
| 3 | 3.77 | NITRITE | 2.000 | 9679 | 113366 | 2 | 0.00 |
| 4 | 4.83 | BROMIDE | 2.000 | 5603 | 81336 | 2 | -0.34 |
| 5 | 5.75 | NITRATE | 2.000 | 5883 | 105410 | 2 | -0.58 |
| 6 | 7.77 | PHOSPHATE | 2.000 | 1915 | 38452 | 1 | 0.00 |
| 7 | 9.23 | SULFATE | 2.000 | 6176 | 140862 | 1 | 0.00 |
| | | Totals | 14.000 | 79306 | 910298 | | |

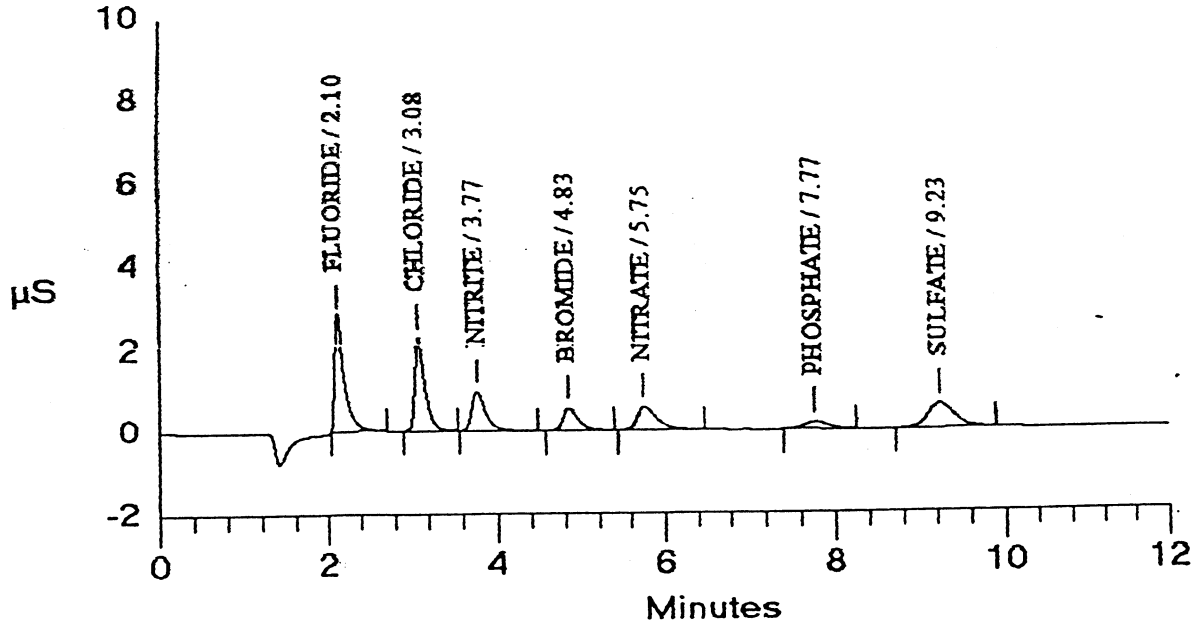
********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 2.000 | 27480 | 239075 | 1 | 0.00 |
| 2 | 3.08 | CHLORIDE | 2.000 | 22571 | 191797 | 2 | 0.00 |
| 3 | 3.77 | NITRITE | 2.000 | 9679 | 113366 | 2 | 0.00 |
| 4 | 4.83 | BROMIDE | 2.000 | 5603 | 81336 | 2 | -0.34 |
| 5 | 5.75 | NITRATE | 2.000 | 5883 | 105410 | 2 | -0.58 |
| 6 | 7.77 | PHOSPHATE | 2.000 | 1915 | 38452 | 1 | 0.00 |
| 7 | 9.23 | SULFATE | 2.000 | 6176 | 140862 | 1 | 0.00 |
| | | Totals | 14.000 | 79306 | 910298 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| | | Totals | 0.000 | 0 | 0 | | |

*File: 02040003.DXD Sample autocal2R - A02*



********** AUTOMATIC CALIBRATION UPDATE **********

| | | | |
|---|---|---|---|
| Data File | : C:\PEAKNET\DATA\02040003.DXD | Report Date | : 2/5/80 9:33:24 AM |
| Sample Name | : autocal2R - A02 | Collected | : 2/5/80 9:21:16 AM |
| Inject # | : 3 | Vial # | : A02 |
| Method File | : c:\peaknet\method\acidscan.met | Last Update | : 2/5/80 9:19:47 AM |
| System Name | : ANIONS | Detector | : CD20 |
| Cal. Level | : 2 | Analyst | : |

********** COMPONENTS FOUND IN THIS RUN **********

| COMP NUM | COMPONENT NAME | OLD RET.TIME | MEASURED RET.TIME | NEW RET.TIME | OLD RESPONSE | MEASURED RESPONSE | NEW RESPONSE |
|---|---|---|---|---|---|---|---|
| 1 | FLUORIDE | 2.10 | 2.10 | 2.10 | 2.485e+005 | 2.391e+005 | 2.391e+005 |
| 2 | CHLORIDE | 3.08 | 3.08 | 3.08 | 1.895e+005 | 1.918e+005 | 1.918e+005 |
| 3 | NITRITE | 3.77 | 3.77 | 3.77 | 1.083e+005 | 1.134e+005 | 1.134e+005 |
| 4 | BROMIDE | 4.85 | 4.83 | 4.83 | 7.894e+004 | 8.134e+004 | 8.134e+004 |
| 5 | NITRATE | 5.78 | 5.75 | 5.75 | 1.027e+005 | 1.054e+005 | 1.054e+005 |
| 6 | PHOSPHATE | 7.77 | 7.77 | 7.77 | 3.633e+004 | 3.845e+004 | 3.845e+004 |
| 7 | SULFATE | 9.23 | 9.23 | 9.23 | 1.354e+005 | 1.409e+005 | 1.409e+005 |

| | | | |
|---|---|---|---|
| Data File | : C:\PEAKNET\DATA\02040003.DXD | Report Date | : 2/5/80 9:33:24 AM |
| Sample Name | : autocal2R - A02 | Collected | : 2/5/80 9:21:16 AM |
| Inject # | : 3 | Vial # | : A02 |
| Method File | : c:\peaknet\method\acidscan.met | Calibrated | : 2/5/80 9:33:24 AM |
| System Name | : ANIONS | Detector | : CD20 |
| Column Type | : | Operator | : DK |
| Data Points | : 3600 | Rate | : 5.00 Hz |
| Module Name | : S/N 96020568 ID:24 Of 15 | Moduleware | : 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 2.000 | 27480 | 239075 | 1 | 0.00 |
| 2 | 3.08 | CHLORIDE | 2.000 | 22571 | 191797 | 2 | 0.00 |
| 3 | 3.77 | NITRITE | 2.000 | 9679 | 113366 | 2 | 0.00 |
| 4 | 4.83 | BROMIDE | 2.000 | 5603 | 81336 | 2 | -0.34 |
| 5 | 5.75 | NITRATE | 2.000 | 5883 | 105410 | 2 | -0.58 |
| 6 | 7.77 | PHOSPHATE | 2.000 | 1915 | 38452 | 1 | 0.00 |
| 7 | 9.23 | SULFATE | 2.000 | 6176 | 140862 | 1 | 0.00 |
| | | Totals | 14.000 | 79306 | 910298 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 1.000 | 13525 | 125018 | 1 | 0.00 |
| 2 | 3.08 | CHLORIDE | 1.000 | 11294 | 96618 | 2 | 0.54 |
| 3 | 3.77 | NITRITE | 1.000 | 4680 | 53066 | 2 | 0.89 |
| 4 | 4.85 | BROMIDE | 1.000 | 2735 | 38804 | 1 | 2.11 |
| 5 | 5.78 | NITRATE | 1.000 | 2830 | 49701 | 1 | 3.27 |
| 6 | 7.77 | PHOSPHATE | 1.000 | 991 | 19984 | 1 | -0.43 |
| 7 | 9.23 | SULFATE | 1.000 | 3039 | 68295 | 1 | -0.54 |
| | | Totals | 7.000 | 39095 | 451485 | | |

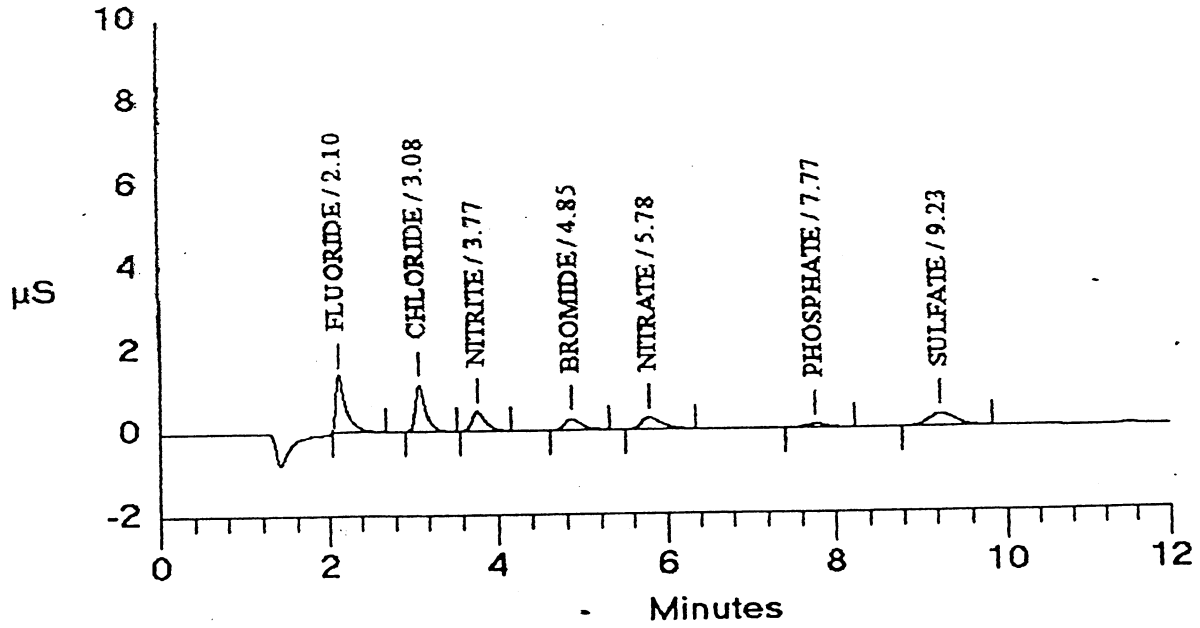
********** Peak Report: All Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 1.000 | 13525 | 125018 | 1 | 0.00 |
| 2 | 3.08 | CHLORIDE | 1.000 | 11294 | 96618 | 2 | 0.54 |
| 3 | 3.77 | NITRITE | 1.000 | 4680 | 53066 | 2 | 0.89 |
| 4 | 4.85 | BROMIDE | 1.000 | 2735 | 38804 | 1 | 2.11 |
| 5 | 5.78 | NITRATE | 1.000 | 2830 | 49701 | 1 | 3.27 |
| 6 | 7.77 | PHOSPHATE | 1.000 | 991 | 19984 | 1 | -0.43 |
| 7 | 9.23 | SULFATE | 1.000 | 3039 | 68295 | 1 | -0.54 |
| | | Totals | 7.000 | 39095 | 451485 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| | | Totals | 0.000 | 0 | 0 | | |

*File: 02040002.DXD Sample autocal1R - A01*

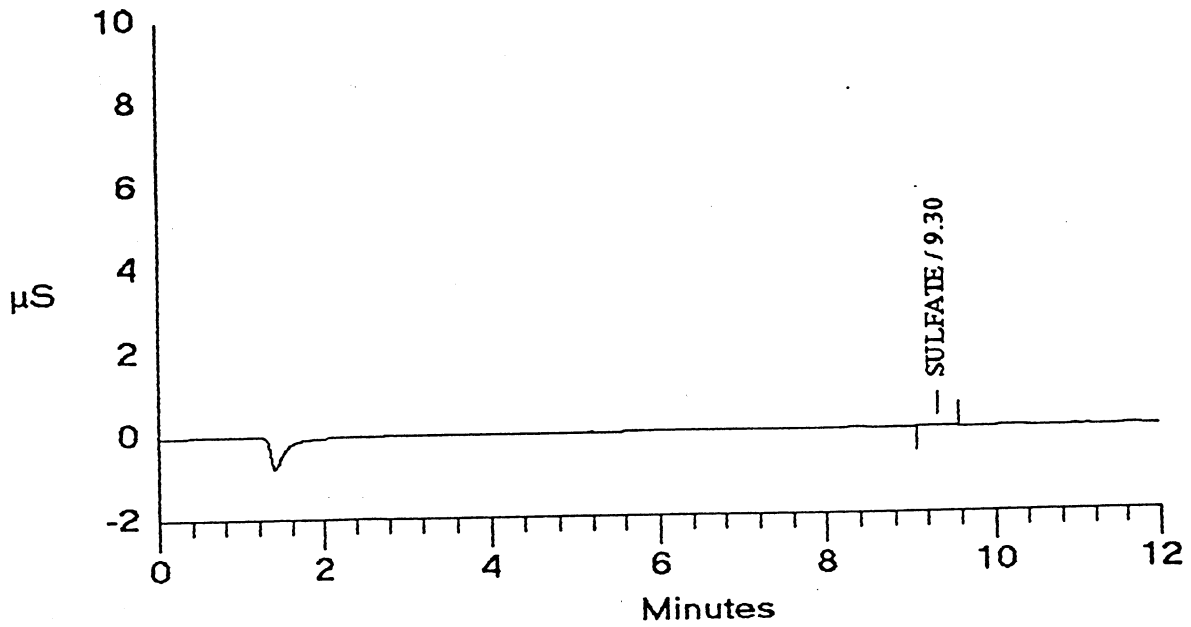


| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 9.30 | SULFATE | 0.079 | 210 | 3659 | 1 | 0.18 |
| | | Totals | 0.079 | 210 | 3659 | | |

********** Peak Report: Unknown Peaks **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| | | Totals | 0.000 | 0 | 0 | | |

*File: 02040001.DXD Sample water - C40*



********** AUTOMATIC CALIBRATION UPDATE **********

| | |
|---|---|
| Data File : C:\PEAKNET\DATA\02040002.DXD | Report Date: 2/5/80 9:19:47 AM |
| Sample Name: autocal1R - A01 | Collected : 2/5/80 9:07:40 AM |
| Inject # : 2 | Vial # : A01 |
| Method File: c:\peaknet\method\acidscan.met | Last Update: 2/2/80 11:13:21 AM |
| System Name: ANIONS | Detector : CD20 |
| Cal. Level : 1 | Analyst : |

********** COMPONENTS FOUND IN THIS RUN **********

| COMP NUM | COMPONENT NAME | OLD RET.TIME | MEASURED RET.TIME | NEW RET.TIME | OLD RESPONSE | MEASURED RESPONSE | NEW RESPONSE |
|---|---|---|---|---|---|---|---|
| 1 | FLUORIDE | 2.10 | 2.10 | 2.10 | 1.282e+005 | 1.250e+005 | 1.250e+005 |
| 2 | CHLORIDE | 3.07 | 3.08 | 3.08 | 9.598e+004 | 9.662e+004 | 9.662e+004 |
| 3 | NITRITE | 3.73 | 3.77 | 3.77 | 4.995e+004 | 5.307e+004 | 5.307e+004 |
| 4 | BROMIDE | 4.75 | 4.85 | 4.85 | 3.908e+004 | 3.880e+004 | 3.880e+004 |
| 5 | NITRATE | 5.60 | 5.78 | 5.78 | 4.964e+004 | 4.970e+004 | 4.970e+004 |
| 6 | PHOSPHATE | 7.80 | 7.77 | 7.77 | 1.282e+004 | 1.998e+004 | 1.998e+004 |
| 7 | SULFATE | 9.28 | 9.23 | 9.23 | 6.985e+004 | 6.830e+004 | 6.830e+004 |

| | |
|---|---|
| Data File : C:\PEAKNET\DATA\02040002.DXD | Report Date: 2/5/80 9:19:47 AM |
| Sample Name: autocal1R - A01 | Collected : 2/5/80 9:07:40 AM |
| Inject # : 2 | Vial # : A01 |
| Method File: c:\peaknet\method\acidscan.met | Calibrated : 2/5/80 9:19:47 AM |
| System Name: ANIONS | Detector : CD20 |
| Column Type: | Operator : DK |
| Data Points: 3600 | Rate : 5.00 Hz |
| Module Name: S/N 96020568 ID:24 Of 15 | Moduleware : 1.17 |

| Calibration | Volume | Dilution | Start | Stop | Area Reject | Pk. Width | Threshold |
|---|---|---|---|---|---|---|---|
| External | 50 | 1 | 0.00 | 12.00 | 10 | 10.00 | 0.94 |

Filter type: Savitsky-Golay Size:5 points (1.0 sec) 1 iteration(s)

********** Component Report: All Components **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|
| 1 | 2.10 | FLUORIDE | 1.000 | 13525 | 125018 | 1 | 0.00 |
| 2 | 3.08 | CHLORIDE | 1.000 | 11294 | 96618 | 2 | 0.54 |
| 3 | 3.77 | NITRITE | 1.000 | 4680 | 53066 | 2 | 0.89 |
| 4 | 4.85 | BROMIDE | 1.000 | 2735 | 38804 | 1 | 2.11 |
| 5 | 5.78 | NITRATE | 1.000 | 2830 | 49701 | 1 | 3.27 |
| 6 | 7.77 | PHOSPHATE | 1.000 | 991 | 19984 | 1 | -0.43 |
| 7 | 9.23 | SULFATE | 1.000 | 3039 | 68295 | 1 | -0.54 |
| | | Totals | 7.000 | 39095 | 451485 | | |

********** Component Report: Components Found **********

| Pk. Num | Ret Time | Component Name | Concentration MG/L | Height | Area | Bl. Code | %Delta |
|---|---|---|---|---|---|---|---|



Schedule: \peaknet\schedule\02040001.sch 2/5/80 9:19:47 AM

Ion Chromatography
2/4/2000
EPA 300.0

| | | | | |
|---|---|---|---|---|
| Roy F. Weston | Proj # | 189838 | | Chlorine |
| METCO Env | Proj # | 190117 | | Chlorine |
| Exeter Twp | Proj # | 190135 | (WW) | Chloride, Sulfate, Nitrate Nitrite |
| Quantum An | Proj # | 190162 | (WW) | Bromide |
| Lucent Tech | Proj # | 190139 | (WW) | Fluoride, Chloride, Sulfate |
| Armstrong | Proj # | 190167 | (WW) | Fluoride |
| Roy F. Weston | Proj # | 187380 | (WSE) | Chloride |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 55 | B01 | 50 | 1 | meth blk | acidscan | 020400 | 1 | 1 |
| 56 | B02 | 50 | 1 | ipc | acidscan | 020400 | 1 | 1 |
| 57 | C01 | 50 | 5 | 100x buffer | acidscan | 020400 | 1 | 1 |
| 58 | C02 | 50 | 5 | water | acidscan | 020400 | 1 | 1 |
| 59 | C40 | 50 | 1 | water | stop | 020400 | 1 | 1 |

PeakNet AS3500DX - 02040001.AS3

| # | Vial Pos | Inj. Vol. | Inj/ Vial | Sample | Method (.MET) | Data | Dil. | Int. Std. | Templ (.PR |
|---|---|---|---|---|---|---|---|---|---|
| 1 | C40 | 50 | 1 | water | acidscan | 020400 | 1 | | 1 |
| 2 | A01 | 50 | 1 | autocal1 | acidscan | 020400 | 1 | | 1 |
| 3 | A02 | 50 | 1 | autocal2 | acidscan | 020400 | 1 | | 1 |
| 4 | A03 | 50 | 1 | autocal3 | acidscan | 020400 | 1 | | 1 |
| 5 | A04 | 50 | 1 | autocal4 | acidscan | 020400 | 1 | | 1 |
| 6 | A05 | 50 | 1 | autocal5 | acidscan | 020400 | 1 | | 1 |
| 7 | A06 | 50 | 1 | autocal6 | acidscan | 020400 | 1 | | 1 |
| 8 | B01 | 50 | 1 | meth blk | acidscan | 020400 | 1 | | 1 |
| 9 | B02 | 50 | 1 | ipc | acidscan | 020400 | 1 | | 1 |
| 10 | B03 | 50 | 1 | qcs | acidscan | 020400 | 1 | | 1 |
| 11 | B04 | 50 | 1 | lcs | acidscan | 020400 | 1 | | 1 |
| 12 | B01 | 50 | 1 | meth blk | acidscan | 020400 | 1 | | 1 |
| 13 | B05 | 50 | 1 | cl2 cont 1:50 | acidscan | 020400 | 1 | | 1 |
| 14 | B06 | 50 | 1 | 1391368 | acidscan | 020400 | 1 | | 1 |
| 15 | B07 | 50 | 1 | 1391369 | acidscan | 020400 | 1 | | 1 |
| 16 | B08 | 50 | 1 | 1391370 | acidscan | 020400 | 1 | | 1 |
| 17 | B09 | 50 | 1 | 1391370 dup | acidscan | 020400 | 1 | | 1 |
| 18 | B10 | 50 | 1 | 1391370 ms | acidscan | 020400 | 1 | | 1 |
| 19 | B11 | 50 | 1 | 1391370 msd | acidscan | 020400 | 1 | | 1 |
| 20 | B12 | 50 | 1 | 1390574 | acidscan | 020400 | 1 | | 1 |
| 21 | B13 | 50 | 1 | 1390575 | acidscan | 020400 | 1 | | 1 |
| 22 | B14 | 50 | 1 | 1390576 | acidscan | 020400 | 1 | | 1 |
| 23 | B15 | 50 | 1 | 1390576 dup | acidscan | 020400 | 1 | | 1 |
| 24 | B16 | 50 | 1 | 1390576 ms | acidscan | 020400 | 1 | | 1 |
| 25 | B17 | 50 | 1 | 1390576 msd | acidscan | 020400 | 1 | | 1 |
| 26 | B01 | 50 | 1 | meth blk | acidscan | 020400 | 1 | | 1 |
| 27 | B02 | 50 | 1 | ipc | acidscan | 020400 | 1 | | 1 |
| 28 | B18 | 50 | 1 | 1391448 | acidscan | 020400 | 1 | | 1 |
| 29 | B19 | 50 | 1 | 1391448 dup | acidscan | 020400 | 1 | | 1 |
| 30 | B20 | 50 | 1 | 1391448 ms | acidscan | 020400 | 1 | | 1 |
| 31 | B21 | 50 | 1 | 1391448 msd | acidscan | 020400 | 1 | | 1 |
| 32 | B22 | 50 | 1 | 1391448 1:10 | acidscan | 020400 | 1 | | 1 |
| 33 | B23 | 50 | 1 | 1391448 1:10 dup | acidscan | 020400 | 1 | | 1 |
| 34 | B24 | 50 | 1 | 1391448 1:10 ms | acidscan | 020400 | 1 | | 1 |
| 35 | B25 | 50 | 1 | 1391448 1:10 msd | acidscan | 020400 | 1 | | 1 |
| 36 | B26 | 50 | 1 | 1391448 1:100 | acidscan | 020400 | 1 | | 1 |
| 37 | B27 | 50 | 1 | 1391448 1:100 dup | acidscan | 020400 | 1 | | 1 |
| 38 | B28 | 50 | 1 | 1391448 1:100 ms | acidscan | 020400 | 1 | | 1 |
| 39 | B29 | 50 | 1 | 1391448 1:100 msd | acidscan | 020400 | 1 | | 1 |
| 40 | B30 | 50 | 1 | 1391520 | acidscan | 020400 | 1 | | 1 |
| 41 | B31 | 50 | 1 | 1391520 1:10 | acidscan | 020400 | 1 | | 1 |
| 42 | B32 | 50 | 1 | 1391520 1:100 | acidscan | 020400 | 1 | | 1 |
| 43 | B33 | 50 | 1 | 1391455 | acidscan | 020400 | 1 | | 1 |
| 44 | B34 | 50 | 1 | 1391455 1:10 | acidscan | 020400 | 1 | | 1 |
| 45 | B35 | 50 | 1 | 1391455 1:100 | acidscan | 020400 | 1 | | 1 |
| 46 | B36 | 50 | 1 | 1391456 | acidscan | 020400 | 1 | | 1 |
| 47 | B37 | 50 | 1 | 1391555 | acidscan | 020400 | 1 | | 1 |
| 48 | B38 | 50 | 1 | 1391555 1:10 | acidscan | 020400 | 1 | | 1 |
| 49 | B01 | 50 | 1 | meth blk | acidscan | 020400 | 1 | | 1 |
| 50 | B02 | 50 | 1 | ipc | acidscan | 020400 | 1 | | 1 |
| 51 | A07 | 50 | 1 | 1391487 | acidscan | 020400 | 1 | D-36 | 1 |
| 52 | A08 | 50 | 1 | 1391487 dup | acidscan | 020400 | 1 | | 1 |
| 53 | A09 | 50 | 1 | 1391487 ms | acidscan | 020400 | 1 | | 1 |

189938

**PHILIP**
ANALYTICAL SERVICES

| | | |
|---|---|---|
| Client: Roy F. Weston | | Test(s): Chlorine |
| Date: 2/04/00 | Initials: DAK | Reviewed By: CA |

Standard 1 Concentration: _____ Reading: _____
Standard 2 Concentration: _____ Reading: _____
Standard 3 Concentration: _____ Reading: _____
Standard 4 Concentration: _____ Reading: _____
Spike 1 Spike Amount: _____ Recv'd _____ Recv'y: _____
Spike 2 Spike Amount: _____ Recv'd _____ Recv'y: _____

PAGE _____ of _____
☐ Call Results
☐ FAX Results
☐ Results Entered

$Cl_2$ Cont 1:50 3.859 mg/L

| Sample | | | WEIGHT g | | Chloride mg/L | | Chloride mg/kg | | % Chloride |
|---|---|---|---|---|---|---|---|---|---|
| 1390574 | | | 0.4874 | | 8.151 | | 836 | | 0.08 |
| 1390575 | | | 0.5218 | | 7.541 | | 722 | | 0.07 |
| 1390576 | | | 0.4951 | | 6.554 | | 662 | | 0.07 |
| 1390576 | DUP | | 0.4944 | | 6.234 | | 630 | | 0.06 |

CALCULATION

$$\frac{(X\ mg/L)(0.050L)(dilution)}{WEIGHT\ (kg)} = mg/kg$$

$$mg/kg \times 0.0001 = \%$$

Comments For Report:

☐ Analysis performed for PHILIP Analytical by our AIHA accredited reference laboratory ☐ Sample results are blank-corrected

Analytical Method: EPA 300.0

LLD: 10.0 mg/kg
0.001 %

N/A = not applicable ND = none detected L/A = sample lost to lab accident QNS = quantity not sufficient to test N/R = sample not received by chemi

*** Sample ID: 1390576 Seq: 94 12:55:48 28 Jan 1983 HG

0.63/100

Hg .369 ug/l .000 .369

$\bar{x}$ = 0.00037 mg/l (100/0.63) = <0.10 mg/kg

*** Sample ID: 1390576 Seq: 95 12:57:46 28 Jan 1983 HG

0.059 mg/kg

0.63/100

Hg .366 ug/l .000 .366

Folder: 012800HG Page 812

12:59:43 28 Jan 1983 Protocol: ENVIRON

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|

*** Sample ID: CCB Seq: 96 12:59:43 28 Jan 1983 HG

Hg -.006 ug/l .000 -.006 $\bar{x}$ = <0.0002 mg/l

*** Sample ID: CCB Seq: 97 13:01:29 28 Jan 1983 HG

Hg .001 ug/l .000 .001

*** Sample ID: CCV Seq: 98 13:03:16 28 Jan 1983 HG

5.00UG/L

Hg 5.21 ug/l .000 5.21 $\bar{x}$ = 0.00521 mg/l 1042R

*** Sample ID: CCV Seq: 99 13:05:37 28 Jan 1983 HG

5.00UG/L

Hg 5.20 ug/l .000 5.20

Folder: 012800HG
11:39:58 28 Jan 1983 Protocol: ENVIRON

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|

*** Check Standard: 4 Ck4IPC/CCV Seq: 84 11:39:58 28 Jan 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 108. | 5.39 | 5.00 | ug/l | .000 |

$\bar{x}$ = 0.00538 mg/l 108%R

*** Check Standard: 3 Ck3IPC/CCV Seq: 85 11:42:27 28 Jan 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 107. | 5.37 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 86 11:44:51 28 Jan 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -13400 | -.013 | .000 | ug/l | .000 |

$\bar{x}$ = <0.0002 mg/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 87 11:46:38 28 Jan 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.008 | .200 | ug/l | .000 |

*** Sample ID: 1390576 Seq: 88 11:48:24 28 Jan 1983 HG

T.V. = 0.002 mg/l (100/0.60) = 0.333 mg/kg

MSD 0.60/100

| | | | | |
|---|---|---|---|---|
| Hg | 2.09 | ug/l | .000 | 2.09 |

$\bar{x}$ = 0.00208 mg/l (100/0.60) = 0.347 mg/kg

*** Sample ID: 1390576 Seq: 89 11:50:30 28 Jan 1983 HG 104%R

MSD 0.60/100

| | | | | |
|---|---|---|---|---|
| Hg | 2.08 | ug/l | .000 | 2.08 |

*** Check Standard: 4 Ck4IPC/CCV Seq: 90 11:52:41 28 Jan 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 109. | 5.43 | 5.00 | ug/l | .000 |

$\bar{x}$ = 0.00540 mg/l 108%R

*** Check Standard: 3 Ck3IPC/CCV Seq: 91 11:55:02 28 Jan 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 107. | 5.36 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 92 11:57:23 28 Jan 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -10500 | -.011 | .000 | ug/l | .000 |

$\bar{x}$ = <0.0002 mg/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 93 11:59:10 28 Jan 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.004 | .200 | ug/l | .000 |

Folder: 012800HG
Protocol: ENVIRON

11:15:53 28 Jan 1983

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|

*** Sample ID: 1633B SOIL Seq: 72 11:15:53 28 Jan 1983 HG
KNOWN 0.53/100
Hg .726 ug/l .000 .726
$\bar{x}$=0.00072mg/l(100/0.539)= 0.136mg/kg

*** Sample ID: 1633B SOIL Seq: 73 11:17:53 28 Jan 1983 HG
KNOWN 0.53/100
Hg .723 ug/l .000 .723

*** Sample ID: 1390574 Seq: 74 11:19:53 28 Jan 1983 HG
0.60/100
Hg .301 ug/l .000 .301
$\bar{x}$=0.00030mg/l(100/0.60g)= <0.10mg/kg 5/1/28
0.050mg/kg

*** Sample ID: 1390574 Seq: 75 11:21:49 28 Jan 1983 HG
0.60/100
Hg .305 ug/l .000 .305

*** Sample ID: 1390575 Seq: 76 11:23:44 28 Jan 1983 HG
0.62/100
Hg .321 ug/l .000 .321
$\bar{x}$=0.00032mg/l(100/0.62)= <0.10mg/kg 5/1/28
0.052mg/kg

*** Sample ID: 1390575 Seq: 77 11:25:39 28 Jan 1983 HG
0.62/100
Hg .317 ug/l .000 .317

5/1/28 reanalyzed Seq. #94,95 p.812
*** Sample ID: 1390576 Seq: 78 11:27:37 28 Jan 1983 HG
0.63/100
Hg 1.30 ug/l .000 1.30
$\bar{x}$=0.00134mg/l(100/0.63)= 0.213mg/kg

*** Sample ID: 1390576 Seq: 79 11:29:42 28 Jan 1983 HG
0.63/100
Hg 1.38 ug/l .000 1.38

*** Sample ID: 1390576 Seq: 80 11:31:50 28 Jan 1983 HG
DUP 0.60/100
Hg .305 ug/l .000 .305
$\bar{x}$=0.00031mg/l(100/0.60)= ~~<0.10~~ 0.052 mg/kg

*** Sample ID: 1390576 Seq: 81 11:33:48 28 Jan 1983 HG
DUP 0.60/100
Hg .305 ug/l .000 .305

*** Sample ID: 1390576 Seq: 82 11:35:39 28 Jan 1983 HG
MS 0.60/100
Hg 2.07 ug/l .000 2.07
T.V. = 0.002mg/l(100/0.60)= 0.333mg/kg
$\bar{x}$=0.00207mg/l(100/0.60)= 0.345mg/kg

*** Sample ID: 1390576 Seq: 83 11:37:49 28 Jan 1983 HG
MS 0.60/100
Hg 2.07 ug/l .000 2.07
104%R ~~40%R~~ 5/1/28

Line Conc. Units SD/RSD 1 2 3 4 5

*** Check Standard: 4 Ck4IPC/CCV Seq: 60 10:51:19 28 Jan 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 105. | 5.25 | 5.00 | ug/l | .000 |

$\bar{x}$ = 0.00524 mg/l 105%

*** Check Standard: 3 Ck3IPC/CCV Seq: 61 10:53:40 28 Jan 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 104. | 5.22 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 62 10:56:02 28 Jan 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -15200 | -.015 | .000 | ug/l | .000 |

$\bar{x}$ = <0.0002 mg/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 63 10:57:50 28 Jan 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.009 | .200 | ug/l | .000 |

*** Sample ID: 1390655 Seq: 64 10:59:36 28 Jan 1983 HG

DUP

Hg .081 ug/l .000 .081

$\bar{x}$ = <0.0002 mg/l

*** Sample ID: 1390655 Seq: 65 11:01:25 28 Jan 1983 HG

DUP

Hg .077 ug/l .000 .077

*** Sample ID: 1390655 Seq: 66 11:03:12 28 Jan 1983 HG

MS 2.0UG/L

Hg 2.09 ug/l .000 2.09

$\bar{x}$ = 0.00208 mg/l 104%R

*** Sample ID: 1390655 Seq: 67 11:05:28 28 Jan 1983 HG

MS 2.0UG/L

Hg 2.06 ug/l .000 2.06

*** Sample ID: LRB SOIL Seq: 68 11:07:44 28 Jan 1983 HG

7471 1/27

Hg .028 ug/l .000 .028

$\bar{x}$ = <0.0002 mg/l

*** Sample ID: LRB SOIL Seq: 69 11:09:29 28 Jan 1983 HG

7471 1/27

Hg .026 ug/l .000 .026

*** Sample ID: LFB SOIL Seq: 70 11:11:19 28 Jan 1983 HG

7471 1/27 2.0UG/L

Hg 2.15 ug/l .000 2.15

$\bar{x}$ = 0.00214 mg/l 107%R

*** Sample ID: LFB SOIL Seq: 71 11:13:34 28 Jan 1983 HG

7471 1/27 2.0UG/L

Hg 2.12 ug/l .000 2.12

10:27:04 28 Jan 1983 Protocol: ENVIRON

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|
| *** Sample ID: 1390572 | | | | | Seq: 48 | 10:27:04 28 Jan 1983 HG | | |
| | | | | DUP TCLP 20/100 | | | | |
| Hg | -.004 | ug/l | .000 | -.004 | | $\bar{x}$ = <0.001 mg/l | | |
| *** Sample ID: 1390572 | | | | | Seq: 49 | 10:28:47 28 Jan 1983 HG | | |
| | | | | DUP TCLP 20/100 | | | | |
| Hg | -.002 | ug/l | .000 | -.002 | | | | |
| *** Sample ID: 1390572 | | | | | Seq: 50 | 10:30:32 28 Jan 1983 HG | | |
| | | | | MS TCLP 20/100 | | T.V. = 0.002 mg/l (100/20) = 0.01 mg/l | | |
| Hg | 2.13 | ug/l | .000 | 2.13 | | $\bar{x}$ = 0.00212 mg/l (100/20) = 0.0106 mg/l | | |
| *** Sample ID: 1390572 | | | | | Seq: 51 | 10:32:51 28 Jan 1983 HG | | 106% R |
| | | | | MS TCLP 20/100 | | | | |
| Hg | 2.10 | ug/l | .000 | 2.10 | | | | |
| *** Sample ID: 1390572 | | | | | Seq: 52 | 10:35:08 28 Jan 1983 HG | | |
| | | | | MSD TCLP 20/100 | | | | |
| Hg | 2.15 | ug/l | .000 | 2.15 | | $\bar{x}$ = 0.00215 mg/l (100/20) = 0.0108 mg/l | | |
| *** Sample ID: 1390572 | | | | | Seq: 53 | 10:37:25 28 Jan 1983 HG | | 108% R |
| | | | | MSD TCLP 20/100 | | | | |
| Hg | 2.14 | ug/l | .000 | 2.14 | | | | |
| *** Sample ID: LRB#3 WW | | | | | Seq: 54 | 10:39:44 28 Jan 1983 HG | | |
| | | | | 245.1 1/27 | | | | |
| Hg | -.002 | ug/l | .000 | -.002 | | $\bar{x}$ = <0.0002 mg/l | | |
| *** Sample ID: LRB#3 WW | | | | | Seq: 55 | 10:41:28 28 Jan 1983 HG | | |
| | | | | 245.1 1/27 | | | | |
| Hg | .008 | ug/l | .000 | .008 | | | | |
| *** Sample ID: LFB#3 WW | | | | | Seq: 56 | 10:43:13 28 Jan 1983 HG | | |
| | | | | 245.1 1/27 2.0UG/L | | | | |
| Hg | 2.16 | ug/l | .000 | 2.16 | | $\bar{x}$ = 0.00215 mg/l 108% R | | |
| *** Sample ID: LFB#3 WW | | | | | Seq: 57 | 10:45:29 28 Jan 1983 HG | | |
| | | | | 245.1 1/27 2.0UG/L | | | | |
| Hg | 2.14 | ug/l | .000 | 2.14 | | | | |
| *** Sample ID: 1390655 | | | | | Seq: 58 | 10:47:44 28 Jan 1983 HG | | |
| Hg | .085 | ug/l | .000 | .085 | | $\bar{x}$ = <0.0002 mg/l | | |
| *** Sample ID: 1390655 | | | | | Seq: 59 | 10:49:30 28 Jan 1983 HG | | |
| Hg | .083 | ug/l | .000 | .083 | | | | |

Line Conc. Units SD/RSD 1 2 3 4 5

*** Check Standard: 4 Ck4IPC/CCV Seq: 36 10:03:37 28 Jan 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 103. | 5.16 | 5.00 | ug/l | .000 |

$\bar{x}$ = 0.00517 mg/l 1032R

*** Check Standard: 3 Ck3IPC/CCV Seq: 37 10:06:07 28 Jan 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 103. | 5.17 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 38 10:08:34 28 Jan 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -16000 | -.016 | .000 | ug/l | .000 |

$\bar{x}$ = <0.0002 mg/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 39 10:10:23 28 Jan 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.007 | .200 | ug/l | .000 |

*** Sample ID: LRB#2 TCLP Seq: 40 10:12:09 28 Jan 1983 HG
7470 1/27

Hg -.011 ug/l .000 -.011

$\bar{x}$ = <0.0002 mg/l

*** Sample ID: LRB#2 TCLP Seq: 41 10:13:54 28 Jan 1983 HG
7470 1/27

Hg -.010 ug/l .000 -.010

*** Sample ID: LFB#2 TCLP Seq: 42 10:15:39 28 Jan 1983 HG
1/27 2.0UG/L 7470

Hg 2.09 ug/l .000 2.09

$\bar{x}$ = 0.00209 mg/l 1057R

*** Sample ID: LFB#2 TCLP Seq: 43 10:17:53 28 Jan 1983 HG
1/27 2.0UG/L 7470

Hg 2.08 ug/l .000 2.08

*** Sample ID: 1390544 Seq: 44 10:20:09 28 Jan 1983 HG
20/100 TCLP

Hg -.013 ug/l .000 -.013

$\bar{x}$ = <0.0002 mg/l (100/20) = ~~<0.000~~ <0.001 mg/l

*** Sample ID: 1390544 Seq: 45 10:21:52 28 Jan 1983 HG
20/100 TCLP

Hg -.007 ug/l .000 -.007

*** Sample ID: 1390572 Seq: 46 10:23:36 28 Jan 1983 HG
20/100 TCLP

Hg -.011 ug/l .000 -.011

$\bar{x}$ = <0.001 mg/l

*** Sample ID: 1390572 Seq: 47 10:25:20 28 Jan 1983 HG
20/100 TCLP

Hg -.006 ug/l .000 -.006

Folder: 012800HG
Protocol: ENVIRON

09:40:07 28 Jan 1983

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|
| *** Sample ID: MDL 2 | | | | Seq: | 24 | 09:40:07 28 Jan 1983 HG | | |
| Hg | .204 | ug/l | .000 | .204 | | $\bar{x}$ = 0.203 ug/l | | |
| *** Sample ID: MDL 2 | | | | Seq: | 25 | 09:42:01 28 Jan 1983 HG | | |
| Hg | .202 | ug/l | .000 | .202 | | | | |
| *** Sample ID: MDL 3 | | | | Seq: | 26 | 09:43:57 28 Jan 1983 HG | | |
| Hg | .204 | ug/l | .000 | .204 | | $\bar{x}$ = 0.203 ug/l | | |
| *** Sample ID: MDL 3 | | | | Seq: | 27 | 09:45:55 28 Jan 1983 HG | | |
| Hg | .201 | ug/l | .000 | .201 | | | | |
| *** Sample ID: MDL 4 | | | | Seq: | 28 | 09:47:54 28 Jan 1983 HG | | |
| Hg | .203 | ug/l | .000 | .203 | | $\bar{x}$ = 0.203 ug/l | | |
| *** Sample ID: MDL 4 | | | | Seq: | 29 | 09:49:53 28 Jan 1983 HG | | |
| Hg | .202 | ug/l | .000 | .202 | | | | |
| *** Sample ID: MDL 5 | | | | Seq: | 30 | 09:51:50 28 Jan 1983 HG | | |
| Hg | .194 | ug/l | .000 | .194 | | $\bar{x}$ = 0.194 ug/l | | |
| *** Sample ID: MDL 5 | | | | Seq: | 31 | 09:53:47 28 Jan 1983 HG | | |
| Hg | .194 | ug/l | .000 | .194 | | | | |
| *** Sample ID: MDL 6 | | | | Seq: | 32 | 09:55:44 28 Jan 1983 HG | | |
| Hg | .187 | ug/l | .000 | .187 | | $\bar{x}$ = 0.191 ug/l | | |
| *** Sample ID: MDL 6 | | | | Seq: | 33 | 09:57:42 28 Jan 1983 HG | | |
| Hg | .194 | ug/l | .000 | .194 | | | | |
| *** Sample ID: MDL 7 | | | | Seq: | 34 | 09:59:40 28 Jan 1983 HG | | |
| Hg | .194 | ug/l | .000 | .194 | | $\bar{x}$ = 0.192 ug/l | | |
| *** Sample ID: MDL 7 | | | | Seq: | 35 | 10:01:39 28 Jan 1983 HG | | |
| Hg | .190 | ug/l | .000 | .190 | | | | |

Line Conc. Units SD/RSD 1 2 3 4 5

*** Check Standard: 4 Ck4IPC/CCV Seq: 12 09:14:54 28 Jan 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 102. | 5.10 | 5.00 | ug/l | .000 |

$\bar{x}$ = 0.00511 mg/l 102% R

*** Check Standard: 3 Ck3IPC/CCV Seq: 13 09:17:16 28 Jan 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 103. | 5.13 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 14 09:19:47 28 Jan 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -13100 | -.013 | .000 | ug/l | .000 |

$\bar{x}$ = <0.0002 mg/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 15 09:21:34 28 Jan 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.008 | .200 | ug/l | .000 |

*** Sample ID: QCS/ICV Seq: 16 09:23:21 28 Jan 1983 HG

5.00UG/L 1/27

Hg 5.11 ug/l .000 5.11

$\bar{x}$ = 0.00509 mg/l 102% R

*** Sample ID: QCS/ICV Seq: 17 09:25:47 28 Jan 1983 HG

5.00UG/L 1/27

Hg 5.07 ug/l .000 5.07

*** Sample ID: LRB MDL Seq: 18 09:28:11 28 Jan 1983 HG

1/27 245.1

Hg -.020 ug/l .000 -.020

$\bar{x}$ = <0.0002 mg/l

*** Sample ID: LRB MDL Seq: 19 09:29:55 28 Jan 1983 HG

1/27 245.1

Hg -.008 ug/l .000 -.008

*** Sample ID: LFB MDL Seq: 20 09:31:40 28 Jan 1983 HG

245.1 2.0UG/L 1/27

Hg 2.04 ug/l .000 2.04

$\bar{x}$ = 0.00204 mg/l 102% R

*** Sample ID: LFB MDL Seq: 21 09:33:55 28 Jan 1983 HG

245.1 2.0UG/L 1/27

Hg 2.04 ug/l .000 2.04

*** Sample ID: MDL 1 Seq: 22 09:36:13 28 Jan 1983 HG

Hg .194 ug/l .000 .194

$\bar{x}$ = 0.195 ug/l

*** Sample ID: MDL 1 Seq: 23 09:38:10 28 Jan 1983 HG

Hg .196 ug/l .000 .196

RunProt: ENVIRON

RunFold: 01200006 Seq: 12 Batch:

Prnt: R/T On

Rev: 4.0 09:12:45 28 Jan 1983 Xmit: Off Gas: 0.30 LPM

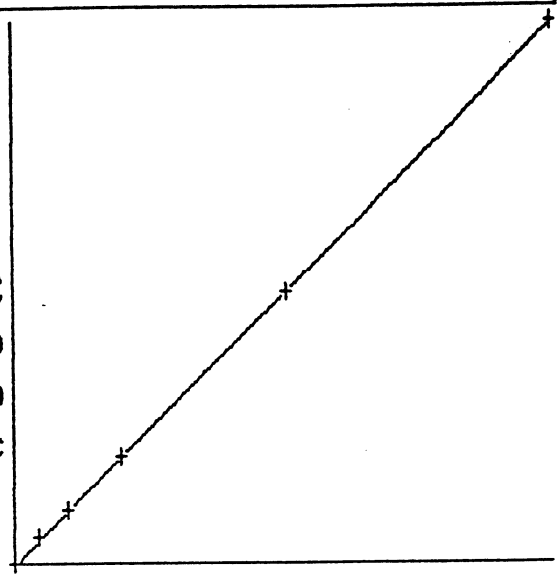
Idle User: A/S: On

CALIBRATION: Line proto: ENVIRON

| | Hg Conc. | Calc. | Dev. | Accepted ->linear Quadratic Wtdlinear Accept |
|---|---|---|---|---|
| S1 | .000 | -.005 | -.005 | |
| S2 | .500 | .472 | -.028 | |
| S3 | 1.00 | .996 | -.004 | |
| S4 | 2.00 | 2.02 | .023 | |
| S5 | 5.00 | 5.03 | .034 | |
| S6 | 10.0 | 9.98 | -.020 | |

A .0000000 r .999980

B 1.21933e-5 C -1.34961e-2




| | Mean | %RSD | | |
|---|---|---|---|---|
| S1 | 666 | 13.05 | 728 | 605 |
| S2 | 39841 | 0.98 | 40117 | 39565 |
| S3 | 82831 | 0.53 | 83139 | 82524 |
| S4 | 166995 | 0.22 | 167259 | 166732 |
| S5 | 413948 | 0.84 | 411484 | 416413 |
| S6 | 819586 | 0.87 | 814541 | 824631 |

New cal coefficients stored

09:07:26 28 Jan 1983

Folder: 012800HG
Protocol: ENVIRON

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|

*** Standard: 6 Rep: 1 Seq: 10 09:07:26 28 Jan 1983 HG

Hg 10.0 ug/l 814541

*** Standard: 6 Rep: 2 Seq: 11 09:10:00 28 Jan 1983 HG

Hg 10.0 ug/l 824631

08:40:13 28 Jan 1983

Folder: 012800HG ~~012899HG~~ 1/28
Protocol: ENVIRON

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|
| *** Standard: 1 Rep: 1 | | | | Seq: | 0 | 08:40:13 28 Jan 1983 HG | | |
| Hg | .000 | ug/l | -6786 | | | | | |
| *** Standard: 1 Rep: 2 | | | | Seq: | 1 | 08:42:03 28 Jan 1983 HG | | |
| Hg | .000 | ug/l | 686 | | | | | |
| *** Standard: 1 Rep: 1 | | | | Seq: | 0 | 08:45:49 28 Jan 1983 HG | | |
| Hg | .000 | ug/l | 728 | | | | | |
| *** Standard: 1 Rep: 2 | | | | Seq: | 1 | 08:47:39 28 Jan 1983 HG | | |
| Hg | .000 | ug/l | 605 | | | | | |
| *** Standard: 2 Rep: 1 | | | | Seq: | 2 | 08:49:29 28 Jan 1983 HG | | |
| Hg | .500 | ug/l | 40117 | | | | | |
| *** Standard: 2 Rep: 2 | | | | Seq: | 3 | 08:51:32 28 Jan 1983 HG | | |
| Hg | .500 | ug/l | 39565 | | | | | |
| *** Standard: 3 Rep: 1 | | | | Seq: | 4 | 08:53:40 28 Jan 1983 HG | | |
| Hg | 1.00 | ug/l | 83139 | | | | | |
| *** Standard: 3 Rep: 2 | | | | Seq: | 5 | 08:55:50 28 Jan 1983 HG | | |
| Hg | 1.00 | ug/l | 82524 | | | | | |
| *** Standard: 4 Rep: 1 | | | | Seq: | 6 | 08:58:02 28 Jan 1983 HG | | |
| Hg | 2.00 | ug/l | 167259 | | | | | |
| *** Standard: 4 Rep: 2 | | | | Seq: | 7 | 09:00:17 28 Jan 1983 HG | | |
| Hg | 2.00 | ug/l | 166732 | | | | | |
| *** Standard: 5 Rep: 1 | | | | Seq: | 8 | 09:02:37 28 Jan 1983 HG | | |
| Hg | 5.00 | ug/l | 411484 | | | | | |
| *** Standard: 5 Rep: 2 | | | | Seq: | 9 | 09:05:02 28 Jan 1983 HG | | |
| Hg | 5.00 | ug/l | 416413 | | | | | |

```
RunProt: ENVIRON
RunFold: 012899HG Seq: 0    Batch:
                  Prnt: R/T On
                  Rev: 4.0    08:36:28 28 Jan 1983 Xmit: Off  Gas:    0.30 LPM
  Idle                                               User:            A/S: On
```

```
 AUTOSAMPLER:  Rack entry   Rack RACK#1                                  PgUp
cup ID         Extended id          Weight Volume Macro
31 1390576     MSD 0.60/100         1.0000 1.0000
32                                  1.0000 1.0000
33                                  1.0000 1.0000
34                                  1.0000 1.0000
35                                  1.0000 1.0000
36                                  1.0000 1.0000
37                                  1.0000 1.0000
38                                  1.0000 1.0000
39                                  1.0000 1.0000
40                                  1.0000 1.0000
41                                  1.0000 1.0000
42                                  1.0000 1.0000
43                                  1.0000 1.0000
44                                  1.0000 1.0000

                                                                        PgDn
```

```
Cup 42 ID:                                        Cell entry down Ins to switch
```

```
RunProt: ENVIRON
RunFold: 012899HG Seq: 0    Batch:
                  Prnt: R/T On
                  Rev: 4.0    08:36:05 28 Jan 1983 Xmit: Off  Gas:    0.30 LPM
                                                       User:          A/S: On
  Idle
```

PgUp

AUTOSAMPLER: Rack entry Rack RACK#1

| cup | ID | Extended id | Weight | Volume | Macro |
|---|---|---|---|---|---|
| 16 | 1390572 | MS TCLP 20/100 | 1.0000 | 1.0000 | |
| 17 | 1390572 | MSD TCLP 20/100 | 1.0000 | 1.0000 | |
| 18 | LRB#3 WW | 245.1 1/27 | 1.0000 | 1.0000 | |
| 19 | LFB#3 WW | 245.1 1/27 2.0UG/L | 1.0000 | 1.0000 | |
| 20 | 1390655 | | 1.0000 | 1.0000 | |
| 21 | 1390655 | DUP | 1.0000 | 1.0000 | |
| 22 | 1390655 | MS 2.0UG/L | 1.0000 | 1.0000 | |
| 23 | LRB SOIL | 7471 1/27 | 1.0000 | 1.0000 | |
| 24 | LFB SOIL | 7471 1/27 2.0UG/L | 1.0000 | 1.0000 | |
| 25 | 1633B SOIL | KNOWN 0.53/100 | 1.0000 | 1.0000 | |
| 26 | 1390574 | 0.60/100 | 1.0000 | 1.0000 | |
| 27 | 1390575 | 0.62/100 | 1.0000 | 1.0000 | |
| 28 | 1390576 | 0.63/100 | 1.0000 | 1.0000 | |
| 29 | 1390576 | DUP 0.60/100 | 1.0000 | 1.0000 | |
| 30 | 1390576 | MS 0.60/100 | 1.0000 | 1.0000 | |

PgDn

```
Cup 22 ID: 1390655                                  Cell entry down Ins to switch
```

```
RunProt: ENVIRON
RunFold: 012899HG Seq: 0     Batch:
                  Prnt: R/T On
                  Rev: 4.0     08:32:39 28 Jan 1983 Xmit: Off  Gas:     0.30 LPM
  Idle                                              User:               A/S: On
```

```
 AUTOSAMPLER:  Rack entry   Rack RACK#1
cup ID         Extended id          Weight Volume Macro
 1 QCS/ICV     5.00UG/L 1/27        1.0000 1.0000
 2 LRB MDL     1/27 245.1           1.0000 1.0000
 3 LFB MDL     245.1 2.0UG/L 1/27   1.0000 1.0000
 4 MDL 1                            1.0000 1.0000
 5 MDL 2                            1.0000 1.0000
 6 MDL 3                            1.0000 1.0000
 7 MDL 4                            1.0000 1.0000
 8 MDL 5                            1.0000 1.0000
 9 MDL 6                            1.0000 1.0000
10 MDL 7                            1.0000 1.0000
11 LRB#2 TCLP 7470 1/27             1.0000 1.0000
12 LFB#2 TCLP 1/27 2.0UG/L 7470     1.0000 1.0000
13 1390544     20/100 TCLP          1.0000 1.0000
14 1390572     20/100 TCLP          1.0000 1.0000
15 1390572     DUP TCLP 20/100      1.0000 1.0000
                                                                    PgDn
```

```
Cup 8  extended ID:                          Cell entry down Ins to switch
```

```
RunProt: ENVIRON
RunFold: 012899HG Seq: 0     Batch:
                  Prnt: R/T On
                  Rev: 4.0    08:29:06 28 Jan 1983 Xmit: Off  Gas:    0.30 LPM
  Idle                                             User:              A/S: On
```

```
UTILITY:  Diagnostics  Tip X      0 1   99
Aper test              Tip Y      0 1    3
Test optic             Tip Z     95 1    7
Tip home               Gas      -10
Out port                                      Smpl. intensity    1433262 )within
In port                                       Ref. intensity     1439893 ) ±10%.
Run pcode
Cal A/S
```

```
Sensors on solenoid Enter for test Ins for motor More tests
Pcode halt 0     @ 142
```

```
RunProt: ENVIRON
RunFold: 012899HG Seq: 0     Batch:
                  Prnt: R/T On
                  Rev: 4.0    08:28:51 28 Jan 1983 Xmit: Off  Gas:    0.30 LPM
  Idle                                             User:              A/S: On
```

```
UTILITY:  Diagnostics  Tip X      0 1   99
Aper test              Tip Y      0 1    3
Test optic             Tip Z     95 1    7
Tip home               Gas      -10
Out port                                          aperture          20
In port
Run pcode                                          -100 to 100
Cal A/S
```

```
Sensors on solenoid Enter for test Ins for motor More tests
Pcode halt 0     @ 344
```

I initially typed the wrong year for the folder name as: 012899HG. For the actual sample analysis I changed this to the correct year and folder 012800HG. SMW

# ONTARIO HYDRO SAMPLES ANALYTICAL REPORT

**PHILIP**
**ANALYTICAL SERVICES**

**INDUSTRIAL HYGIENE** **ENVIRONMENTAL TESTING**

• EPA/NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NY DOH 10903
• PA DER 06-353
• NJ DEP 77678

February 8, 2000

Jack Mills
Roy F. Weston, Inc.
Weston Way
West Chester PA 19380-1499

Laboratory Project: 189939
Client Reference: 12251.001.001/Mississippi Power, Watson Station
Speciated Hg per Ontario Hydro Method

Dear Mr. Mills:

The samples which were logged in on 24-JAN-00 have been analyzed as requested. The analytical results are enclosed in the attached report.

Please note that any unused portion of the samples will be disposed after 08-MAR-00, unless you have requested otherwise.

Thank you for the opportunity to provide these services to you. If you have any questions concerning this report, please contact a Client Services representative at 610/921-8833.

Sincerely,

Fred Usbeck, CIH
Director, Laboratory Services



4418 POTTSVILLE PIKE, READING, PENNSYLVANIA 19605 610-921-8833 FAX 610-921-9667

PHILIP ANALYTICAL SERVICES

INDUSTRIAL HYGIENE ENVIRONMENTAL TESTING

• EPA/NVLAP 101262-0 • NY DOH 10903 • NJ DEP 77678
• AIHA ACCREDITATION NO. 100439 • PA DER 06-353

# ANALYTICAL REPORT

Client: Roy F. Weston, Inc.

Report to: Jack Mills
Roy F. Weston, Inc.
Weston Way
West Chester PA 19380-1499

Project: 189939
Received: 24-JAN-00
Reported: 08-FEB-00

PURCHASE ORDER: 0008214

Project Description: 12251.001.001/Mississippi Power, Watson Station
Speciated Hg per Ontario Hydro Method

| | RESULT | UNITS | METHOD | DATE | ANALYST |
|---|---|---|---|---|---|
| **R1-FHHNO3-MPWS-ESP-OUT-1-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390577 | | | | | |
| sampled: 19-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.09 | ug/sample | Ont Hydro | 03-FEB-00 | JLP |
| Total Particle Bound Mercury = Hg Ash (ug) + Hg in Probe Rinse (ug) | | | | | |
| Total Particle Bound Mercury = < 0.11 ug | | | | | |
| **R1-FILT #W400-MPWS-ESP-OUT-1-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390578 | | | | | |
| sampled: 19-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 0.020 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **R1-BHKCL-MPWS-ESP-OUT-1-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390579 | | | | | |
| sampled: 19-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 6.01 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| Result represents Oxidized Hg. | | | | | |
| **R1-BHHNO3-MPWS-ESP-OUT-1-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390580 | | | | | |
| sampled: 19-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.15 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |



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PHILIP ANALYTICAL SERVICES

INDUSTRIAL HYGIENE ENVIRONMENTAL TESTING

• EPA/NVLAP 101262-0 • NY DOH 10903 • NJ DEP 77678
• AIHA ACCREDITATION NO. 100439 • PA DER 06-353

Client: Roy F. Weston, Inc.
Project: 189939

| | RESULT | UNITS | METHOD | DATE | ANALYST |
|---|---|---|---|---|---|
| **R1-BHKMNO4-MPWS-ESP-OUT-1-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390581 | | | | | |
| sampled: 19-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 4.39 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| ** Note ** | | | | | |
| Total Elemental Mercury = HG in KMNO4 + HG in H2O2 | | | | | |
| Total Elemental Mercury = 4.39 ug | | | | | |
| **R2-FHHNO3-MPWS-ESP-OUT-2-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390582 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 0.092 | ug/sample | Ont Hydro | 03-FEB-00 | JLP |
| Total Particle Bound Mercury = Hg Ash (ug) + Hg in Probe Rinse (ug) | | | | | |
| Total Particle Bound Mercury = 0.092 ug | | | | | |
| **R2-FILT #W401-MPWS-ESP-OUT-2-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390583 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.02 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **R2-BHKCL-MPWS-ESP-OUT-2-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390584 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 5.01 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| Result represents Oxidized Hg. | | | | | |
| **R2-BHHNO3-MPWS-ESP-OUT-2-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390585 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 0.19 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **R2-BHKMNO4-MPWS-ESP-OUT-2-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390586 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 1.31 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| ** Note ** | | | | | |
| Total Elemental Mercury = HG in KMNO4 + HG in H2O2 | | | | | |
| Total Elemental Mercury = 1.50 ug | | | | | |



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PHILIP ANALYTICAL SERVICES

INDUSTRIAL HYGIENE ENVIRONMENTAL TESTING

• EPA/NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NY DOH 10903
• PA DER 06-353
• NJ DEP 77678

Client: Roy F. Weston, Inc.
Project: 189939

| | RESULT | UNITS | METHOD | DATE | ANALYST |
|---|---|---|---|---|---|
| **R3-FHHNO3-MPWS-ESP-OUT-3-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390587 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.09 | ug/sample | Ont Hydro | 03-FEB-00 | JLP |
| Total Particle Bound Mercury = Hg Ash (ug) + Hg in Probe Rinse (ug) | | | | | |
| Total Particle Bound Mercury = < 0.11 ug | | | | | |
| **R3-FILT #W403-MPWS-ESP-OUT-3-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390588 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.02 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **R3-BHKCL-MPWS-ESP-OUT-3-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390589 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 5.02 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| Result represents Oxidized Hg. | | | | | |
| **R3-BHHNO3-MPWS-ESP-OUT-3-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390590 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 0.21 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **R3-BHKMNO4-MPWS-ESP-OUT-3-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390591 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 1.33 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| ** Note ** | | | | | |
| Total Elemental Mercury = HG in KMNO4 + HG in H2O2 | | | | | |
| Total Elemental Mercury = 1.54 ug | | | | | |
| **BT-FHHNO3-MPWS-ESP-OUT-BT-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390592 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.04 | ug/sample | Ont Hydro | 03-FEB-00 | JLP |
| Total Particle Bound Mercury = Hg Ash (ug) + Hg in Probe Rinse (ug) | | | | | |
| Total Particle Bound Mercury = < 0.06 ug | | | | | |

PHILIP ANALYTICAL SERVICES

INDUSTRIAL HYGIENE ENVIRONMENTAL TESTING

• EPA/NVLAP 101262-0 • NY DOH 10903 • NJ DEP 77678
• AIHA ACCREDITATION NO. 100439 • PA DER 06-353

Client: Roy F. Weston, Inc.
Project: 189939

| | RESULT | UNITS | METHOD | DATE | ANALYST |
|---|---|---|---|---|---|
| **BT-FILT #W402-MPWS-ESP-OUT-BT-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390593 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.02 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **BT-BHKCL-MPWS-ESP-OUT-BT-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390594 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.2 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| Result represents Oxidized Hg. | | | | | |
| **BT-BHHNO3-MPWS-ESP-OUT-BT-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390595 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 0.19 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **BT-BHKMNO4-MPWS-ESP-OUT-BT-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390596 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.2 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| ** Note ** | | | | | |
| Total Elemental Mercury = HG in KMNO4 + HG in H2O2 | | | | | |
| Total Elemental Mercury = 0.191 ug | | | | | |
| **R1-FHHNO3-MPWS-ESP-IN-1-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390597 | | | | | |
| sampled: 19-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 2.92 | ug/sample | Ont Hydro | 03-FEB-00 | JLP |
| Total Particle Bound Mercury = Hg Ash (ug) + Hg in Probe Rinse (ug) | | | | | |
| Total Particle Bound Mercury = 6.37 ug | | | | | |
| **R1-FILT #W31+W32-MPWS-ESP-IN-1-OHM-17JAN2000 (THIMBLES)** | | | | | |
| Lab Sample: 1390598 | | | | | |
| sampled: 19-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 3.45 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |



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PHILIP ANALYTICAL SERVICES

INDUSTRIAL HYGIENE ENVIRONMENTAL TESTING

• EPA/NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NY DOH 10903
• PA DER 06-353
• NJ DEP 77678

Client: Roy F. Weston, Inc.
Project: 189939

| | RESULT | UNITS | METHOD | DATE | ANALYST |
|---|---|---|---|---|---|
| **R1-BHKCL-MPWS-ESP-IN-1-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390599 | | | | | |
| sampled: 19-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 2.15 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| Result represents Oxidized Hg. | | | | | |
| **R1-BHHNO3-MPWS-ESP-IN-1-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390600 | | | | | |
| sampled: 19-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 0.17 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **R1-BHKMNO4-MPWS-ESP-IN-1-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390601 | | | | | |
| sampled: 19-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 1.45 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| ** Note ** | | | | | |
| Total Elemental Mercury = HG in KMNO4 + HG in H2O2 | | | | | |
| Total Elemental Mercury = 1.62 ug | | | | | |
| **R2-FHHNO3-MPWS-ESP-IN-2-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390602 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 2.49 | ug/sample | Ont Hydro | 03-FEB-00 | JLP |
| Total Particle Bound Mercury = Hg Ash (ug) + Hg in Probe Rinse (ug) | | | | | |
| Total Particle Bound Mercury = 8.47 ug | | | | | |
| **R2-FILT #W34-MPWS-ESP-IN-2-OHM-17JAN2000 (THIMBLE)** | | | | | |
| Lab Sample: 1390603 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 5.98 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **R2-BHKCL-MPWS-ESP-IN-2-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390604 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 2.00 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| Result represents Oxidized Hg. | | | | | |



4418 POTTSVILLE PIKE, READING, PENNSYLVANIA 19605 610-921-8833 FAX 610-921-9667

PHILIP ANALYTICAL SERVICES

INDUSTRIAL HYGIENE ENVIRONMENTAL TESTING

• EPA/NVLAP 101262-0 • NY DOH 10903 • NJ DEP 77678
• AIHA ACCREDITATION NO. 100439 • PA DER 06-353

Client: Roy F. Weston, Inc.
Project: 189939

| | RESULT | UNITS | METHOD | DATE | ANALYST |
|---|---|---|---|---|---|
| **R2-BHHNO3-MPWS-ESP-IN-2-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390605 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 0.16 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **R2-BHKMNO4-MPWS-ESP-IN-2-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390606 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 0.27 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| ** Note ** | | | | | |
| Total Elemental Mercury = HG in KMNO4 + HG in H2O2 | | | | | |
| Total Elemental Mercury = 0.433 ug | | | | | |
| **R3-FHHNO3-MPWS-ESP-IN-3-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390607 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 1.75 | ug/sample | Ont Hydro | 03-FEB-00 | JLP |
| Total Particle Bound Mercury = Hg Ash (ug) + Hg in Probe Rinse (ug) | | | | | |
| Total Particle Bound Mercury = 8.27 ug | | | | | |
| **R3-FILT #W29-MPWS-ESP-IN-3-OHM-17JAN2000 (THIMBLE)** | | | | | |
| Lab Sample: 1390608 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 6.52 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **R3-BHKCL-MPWS-ESP-IN-3-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390609 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | 1.06 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| Result represents Oxidized Hg. | | | | | |
| **R3-BHHNO3-MPWS-ESP-IN-3-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390610 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.15 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |



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PHILIP ANALYTICAL SERVICES

INDUSTRIAL HYGIENE ENVIRONMENTAL TESTING

• EPA/NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NY DOH 10903
• PA DER 06-353
• NJ DEP 77678

Client: Roy F. Weston, Inc.
Project: 189939

| | RESULT | UNITS | METHOD | DATE | ANALYST |
|---|---|---|---|---|---|
| **R3-BHKMNO4-MPWS-ESP-IN-3-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390611 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.2 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| ** Note ** | | | | | |
| Total Elemental Mercury = HG in KMNO4 + HG in H2O2 | | | | | |
| Total Elemental Mercury = < 0.40 ug | | | | | |
| **SB-KCL-MPWS-ESP-IN-SB-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390612 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.2 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| Result represents Oxidized Hg. | | | | | |
| **SB-FILT #W404-MPWS-ESP-IN-SB-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390613 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.02 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **SB-KMNO4-MPWS-ESP-IN-SB-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390614 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.2 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **SB-HNO3/H2O2-MPWS-ESP-IN-SB-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390615 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.2 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **SB-0.1N HNO3-MPWS-ESP-IN-SB-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390616 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.06 | ug/sample | Ont Hydro | 03-FEB-00 | JLP |



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PHILIP ANALYTICAL SERVICES

INDUSTRIAL HYGIENE ENVIRONMENTAL TESTING

• EPA/NVLAP 101262-0 • NY DOH 10903 • NJ DEP 77678
• AIHA ACCREDITATION NO. 100439 • PA DER 06-353

Client: Roy F. Weston, Inc.
Project: 189939

| | RESULT | UNITS | METHOD | DATE | ANALYST |
|---|---|---|---|---|---|
| **BT-FHHNO3-MPWS-ESP-IN-BT-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390617 | | | | | |
| sampled: 19-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.03 | ug/sample | Ont Hydro | 03-FEB-00 | JLP |
| Total Particle Bound Mercury = Hg Ash (ug) + Hg in Probe Rinse (ug) | | | | | |
| Total Particle Bound Mercury = < 0.05 ug | | | | | |
| **BT-FILT #W33-MPWS-ESP-IN-BT-OHM-17JAN2000 (THIMBLE)** | | | | | |
| Lab Sample: 1390618 | | | | | |
| sampled: 19-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.02 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **BT-BHKCL-MPWS-ESP-IN-BT-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390619 | | | | | |
| sampled: 19-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.2 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| Result represents Oxidized Hg. | | | | | |
| **BT-BHHNO3-MPWS-ESP-IN-BT-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390620 | | | | | |
| sampled: 19-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.17 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| **BT-BHKMNO4-MPWS-ESP-IN-BT-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390621 | | | | | |
| sampled: 19-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.2 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |
| ** Note ** | | | | | |
| Total Elemental Mercury = HG in KMNO4 + HG in H2O2 | | | | | |
| Total Elemental Mercury = < 0.40 ug | | | | | |
| **THIMBLE #W35-MPWS-ESP-IN-SB-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390622 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.02 | ug/sample | Ont Hydro | 04-FEB-00 | JLP |



4418 POTTSVILLE PIKE, READING, PENNSYLVANIA 19605 610-921-8833 FAX 610-921-9667

PHILIP ANALYTICAL SERVICES

INDUSTRIAL HYGIENE ENVIRONMENTAL TESTING

• EPA/NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NY DOH 10903
• PA DER 06-353
• NJ DEP 77678

Client: Roy F. Weston, Inc.
Project: 189939

| | RESULT | UNITS | METHOD | DATE | ANALYST |
|---|---|---|---|---|---|
| **10% HNO3-MPWS-ESP-IN-SB-OHM-17JAN2000** | | | | | |
| Lab Sample: 1390623 | | | | | |
| sampled: 20-JAN-00 | | | | | |
| **Hg by Ont. Hydro Method, Draft** | < 0.03 | ug/sample | Ont Hydro | 03-FEB-00 | JLP |

< Indicates less than the limit of quantitation.



4418 POTTSVILLE PIKE, READING, PENNSYLVANIA 19605 610-921-8833 FAX 610-921-9667

| Lab Tracking Number |
|---|
| |

# Chain-of-Custody Record/Lab Work Request

WESTON



189939

| | | | |
|---|---|---|---|
| Client | MISSISSIPPI POWER, WATSON STATION | | |
| Work Order Number | 12251.001.001 | Phone Number | 610-701-7245 |
| Contact Person | Jack Mills | Turn Around Time | 45 Days-collection |

Analyses Requested/Other Info

| Lab ID | Field Sample ID | Sample Collection Date | Analysis | Hg | | Filter # | Sample Check-off |
|---|---|---|---|---|---|---|---|
| | MPWS - ESP - OUT - 1 - OHM - 17JAN2000 - FHHNO3 | 1/19/00 | OHM | X | | | |
| | MPWS - ESP - OUT - 1 - OHM - 17JAN2000 - FILT | | OHM | X | | W400 | |
| | MPWS - ESP - OUT - 1 - OHM - 17JAN2000 - BHKCL | R1 | OHM | X | | | |
| | MPWS - ESP - OUT - 1 - OHM - 17JAN2000 - BHHNO3 | | OHM | X | | | |
| | MPWS - ESP - OUT - 1 - OHM - 17JAN2000 - BHKMNO4 | | OHM | X | | | |
| | MPWS - ESP - OUT - 2 - OHM - 17JAN2000 - FHHNO3 | 1/20/00 | OHM | X | | | |
| | MPWS - ESP - OUT - 2 - OHM - 17JAN2000 - FILT | | OHM | X | | W401 | |
| | MPWS - ESP - OUT - 2 - OHM - 17JAN2000 - BHKCL | R2 | OHM | X | | | |
| | MPWS - ESP - OUT - 2 - OHM - 17JAN2000 - BHHNO3 | | OHM | X | | | |
| | MPWS - ESP - OUT - 2 - OHM - 17JAN2000 - BHKMNO4 | | OHM | X | | | |
| | MPWS - ESP - OUT - 3 - OHM - 17JAN2000 - FHHNO3 | | OHM | X | | | |
| | MPWS - ESP - OUT - 3 - OHM - 17JAN2000 - FILT | | OHM | X | | W403 | |
| | MPWS - ESP - OUT - 3 - OHM - 17JAN2000 - BHKCL | R3 | OHM | X | | | |
| | MPWS - ESP - OUT - 3 - OHM - 17JAN2000 - BHHNO3 | | OHM | X | | | |
| | MPWS - ESP - OUT - 3 - OHM - 17JAN2000 - BHKMNO4 | | OHM | X | | | |
| | ~~MPWS - ESP - OUT - SB - OHM - 17JAN2000 - KCl~~ | | OHM | | | | |
| | ~~MPWS - ESP - OUT - SB - OHM - 17JAN2000 - FILT~~ | | OHM | | | | |
| | ~~MPWS - ESP - OUT - SB - OHM - 17JAN2000 - KMNO4~~ | | OHM | | | | |
| | ~~MPWS - ESP - OUT - SB - OHM - 17JAN2000 - HNO3/H2O2~~ | | OHM | | | | |
| | ~~MPWS - ESP - OUT - SB - OHM - 17JAN2000 - HNO3~~ | | OHM | | | | |
| | MPWS - ESP - OUT - BT - OHM - 17JAN2000 - FHHNO3 | 1/20/00 | OHM | X | | | |
| | MPWS - ESP - OUT - BT - OHM - 17JAN2000 - FILT | | OHM | X | | W402 | |
| | MPWS - ESP - OUT - BT - OHM - 17JAN2000 - BHKCL | BT | OHM | X | | | |
| | MPWS - ESP - OUT - BT - OHM - 17JAN2000 - BHHNO3 | | OHM | X | | | |
| | MPWS - ESP - OUT - BT - OHM - 17JAN2000 - BHKMNO4 | | OHM | X | | | |

**Notes:** OHM - Speciated Mercury Analysis per Ontario Hydro Method

Note all analysis must be completed within 45 days of sample collection or by 3/5/00

| Relinquished By | Received By | Date | Time | Lab Use Only | |
|---|---|---|---|---|---|
| Jack Mills | D. Bartosh | 1/24/00 | 11:5 am | Shipper PAS | Air Bill # |
| | J. Mast | 1/24/00 | 14:45 | Opened By (mas) | Date/Time |
| | | | | Temp °C 19 | Condition intact |
| | | | | Custody Seals: Yes No None N/A | |

**Laboratory Comments:**

Copyright Roy F Weston Inc Jan 1999PV

| Lab Tracking Number |
|---|
| |

# Chain-of-Custody Record/Lab Work Request

WESTON



189939

| | | | |
|---|---|---|---|
| Client | MISSISSIPPI POWER, WATSON STATION | | |
| Work Order Number | 12251.001.001 | Phone Number | 610-701-7245 |
| Contact Person | Jack Mills | Turn Around Time | 45 Days-collection |

Analyses Requested/Other Info

| Lab ID | Field Sample ID | | Sample Collection Date | Analysis | Hg | | Trimble ID # | Sample Check-off |
|---|---|---|---|---|---|---|---|---|
| | MPWS - ESP- IN - 1 - OHM - 17JAN2000 - FHHNO3 | R1 | 1/19/00 | OHM | X | | | |
| | MPWS - ESP- IN - 1 - OHM - 17JAN2000 - FILT | | | OHM | X 2of2 | | W31 + W32 | |
| | MPWS - ESP- IN - 1 - OHM - 17JAN2000 - BHKCL | | | OHM | X | | | |
| | MPWS - ESP- IN - 1 - OHM - 17JAN2000 - BHHNO3 | | | OHM | X | | | |
| | MPWS - ESP- IN - 1 - OHM - 17JAN2000 - BHKMNO4 | | | OHM | X | | | |
| | MPWS - ESP- IN - 2 - OHM - 17JAN2000 - FHHNO3 | R2 | 1/20/00 | OHM | X | | | |
| | MPWS - ESP- IN - 2 - OHM - 17JAN2000 - FILT | | | OHM | X | | W34 | |
| | MPWS - ESP- IN - 2 - OHM - 17JAN2000 - BHKCL | | | OHM | X | | | |
| | MPWS - ESP- IN - 2 - OHM - 17JAN2000 - BHHNO3 | | | OHM | X | | | |
| | MPWS - ESP- IN - 2 - OHM - 17JAN2000 - BHKMNO4 | | | OHM | X | | | |
| | MPWS - ESP- IN - 3 - OHM - 17JAN2000 - FHHNO3 | R3 | | OHM | X | | | |
| | MPWS - ESP- IN - 3 - OHM - 17JAN2000 - FILT | | | OHM | X | | W29 | |
| | MPWS - ESP- IN - 3 - OHM - 17JAN2000 - BHKCL | | | OHM | X | | | |
| | MPWS - ESP- IN - 3 - OHM - 17JAN2000 - BHHNO3 | | | OHM | X | | | |
| | MPWS - ESP- IN - 3 - OHM - 17JAN2000 - BHKMNO4 | | | OHM | X | | | |
| | MPWS - ESP- IN - SB - OHM - 17JAN2000 - KCl | SB | | OHM | X | | | |
| | MPWS - ESP- IN - SB - OHM - 17JAN2000 - FILT | | | OHM | X | | W404 | |
| | MPWS - ESP- IN - SB - OHM - 17JAN2000 - KMNO4 | | | OHM | X | | | |
| | MPWS - ESP- IN - SB - OHM - 17JAN2000 - HNO3/H2O2 | | | OHM | X | | | |
| | MPWS - ESP- IN - SB - OHM - 17JAN2000 ~~HNO3~~ 0.1N | | | OHM | X | | | |
| | MPWS - ESP- IN - BT - OHM - 17JAN2000 - FHHNO3 | BT | 1/19/00 | OHM | X | | | |
| | MPWS - ESP- IN - BT - OHM - 17JAN2000 - FILT | | | OHM | X | | W33 | |
| | MPWS - ESP- IN - BT - OHM - 17JAN2000 - BHKCL | | | OHM | X | | | |
| | MPWS - ESP- IN - BT - OHM - 17JAN2000 - BHHNO3 | | | OHM | X | | | |
| | MPWS - ESP- IN - BT - OHM - 17JAN2000 - BHKMNO4 | | | OHM | X | | | |
| | | | | | | | | |
| | MPWS-ESP-IN-SB-OHM-17JAN2000-Trimble | | 1/20/00 | | X | | W35 | |
| | | | | | | | | |
| | MPWS-ESP-IN-SB-OHM-17JAN2000-10% HNO3 | | | | X | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**Notes:** OHM - Speciated Mercury Analysis per Ontario Hydro Method

Note: All analysis must be completed within 45 days of sample collection or by 3/5/00

| Relinquished By | Received By | Date | Time | Lab Use Only | |
|---|---|---|---|---|---|
| Jack Mills | D. Baitsch | 1/24/00 | 11:15 am | Shipper PAS | Air Bill # |
| | J. Mast | 1/24/00 | 14:45 | Opened By NAD | Date/Time |
| | | | | Temp °C 19 | Condition intact |
| | | | | Custody Seals: Yes No None N/A | |

**Laboratory Comments:**

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189939 - 01
Ontario Hydro method
- Need two copies

# Data Package Cover Sheet for Atomic Absorption Spectroscopy by Automated Cold Vapor Analysis

| | |
|---|---|
| Date of Analysis: 2/3/00 | Element: HG |
| Analyst: [illegible] | Time of Analysis: 1209 |
| Data Validated by: Vaughan J. O'Neill | Instrument: Leeman PS 200 |

Calibration Standard Preparation Records

| Preparation Record is in Notebook # | Date of Preparation |
|---|---|
| 360 - 38 - 18 to 23 | 2/3/00 |

Quality Control Sample Preparation Records

| Name | Preparation is in Notebook # | Date of Preparation |
|---|---|---|
| QCS/ICV | 360-39-3 | 2/3/00 |
| IPC/CCV | 360-39-25 | 2/3/00 |

The computer for this instrument is not Y2K compliant.
The date had to be backdated to the 1980's.
The correct date and time of analysis is stated on this coversheet.

I Certify that all QA/QC results were acceptable and that there were no problems except as noted.

Jennifer L. Paris 2/4/00
Signature of Analyst and Date

Sample Narrative for Mercury Determination for 2/3/00:

The samples analyzed in this batch were digested and analyzed by the Ontario-Hydro Method. The same volumes of reagents were added to all of the samples. The DF (dilution factor) was calculated as 1.405.

See the analysis from 2/4/00 for the calculation of Total Particle-Bound Mercury.

Analyst and Date: JHP 2/4/00

Validated by and date: V. Orell 2/8/00

```
RunProt: ONTARIO
RunFold: 020300    Seq: 0     Batch:
                   Prnt: R/T On
                   Rev: 4.0     11:56:18 03 Feb 1983 Xmit: Off  Gas:          LPM
                                                        User:            A/S: On
  Idle
```

```
 AUTOSAMPLER:  Rack entry    Rack RACK#4
cup ID         Extended id          Weight Volume Macro
 1 QCS/ICV     5.00 UG/L 2/3/00     1.0000 1.0000
 2 1390623     10% HNO3 BLK NOT DIG1.0000 1.0000
 3 LRB HNO3    2/2/00 30ML          1.0000 1.0000
 4 LFB HNO3    2/2/00 2.0 UG/L      1.0000 1.0000
 5 1390616     SB HNO3              1.0000 1.0000
 6 1390597     ESP1 IN              1.0000 1.0000
 7 1390577     ESP 1 OUT            1.0000 1.0000
 8 1390602     ESP 2 IN             1.0000 1.0000
 9 1390582     ESP 2 OUT            1.0000 1.0000
10 1390607     ESP 3 IN             1.0000 1.0000
11 1390587     ESP 3 OUT            1.0000 1.0000
12 1390587 D   ESP 3 OUT            1.0000 1.0000
13 1390587 S   2.0 UG/L ESP 3 OUT   1.0000 1.0000
14 1390617     BT IN                1.0000 1.0000
15 1390592     BT OUT               1.0000 1.0000
                                                                          PgDn
```

```
Cup 1   ID: QCS/ICV                                  Cell entry down Ins to switch
```

Reagents, QC, Standards Preparation Log #360

| Date/Time | Initials | Exp. Date | Solution | Vol/Wt of Reagents # | Vol/Wt of Reagents Units | Reagent SSM ID # | Reagent SSM ID # Conc. | Final Volume # | Final Volume Units | Dilution Matrix | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) 2/1/00 12:50 | SMW | | 2.00 ug/l Hg Std | 200 | ul | 360-37-21 | 1.00 mg/l | 100 | ml | | |
| 2) | | | 5.00 | 500 | | | | | | | |
| 3) | | | 10.0 | 1000 | | | | | | | |
| 4) | | | IPC/CCV 5.0 ug/l | 500 | | | | | | | |
| 5) | | | ICV/QCS 5.0 ug/l | 500 | | 360-37-22 | | | | | |
| 6) 2/2/00 1020 | JHP | 2/3/00 | 1.00 mg/l Hg Std Stock | 100 | ul | Hg-995150604 | 1.00 mg/l | 100 | ml | 0.15% $HNO_3$ | |
| 7) | | | 1.00 mg/l Hg QCS Stock | 100 | ul | Hg-995123301 | | | | | |
| 8) 2/2/00 | SMW | | Cal Blk | — | — | — | — | 100 | ml | | |
| 9) | | | 0.50 ug/l Hg Std | 50 | ul | 360-38-6 | 1.00 mg/l | | | | |
| 10) | | | 1.00 | 100 | | | | | | | |
| 11) | | | 2.00 | 200 | | | | | | | |
| 12) | | | 5.00 | 500 | | | | | | | |
| 13) | | | 10.0 | 1000 | | | | | | | |
| 14) | | | IPC/CCV 5.0 ug/l | 500 | | | | | | | |
| 15) | | | ICV/QCS 5.0 ug/l | 500 | | 360-38-7 | | | | | |
| 16) 2/3/00 0830 | JHP | | 1.00 mg/l Hg Std Stock | 100 | ul | Hg-995160004 | 1.00 mg/l | 100 | ml | 0.15% $HNO_3$ | |
| 17) | | | 1.00 mg/l Hg QCS Stock | | | Hg-995123301 | | | | | |
| 18) 2/3/00 1130 | JHP | | Cal Blk | — | — | — | — | 100 | ml | 10% HCl | Ontario Hydro Method |
| 19) | | | 0.20 ug/l Hg Std | 20 | ul | 360-38-16 | 1.00 mg/l | | | | |
| 20) | | | 0.50 ug/l Hg Std | 50 | | | | | | | |
| 21) | | | 2.00 | 200 | | | | | | | |
| 22) | | | 5.00 | 500 | | | | | | | |
| 23) | | | 10.0 | 1000 | | | | | | | |
| 24) | | | ICB/CCB | — | — | — | | | | | |
| 25) | | | IPC/CCV 5.00 ug/l | 500 | ul | 360-38-16 | 1.00 mg/l | | | | |

B-114

00330

Reagents, QC, Standards Preparation Log #360

| Date/Time | Initials | Exp. Date | Solution | Vol/Wt of Reagents # | Vol/Wt of Reagents Units | Reagent SSM ID # | Reagent SSM ID # Conc. | Final Volume # | Final Volume Units | Dilution Matrix | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) 2/3/00 1130 | JAP | JP 2/3/00 | ~~QCS/ICV 5.00ug/L Hg~~ | ~~500~~ | ~~ml~~ | ~~360-38-17~~ | ~~1.00mg/L~~ | ~~100~~ | ~~ml~~ | ~~10% HCl~~ | ~~Ontario Hydro Method.~~ |
| 2) 2/3/00 1410 | JAP | | 1.00mg/L Hg QCS Stock | 100 | ml | Hg-995/233d | 1000mg/L | 100 | ml | 0.5% $HNO_3$ | |
| 3) ↓ | ↓ | | QCS/ICV 5.00ug/L | 500 | ml | 360-39-2 | 1.0mg/L | ↓ | ↓ | 10% HCl | Ontario Hydro Method |
| 4) | | | | | | | | | | | |
| 5) | | | | | | | | | | | |
| 6) | | | | | | | | | | | |
| 7) | | | | | | | | | | | |
| 8) | | | | | | | | | | | |
| 9) | | | | | | | | | | | |
| 10) | | | | | | | | | | | |
| 11) | | | | | | | | | | | |
| 12) | | | | | | | | | | | |
| 13) | | | | | | | | | | | |
| 14) | | | | | | | | | | | |
| 15) | | | | | | | | | | | |
| 16) | | | | | | | | | | | |
| 17) | | | | | | | | | | | |
| 18) | | | | | | | | | | | |
| 19) | | | | | | | | | | | |
| 20) | | | | | | | | | | | |
| 21) | | | | | | | | | | | |
| 22) | | | | | | | | | | | |
| 23) | | | | | | | | | | | |
| 24) | | | | | | | | | | | |
| 25) | | | | | | | | | | | |

Book #118

# Ontario Hydro Method (10/27/99)

189939

| Analyst Date + Time of Prep. | Sample I.D. # | Initial sample received (g) or (l) | Final vol. to sample was brought up to (l) | Total volume of sample digested (g) or (ml) | Vol. of trace metal $H_2SO_4$ (ml) | Vol. of trace metal $HNO_3$ (ml) | Vol. of 5% KMnO4 added (ml) | Vol. of trace metal HCl (ml) | Vol. of 5% $K_2S_2O_8$ added (ml) | Vol. of 10% Hydroxyl-amine salt added (ml) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/2/00 GHP 12:35 | Exp. In O/S BLK 1390623 | 0.120 l | — | — | — | — | — | — | — | — | Not digested |
| 2/3/00 GHP 13:10 | LRB-KMnO4 | — | — | 30 ml | — | 1.5 ml | 4.5 ml | — | 2.25 | 3.0 ml | — |
| | LFB-KMnO4 | — | — | | — | | | — | | | spiked w/ 60 ml of 1.00 mg/l Hg |
| | BLK | | | | | | | | | | KMnO4 portion - BLK |
| | 1390614 | 0.300 l | 0.500 l | | — | | | — | | | Clean Exp #1 |
| | 1390601 | 0.575 l | 0.575 l | | — | | | — | | | - Inlet Exp #1 |
| | 1390581 | 0.610 l | 0.610 l | | — | | | — | | | - Outlet Exp #2 |
| | 1390606 | 0.550 l | 0.550 l | | — | | | — | | | - Inlet Exp #2 |
| | 1390586 | 0.550 l | 0.550 l | | — | | | — | | | - Outlet Exp #3 |
| | 1390611 | 0.575 l | 0.575 l | | — | | | — | | | - Inlet Exp #3 |
| | 1390591 | 0.535 l | 0.535 l | | — | | | — | | | - Outlet BT |
| | 1390621 | 0.560 l | 0.560 l | | — | | | — | | | - Inlet BT |
| | 1390596 | 0.580 l | 0.580 l | | — | | | — | | | - Outlet |
| 2/2/00 GHP 12:10 | LRB-KCl | — | — | 30 ml | 1.5 | 0.75 | 4.5 | — | 2.25 | | — |
| | LFB-KCl | — | — | | | | | — | | | spiked w/ 60 ml of 1.00 mg/l Hg |
| | | | | | | | | | | | KCl portion - BLK |
| | 1390612 | 0.310 l | 0.500 l | | | | | — | | | Clean Exp #1 |
| | 0519 | 0.635 l | 0.635 l | | | | | — | | | - Inlet Exp #1 |
| | 0579 | 0.835 l | 0.835 l | | | | | — | | | - Outlet Exp #2 |
| | 0604 | 0.710 l | 0.710 l | | | | | — | | | - Inlet Exp #2 |
| | 0584 | 0.840 l | 0.840 l | | | | | — | | | - Outlet Exp #3 |
| | 0609 | 0.710 l | 0.710 l | | | | | — | | | - Inlet Exp #3 |
| | 0589 | 0.670 l | 0.670 l | | | | | — | | | - Outlet BT |
| | 0619 | 0.590 l | 0.590 l | | | | | — | | | - Inlet BT |
| | 0594 | 0.455 l | 0.455 l | | | | | — | | | - Outlet |
| | LRB-C.W. $HNO_3$ | — | — | 30 ml | 1.5 | 0.75 | 4.5 | — | 2.4 | 3.0 | — |
| | LFB-C.W. $HNO_3$ | — | — | | | | | — | | | spiked w/ 60 ml of 1.00 mg/l Hg |
| | | | | | | | | | | | C.W. $HNO_3$ - BLK |
| | 1390616 | 0.185 l | — | | | | | — | | | Exp #1 |
| | 0547 | 0.460 l | — | | | | | — | | | - Inlet Exp #1 |
| | 0577 | 0.323 l | — | | | | | — | | | - Outlet Exp #2 |
| | 0602 | 0.480 l | — | | | | | — | | | - Inlet Exp #2 |
| | 0582 | 0.220 l | — | | | | | — | | | - Outlet Exp #3 |
| | 0607 | 0.285 l | — | | | | | — | | | - Inlet Exp #3 |
| | 0587 | 0.293 l | — | | | | | — | | | - Outlet BT |
| | 0617 | 0.100 l | — | | | | | — | | | - Inlet BT |
| | 0592 | 0.114 l | — | | | | | — | | | - Outlet |
| 2/3/00 08:10 GHP | LRB-$HNO_3$/HCl | — | — | 10 ml | 0.5 | — | 14.5 | 0.5 | 1.5 | 5.0 | — |
| | LFB-$HNO_3$/HCl | — | — | | | — | 14.5 | | | 6.0 | spiked w/ 60 ml of 1.00 mg/l Hg |
| | 1390615 | 0.110 l | 0.250 l | | | — | 18.6 | | | 2.0 ml | Clean Rec. $HNO_3$/HCl Exp #1 |
| | 0600 | 0.140 l | | | | — | 14.5 | | | | - Inlet Exp #2 |
| | 0580 | 0.170 l | | | | — | 14.5 | | | | - Outlet |

Notes: The graduate cylinder was acid washed between each sample. GHP. The samples for the KCl + $HNO_3$, portions were digested for 3 hours at 95°C. $HCl$ + KMnO4

Page #118

# Ontario Hydro Method (10/27/94 Draft)

| Analyst, Date & Time of Prep | Sample ID | Initial Sample received (g) or (L) | Final Vol. of sample was brought up to (L) | Total vol. of sample digested (g) (L) | Vol. of Trace metal conc. $H_2SO_4$ (mL) | Vol. of trace metal conc. $HNO_3$ (mL) | Vol. of 5% $KMnO_4$ added (mL) | Vol. of trace metal conc. HCl (mL) | Vol. of 5% $K_2S_2O_8$ added (mL) | Vol. of 12% Hydroxylamine 1st added (mL) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/3/96 0840 | 1390605 | 0.163 L | 0.250 L | 10 mL | 0.5 | — | ~~0.5~~ 16.5 | 0.5 | 1.5 | 2 mL | Hg, $H_2O$ - ESP#2 Inlet |
| | 0585 | 0.160 L | | 10 mL | | — | 14.5 | | | | - ESP#2 Outlet |
| | 0610 | 0.145 L | | 10 mL | | — | 14.5 | | | | - ESP#3 Inlet |
| | 0590 | 0.150 L | | 10 mL | | — | 16.5 | | | | - ESP#3 Outlet |
| | 0630 | 0.135 L | | 10 mL | | — | 18.5 | | | | - BT Inlet |
| | 0575 | 0.155 L | | 10 mL | | — | 18.5 | | | | - BT Outlet |
| 2/12/96 10:00 | LRB - Thimble Filter | — | 0.100 L | — | — | 1.25 | N/A ~~3.75~~ | N/A ~~3.75~~ | — | — | Time — HF — 200 ul of 100 mg/L Hg stock std. |
| | LFB - Thimble Filter | — | | — | — | | — | | | — | ESP Inlet |
| | 1390622 | - 0 - | | Whole Thimble | — | | — | | | — | SB - Thimble |
| | 0598 | 2.2491 g ~~2.3337~~ | | 0.69 g | — | | — | | | — | ESP#1 Inlet Thimble |
| | 0603 | 7.5105 g | | 0.56 g | — | | — | | | — | ESP#2 - Inlet Thimble |
| | 0608 | 9.1795 g | | 0.56 g | — | | — | | | — | ESP#3 - Inlet Thimble |
| | 0618 | - 0 - | | Whole Thimble | — | | — | | | — | ESP - BT Inlet Thimble |
| | 1390613 | N/A | | Whole filter | — | | — | | | — | Filter - SB |
| | 0578 | | | | — | | — | | | — | Client Blk |
| | 0583 | | | | — | | — | | | — | ESP#1 - Outlet Filter |
| | 0588 | | | | — | | — | | | — | ESP#2 - Outlet Filter |
| | 0593 | | | | — | | — | | | — | ESP#3 - Outlet Filter |
| | NIST - Ash 1633B | | | 0.64 g | — | | — | | | — | BT - Filter Outlet QC |

## 15. Calculations for Particle-Bound, Oxidized, Elemental, and Total Mercury Concentrations:

### 15.1 *Particle-Bound Mercury*

15.1.1 *Case 1: Amount of Ash on the Filter is Greater Than 0.5 g*—Calculate the concentration of mercury in µg/g in the ash sample ($Hg_{ash}$) using Equation 4:

$$Hg_{ash}, \mu g/g = (IR)(DF) \qquad \text{[Eq. 4]}$$

where:
IR = instrument reading, µg/L
DF = dilution factor = (total digested volume, L)/(mass of ash digested, g)

Calculate the amount of mercury in the probe rinse ($Hg_{pr}$, Container 2) in µg using Equation 5:

$$Hg_{pr}, \mu g = (IR)(V_1) \qquad \text{[Eq. 5]}$$

where:
IR = instrument reading, µg/L
$V_1$ = total volume of probe rinse sample from which sample aliquot was taken, L

Equation 5 assumes no preparation steps are needed prior to analyzing the probe rinse for mercury using CVAA. Although not required, a persulfate digest can be done on the probe rinse sample as discussed in section 13.3.3. If the persulfate digest is done equation 5 becomes $Hg_{pr}$, µg = (IR)($V_1$)(DF) where DF is the same as equation 9.

There is no filter blank subtraction when >0.5 g of ash are collected on the sample filter or thimble.

The total amount of particle-bound mercury ($Hg_{tp}$) is then determined using Equation 6:

$$Hg\ (particle), \mu g = (Hg_{ash})(W_{ash}) + Hg_{pr} \qquad \text{[Eq. 6]}$$

where:
$W_{ash}$ = the total mass of ash on filter, g

The concentration of particle-bound mercury (µg/dscm) in the gas stream is then determined using Equation 7:

$$Hg^{tp}, \mu g/dscm = Hg\ (particle)/V_{m(std)} \qquad \text{[Eq. 7]}$$

where:
$V_{m(std)}$ = is the total volume of dry gas sampled at standard (normal) conditions, dscm

```
RunProt: ONTARIO
RunFold: 020300    Seq: 0     Batch:
                   Prnt: R/T On
                   Rev: 4.0     11:44:23 03 Feb 1983 Xmit: Off  Gas:          LPM
  Idle                                                User:              A/S: On
```

INSTRUMENT: Scheduled Maintenance

| | | Uses left | Last service | Next service |
|---|---|---|---|---|
| replace: | Pump tubing | 239 | 28-Jan-83 | 07-Feb-83 |
| | Waste drain tubing | 1559 | 17-Jan-83 | 02-Jan-84 |
| | Liquid/gas separator | 3400 | 28-Dec-99 | 31-Jan-01 |
| | puMp head | 10000 | N/A | N/A |
| | Hg lamp | N/A | 06-Jan-83 | 05-Jun-83 |
| | Reductant bottle | 400 | 03-Feb-83 | 02-Aug-83 |
| | prOcess tubing | 3400 | N/A | N/A |
| Clean optical cell | | 600 | N/A | N/A |

* - needs maintenance

```
For help on <hotkey> press Shift <hotkey>
```

```
RunProt: ONTARIO
RunFold: 020300    Seq: 0     Batch:
                   Prnt: R/T On
                   Rev: 4.0     11:57:19 03 Feb 1983 Xmit: Off  Gas:          LPM
  Idle                                                User:              A/S: On
```

```
UTILITY:  Diagnostics  Tip X      0 1   99
Aper test              Tip Y      0 1    3
Test optic             Tip Z     95 1    7
Tip home               Gas     -338
Out port
In port
Run pcode
Cal A/S
```

aperture - 6

acceptable Range = -100 to +100

```
Sensors on solenoid Enter for test Ins for motor More tests
Pcode halt 0     @ 344
```

```
RunProt: ONTARIO
RunFold: 020300    Seq: 0     Batch:
                   Prnt: R/T On
                   Rev: 4.0    11:57:24 03 Feb 1983 Xmit: Off  Gas:          LPM
  Idle                                              User:                A/S: On
```

```
UTILITY:  Diagnostics  Tip X      0 1   99
Aper test              Tip Y      0 1    3
Test optic             Tip Z     95 1    7
Tip home               Gas      -338
Out port                                      Smpl. intensity    1386812
In port                                       Ref. intensity     1391649
Run pcode
Cal A/S
```

$\left.\begin{array}{l}1386812\\1391649\end{array}\right\}$ <10% difference acceptable.

```
Sensors on solenoid Enter for test Ins for motor More tests
Pcode halt 0     @ 142
```

12:03:37 03 Feb 1983

Folder: 020300
Protocol: ONTARIO

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|
| *** Standard: 1 Rep: 1 | | | | Seq: | 0 | 12:03:37 03 Feb ~~1983~~ 2000 | | HG |
| Hg | .000 | ug/l | -1409 | | | | | |
| *** Standard: 1 Rep: 2 | | | | Seq: | 1 | 12:05:47 03 Feb 1983 | | HG |
| Hg | .000 | ug/l | -1634 | | | | | |
| *** Standard: 1 Rep: 1 | | | | Seq: | 2 | 12:09:44 03 Feb ~~1983~~ 2000 | | HG |
| Hg | .000 | ug/l | -1033 | | | | | |
| *** Standard: 1 Rep: 2 | | | | Seq: | 3 | 12:11:53 03 Feb 1983 | | HG |
| Hg | .000 | ug/l | -941 | | | | | |
| *** Standard: 2 Rep: 1 | | | | Seq: | 4 | 12:14:02 03 Feb 1983 | | HG |
| Hg | .200 | ug/l | 19056 | | | | | |
| *** Standard: 2 Rep: 2 | | | | Seq: | 5 | 12:16:13 03 Feb 1983 | | HG |
| Hg | .200 | ug/l | 19079 | | | | | |
| *** Standard: 3 Rep: 1 | | | | Seq: | 6 | 12:18:23 03 Feb 1983 | | HG |
| Hg | .500 | ug/l | 48907 | | | | | |
| *** Standard: 3 Rep: 2 | | | | Seq: | 7 | 12:20:34 03 Feb 1983 | | HG |
| Hg | .500 | ug/l | 48078 | | | | | |
| *** Standard: 4 Rep: 1 | | | | Seq: | 8 | 12:22:46 03 Feb 1983 | | HG |
| Hg | 2.00 | ug/l | 197927 | | | | | |
| *** Standard: 4 Rep: 2 | | | | Seq: | 9 | 12:25:02 03 Feb 1983 | | HG |
| Hg | 2.00 | ug/l | 197267 | | | | | |
| *** Standard: 5 Rep: 1 | | | | Seq: | 10 | 12:27:17 03 Feb 1983 | | HG |
| Hg | 5.00 | ug/l | 490866 | | | | | |
| *** Standard: 5 Rep: 2 | | | | Seq: | 11 | 12:29:41 03 Feb 1983 | | HG |
| Hg | 5.00 | ug/l | 485986 | | | | | |

Folder: 020300
Protocol: ONTARIO

12:32:03 03 Feb 1983

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|
| *** Standard: 6 Rep: 1 | | | | Seq: 12 | 12:32:03 03 Feb 1983 HG | | | |
| Hg | 10.0 | ug/l | 963381 | | | | | |
| *** Standard: 6 Rep: 2 | | | | Seq: 13 | 12:34:32 03 Feb 1983 HG | | | |
| Hg | 10.0 | ug/l | 965071 | | | | | |

RunProt: ONTARIO

RunFold: 020300 Seq: 14 Batch:

Prnt: R/T On

Rev: 4.0 12:36:25 03 Feb 1983 Xmit: Off Gas: 0.30 LPM

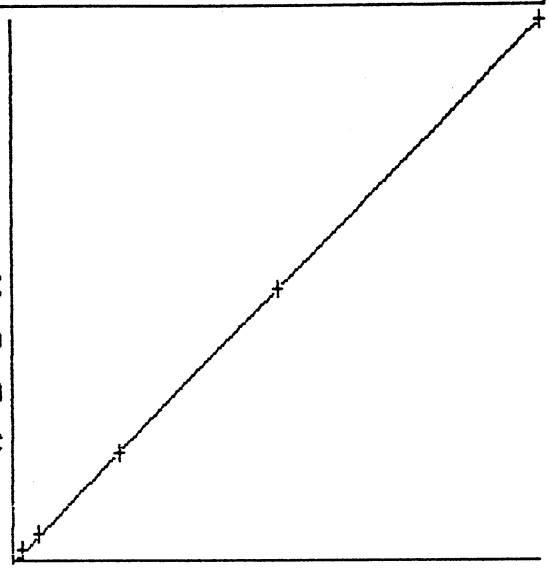
Idle User: A/S: On

CALIBRATION: Line proto: ONTARIO

| | Hg Conc. | Calc. | Dev. | Accepted ->linear | |
|---|---|---|---|---|---|
| S1 | .000 | -.023 | -.023 | Quadratic | |
| S2 | .200 | .185 | -.015 | Wtdlinear | |
| S3 | .500 | .489 | -.011 | | C |
| S4 | 2.00 | 2.03 | .033 | Accept | o |
| S5 | 5.00 | 5.04 | .045 | | n |
| S6 | 10.0 | 9.97 | -.029 | | c |

A .0000000 r .999969

B 1.03547e-5 C -1.28617e-2



| | Mean | %RSD | | Relative Absorbance |
|---|---|---|---|---|
| S1 | -987 | -6.59 | -1033 | -941 |
| S2 | 19067 | 0.09 | 19056 | 19079 |
| S3 | 48492 | 1.21 | 48907 | 48078 |
| S4 | 197597 | 0.24 | 197927 | 197267 |
| S5 | 488426 | 0.71 | 490866 | 485986 |
| S6 | 964226 | 0.12 | 963381 | 965071 |

New cal coefficients stored

12:40:08 03 Feb 1983 Folder: 020300 Protocol: ONTARIO

Line Conc. Units SD/RSD 1 2 3 4 5

*** Check Standard: 4 Ck4IPC/CCV Seq: 14 12:40:08 03 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 101. | 5.04 | 5.00 | ug/l | .000 |

$\bar{x}$ = 5.04 ug/L 101% R

*** Check Standard: 3 Ck3IPC/CCV Seq: 15 12:42:26 03 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 101. | 5.03 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 16 12:44:46 03 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -24900 | -.025 | .000 | ug/l | .000 |

$\bar{x}$ = <0.2 ug/L

*** Check Standard: 1 Ck1ICB/CCB Seq: 17 12:46:53 03 Feb 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.013 | .200 | ug/l | .000 |

*** Sample ID: QCS/ICV Seq: 18 12:48:59 03 Feb 1983 HG

5.00 UG/L 2/3/00

Hg 5.79 ug/l .000 5.79

Solution # 360-39-1

*** Sample ID: QCS/ICV Seq: 19 12:51:22 03 Feb 1983 HG

2/4/00 gp

5.00 UG/L 2/3/00

Hg 5.80 ug/l .000 5.80

*** Sample ID: QCS/ICV Seq: 20 12:56:50 03 Feb 1983 HG

5.00 UG/L 2/3/00

Hg 5.80 ug/l .000 5.80

New solution # 360-39-3 → *** Sample ID: QCS/ICV Seq: 21 13:07:54 03 Feb 1983 HG

5.00 UG/L 2/3/00

Hg 5.36 ug/l .000 5.36

$\bar{x}$ = 5.34 ug/L 107% R

*** Sample ID: QCS/ICV Seq: 22 13:10:11 03 Feb 1983 HG

5.00 UG/L 2/3/00

Hg 5.31 ug/l .000 5.31

*** Sample ID: 1390623 Seq: 23 13:12:31 03 Feb 1983 HG

<0.2

10% HNO3 BLK NOT DIGESTED

Hg -.023 ug/l .000 -.023

$\bar{x}$ = <0.2 ug/L × 0.120 L = <0.03 ug

*** Sample ID: 1390623 Seq: 24 13:14:34 03 Feb 1983 HG

<0.2

10% HNO3 BLK NOT DIG

Hg -.014 ug/l .000 -.014

*** Sample ID: LRB HNO3 Seq: 25 13:16:39 03 Feb 1983 HG

<0.2

2/2/00 30ML

Hg .000 ug/l .000 .000

Dilution factor = 1.405

$\bar{x} = (<0.2\ ug/L)\left(\frac{30\ ml + 1.5\ ml + 0.75\ ml + 4.5\ ml + 2.4\ ml}{30\ ml}\right)$

= <0.3 ug/L Hg

Folder: 020300
13:18:42 03 Feb 1983 Protocol: ONTARIO

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|

*** Sample ID: LRB HNO3 Seq: 26 13:18:42 03 Feb 1983 HG
2/2/00 30ML
Hg <0.2 -.000 ug/l .000 -.000

*** Sample ID: LFB HNO3 Seq: 27 13:20:47 03 Feb 1983 HG
2/2/00 2.0 UG/L LFB T.V. = 2.00 ug/l 96% R
Hg 1.36 ug/l .000 1.36 $\bar{x}$ = (1.36 ug/l)(1.405) = 1.91 ug/l

*** Sample ID: LFB HNO3 Seq: 28 13:23:02 03 Feb 1983 HG
2/2/00 2.0 UG/L
Hg 1.36 ug/l .000 1.36

*** Sample ID: 1390616 Seq: 29 13:25:13 03 Feb 1983 HG
SB HNO3 $\bar{x}$ = (<0.2 ug/l)(1.405) = <0.28 ug/l
Hg <0.2 -.007 ug/l .000 -.007 ∴ (<0.28 ug/l)(0.185 l) = <0.052 ug Hg pr

*** Sample ID: 1390616 Seq: 30 13:27:16 03 Feb 1983 HG
SB HNO3
Hg <0.2 -.003 ug/l .000 -.003

*** Sample ID: 1390597 Seq: 31 13:29:21 03 Feb 1983 HG D.L = <0.13 ug Hg pr
ESP1 IN $\bar{x}$ = (4.52 ug/l)(1.405) = 6.35 ug/l
Hg 4.53 ug/l .000 4.53 ∴ (6.35 ug/l)(0.460 l) = 2.92 ug Hg pr

*** Sample ID: 1390597 Seq: 32 13:31:38 03 Feb 1983 HG
ESP1 IN
Hg 4.50 ug/l .000 4.50

*** Check Standard: 4 Ck4IPC/CCV Seq: 33 13:44:08 03 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 100. | 5.02 | 5.00 | ug/l | .000 |

$\bar{x}$ = 5.03 ug/l 101% R

*** Check Standard: 3 Ck3IPC/CCV Seq: 34 13:46:28 03 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 101. | 5.04 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 35 13:48:50 03 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -23700 | -.024 <0.2 | .000 | ug/l | .000 |

$\bar{x}$ = <0.2 ug/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 36 13:50:57 03 Feb 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.013 <0.2 | .200 | ug/l | .000 |

*** Sample ID: 1390577 Seq: 37 13:53:02 03 Feb 1983 HG
ESP 1 OUT $\bar{x}$ = (<0.2 ug/l)(1.405) = <0.28 ug/l
Hg <0.2 .033 ug/l .000 .033 ∴ (<0.28 ug/l)(0.323 l) = <0.09 ug Hg pr

Folder: 020300
Protocol: ONTARIO

13:55:06 03 Feb 1983

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|

*** Sample ID: 1390577 Seq: 38 13:55:06 03 Feb 1983 HG

ESP 1 OUT

Hg <0.2 .029 ug/l .000 .029

*** Sample ID: 1390602 Seq: 39 13:57:11 03 Feb 1983 HG D.L.= 0.14 ug Hg per

ESP 2 IN

Hg 3.67 ug/l .000 3.67

$\bar{x}$ = (3.69 ug/l)(1.405) = 5.18 ug/l
∴ (5.18 ug/l)(0.480 l) = 2.49 ug Hg per

*** Sample ID: 1390602 Seq: 40 13:59:27 03 Feb 1983 HG

ESP 2 IN

Hg 3.70 ug/l .000 3.70

*** Sample ID: 1390582 Seq: 41 14:01:42 03 Feb 1983 HG D.L.= 0.08 ug Hg per

ESP 2 OUT

Hg .242 ug/l .000 .242

$\bar{x}$ = (0.243 ug/l)(1.405) = 0.341 ug/l
∴ (0.341 ug/l)(0.270 l) = 0.092 ug Hg per

*** Sample ID: 1390582 Seq: 42 14:03:47 03 Feb 1983 HG

ESP 2 OUT

Hg .243 ug/l .000 .243

D.L.= 0.08 ug Hg per

*** Sample ID: 1390607 Seq: 43 14:05:52 03 Feb 1983 HG

ESP 3 IN

Hg 4.37 ug/l .000 4.37

$\bar{x}$ = (4.38 ug/l)(1.405) = 6.15 ug/l
∴ (6.15 ug/l)(0.285 l) = 1.75 ug Hg per

*** Sample ID: 1390607 Seq: 44 14:08:07 03 Feb 1983 HG

ESP 3 IN

Hg 4.39 ug/l .000 4.39

Required → 3 replicates (see pg #842 for replicate #3)

*** Sample ID: 1390587 Seq: 45 14:10:25 03 Feb 1983 HG

ESP 3 OUT

Hg <0.2 .046 ug/l .000 .046

$\bar{x}$ = (<0.2 ug/l)(1.405) = <0.281 ug/l
∴ (<0.28 ug/l)(0.293 l) = <0.082 ug Hg per

*** Sample ID: 1390587 Seq: 46 14:12:30 03 Feb 1983 HG

ESP 3 OUT

Hg <0.2 .058 ug/l .000 .058

*** Check Standard: 4 Ck4IPC/CCV Seq: 47 14:14:36 03 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 101. | 5.06 | 5.00 | ug/l | .000 |

$\bar{x}$ = 5.06 ug/l · 101%R

*** Check Standard: 3 Ck3IPC/CCV Seq: 48 14:16:54 03 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 101. | 5.05 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 49 14:19:12 03 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -22400 | -.022 | .000 | ug/l | .000 |

<0.2

$\bar{x}$ = <0.2 ug/l

Line Conc. Units SD/RSD 1 2 3 4 5

*** Check Standard: 1 Ck1ICB/CCB Seq: 50 14:21:20 03 Feb 1983 HG
Line Flag Found Range(+/-) Units SD/RSD
Hg -.013 .200 ug/l .000
<0.2

*** Sample ID: 1390587 D Seq: 51 14:23:25 03 Feb 1983 HG
<0.2 ESP 3 OUT
Hg .057 ug/l .000 .057

*** Sample ID: 1390587 D Seq: 52 14:25:28 03 Feb 1983 HG
2.4/100 gp ESP 3 OUT
Hg .056 ug/l .000 .056

*** Sample ID: 1390587 Spk Seq: 53 14:27:31 03 Feb 1983 HG
2.0 UG/L ESP 3 OUT
Hg 1.98 ug/l .000 1.98

Spk T.V. = (2.00 ug/l)(1.405) = 2.81 ug/l
∴ (2.81 ug/l)(0.293 l) = 0.823 ug Hg per

*** Sample ID: 1390587 Spk Seq: 54 14:29:47 03 Feb 1983 HG
2.0 UG/L ESP 3 OUT
Hg 1.94 ug/l .000 1.94

$\bar{X}$ = (1.96 ug/l)(1.405) = 2.75 ug/l
∴ (2.75 ug/l)(0.293 l) = 0.807 ug Hg per

*** Sample ID: 1390617 Seq: 55 14:32:03 03 Feb 1983 HG 98%R
<0.2 BT IN
Hg .069 ug/l .000 .069

$\bar{X}$ = (<0.2 ug/l)(1.405) = <0.28 ug/l
∴ (<0.28 ug/l)(0.100 l) = <0.028 ug Hg per

*** Sample ID: 1390617 Seq: 56 14:34:08 03 Feb 1983 HG
<0.2 BT IN
Hg .074 ug/l .000 .074

*** Sample ID: 1390592 Seq: 57 14:36:13 03 Feb 1983 HG
<0.2 BT OUT
Hg .107 ug/l .000 .107

$\bar{X}$ = (<0.2 ug/l)(1.405) = <0.28 ug/l
∴ (<0.28 ug/l)(0.114 l) = <0.032 ug Hg per

*** Sample ID: 1390592 Seq: 58 14:38:18 03 Feb 1983 HG
<0.2 BT OUT
Hg .109 ug/l .000 .109

*** Check Standard: 4 Ck4IPC/CCV Seq: 59 14:40:25 03 Feb 1983 HG
Line Flag %Rcv. Found True Units SD/RSD
Hg 100. 5.00 5.00 ✓ ug/l .000

$\bar{X}$ = 4.98 ug/l 99 %R

*** Check Standard: 3 Ck3IPC/CCV Seq: 60 14:42:47 03 Feb 1983 HG
Line Flag %Rcv. Found True Units SD/RSD
Hg 99.3 4.97 5.00 ug/l .000

*** Check Standard: 2 Ck2ICB/CCB Seq: 61 14:45:07 03 Feb 1983 HG
Line Flag %Rcv. Found True Units SD/RSD
Hg -23100 -.023 .000 ug/l .000
<0.2

$\bar{X}$ = <0.2 ug/l

Folder: 020300
Protocol: ONTARIO

14:47:14 03 Feb 1983

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|

*** Check Standard: 1 Ck1ICB/CCB Seq: 62 14:47:14 03 Feb 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.016 | .200 | ug/l | .000 |

<0.2

*** Sample ID: 1390577 Seq: 63 14:49:20 03 Feb 1983 HG

214100 gp ESP 1 OUT

| | | | | |
|---|---|---|---|---|
| Hg | .028 | ug/l | .000 | .028 |

- 189939-01
ontario Hydro
- Need two
Copies

# Data Package Cover Sheet for Atomic Absorption Spectroscopy by Automated Cold Vapor Analysis

| | |
|---|---|
| Date of Analysis: 2/4/00 | Element: HG |
| Analyst: JLP | Time of Analysis: 0613 |
| Data Validated by: Vaughan J. O'Neill | Instrument: Leeman PS 200 |

Calibration Standard Preparation Records

| Preparation Record is in Notebook # | Date of Preparation |
|---|---|
| 360-38-18 to 23 | 2/3/00 |

Quality Control Sample Preparation Records

| Name | Preparation is in Notebook # | Date of Preparation |
|---|---|---|
| QCS/ICV | 360-39-3 | 2/3/00 |
| IPC/CCV | 360-38-25 | 2/3/00 |

The computer for this instrument is not Y2K compliant.
The date had to be backdated to the 1980's.
The correct date and time of analysis is stated on this coversheet.

I Certify that all QA/QC results were acceptable and that there were no problems except as noted.

Jennifer L. Pain 2/4/00
Signature of Analyst and Date

Sample Narrative for Mercury Determination Performed 2/4/00:

1. The recovery for the LFB on the ash portion was high. The method does not require a LFB. This is only an in-house analysis. The required NIST Ash, lot # 1633B, was within the acceptable limits.
2. The Elemental and Particle Bound Mercury results were entered into LIMS as a comment.

Analyst and Date: GHP 2/7/00

Validated By and Date:
V. O'Neill 2/8/00

```
RunProt: ONTARIO
RunFold: 020400HG Seq: 179  Batch:
                  Prnt: R/T On
                  Rev: 4.0    13:06:02 04 Feb 1983 Xmit: Off  Gas:    0.30 LPM
  Idle                                             User:             A/S: On
```

```
 AUTOSAMPLER:  Rack entry   Rack RACK#1   Range  1-44 Clear seQ Undo eXit
cup ID         Extended id          Weight Volume Macro
 1 QCS/ICV     5.00 UG/L 2/3        1.0000 1.0000
 2 LRB+KCL     2/2 30 ML            1.0000 1.0000
 3 LFB+KCL     2.00 UG/L 2/2        1.0000 1.0000
 4 1390612     CLIENT SB            1.0000 1.0000
 5 1390599     ESP1 IN              1.0000 1.0000
 6 1390579     ESP1 OUT             1.0000 1.0000
 7 1390604     ESP2 IN              1.0000 1.0000
 8 1390584     ESP2 OUT             1.0000 1.0000
 9 1390609     ESP3 IN              1.0000 1.0000
10 1390589     ESP3 OUT             1.0000 1.0000
11 1390619     BT IN                1.0000 1.0000
12 1390619     BT ON                1.0000 1.0000
13 1390619 S   BT IN 2.00 UG/L      1.0000 1.0000
14 1390594     BT OUT               1.0000 1.0000
15 LRB+KMNO4   2/3  30 ML           1.0000 1.0000
                                                                      PgDn
```

```
                                          Full column entry Ins to switch
For help on <hotkey> press Shift <hotkey>
```

```
RunProt: ONTARIO
RunFold: 020400HG Seq: 179  Batch:
                  Prnt: R/T On
                  Rev: 4.0    13:06:02 04 Feb 1983 Xmit: Off  Gas:    0.30 LPM
  Idle                                             User:             A/S: On
```

AUTOSAMPLER: Rack entry Rack RACK#1 Range 1-44 Clear seQ Undo eXit PgUp

| cup | ID | Extended id | Weight | Volume | Macro |
|---|---|---|---|---|---|
| 16 | LFB+KMN04 | 2/3 2.00 UG/L | 1.0000 | 1.0000 | |
| 17 | 1390614 | CLIENT SB | 1.0000 | 1.0000 | |
| 18 | 1390601 | ESP1 IN | 1.0000 | 1.0000 | |
| 19 | 1390581 | ESP1 OUT | 1.0000 | 1.0000 | |
| 20 | 1390606 | ESP2 IN | 1.0000 | 1.0000 | |
| 21 | 1390586 | ESP2 OUT | 1.0000 | 1.0000 | |
| 22 | 1390611 | ESP3 IN | 1.0000 | 1.0000 | |
| 23 | 1390591 | ESP3 OUT | 1.0000 | 1.0000 | |
| 24 | 1390591 | ESP3 OUT | 1.0000 | 1.0000 | |
| 25 | 1390591 S | ESP3 OUT 2.00 UG/L | 1.0000 | 1.0000 | |
| 26 | 1390621 | BT ~~OUT~~ Inlet | 1.0000 | 1.0000 | |
| 27 | 1390596 | BT ~~IN~~ outlet | 1.0000 | 1.0000 | |
| 28 | LRB+H202 | 2/3 10 ML | 1.0000 | 1.0000 | |
| 29 | LFB+H202 | 2/3 ~~2.00 UG/L~~ 6.00 ug/l | 1.0000 | 1.0000 | |
| 30 | 1390615 | CLIENT SB H202 | 1.0000 | 1.0000 | |

PgDn

Full column entry Ins to switch

```
RunProt: ONTARIO
RunFold: 020400HG Seq: 179  Batch:
                  Prnt: R/T On
                  Rev: 4.0    13:06:03 04 Feb 1983 Xmit: Off  Gas:    0.30 LPM
  Idle                                              User:             A/S: On
```

```
 AUTOSAMPLER:  Rack entry   Rack RACK#1   Range  1-44 Clear seQ Undo eXit   PgUp
oup ID         Extended id          Weight Volume Macro
31 1390600     ESP1 IN              1.00000 1.00000
32 1390580     ESP1 OUT             1.00000 1.00000
33 1390605     ESP2 IN              1.00000 1.00000
34 1390585     ESP2 OUT             1.00000 1.00000
35 1390610     ESP3 IN              1.00000 1.00000
36 1390610     ESP3 IN              1.00000 1.00000
37 1390610 S   ESP3 IN 2.00 UG/L    1.00000 1.00000
38 1390590     ESP3 OUT             1.00000 1.00000
39 1390620     BT IN                1.00000 1.00000
40 1390595     BT OUT               1.00000 1.00000
41 LRB ASH     THIMBLES/FILTERS 2/21.00000 1.00000
42 LFB ASH     2/2 2.00 UG/L        1.00000 1.00000
43 1390622     THIMBLE/100 SB IN    1.00000 1.00000
44 1390598     0.69G/100 ESP1 IN    1.00000 1.00000

                                                                        PgDn
```

```
                                        Full column entry Ins to switch
```

```
RunProt: ONTARIO
RunFold: 020400HG Seq: 179  Batch:
                  Prnt: R/T On
                  Rev: 4.0    13:06:08 04 Feb 1983 Xmit: Off  Gas:    0.30 LPM
  Idle                                             User:             A/S: On
```

```
 AUTOSAMPLER:  Rack entry   Rack RACK#2   Range  1-44 Clear seQ Undo eXit
cup ID         Extended id          Weight Volume Macro
 1 1390603     0.56G/100ML ESP2 IN 1.0000 1.0000
 2 1390608     0.56G/100ML ESP3 IN 1.0000 1.0000
 3 1390618     THIMBLE/100ML BT IN 1.0000 1.0000
 4 1390618     THIMBLE/100ML BT IN 1.0000 1.0000
 5 1390618 S   2.0 UG/L THIMBLE/100 1.0000 1.0000
 6 1390613     SB FILTER/100ML     1.0000 1.0000
 7 1390578     FILTER/100 ESP1 OUT 1.0000 1.0000
 8 1390583     FILTER/100 ESP2 OUT 1.0000 1.0000
 9 1390588     FILTER/100 ESP3 OUT 1.0000 1.0000
10 1390593     FILTER/100 BT OUT   1.0000 1.0000
11 NIST ASH    1633B 0.64G/100     1.0000 1.0000
12                                 1.0000 1.0000
13                                 1.0000 1.0000
14                                 1.0000 1.0000
15                                 1.0000 1.0000
                                                                    PgDn
```

```
                                          Full column entry Ins to switch
For help on <hotkey> press Shift <hotkey>
```

Book #118

# Ontario Hydro Method (10/27/99)

189939

| Analyst Date + Time of Prep. | Sample I.D. # | Initial sample received (g) or (l) | Final vol. to sample was brought up to (l) | Total volume of sample digested (g) or (ml) | Vol. of trace metal $H_2SO_4$ (ml) | Vol. of trace metal $HNO_3$ (ml) | Vol. of 5% $KMnO_4$ added (ml) | Vol. of trace metal HCl (ml) | Vol. of 5% $K_2S_2O_8$ added (ml) | Vol. of 10% Hydroxyl-amine sol'n added (ml) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/2/00 12:35 | Exp. In 0.1% BIL 1390623 | 0.120 l | — | — | — | — | — | — | — | — | Not digested |
| 2/3/00 gp 13:10 | LRB-KMnO4 | — | — | 30 ml | — | 1.5 ml | 4.5 ml | — | 2.25 | 3.0 ml | — |
| | LFB-KMnO4 | — | — | | — | | | — | | | Spiked w/ 1.0 ml 60 mg/l Hg |
| | BIL 1390614 | 0.300 l | 0.500 l | | — | | | — | | | KMnO4 matrix - BIL Clean of |
| | 1390601 | 0.575 l | 0.575 l | | — | | | — | | | ESP#1 - Inlet |
| | 1390581 | 0.610 l | 0.610 l | | — | | | — | | | ESP#1 - Outlet |
| | 1390606 | 0.550 l | 0.550 l | | — | | | — | | | ESP#2 - Inlet |
| | 1390586 | 0.550 l | 0.550 l | | — | | | — | | | ESP#2 - Outlet |
| | 1390611 | 0.575 l | 0.575 l | | — | | | — | | | ESP#3 - Inlet |
| | 1390591 | 0.535 l | 0.535 l | | — | | | — | | | ESP#3 - Outlet |
| | 1390621 | 0.560 l | 0.560 l | | — | | | — | | | BT - Inlet |
| | 1390596 | 0.580 l | 0.580 l | | — | | | — | | | BT - Outlet |
| 2/2/00 12:10 | LRB-KCl | — | — | 30 ml | 1.5 | 0.75 | 4.5 | — | 2.25 | | — |
| | LFB-KCl | — | — | | | | | — | | | Spiked w/ 1.0 ml of 1.0 mg/l Hg |
| | 1390612 | 0.310 l | 0.500 l | | | | | — | | | KCl - BIL matrix Clean of |
| | 0599 | 0.635 l | 0.635 l | | | | | — | | | ESP#1 - Inlet |
| | 0579 | 0.835 l | 0.835 l | | | | | — | | | ESP#1 - Outlet |
| | 0609 | 0.710 l | 0.710 l | | | | | — | | | ESP#2 - Inlet |
| | 0584 | 0.840 l | 0.840 l | | | | | — | | | ESP#2 - Outlet |
| | 0609 | 0.710 l | 0.710 l | | | | | — | | | ESP#3 - Inlet |
| | 0589 | 0.670 l | 0.670 l | | | | | — | | | ESP#3 - Outlet |
| | 0619 | 0.590 l | 0.590 l | | | | | — | | | BT - Inlet |
| | 0594 | 0.455 l | 0.455 l | | | | | — | | | BT - Outlet |
| | LRB-0.1N $HNO_3$ | — | — | 30 ml | 1.5 | 0.75 | 4.5 | — | 2.4 | 3.0 | — |
| | LFB-0.1N $HNO_3$ | — | — | | | | | — | | | Spiked w/ 60 ml of 1.0 mg/l Hg |
| | 1390616 | 0.185 l | — | | | | | — | | | 0.1N $HNO_3$ Clean - BIL |
| | 0597 | 0.460 l | — | | | | | — | | | ESP#1 - Inlet |
| | 0577 | 0.333 l | — | | | | | — | | | ESP#1 - Outlet |
| | 0602 | 0.480 l | — | | | | | — | | | ESP#2 - Inlet |
| | 0582 | 0.220 l | — | | | | | — | | | ESP#2 - Outlet |
| | 0607 | 0.285 l | — | | | | | — | | | ESP#3 - Inlet |
| | 0587 | 0.293 l | — | | | | | — | | | ESP#3 - Outlet |
| | 0617 | 0.100 l | — | | | | | — | | | BT - Inlet |
| | 0592 | 0.114 l | — | | | | | — | | | BT - Outlet |
| 2/3/00 0810 gp | LRB - $HNO_3$/HCl | — | — | 10 ml | 0.5 | — | 14.5 | 0.5 | 1.5 | 5.0 | — |
| | LFB - $HNO_3$/HCl | — | — | | | — | 14.5 | | | 6.0 | Spiked w/ 60 ml of 1.0 mg/l Hg |
| | 1390615 | 0.110 l | 0.250 l | | | — | 18.5 | | | 2.0 ml | Clean Rock matrix - $HNO_3$/HCl mix: ESP#1 - Inlet |
| | 0600 | 0.140 l | | | | — | 14.5 | | | | ESP#2 - Outlet |
| | 0580 | 0.170 l | | | | — | 14.5 | | | | |

Notes: The graduate cylinder was acid washed between each sample. The samples for the KCl + $HNO_3$ portions were digested for 3 hours at 95°C. $H_2O_2$ + $KMnO_4$

Book #, 118 — Ontario Hydro Method (10/27/94 Draft)

| Analysts, Date, Time of Prep | Sample ID | Initial Sample received (g) or (L) | Final Vol. of sample was brought up to (L) | Total vol. of sample (g) digested (g) | Vol. of Trace metal conc. $H_2SO_4$ (mL) | Vol. of trace metal conc. $HNO_3$ (mL) | Vol. of 5% $KMnO_4$ added (mL) | Vol. of trace metal conc. HCl (mL) | Vol. of 5% $K_2S_2O_8$ added (mL) | Vol. of 6% Hydroxylamine added (mL) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/3/00 9:10 | 1390605 | 0.163 L | 0.250 L | 10 mL | 0.5 | – | ~~0.5~~ 16.5 | 0.5 | 1.5 | 2 mL | $HNO_3$ $H_2O$ - ESP#2 Inlet |
| | 0585 | 0.160 L | | 10 mL | | – | 14.5 | | | | - ESP#2 Outlet |
| | 0610 | 0.145 L | | 10 mL | | – | 14.5 | | | | - ESP#3 Inlet |
| | 0590 | 0.150 L | | 10 mL | | – | 16.5 | | | | - ESP#3 Outlet |
| | 0620 | 0.135 L | | 10 mL | | – | 18.5 | | | | - BT Inlet |
| | 0595 | 0.155 L | | 10 mL | | – | 18.5 | | | | - BT Outlet |
| DIP $H_2O$ 10:00 | LRB - Thimble filter | – | 0.100 L | – | – | 1.25 | ~~3.75~~ N/A | N/A ~~3.75~~ | – | – | Tank HF |
| | EFB - Thimble filter | – | | – | – | | – | | – | – | 2cc of 100mg/L Hg stock std. |
| | 1390622 | - 0 - | | Whole Thimble | – | | – | | – | – | ESP Inlet SB - Thimble |
| | 0598 | 2.2491 g ~~2.3337~~ | | 0.69 g | – | | – | | – | – | ESP#1 Inlet Thimble |
| | 0603 | 7.5105 g | | 0.56 g | – | | – | | – | – | ESP#2 Inlet Thimble |
| | 0608 | 9.1795 g | | 0.56 g | – | | – | | – | – | ESP#3 Inlet Thimble |
| | 0618 | - 0 - | | Whole Thimble | – | | – | | – | – | ESP - BT Inlet Thimble |
| | 1390613 | N/A | | Whole filter | – | | – | | – | – | Filter - SB |
| | 0578 | | | | – | | – | | – | – | Client Blk |
| | 0583 | | | | – | | – | | – | – | ESP#1 - Outlet Filter |
| | 0588 | | | | – | | – | | – | – | ESP#2 - Outlet Filter |
| | 0593 | | | | – | | – | | – | – | ESP#3 - Outlet Filter |
| | NIST-ASH 1633B | | | 0.64 g | – | | – | | – | – | BT - Filter Outlet QC |

Reagents, QC, Standards Preparation Log #360

| Date/Time | Initials | Exp. Date | Solution | Vol/Wt of Reagents # | Vol/Wt of Reagents Units | Reagent SSM ID # | Reagent SSM ID # Conc. | Final Volume # | Final Volume Units | Dilution Matrix | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) 2/1/00 12:50 | SMW | | 2.00 ug/l Hg Std | 200 | ul | 360-37-21 | 1.00 mg/l | 100 | ml | | |
| 2) | | | 5.00 | 500 | | | | | | | |
| 3) | | | 10.0 | 1000 | | | | | | | |
| 4) | | | IPC/CCV 5.0 ug/l | 500 | | | | | | | |
| 5) | | | ICV/QCS 5.0 ug/l | 500 | | 360-37-22 | | | | | |
| 6) 2/2/00 1020 | JHP | 2/3/00 | 1.00 mg/l Hg std. Stock | 100 | ul | Hg-99515064 | 1.00 mg/l | 100 | ml | 0.15% $HNO_3$ | |
| 7) | | | 1.00 mg/l Hg QCS Stock | 100 | ul | Hg-995123301 | | | | | |
| 8) 2/2/00 | SMW | | Cal Blk | — | — | — | — | 100 | mL | | |
| 9) | | | 0.50 ug/l Hg Std | 50 | ul | 360-38-6 | 1.00 mg/l | | | | |
| 10) | | | 1.00 | 100 | | | | | | | |
| 11) | | | 2.00 | 200 | | | | | | | |
| 12) | | | 5.00 | 500 | | | | | | | |
| 13) | | | 10.0 | 1000 | | | | | | | |
| 14) | | | IPC/CCV 5.0 ug/l | 500 | | | | | | | |
| 15) | | | ICV/QCS 5.0 ug/l | 500 | | 360-38-7 | | | | | |
| 16) 2/3/00 0830 | JHP | | 1.00 mg/l Hg std Stock | 100 | ul | Hg-99516004 | 1.00 mg/l | 100 | ml | 0.15% $HNO_3$ | |
| 17) | | | 1.00 mg/l Hg QCS Stock | | | Hg-995123301 | | | | | |
| 18) 2/3/00 1130 | JHP | | Cal Blk | — | — | — | — | 100 | ml | 10% HCl | Ontario Hydro Method |
| 19) | | | 0.20 ug/l Hg Std | 20 | ul | 360-38-16 | 1.00 mg/l | | | | |
| 20) | | | 0.50 ug/l Hg std. | 50 | | | | | | | |
| 21) | | | 2.00 | 200 | | | | | | | |
| 22) | | | 5.00 | 500 | | | | | | | |
| 23) | | | 10.0 | 1000 | | | | | | | |
| 24) | | | ICB/CCB | — | — | — | | | | | |
| 25) | | | IPC/CCV 5.00 ug/l Hg | 500 | ul | 360-38-16 | 1.00 mg/l | | | | |

Reagents, QC, Standards Preparation Log #360

| Date/Time | Initials | Exp. Date | Solution | Vol/Wt of Reagents # | Vol/Wt of Reagents Units | Reagent SSM ID # | Conc. | Final Volume # | Final Volume Units | Dilution Matrix | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) ~~2/3/00 1130~~ | ~~GAP~~ | ~~GP 2/3/00~~ | ~~QCS/ICV 5.00ug/L Hg~~ | ~~500~~ | ~~ml~~ | ~~360-38-17~~ | ~~1.00mg/L~~ | 100 | ml | 10% HCl | ~~Ontario Hydro Method.~~ |
| 2) 2/3/00 1140 | GAP | | 1.00mg/L Hg QCS stock | 100 | ml | Hg-9951233d | 1000mg/L | 100 | ml | 0.5% $HNO_3$ | |
| 3) ↓ | ↓ | | QCS/ICV 5.00ug/L | 500 | ml | 360-39-2 | 1.0mg/L | ↓ | ↓ | 10% HCl | Ontario Hydro Method |
| 4) | | | | | | | | | | | |
| 5) | | | | | | | | | | | |
| 6) | | | | | | | | | | | |
| 7) | | | | | | | | | | | |
| 8) | | | | | | | | | | | |
| 9) | | | | | | | | | | | |
| 10) | | | | | | | | | | | |
| 11) | | | | | | | | | | | |
| 12) | | | | | | | | | | | |
| 13) | | | | | | | | | | | |
| 14) | | | | | | | | | | | |
| 15) | | | | | | | | | | | |
| 16) | | | | | | | | | | | |
| 17) | | | | | | | | | | | |
| 18) | | | | | | | | | | | |
| 19) | | | | | | | | | | | |
| 20) | | | | | | | | | | | |
| 21) | | | | | | | | | | | |
| 22) | | | | | | | | | | | |
| 23) | | | | | | | | | | | |
| 24) | | | | | | | | | | | |
| 25) | | | | | | | | | | | |

## 15. Calculations for Particle-Bound, Oxidized, Elemental, and Total Mercury Concentrations:

### 15.1 *Particle-Bound Mercury*

15.1.1 *Case 1: Amount of Ash on the Filter is Greater Than 0.5 g*—Calculate the concentration of mercury in µg/g in the ash sample ($Hg_{ash}$) using Equation 4:

$$Hg_{ash}, \mu g/g = (IR)(DF) \qquad \text{[Eq. 4]}$$

where:
IR = instrument reading, µg/L
DF = dilution factor = (total digested volume, L)/(mass of ash digested, g)

Calculate the amount of mercury in the probe rinse ($Hg_{pr}$, Container 2) in µg using Equation 5:

$$Hg_{pr}, \mu g = (IR)(V_1) \qquad \text{[Eq. 5]}$$

where:
IR = instrument reading, µg/L
$V_1$ = total volume of probe rinse sample from which sample aliquot was taken, L

Equation 5 assumes no preparation steps are needed prior to analyzing the probe rinse for mercury using CVAA. Although not required, a persulfate digest can be done on the probe rinse sample as discussed in section 13.3.3. If the persulfate digest is done equation 5 becomes $Hg_{pr}$, µg = (IR)($V_1$)(DF) where DF is the same as equation 9.

There is no filter blank subtraction when >0.5 g of ash are collected on the sample filter or thimble.

The total amount of particle-bound mercury ($Hg_{tp}$) is then determined using Equation 6:

$$Hg\ (particle), \mu g = (Hg_{ash})(W_{ash}) + Hg_{pr} \qquad \text{[Eq. 6]}$$

where:
$W_{ash}$ = the total mass of ash on filter, g

The concentration of particle-bound mercury (µg/dscm) in the gas stream is then determined using Equation 7:

$$Hg^{tp}, \mu g/dscm = Hg\ (particle)/V_{m(std)} \qquad \text{[Eq. 7]}$$

where:
$V_{m(std)}$ = is the total volume of dry gas sampled at standard (normal) conditions, dscm

15.1.2 *Case 2: Amount of Ash on the Filter is Less Than 0.5 g*—The calculation is the same as in Case 1 except the entire sample (ash and filter) is digested; therefore, DF in Equation 4 is defined only by the total digested volume. In addition a filter blank is subtracted as calculated in Equation 8.

$$Hg_{fb}, \mu g = (IR)(V_2) \qquad \text{[Eq. 8]}$$

where:

IR = instrument reading, µg/L

$V_2$ = total volume of sample filter blank digest, L

Equation 7 for Case 2 then becomes: Hg (particle), µg = $(Hg_{ash})(W_{ash}) - Hg_{fb} + Hg_{pr}$

15.2 *Oxidized Mercury*

15.2.1 *KCl Solution (Impingers 1–3)*—Calculate the concentration of mercury in µg/L in the KCl impinger solutions using Equation 9:

$$Hg_{KCl}, \mu g/L = (IR)(DF) \qquad \text{[Eq. 9]}$$

where:

IR = instrument reading, µg/L

DF = dilution factor, $\frac{V_D + V(H_2SO_4) + V(HNO_3) + V(KMnO_4) + V(K_2S_2O_8) + V(NH_2OH)}{V_D}$

$V_D$ = total digested volume, 10 mL

$V(H_2SO_4)$ = volume of added concentrated $H_2SO_4$, 0.5 mL

$V(HNO_3)$ = volume of added concentrated $HNO_3$, 0.5 mL

$V(KMnO_4)$ = volume of added 5%$^{W}/_{V}$ $KMnO_4$, 1.5 mL

$V(K_2S_2O_8)$ = volume of added 5%$^{W}/_{V}$ $K_2S_2O_4$, 0.75 mL

$V(NH_2OH)$ = volume of added 10%$^{W}/_{V}$ hydroxylamine sulfate, 1.0 mL

The concentration of mercury in the KCl solution blank is calculated in the same way.

15.2.2 *Total Oxidized Mercury ($Hg_O$)*—is defined by method as the mercury measured in the KCl sample minus the mercury measured in the KCl solution blanks, as shown in Equation 10:

$$Hg_O, \mu g = (Hg_{KCl})(V_3) - (Hg_{Ob})(V_4) \qquad \text{[Eq. 10]}$$

where:

$Hg_{KCl}$ = Mercury concentration measured in KCl aliquot, µg/L

$V_3$ = Total volume of aqueous KCl from which sample aliquot was taken, L

$Hg_{Ob}$ = Mercury concentration measured in KCl solution blank aliquot, µg/L

$V_4$ = Volume of aqueous KCl originally charged to the impingers, L

The concentration of $Hg^{2+}$ (µg/dscm) in the gas stream is then determined using Equation 11:

$$Hg^{2+}, \mu g/dscm = Hg_O/V_{m(std)} \qquad \text{[Eq. 11]}$$

where:
$V_{m(std)}$ is the total volume of dry gas sampled at standard conditions, dscm

15.3 *Elemental Mercury*

15.3.1 *$HNO_3$–$H_2O_2$ Solution (Impinger 4)*—Calculate the concentration of mercury in µg/L in the $HNO_3$–$H_2O_2$ impinger solution using Equation 12:

$$Hg_{H2O2}, \mu g/L = (IR)(DF) \qquad \text{[Eq. 12]}$$

where:

IR = instrument reading, µg/L

DF = dilution factor, $\frac{V_D + V(HCl) + V(H_2SO_4) + V(KMnO_4) + V(K_2S_2O_8) + V(NH_2OH)}{V_D}$

$V_D$ = total digested volume, 5 mL

V(HCl) = volume of added concentrated HCl, 0.25 mL

$V(H_2SO_4)$ = volume of added concentrated $H_2SO_4$, 0.5 mL

$V(KMnO_4)$ = volume of added saturated $KMnO_4$, mL (volume need to turn sample to a purple color)

$V(K_2S_2O_8)$ = volume of added 5%$^W/_V$ $K_2S_2O_4$, 0.75 mL (if used)

$V(NH_2OH$ = volume of added 10%$^W/_V$ hydroxylamine sulfate, 1.0 mL

The concentration of mercury in the $HNO_3$–$H_2O_2$ solution blank is calculated in the same way.

15.3.2 *$H_2SO_4$–$KMnO_4$ Solution (Impingers 5–7)*—Calculate the concentration of mercury in µg/L in the $H_2SO_4$–$KMnO_4$ impinger solutions using Equation 13:

$$\text{Mercury}_{KMnO_4}, \mu g/L = (IR)(DF) \qquad \text{[Eq. 13]}$$

where:

DF = dilution factor, $\frac{V_D + V(HNO_3) + V(K_2S_2O_8) + V(NH_2OH)}{V_D}$

IR = instrument reading, µg/L

$V_D$ = total digested volume, 5 mL

$V(HNO_3)$ = volume of added concentrated $HNO_3$, 0.5 mL

$V(K_2S_2O_8)$ = volume of added 5%$^W/_V$ $K_2S_2O_4$, 0.75 mL

The concentration of mercury in the $H_2SO_4$–$KMnO_4$ solution blank is calculated in the same way.

15.3.3 *Total Elemental Mercury ($Hg_E$)*—is defined by method as the mercury measured in the $H_2SO_4$–$KMnO_4$ impingers plus the mercury in the $HNO_3$–$H_2O_2$ impingers minus the solution blanks as shown in Equation 14:

$$Hg_E, \mu g = (Hg_{H2O2})(V_4) - (Hg_{Eb1})(V_5) + (Hg_{KMnO4})(V_6) - (Hg_{Eb2})(V_7) \qquad \text{[Eq. 14]}$$

where:

$Hg_{H2O2}$ = Mercury concentration measured in $HNO_3$–$H_2O_2$ aliquot, µg/L
$V_4$ = Total volume of aqueous $HNO_3$–$H_2O_2$ from which sample aliquot was taken, L
$V_5$ = Volume of aqueous $HNO_3$–$H_2O_2$ originally charged to the impinger, L
$Hg_{Eb1}$ = Mercury concentration measured in $HNO_3$–$H_2O_2$ solution blank aliquot, µg/L
$Hg_{KMnO4}$ = Mercury concentration measured in $H_2SO_4$–$KMnO_4$ aliquot, µg/L
$V_6$ = Total volume of aqueous $H_2SO_4$–$KMnO_4$ from which sample aliquot was taken, L
$V_7$ = Volume of aqueous $H_2SO_4$–$KMnO_4$ originally charged to the impingers, L
$Hg_{Eb2}$ = Mercury concentration measured in $H_2SO_4$–$KMnO_4$ solution blank aliquot, µg/L

The concentration of $Hg^{2+}$ (µg/dscm) in the gas stream is then determined using Equation 15:

$$Hg^0, \mu g/dscm = Hg_E/V_{m(std)} \qquad \text{[Eq. 15]}$$

where:

$V_{m(std)}$ is the total volume of dry gas sampled at standard conditions, dscm

15.4 *Total Mercury*—Is defined by the method as the sum of the particulate bound mercury, oxidized mercury, and elemental mercury as shown in Equation 16:

$$Hg(total), \mu g/dscm = Hg^{tp} + Hg^{2+} + Hg^0 \qquad \text{[Eq. 16]}$$

## 16. Precision and Bias

### 16.1 *Precision*

16.1.1 Formal evaluation of the Ontario Hydro method was completed with dynamic spiking of $Hg^0$ and $HgCl_2$ into a flue gas stream.[9] The results are shown in Table 1. The relative standard deviation for gaseous elemental mercury and oxidized mercury was found to be less than 11% for mercury concentrations greater than 3 µg/Nm$^3$ and less than 34% for mercury concentrations less than 3 µg/Nm$^3$. In all cases, the laboratory bias for these tests based on a calculated correction factor was not statistically significant. These values were within the acceptable range, based on the criteria established in EPA Method 301 (% RSD less than 50%).

---

[9] EPRI. "Evaluation of Flue Gas Mercury Speciation Methods," EPRI TR-108988, Electric Power Research Institute, Palo Alto, CA, Dec. 1997.

| Lab Tracking Number |
|---|
| |

# Chain-of-Custody Record/Lab Work Request

WESTON



18993

| | | | |
|---|---|---|---|
| Client | MISSISSIPPI POWER, WATSON STATION | | |
| Work Order Number | 12251.001.001 | Phone Number | 610-701-7245 |
| Contact Person | Jack Mills | Turn Around Time | 45 Days-collection |

Analyses Requested/Other Info

| Lab ID | Field Sample ID | | Sample Collection Date | Analysis | Hg | | Filter Fil # | Sample Check-off |
|---|---|---|---|---|---|---|---|---|
| 1 | MPWS - ESP - OUT - 1 - OHM - 17JAN2000 - FHHNO3 | R1 | 1/19/00 | OHM | X | | | |
| 2 | MPWS - ESP - OUT - 1 - OHM - 17JAN2000 - FILT | | | OHM | X | | W400 | |
| 3 | MPWS - ESP - OUT - 1 - OHM - 17JAN2000 - BHKCL | | | OHM | X | | | |
| 4 | MPWS - ESP - OUT - 1 - OHM - 17JAN2000 - BHHNO3 | | | OHM | X | | | |
| 5 | MPWS - ESP - OUT - 1 - OHM - 17JAN2000 - BHKMNO4 | | | OHM | X | | | |
| 6 | MPWS - ESP - OUT - 2 - OHM - 17JAN2000 - FHHNO3 | R2 | 1/20/00 | OHM | X | | | |
| 7 | MPWS - ESP - OUT - 2 - OHM - 17JAN2000 - FILT | | | OHM | X | | W401 | |
| 8 | MPWS - ESP - OUT - 2 - OHM - 17JAN2000 - BHKCL | | | OHM | X | | | |
| 9 | MPWS - ESP - OUT - 2 - OHM - 17JAN2000 - BHHNO3 | | | OHM | X | | | |
| 10 | MPWS - ESP - OUT - 2 - OHM - 17JAN2000 - BHKMNO4 | | | OHM | X | | | |
| 11 | MPWS - ESP - OUT - 3 - OHM - 17JAN2000 - FHHNO3 | R3 | | OHM | X | | | |
| 12 | MPWS - ESP - OUT - 3 - OHM - 17JAN2000 - FILT | | | OHM | X | | W403 | |
| 13 | MPWS - ESP - OUT - 3 - OHM - 17JAN2000 - BHKCL | | | OHM | X | | | |
| 14 | MPWS - ESP - OUT - 3 - OHM - 17JAN2000 - BHHNO3 | | | OHM | X | | | |
| 15 | MPWS - ESP - OUT - 3 - OHM - 17JAN2000 - BHKMNO4 | | | OHM | X | | | |
| ~~jm~~ | ~~MPWS - ESP - OUT - SB - OHM - 17JAN2000 - KCL~~ | | | OHM | | | | |
| ~~jm~~ | ~~MPWS - ESP - OUT - SB - OHM - 17JAN2000 - FILT~~ | | | OHM | | | | |
| ~~jm~~ | ~~MPWS - ESP - OUT - SB - OHM - 17JAN2000 - KMNO4~~ | | | OHM | | | | |
| ~~jm~~ | ~~MPWS - ESP - OUT - SB - OHM - 17JAN2000 - HNO3/H2O2~~ | | | OHM | | | | |
| ~~jm~~ | ~~MPWS - ESP - OUT - SB - OHM - 17JAN2000 - HNO3~~ | | | OHM | | | | |
| 16 | MPWS - ESP - OUT - BT - OHM - 17JAN2000 - FHHNO3 | BT | 1/20/00 | OHM | X | | | |
| 17 | MPWS - ESP - OUT - BT - OHM - 17JAN2000 - FILT | | | OHM | X | | W402 | |
| 18 | MPWS - ESP - OUT - BT - OHM - 17JAN2000 - BHKCL | | | OHM | X | | | |
| 19 | MPWS - ESP - OUT - BT - OHM - 17JAN2000 - BHHNO3 | | | OHM | X | | | |
| 20 | MPWS - ESP - OUT - BT - OHM - 17JAN2000 - BHKMNO4 | | | OHM | X | | | |

Notes: OHM - Speciated Mercury Analysis per Ontario Hydro Method

Note all analysis must be completed within 45 days of sample collection or by 3/5/00

| Relinquished By | Received By | Date | Time | Lab Use Only | |
|---|---|---|---|---|---|
| Jack Mills | D. Bartosh | 1/24/00 | 11:5 am | Shipper PAS | Air Bill # |
| | J. Mast | 1/24/00 | 14:45 | Opened By [illegible] | Date/Time |
| | | | | Temp °C 19 | Condition intact |
| | | | | Custody Seals: Yes No None N/A | |

Laboratory Comments:

Copyright Roy F Weston Inc Jan 1999PV

| Lab Tracking Number |
|---|
| |

# Chain-of-Custody Record/Lab Work Request

WESTON



1899

| | | | |
|---|---|---|---|
| Client | MISSISSIPPI POWER, WATSON STATION | | |
| Work Order Number | 12251.001.001 | Phone Number | 610-701-7245 |
| Contact Person | Jack Mills | Turn Around Time | 45 Days-collection |

Analyses Requested/Other Info

| Lab ID | Field Sample ID | | Sample Collection Date | Analysis | H3 | | Trimble ID # | Sample Check-off |
|---|---|---|---|---|---|---|---|---|
| 21 | MPWS - ESP- IN - 1 - OHM - 17JAN2000 - FHHNO3 | R1 | 1/19/00 | OHM | X | | | |
| 22 | MPWS - ESP- IN - 1 - OHM - 17JAN2000 - FILT | | | OHM | X (2 of 2) | | W31 + W32 | |
| 23 | MPWS - ESP- IN - 1 - OHM - 17JAN2000 - BHKCL | | | OHM | X | | | |
| 24 | MPWS - ESP- IN - 1 - OHM - 17JAN2000 - BHHNO3 | | | OHM | X | | | |
| 25 | MPWS - ESP- IN - 1 - OHM - 17JAN2000 - BHKMNO4 | | | OHM | X | | | |
| 26 | MPWS - ESP- IN - 2 - OHM - 17JAN2000 - FHHNO3 | R2 | 1/20/00 | OHM | X | | | |
| 27 | MPWS - ESP- IN - 2 - OHM - 17JAN2000 - FILT | | | OHM | X | | W34 | |
| 28 | MPWS - ESP- IN - 2 - OHM - 17JAN2000 - BHKCL | | | OHM | X | | | |
| 29 | MPWS - ESP- IN - 2 - OHM - 17JAN2000 - BHHNO3 | | | OHM | X | | | |
| 30 | MPWS - ESP- IN - 2 - OHM - 17JAN2000 - BHKMNO4 | | | OHM | X | | | |
| 31 | MPWS - ESP- IN - 3 - OHM - 17JAN2000 - FHHNO3 | R3 | | OHM | X | | | |
| 32 | MPWS - ESP- IN - 3 - OHM - 17JAN2000 - FILT | | | OHM | X | | W29 | |
| 33 | MPWS - ESP- IN - 3 - OHM - 17JAN2000 - BHKCL | | | OHM | X | | | |
| 34 | MPWS - ESP- IN - 3 - OHM - 17JAN2000 - BHHNO3 | | | OHM | X | | | |
| 35 | MPWS - ESP- IN - 3 - OHM - 17JAN2000 - BHKMNO4 | | | OHM | X | | | |
| 36 | MPWS - ESP- IN - SB - OHM - 17JAN2000 - KCl | SB | | OHM | X | | | |
| 37 | MPWS - ESP- IN - SB - OHM - 17JAN2000 - FILT | | | OHM | X | | W404 | |
| 38 | MPWS - ESP- IN - SB - OHM - 17JAN2000 - KMNO4 | | | OHM | X | | | |
| 39 | MPWS - ESP- IN - SB - OHM - 17JAN2000 - HNO3/H2O2 | | | OHM | X | | | |
| 40 | MPWS - ESP- IN - SB - OHM - 17JAN2000 ~~HNO3~~ 0.1N | | | OHM | X | | | |
| 41 | MPWS - ESP- IN - BT - OHM - 17JAN2000 - FHHNO3 | BT | 1/19/00 | OHM | X | | | |
| 42 | MPWS - ESP- IN - BT - OHM - 17JAN2000 - FILT | | | OHM | X | | W33 | |
| 43 | MPWS - ESP- IN - BT - OHM - 17JAN2000 - BHKCL | | | OHM | X | | | |
| 44 | MPWS - ESP- IN - BT - OHM - 17JAN2000 - BHHNO3 | | | OHM | X | | | |
| 45 | MPWS - ESP- IN - BT - OHM - 17JAN2000 - BHKMNO4 | | | OHM | X | | | |
| | | | | | | | | |
| 46 | MPWS-ESP-IN-SB-OHM-17JAN2000-Trimble | | 1/20/00 | | X | | W35 | |
| | | | | | | | | |
| 47 | MPWS-ESP-IN-SB-OHM-17JAN2000-10% HNO3 | | | | X | | | |

Notes: OHM - Speciated Mercury Analysis per Ontario Hydro Method

Note: All analysis must be completed within 45 days of sample collection or by 3/5/00

| Relinquished By | Received By | Date | Time | Lab Use Only | |
|---|---|---|---|---|---|
| Jack Mills | D. Bartsch | 1/24/00 | 11:15 am | Shipper PAS | Air Bill # |
| | J. Mast | 1/24/00 | 14:45 | Opened By NAG | Date/Time |
| | | | | Temp °C 19 | Condition intact |
| | | | | Custody Seals: Yes No None N/A | |

Laboratory Comments:

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```
RunProt: ONTARIO
RunFold: 020400HG Seq: 0    Batch:
                  Prnt: R/T On
                  Rev: 4.0    05:18:23 04 Feb 1983 Xmit: Off  Gas:          LPM
  Idle                                                User:              A/S: On
```

INSTRUMENT: Scheduled Maintenance

| | | Uses left | Last service | Next service |
|---|---|---|---|---|
| replace: | Pump tubing | 174 | 28-Jan-83 | 07-Feb-83 |
| | Waste drain tubing | 1494 | 17-Jan-83 | 02-Jan-84 |
| | Liquid/gas separator | 3335 | 28-Dec-99 | 31-Jan-01 |
| | pump head | 10000 | N/A | N/A |
| | Hg lamp | N/A | 06-Jan-83 | 05-Jun-83 |
| | Reductant bottle | 400 | 04-Feb-83 | 03-Aug-83 |
| | process tubing | 3335 | N/A | N/A |
| Clean optical cell | | 600 | N/A | N/A |

* - needs maintenance

```
RunProt: ONTARIO
RunFold: 020400HG Seq: 0     Batch:
                  Prnt: R/T On
                  Rev: 4.0    06:03:36 04 Feb 1983 Xmit: Off  Gas:    0.30 LPM
  Idle                                             User:              A/S: On
```

```
UTILITY:  Diagnostics  Tip X      0 1   99
Aper test              Tip Y      0 1    3
Test optic             Tip Z     95 1    7
Tip home               Gas     -155
Out port
In port
Run pcode
Cal A/S
```

aperture - 21

acceptable Range = -100 to +100

```
Sensors on solenoid Enter for test Ins for motor More tests
Pcode halt 0     @ 344
```

```
RunProt: ONTARIO
RunFold: 020400HG Seq: 0     Batch:
                  Prnt: R/T On
                  Rev: 4.0    06:03:41 04 Feb 1983 Xmit: Off  Gas:    0.30 LPM
  Idle                                             User:              A/S: On
```

```
UTILITY:  Diagnostics  Tip X      0 1   99
Aper test              Tip Y      0 1    3
Test optic             Tip Z     95 1    7
Tip home               Gas     -155
Out port                                      Smpl. intensity    1407236
In port                                       Ref. intensity     1411295
Run pcode
Cal A/S
```

<10% Difference acceptable.

```
Sensors on solenoid Enter for test Ins for motor More tests
Pcode halt 0     @ 142
```

06:06:29 04 Feb 1983

Folder: 020400HG
Protocol: ONTARIO

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|
| *** Standard: 1 Rep: 1 | | | | Seq: 0 | | 06:06:29 04 Feb 1983 HG | | |
| Hg | .000 | ug/l | 383 | | | | | |
| *** Standard: 1 Rep: 2 | | | | Seq: 1 | | 06:08:38 04 Feb 1983 HG | | |
| Hg | .000 | ug/l | 256 | | | | | |
| *** Standard: 1 Rep: 1 | | | | Seq: 2 | | 06:13:44 04 Feb 1983 HG | | |
| Hg | .000 | ug/l | 297 | | | | | |
| *** Standard: 1 Rep: 2 | | | | Seq: 3 | | 06:15:55 04 Feb 1983 HG | | |
| Hg | .000 | ug/l | 139 | | | | | |
| *** Standard: 2 Rep: 1 | | | | Seq: 4 | | 06:18:04 04 Feb 1983 HG | | |
| Hg | .200 | ug/l | 20757 | | | | | |
| *** Standard: 2 Rep: 2 | | | | Seq: 5 | | 06:20:16 04 Feb 1983 HG | | |
| Hg | .200 | ug/l | 20640 | | | | | |
| *** Standard: 3 Rep: 1 | | | | Seq: 6 | | 06:22:27 04 Feb 1983 HG | | |
| Hg | .500 | ug/l | 49502 | | | | | |
| *** Standard: 3 Rep: 2 | | | | Seq: 7 | | 06:24:37 04 Feb 1983 HG | | |
| Hg | .500 | ug/l | 49209 | | | | | |
| *** Standard: 4 Rep: 1 | | | | Seq: 8 | | 06:26:47 04 Feb 1983 HG | | |
| Hg | 2.00 | ug/l | 198883 | | | | | |
| *** Standard: 4 Rep: 2 | | | | Seq: 9 | | 06:29:08 04 Feb 1983 HG | | |
| Hg | 2.00 | ug/l | 199119 | | | | | |
| *** Standard: 5 Rep: 1 | | | | Seq: 10 | | 06:31:23 04 Feb 1983 HG | | |
| Hg | 5.00 | ug/l | 491339 | | | | | |
| *** Standard: 5 Rep: 2 | | | | Seq: 11 | | 06:33:47 04 Feb 1983 HG | | |
| Hg | 5.00 | ug/l | 492658 | | | | | |

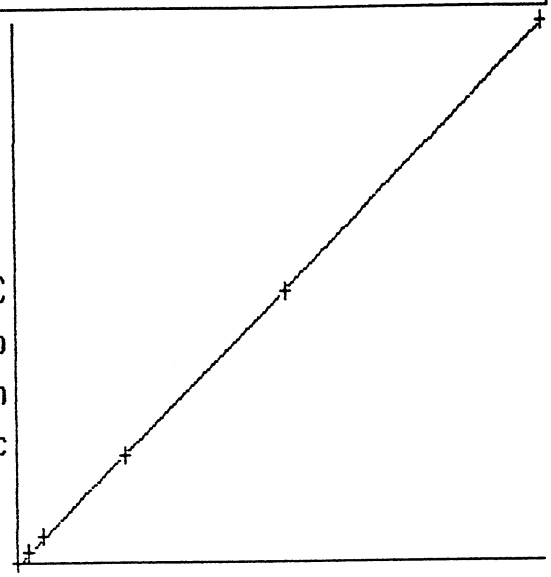
| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|
| *** Standard: 6 Rep: 1 | | | | Seq: | 12 | 06:36:13 04 Feb 1983 HG | | |
| Hg | 10.0 | ug/l | 962864 | | | | | |
| *** Standard: 6 Rep: 2 | | | | Seq: | 13 | 06:38:43 04 Feb 1983 HG | | |
| Hg | 10.0 | ug/l | 967903 | | | | | |

RunProt: ONTARIO
RunFold: 020400HG Seq: 14 Batch:
Prnt: R/T On
Rev: 4.0 06:39:40 04 Feb 1983 Xmit: Off Gas: 0.30 LPM
Idle User: A/S: On

CALIBRATION: Line proto: ONTARIO

| | Hg Conc. | Calc. | Dev. | Accepted ->linear |
|---|---|---|---|---|
| S1 | .000 | -.026 | -.026 | Quadratic |
| S2 | .200 | .186 | -.014 | Wtdlinear |
| S3 | .500 | .483 | -.017 | C |
| S4 | 2.00 | 2.03 | .031 | Accept o |
| S5 | 5.00 | 5.06 | .063 | n |
| S6 | 10.0 | 9.96 | -.038 | c |

A .00000000 r .999951
B 1.03488e-5 C -2.81249e-2



| | Mean | %RSD | | Relative Absorbance |
|---|---|---|---|---|
| S1 | 218 | 51.25 | 297 | 139 |
| S2 | 20698 | 0.4 | 20757 | 20640 |
| S3 | 49355 | 0.42 | 49502 | 49209 |
| S4 | 199001 | 0.08 | 198883 | 199119 |
| S5 | 491998 | 0.19 | 491339 | 492658 |
| S6 | 965383 | 0.37 | 962864 | 967903 |

✓ New cal coefficients stored

Didn't print Seq. #14 :
Ck#4-IPC/CCV found 5.01 ug/l

*** Check Standard: 3 Ck3IPC/CCV Seq: 15 06:44:14 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 99.5 | 4.98 | 5.00 | ug/l | .000 |

$\bar{x}$ = 4.99 ug/l (100% R)

*** Check Standard: 2 Ck2ICB/CCB Seq: 16 06:46:42 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -32100 | -.032 | .000 | ug/l | .000 |

$\bar{x}$ = <0.2 ug/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 17 06:48:48 04 Feb 1983 HG
Line Flag Found Range(+/-) Units SD/RSD

*** Sample ID: QCS/ICV Seq: 18 06:50:54 04 Feb 1983 HG

5.00 UG/L 2/3 $\bar{X}$ = 5.35 ug/l 107 %R

Hg 5.36 ug/l .000 5.36

Folder: 020400HG Page 846

*** Sample ID: QCS/ICV Seq: 19 06:53:12 04 Feb 1983 HG

5.00 UG/L 2/3

Hg 5.35 ug/l .000 5.35

Dilution factor = 1.30

*** Sample ID: LRB-KCL Seq: 20 06:55:39 04 Feb 1983 HG

<0.2 2/2 30 ML $\bar{X}$ = (<0.2 ug/l)(30 ml + 1.5 ml + 0.75 ml + 4.5 ml + 2.25 ml) / 30 ml

Hg .018 ug/l .000 .018 ∴ <0.3 ug/l

*** Sample ID: LRB-KCL Seq: 21 06:57:42 04 Feb 1983 HG

<0.2 2/2 30 ML

Hg .027 ug/l .000 .027

*** Sample ID: LFB-KCL Seq: 22 06:59:48 04 Feb 1983 HG

2.00 UG/L 2/2 T.V. = 2.00 ug/l

Hg 1.40 ug/l .000 1.40 $\bar{X}$ = (1.40 ug/l)(1.3) = 1.82 ug/l 91 %R

*** Sample ID: LFB-KCL Seq: 23 07:02:02 04 Feb 1983 HG

2.00 UG/L 2/2

Hg 1.39 ug/l .000 1.39

*** Sample ID: 1390612 Seq: 24 07:04:17 04 Feb 1983 HG

<0.2 CLIENT SB $\bar{X}$ = (<0.2 ug/l)(1.30) = <0.3 ug/l

Hg .039 ug/l .000 .039 ∴ (<0.3 ug/l)(0.500 l) = <0.2 ug Hg°

*** Sample ID: 1390612 Seq: 25 07:06:21 04 Feb 1983 HG

<0.2 CLIENT SB

Hg .044 ug/l .000 .044

Folder: 020400HG Page 847

07:08:25 04 Feb 1983 Protocol: ONTARIO

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|

D.L. = <0.2 ug Hg° Blk # 1390612

*** Sample ID: 1390599 Seq: 26 07:08:25 04 Feb 1983 HG

ESP1 IN $\bar{X}$ = (2.60 ug/l)(1.30) = 3.38 ug/l

Hg 2.62 ug/l .000 2.62 ∴ Total Oxidized Hg = ((3.38 ug/l)(0.635 l)) − ((<0.3 ug/l Hg°)(0.500 l)) = 2.15 ug Hg°

ESP1 IN

Hg 2.59 ug/l .000 2.59

*** Check Standard: 4 Ck4IPC/CCV Seq: 28 07:17:22 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 100. | 5.02 | 5.00 | ug/l | .000 |

$\bar{x}$ = 5.03ug/l 101%R

*** Check Standard: 3 Ck3IPC/CCV Seq: 29 07:19:45 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 101. | 5.03 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 30 07:22:13 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -35800 | -.036 | .000 | ug/l | .000 |

$\bar{x}$ = <0.2ug/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 31 07:24:19 04 Feb 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.031 | .200 | ug/l | .000 |

*** Sample ID: 1390579 Seq: 32 07:26:25 04 Feb 1983 HG D.L. = 0.3ug

ESP1 OUT

Hg 5.55 ug/l .000 5.55

$\bar{x}$ = (5.54ug/l)(1.30) = 7.20ug/l

∴ (7.20ug/l)(0.835l) = 6.01ug Hgo

*** Sample ID: 1390579 Seq: 33 07:29:06 04 Feb 1983 HG

ESP1 OUT

Hg 5.54 ug/l .000 5.54

*** Sample ID: 1390604 Seq: 34 07:31:52 04 Feb 1983 HG

ESP2 IN

Hg 2.12 ug/l .000 2.12

$\bar{x}$ = (2.16ug/l)(1.30) = 2.81ug/l

∴ (2.81ug/l)(0.710l) = 2.00ug Hgo

*** Sample ID: 1390604 Seq: 35 07:34:10 04 Feb 1983 HG

ESP2 IN

Hg 2.18 ug/l .000 2.18

*** Sample ID: 1390584 Seq: 36 07:36:25 04 Feb 1983 HG

ESP2 OUT

Hg 4.64 ug/l .000 4.64

$\bar{x}$ = (4.59ug/l)(1.30) = 5.97ug/l

∴ (5.97ug/l)(0.840l) = 5.01ug Hgo

*** Sample ID: 1390584 Seq: 37 07:39:04 04 Feb 1983 HG

ESP2 OUT

Hg 4.54 ug/l .000 4.54

2% difference

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|

*** Sample ID: 1390609 Seq: 38 07:41:43 04 Feb 1983 HG D.L. = <0.2 ug Hg

ESP3 IN

Hg 1.12 ug/l .000 1.12

$\bar{x}$ = (1.15 ug/l)(1.30) = 1.50 ug/l
∴ (1.50 ug/l)(0.710 l) = 1.06 ug Hg°

*** Sample ID: 1390609 Seq: 39 07:43:53 04 Feb 1983 HG

ESP3 IN

Hg 1.17 ug/l .000 1.17

*** Sample ID: 1390589 Seq: 40 07:46:04 04 Feb 1983 HG D.L. = <0.2 ug Hg

ESP3 OUT

Hg 5.75 ug/l .000 5.75

$\bar{x}$ = (5.76 ug/l)(1.30) = 7.49 ug/l
∴ (7.49 ug/l)(0.670 l) = 5.02 ug Hg°

*** Sample ID: 1390589 Seq: 41 07:48:29 04 Feb 1983 HG

ESP3 OUT

Hg 5.77 ug/l .000 5.77

*** Check Standard: 4 Ck4IPC/CCV Seq: 42 07:50:49 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 101. | 5.03 | 5.00 ✓ | ug/l | .000 |

$\bar{x}$ = 5.06 ug/l (101 %R)

*** Check Standard: 3 Ck3IPC/CCV Seq: 43 07:53:09 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 102. | 5.09 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 44 07:55:36 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -30600 | -.031 | .000 | ug/l | .000 |

$\bar{x}$ = <0.2 ug/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 45 07:57:43 04 Feb 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.030 | .200 | ug/l | .000 |

*** Sample ID: 1390619 Seq: 46 07:59:48 04 Feb 1983 HG

<0.2

BT IN

Hg .015 ug/l .000 .015

$\bar{x}$ = (<0.2 ug/l)(1.30) = <0.26 ug/l
∴ (<0.26 ug/l)(0.590 l) = <0.15 ug Hg°

*** Sample ID: 1390619 Seq: 47 08:01:54 04 Feb 1983 HG

<0.2

BT IN

Hg .016 ug/l .000 .016

*** Sample ID: 1390619 Seq: 48 08:03:58 04 Feb 1983 HG

<0.2

BT ~~EN~~ IN 21/100

Hg .015 ug/l .000 .015

$\bar{x}$ = (<0.2 ug/l)(1.30) = <0.26 ug/l
∴ (<0.26 ug/l)(0.590 l) = <0.15 ug Hg°

*** Sample ID: 1390619 Seq: 49 08:06:01 04 Feb 1983 HG

<0.2

BT ~~EN~~ 21/100

Hg .013 ug/l .000 .013

21/100

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: 1390619 Spk Seq: 50 08:08:05 04 Feb 1983 HG
BT IN 2.00 UG/L
Hg 2.07 ug/l .000 2.07

Spk T.V. = (2.00 ug/l)(1.30) = 2.60 ug/l
∴ (2.60 ug/l)(0.590 l) = 1.53 ug Hg o

*** Sample ID: 1390619 Spk Seq: 51 08:10:18 04 Feb 1983 HG
BT IN 2.00 UG/L
Hg 2.07 ug/l .000 2.07

$\bar{x}$ = (2.07 ug/l)(1.30) = 2.69 ug/l
∴ (2.69 ug/l)(0.590 l) = 1.59 ug Hg o
104 %R

*** Sample ID: 1390594 Seq: 52 08:12:32 04 Feb 1983 HG
<0.2
BT OUT
Hg .001 ug/l .000 .001

$\bar{x}$ = (<0.2)(1.30) = <0.26 ug/l
∴ (<0.26 ug/l)(0.455 l) = <0.12 ug Hg o

*** Sample ID: 1390594 Seq: 53 08:14:36 04 Feb 1983 HG
<0.2
BT OUT
Hg .007 ug/l .000 .007

*** Sample ID: LRB+KMN04 Seq: 54 08:16:40 04 Feb 1983 HG
<0.2
2/3 30 ML
Hg .075 ug/l .000 .075

DF (dilution factor) = 1375

$\bar{x}$ = (<0.2 ug/l)(30 ml + 1.5 ml + 4.5 ml + 2.25 ml + 3.0 ml) / 30 ml
= <0.3 ug/l

*** Sample ID: LRB+KMN04 Seq: 55 08:18:44 04 Feb 1983 HG
<0.2
2/3 30 ML
Hg .074 ug/l .000 .074

*** Check Standard: 4 Ck4IPC/CCV Seq: 56 08:20:49 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 102. | 5.08 | 5.00 | ug/l | .000 |

$\bar{x}$ = 5.06 ug/l 101 %R

*** Check Standard: 3 Ck3IPC/CCV Seq: 57 08:23:17 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 101. | 5.05 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 58 08:25:39 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -35300 | -.035 | .000 | ug/l | .000 |

$\bar{x}$ = <0.2 ug/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 59 08:27:46 04 Feb 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.028 | .200 | ug/l | .000 |

*** Sample ID: LFB+KMN04 Seq: 60 08:29:51 04 Feb 1983 HG
2/3 2.00 UG/L
Hg 1.39 ug/l .000 1.39

Spk (LFB) T.V. = 2.00 ug/l
$\bar{x}$ = (1.40 ug/l)(1.375) = 1.93 ug/l Hg
96 %R

*** Sample ID: LFB+KMN04 Seq: 61 08:32:05 04 Feb 1983 HG
2/3 2.00 UG/L
Hg 1.41 ug/l .000 1.41

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|

*** Sample ID: 1390614 Seq: 62 08:34:22 04 Feb 1983 HG
CLIENT SB
<0.2
Hg .093 ug/l .000 .093

$\bar{x}$ = (<0.2 ug/l)(1.375) = <0.28 ug/l
∴ (<0.28 ug/l)(0.500 l) = <0.14 ug Hg Eb2, KMnO4

*** Sample ID: 1390614 Seq: 63 08:36:27 04 Feb 1983 HG
CLIENT SB
<0.2
Hg .097 ug/l .000 .097

*** Sample ID: 1390601 Seq: 64 08:38:32 04 Feb 1983 HG D.L = 0.2 ug Hg KMnO4
ESP1 IN
Hg 1.86 ug/l .000 1.86

$\bar{x}$ = (1.84 ug/l)(1.375) = 2.53 ug/l
∴ (2.53 ug/l)(0.575) = ~~1.06 ug Hg KMnO4~~ 1.45 ug Hg KMnO4

*** Sample ID: 1390601 Seq: 65 08:40:46 04 Feb 1983 HG
ESP1 IN
Hg 1.82 ug/l .000 1.82

*** Sample ID: 1390581 Seq: 66 08:43:01 04 Feb 1983 HG
ESP1 OUT
Hg 5.21 ug/l .000 5.21

$\bar{x}$ = (5.23 ug/l)(1.375) = 7.19 ug/l
∴ (7.19 ug/l)(0.610 l) = 4.39 ug Hg KMnO4

*** Sample ID: 1390581 Seq: 67 08:45:19 04 Feb 1983 HG
ESP1 OUT
Hg 5.24 ug/l .000 5.24

*** Sample ID: 1390606 Seq: 68 08:47:45 04 Feb 1983 HG
ESP2 IN
Hg .360 ug/l .000 .360

$\bar{x}$ = (0.361 ug/l)(1.375) = 0.496 ug/l
∴ (0.496 ug/l)(0.550 l) = 0.273 ug Hg KMnO4

*** Sample ID: 1390606 Seq: 69 08:49:49 04 Feb 1983 HG
ESP2 IN
Hg .362 ug/l .000 .362

*** Check Standard: 4 Ck4IPC/CCV Seq: 70 08:51:55 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 103. | 5.14 | 5.00 ✓ | ug/l | .000 |

$\bar{x}$ = 5.10 ug/l 102% R

*** Check Standard: 3 Ck3IPC/CCV Seq: 71 08:54:23 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 101. | 5.06 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 72 08:56:44 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -31900 | -.032 | .000 | ug/l | .000 |

$\bar{x}$ = <0.2 ug/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 73 08:58:51 04 Feb 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.025 | .200 | ug/l | .000 |

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: 1390586 Seq: 74 09:00:58 04 Feb 1983 HG
ESP2 OUT
Hg 1.73 ug/l .000 1.73

$\bar{x}$ = (1.73 ug/l)(1.375) = 2.38 ug/l Hg
∴ (2.38 ug/l Hg)(0.550 l) = 1.31 ug Hg KMnO4

*** Sample ID: 1390586 Seq: 75 09:03:08 04 Feb 1983 HG
ESP2 OUT
Hg 1.74 ug/l .000 1.74

*** Sample ID: 1390611 Seq: 76 09:05:19 04 Feb 1983 HG
<0.2
ESP3 IN
Hg .173 ug/l .000 .173

$\bar{x}$ = (<0.2 ug/l)(1.375) = <0.28 ug/l
∴ (<0.28 ug/l)(0.575 l) = <0.16 ug Hg KMnO4

*** Sample ID: 1390611 Seq: 77 09:07:26 04 Feb 1983 HG
<0.2
ESP3 IN
Hg .176 ug/l .000 .176

*** Sample ID: 1390591 Seq: 78 09:09:30 04 Feb 1983 HG
ESP3 OUT
Hg 1.81 ug/l .000 1.81

$\bar{x}$ = (1.81 ug/l)(1.375) = 2.49 ug/l
∴ (2.49 ug/l)(0.535 l) = 1.33 ug Hg KMnO4

*** Sample ID: 1390591 Seq: 79 09:11:46 04 Feb 1983 HG
ESP3 OUT
Hg 1.81 ug/l .000 1.81

*** Sample ID: 1390591 Seq: 80 09:14:01 04 Feb 1983 HG
ESP3 OUT
Hg 1.81 ug/l .000 1.81

*** Sample ID: 1390591 Seq: 81 09:16:18 04 Feb 1983 HG
217100 gp
ESP3 OUT
Hg 1.77 ug/l .000 1.77

*** Sample ID: 1390591 $S_{pk}$ Seq: 82 09:18:34 04 Feb 1983 HG
ESP3 OUT 2.00 UG/L
Hg 3.78 ug/l .000 3.78

Spk T.V. = (2.00 ug/l)(1.375) = 2.75 ug/l
∴ (2.75 ug/l)(0.535 l) = 1.47 ug Hg KMnO4

*** Sample ID: 1390591 $S_{pk}$ Seq: 83 09:20:50 04 Feb 1983 HG
ESP3 OUT 2.00 UG/L
Hg 3.76 ug/l .000 3.76

$\bar{x}$ = (3.77 ug/l)(1.375) = 5.18 ug/l
∴ (5.18 ug/l)(0.535 l) = 2.77 ug Hg KMnO4

98% Recovery

*** Check Standard: 4 Ck4IPC/CCV Seq: 84 09:23:06 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 102. | 5.12 | 5.00 | ug/l | .000 |

$\bar{x}$ = 5.08 ug/l

102% R

2% difference

*** Check Standard: 3 Ck3IPC/CCV Seq: 85 09:25:28 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 101. | 5.04 | 5.00 | ug/l | .000 |

Line Conc. Units SD/RSD 1 2 3 4 5

*** Check Standard: 2 Ck2ICB/CCB Seq: 86 09:27:56 04 Feb 1983 HG
Line Flag %Rcv. Found True Units SD/RSD
Hg -27900 -.028 .000 ug/l .000 $\bar{x}$ = <0.2ug/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 87 09:30:03 04 Feb 1983 HG
Line Flag Found Range(+/-) Units SD/RSD
Hg -.025 .200 ug/l .000

*** Sample ID: 1390621 Seq: 88 09:32:10 04 Feb 1983 HG
<0.2 BT ~~DIT~~ Inlet 2/7/00 JR
Hg .060 ug/l .000 .060 $\bar{x}$ = (<0.2ug/l)(1.375) = <0.28ug/l
∴ (<0.28ug/l)(0.560 l) = <0.16ug Hg KMnO4

*** Sample ID: 1390621 Seq: 89 09:34:16 04 Feb 1983 HG
<0.2 BT ~~DIT~~ Inlet 2/7/00 JR
Hg .059 ug/l .000 .059

*** Sample ID: 1390596 Seq: 90 09:36:20 04 Feb 1983 HG
<0.2 BT ~~IN~~ outlet 2/7/00 JR
Hg .027 ug/l .000 .027 $\bar{x}$ = (<0.2ug/l)(1.375) = <0.28ug/l
∴ (<0.28ug/l)(0.580 l) = <0.17ug Hg KMnO4

*** Sample ID: 1390596 Seq: 91 09:38:26 04 Feb 1983 HG
<0.2 BT ~~IN~~ outlet 2/7/00 JR
Hg .029 ug/l .000 .029

*** Sample ID: LRB-H2O2 Seq: 92 09:40:32 04 Feb 1983 HG DF = 3.2
<0.2 2/3 10 ML
Hg .011 ug/l .000 .011 $\bar{x}$ = (<0.2ug/l)(10ml + 0.5ml + 14.5ml + 0.5ml + 1.5ml + 5.0ml / 10ml)
= <0.7ug Hg $H_2O_2$

*** Sample ID: LRB-H2O2 Seq: 93 09:42:37 04 Feb 1983 HG
<0.2 2/3 10 ML
Hg .011 ug/l .000 .011

*** Sample ID: LFB-H2O2 Seq: 94 09:44:42 04 Feb 1983 HG
6.00
2/3 ~~2.00~~ UG/L ~~$\bar{x}$~~ LFB T.V. = 6.00ug/l
Hg 1.86 ug/l .000 2/4/00 JR 1.86 $\bar{x}$ = (1.85ug/l)(10ml + 0.5ml + 14.5ml + 0.5 + 1.5 + 6.0ml / 10ml)
∴ 6.11ug/l Hg $H_2O_2$ 102%R

*** Sample ID: LFB-H2O2 Seq: 95 09:46:38 04 Feb 1983 HG
6.00
2/3 ~~2.00~~ UG/L
Hg 1.83 ug/l .000 2/4/00 JR 1.83

*** Sample ID: 1390615 Seq: 96 09:49:09 04 Feb 1983 HG
<0.2 CLIENT SB H2O2
Hg .060 ug/l .000 .060 $\bar{x}$ = (<0.2ug/l)(10ml + 0.5ml + 18.5ml + 0.5ml + 1.5ml + 2.0ml / 10ml)
= <0.7ug Hg $H_2O_2$ ∴ (<0.7ug/l Hg $H_2O_2$)(0.250 l) = <0.2 ug Hg $H_2O_2$ Ebl

*** Sample ID: 1390615 Seq: 97 09:51:15 04 Feb 1983 HG
<0.2 CLIENT SB H2O2
Hg .066 ug/l .000 .066

Line Conc. Units SD/RSD 1 2 3 4 5

*** Check Standard: 4 Ck4IPC/CCV Seq: 98 09:53:21 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 102. | 5.10 | 5.00 ✓ | ug/l | .000 |

$\bar{x}$ = 5.08 ug/l 101% R

*** Check Standard: 3 Ck3IPC/CCV Seq: 99 09:55:48 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 101. | 5.05 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 100 09:58:06 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -37100 | -.037 | .000 | ug/l | .000 |

$\bar{x}$ = <0.2 ug/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 101 10:00:13 04 Feb 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.025 | .200 | ug/l | .000 |

*** Sample ID: 1390600 Seq: 102 10:02:18 04 Feb 1983 HG

ESP1 IN

Hg .228 ug/l .000 .228

$\bar{x}$ = (0.228 ug/l)(10 ml + 0.5 ml + 14.5 ml + 0.5 ml + 1.5 ml + 2.0 ml / 10 ml)
= 0.661 ug/l
∴ ((0.661 ug/l)(0.250 l)) = 0.165 ug Hg $H_2O_2$

*** Sample ID: 1390600 Seq: 103 10:04:24 04 Feb 1983 HG

ESP1 IN

Hg .228 ug/l .000 .228

*** Sample ID: 1390580 Seq: 104 10:06:30 04 Feb 1983 HG

<0.2

ESP1 OUT

Hg .194 ug/l .000 .194

$\bar{x}$ = (<0.2 ug/l)(10 ml + 0.5 ml + 14.5 ml + 0.5 ml + 1.5 ml + 2.0 ml / 10 ml)
= <0.58 ug/l
∴ (<0.58 ug/l)(0.250 l) = <0.15 ug Hg $H_2O_2$

*** Sample ID: 1390580 Seq: 105 10:08:36 04 Feb 1983 HG

<0.2

ESP1 OUT

Hg .196 ug/l .000 .196

*** Sample ID: 1390605 Seq: 106 10:10:42 04 Feb 1983 HG

ESP2 IN

Hg .203 ug/l .000 .203

$\bar{x}$ = (0.206 ug/l)(10 ml + 0.5 ml + 16.5 ml + 0.5 ml + 1.5 ml + 2 ml / 10 ml)
= 0.639 ug/l
∴ (0.639 ug/l)(0.250 l) = 0.160 ug Hg $H_2O_2$

*** Sample ID: 1390605 Seq: 107 10:12:48 04 Feb 1983 HG

ESP2 IN

Hg .209 ug/l .000 .209

*** Sample ID: 1390585 Seq: 108 10:14:54 04 Feb 1983 HG

ESP2 OUT

Hg .267 ug/l .000 .267

$\bar{x}$ = (0.268 ug/l)(10 ml + 0.5 ml + 14.5 ml + 0.5 ml + 1.5 ml + 2 ml / 10 ml)
= 0.777 ug/l
∴ (0.777 ug/l)(0.250 l) = 0.194 ug Hg $H_2O_2$

*** Sample ID: 1390585 Seq: 109 10:17:01 04 Feb 1983 HG

ESP2 OUT

Hg .269 ug/l .000 .269

Folder: 020400HG Page 854

10:19:08 04 Feb 1983 Protocol: ONTARIO

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|

*** Sample ID: 1390610 Seq: 110 10:19:08 04 Feb 1983 HG D.L. = 0.2ug Hg $H_2O_2$

<0.2 ESP3 IN $\bar{x}$ = (<0.2ug/l)(10ml + 0.5ml + 14.5ml + 0.5ml + 1.5ml + 2ml) / 10 ml

Hg .057 ug/l .000 .057 = <0.58ug/l

∴ (<0.58ug/l Hg $H_2O_2$)(0.250 l) = <0.15ug Hg $H_2O_2$

*** Sample ID: 1390610 Seq: 111 10:21:16 04 Feb 1983 HG

<0.2 ESP3 IN

Hg .059 ug/l .000 .059

*** Check Standard: 4 Ck4IPC/CCV Seq: 112 10:23:23 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 101. | 5.05 | 5.00 | ug/l | .000 |

$\bar{x}$ = 5.03 ug/l 101%R

*** Check Standard: 3 Ck3IPC/CCV Seq: 113 10:25:51 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 100. | 5.02 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 114 10:28:09 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -30600 | -.031 | .000 | ug/l | .000 |

$\bar{x}$ = <0.2ug/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 115 10:30:15 04 Feb 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.025 | .200 | ug/l | .000 |

*** Sample ID: 1390610 Seq: 116 10:32:22 04 Feb 1983 HG

<0.2 ESP3 IN

Hg .061 ug/l .000 .061 (Required 3rd replicate)

*** Sample ID: 1390610 Seq: 117 10:34:29 04 Feb 1983 HG

27100 gp. ESP3 IN

Hg .062 ug/l .000 .062 not necessary

*** Sample ID: 1390610 $S_{pk}$ Seq: 118 10:36:36 04 Feb 1983 HG

ESP3 IN 2.00 UG/L Spk T.V. = (2.00ug/l)(10ml + 0.5ml + 14.5ml + 0.5ml + 1.5ml + 2.0ml) / 10ml

Hg 1.94 ug/l .000 1.94 (5.80ug/l)(0.250 l) = 1.45ug Hg $H_2O_2$

*** Sample ID: 1390610 $S_{pk}$ Seq: 119 10:38:50 04 Feb 1983 HG

ESP3 IN 2.00 UG/L $\bar{x}$ = (1.93ug/l)(10ml + 0.5ml + 14.5ml + 0.5 + 1.5 + 2.0ml) / 10 ml

Hg 1.92 ug/l .000 1.92 = (5.60ug/l)

∴ (5.60ug/l)(0.250 l) = 1.40ug Hg $H_2O_2$ 97%R

*** Sample ID: 1390590 Seq: 120 10:40:57 04 Feb 1983 HG

ESP3 OUT $\bar{x}$ = (0.275ug/l)(10ml + 0.5ml + 16.5ml + 0.5ml + 1.5ml + 2.0ml) / 10 ml

Hg .273 ug/l .000 .273 = 0.853ug/l

∴ (0.853ug/l)(0.250 l) = 0.213ug/l Hg $H_2O_2$

*** Sample ID: 1390590 Seq: 121 10:43:04 04 Feb 1983 HG D.L. = 0.15ug Hg $H_2O_2$

ESP3 OUT

Hg .277 ug/l .000 .277

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: 1390620 Seq: 122 10:45:14 04 Feb 1983 HG 0.L = 0.17 ug Hg/$H_2O_2$
BT IN
<0.2
Hg .179 ug/l .000 .179
(<0.2 ug/l)(10 ml + 0.5 ml + 18.5 + 0.5 ml + 1.5 ml + 2 ml / 10 ml) = <0.66 ug/l Hg
∴ (<0.66 ug/l Hg)(0.25 ml) = <0.17 ug Hg $H_2O_2$

*** Sample ID: 1390620 Seq: 123 10:47:22 04 Feb 1983 HG
BT IN
<0.2
Hg .182 ug/l .000 .182

*** Sample ID: 1390595 Seq: 124 10:49:29 04 Feb 1983 HG 0.L = 0.17 ug Hg $H_2O_2$
BT OUT
Hg .233 ug/l .000 .233
$\bar{x}$ = (0.23 ug/l)(10 ml + 0.5 ml + 18.5 ml + 0.5 ml + 1.5 ml + 2 ml / 10 ml) = 0.762 ug/l
∴ (0.762 ug/l)(0.25 ml) = ~~40%~~ 0.19 ug Hg $H_2O_2$

*** Sample ID: 1390595 Seq: 125 10:51:37 04 Feb 1983 HG
BT OUT
Hg .230 ug/l .000 .230

*** Check Standard: 4 Ck4IPC/CCV Seq: 126 10:53:44 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 102. | 5.08 | 5.00 ✓ | ug/l | .000 |

$\bar{x}$ = 5.04 ug/l 100 %R

*** Check Standard: 3 Ck3IPC/CCV Seq: 127 10:56:04 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 99.8 | 4.99 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 128 10:58:24 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -30800 | -.031 | .000 | ug/l | .000 |

$\bar{x}$ = <0.2 ug/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 129 11:00:30 04 Feb 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.025 | .200 | ug/l | .000 |

*** Sample ID: LRB ASH Seq: 130 11:02:37 04 Feb 1983 HG
THIMBLES/FILTERS 2/2
<0.2
Hg -.011 ug/l .000 -.011
$\bar{x}$ = <0.2 ug/l

*** Sample ID: LRB ASH Seq: 131 11:04:44 04 Feb 1983 HG
THIMBLES/FILTERS 2/2
<0.2
Hg -.013 ug/l .000 -.013

*** Sample ID: ~~LRB~~ LFB ASH Seq: 132 11:06:52 04 Feb 1983 HG In house QC only → No limit requirements
gp. 2/7/84
2/2 2.00 UG/L LFB T.V. = 2.00 ug/l
Hg 2.48 ug/l .000 2.48
$\bar{x}$ = 2.47 ug/l 124 %R

*** Sample ID: ~~LRB~~ LFB ASH Seq: 133 11:09:09 04 Feb 1983 HG Data was confirmed on p. 859.
gp.
2/2 2.00 UG/L
Hg 2.46 ug/l .000 2.46

11:11:28 04 Feb 1983 Protocol: ONTARIO

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|

*** Sample ID: 1390622 Seq: 134 11:11:28 04 Feb 1983 HG
THIMBLE/100 SB IN Blk Thimble

| | | | | | |
|---|---|---|---|---|---|
| Hg | .064 (<0.2) | ug/l | .000 | .064 | $\bar{x}$ = <0.2 ug/l × 0.100 l = <0.02 ug Hg fb |

*** Sample ID: 1390622 Seq: 135 11:13:35 04 Feb 1983 HG
THIMBLE/100 SB IN

| | | | | |
|---|---|---|---|---|
| Hg | .066 (<0.2) | ug/l | .000 | .066 |

*** Sample ID: 1390598 Seq: 136 11:15:43 04 Feb 1983 HG D.L. = 0.2 ug Hg ash
0.69G/100 ESP1 IN

| | | | | |
|---|---|---|---|---|
| Hg | 4.37 | ug/l | .000 | 4.37 |

$\bar{x}$ = 4.46 ug/l × (5.33279 total ash present / 0.69 g thimble ash portion used) × 0.100 l = 3.45 ug Hg ash

*** Sample ID: 1390598 Seq: 137 11:18:02 04 Feb 1983 HG
0.69G/100 ESP1 IN

| | | | | |
|---|---|---|---|---|
| Hg | 4.54 | ug/l | .000 | 4.54 |

4% difference

*** Sample ID: 1390603 Seq: 138 11:20:21 04 Feb 1983 HG D.L. = 0.3 ug Hg ash
0.56G/100ML ESP2 IN

| | | | | |
|---|---|---|---|---|
| Hg | 4.40 | ug/l | .000 | 4.40 |

$\bar{x}$ = 4.42 ug/l × (7.5705 g total ash present / 0.56 g Ash wt. analyzed) × 0.100 l = 5.98 ug Hg ash

*** Sample ID: 1390603 Seq: 139 11:22:41 04 Feb 1983 HG
0.56G/100ML ESP2 IN

| | | | | |
|---|---|---|---|---|
| Hg | 4.44 | ug/l | .000 | 4.44 |

*** Check Standard: 4 Ck4IPC/CCV Seq: 140 11:24:58 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 100. | 5.01 | 5.00 ✓ | ug/l | .000 |

$\bar{x}$ = 5.00 ug/l 100 %R

*** Check Standard: 3 Ck3IPC/CCV Seq: 141 11:27:26 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 99.7 | 4.99 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 142 11:29:47 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -31400 | -.031 | .000 | ug/l | .000 |

$\bar{x}$ = <0.2 ug/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 143 11:31:53 04 Feb 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.031 | .200 | ug/l | .000 |

*** Sample ID: 1390608 Seq: 144 11:34:01 04 Feb 1983 HG D.L. = 0.4 ug Hg ash
0.56G/100ML ESP3 IN

| | | | | |
|---|---|---|---|---|
| Hg | 3.99 | ug/l | .000 | 3.99 |

$\bar{x}$ = 3.98 ug/l × (9.1795 g total ash present / 0.56 g Ash digested) × 0.100 l = 6.52 ug Hg

*** Sample ID: 1390608 Seq: 145 11:36:21 04 Feb 1983 HG
0.56G/100ML ESP3 IN

| | | | | |
|---|---|---|---|---|
| Hg | 3.97 | ug/l | .000 | 3.97 |

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: 1390618 Seq: 146 11:38:40 04 Feb 1983 HG
<0.2 THIMBLE/100ML BT IN $\bar{x}$ = (<0.2ugle) x 0.100l = (<0.02ug Hg ash)
Hg .060 ug/l .000 .060

*** Sample ID: 1390618 Seq: 147 11:40:49 04 Feb 1983 HG
<0.2 THIMBLE/100ML BT IN
Hg .064 ug/l .000 .064

*** Sample ID: 1390618 Seq: 148 11:42:58 04 Feb 1983 HG
<0.2 THIMBLE/100ML BT IN
Hg .066 ug/l .000 .066

*** Sample ID: 1390618 not required. Seq: 149 11:45:06 04 Feb 1983 HG
THIMBLE/100ML BT IN
Hg .068 ug/l .000 .068

*** Sample ID: 1390618 Spk Seq: 150 11:47:15 04 Feb 1983 HG
2.0 UG/L THIMBLE/100 Spk T.V. = 2.00ugle x 0.100l = (0.200ug Hg ash)
Hg 2.08 ug/l .000 2.08 $\bar{x}$ = 2.08ugle x 0.100l = (0.208 ug Hg ash) (104%R)

*** Sample ID: 1390618 Spk Seq: 151 11:49:25 04 Feb 1983 HG
2.0 UG/L THIMBLE/100
Hg 2.08 ug/l .000 2.08

*** Sample ID: 1390613 Seq: 152 11:51:35 04 Feb 1983 HG
<0.2 SB FILTER/100ML Client Bet filter.
Hg .000 ug/l .000 .000 $\bar{x}$ = (<0.2ugle)(0.100l) = (<0.02ug Hg fb)

*** Sample ID: 1390613 Seq: 153 11:53:44 04 Feb 1983 HG
<0.2 SB FILTER/100ML
Hg .008 ug/l .000 .008

*** Check Standard: 4 Ck4IPC/CCV Seq: 154 11:55:53 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 101. | 5.07 | 5.00 | ug/l | .000 |

$\bar{x}$ = (5.05ugle) (101%R)

*** Check Standard: 3 Ck3IPC/CCV Seq: 155 11:58:14 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 101. | 5.04 | 5.00 | ug/l | .000 |

*** Check Standard: 2 Ck2ICB/CCB Seq: 156 12:00:34 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | -31400 | -.031 | .000 | ug/l | .000 |

$\bar{x}$ = (<0.2ugle)

*** Check Standard: 1 Ck1ICB/CCB Seq: 157 12:02:40 04 Feb 1983 HG

| Line | Flag | Found | Range(+/-) | Units | SD/RSD |
|---|---|---|---|---|---|
| Hg | | -.037 | .200 | ug/l | .000 |

| Line | Conc. | Units | SD/RSD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|---|

*** Sample ID: 1390578 Seq: 158 12:04:48 04 Feb 1983 HG
FILTER/100 ESP1 OUT
Hg .202 ug/l .000 .202 $\bar{X}$ = 0.20ug/l x 0.100 l = 0.0201 ug Hg fnal

*** Sample ID: 1390578 Seq: 159 12:06:57 04 Feb 1983 HG
FILTER/100 ESP1 OUT
Hg .200 ug/l .000 .200

*** Sample ID: 1390583 Seq: 160 12:09:07 04 Feb 1983 HG
<0.2
FILTER/100 ESP2 OUT
Hg .177 ug/l .000 .177 $\bar{X}$ = <0.2ug/l x 0.100 l = <0.02ug Hg final

*** Sample ID: 1390583 Seq: 161 12:11:15 04 Feb 1983 HG
<0.2
FILTER/100 ESP2 OUT
Hg .180 ug/l .000 .180

*** Sample ID: 1390588 Seq: 162 12:13:24 04 Feb 1983 HG
<0.2
FILTER/100 ESP3 OUT
Hg .100 ug/l .000 .100 $\bar{X}$ = <0.2ug/l x 0.100 l = <0.02ug Hg final

*** Sample ID: 1390588 Seq: 163 12:15:33 04 Feb 1983 HG
<0.2
FILTER/100 ESP3 OUT
Hg .103 ug/l .000 .103

*** Sample ID: 1390593 Seq: 164 12:17:42 04 Feb 1983 HG
<0.2
FILTER/100 BT OUT
Hg .002 ug/l .000 .002 $\bar{X}$ = <0.2ug/l x 0.100 l = <0.02ug Hg final

*** Sample ID: 1390593 Seq: 165 12:19:51 04 Feb 1983 HG
<0.2
FILTER/100 BT OUT
Hg .000 ug/l .000 .000

*** Sample ID: NIST ASH T.V. = 0.141 ug/g ± 0.019 ug/g Seq: 166 12:22:01 04 Feb 1983 HG
1633B 0.64G/100
Hg .985 ug/l .000 .985 $\bar{X}$ = (0.984 ug/l)(0.100 l / 0.64 g) = 0.154 ug/g Hg ash

*** Sample ID: NIST ASH Seq: 167 12:24:10 04 Feb 1983 HG
1633B 0.64G/100
Hg .984 ug/l .000 .984

*** Check Standard: 4 Ck4IPC/CCV Seq: 168 12:26:19 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 102. | 5.12 | 5.00 | ug/l | .000 |

$\bar{X}$ = 5.09 ug/l 102 %R

*** Check Standard: 3 Ck3IPC/CCV Seq: 169 12:28:41 04 Feb 1983 HG

| Line | Flag | %Rcv. | Found | True | Units | SD/RSD |
|---|---|---|---|---|---|---|
| Hg | | 101. | 5.05 | 5.00 | ug/l | .000 |

Line Conc. Units SD/RSD 1 2 3 4 5

*** Check Standard: 2 Ck2ICB/CCB Seq: 170 12:31:03 04 Feb 1983 HG
Line Flag %Rcv. Found True Units SD/RSD
Hg -20100 -.020 .000 ug/l .000 $\bar{x}$ = <0.2ug/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 171 12:33:09 04 Feb 1983 HG
Line Flag Found Range(+/-) Units SD/RSD
Hg -.035 .200 ug/l .000

*** Sample ID: LFB ASH Seq: 172 12:46:30 04 Feb 1983 HG
2/2 2.00 UG/L
Hg 2.47 ug/l .000 2.47 Recheck only.

*** Sample ID: LFB ASH Seq: 173 12:48:42 04 Feb 1983 HG
2/2 2.00 UG/L
Hg 2.52 ug/l .000 2.52

*** Check Standard: 4 Ck4IPC/CCV Seq: 174 12:50:54 04 Feb 1983 HG
Line Flag %Rcv. Found True Units SD/RSD
Hg 102. 5.10 5.00 ug/l .000 5.08ug/l 101%R

*** Check Standard: 3 Ck3IPC/CCV Seq: 175 12:53:15 04 Feb 1983 HG
Line Flag %Rcv. Found True Units SD/RSD
Hg 101. 5.06 5.00 ug/l .000

*** Check Standard: 2 Ck2ICB/CCB Seq: 176 12:55:34 04 Feb 1983 HG
Line Flag %Rcv. Found True Units SD/RSD
Hg -8590 -.009 .000 ug/l .000 $\bar{x}$ = <0.2ug/l

*** Check Standard: 1 Ck1ICB/CCB Seq: 177 12:57:41 04 Feb 1983 HG
Line Flag Found Range(+/-) Units SD/RSD
Hg -.015 .200 ug/l .000

*** Sample ID: LFB ASH Seq: 178 12:59:48 04 Feb 1983 HG
2/2 2.00 UG/L
Hg 2.52 ug/l .000 2.52
2/100 go.

Total Elemental Mercury ($Hg_E$) Calculations:

Total elemental mercury is the Hg present in the $H_2SO_4$-$KMnO_4$ impingers and the Hg present in the $HNO_3$-$H_2O_2$ impingers solutions. See method, equation # 14 for Calculations. The client's blanks (portions 5B, Samples # 1390615 and #1390614) were <0.2ug

1) #1390600 + 1390601 (ESP-1 INLET):

0.165 ug $Hg_{H_2O_2}$ + 1.45 ug $Hg_{KMnO_4}$ = 1.62 ug $Hg_E$

2) #1390580 + 1390581 (ESP-1 Outlet):

<0.15 ug $Hg_{H_2O_2}$ + 4.39 ug $Hg_{KMnO_4}$ = 4.39 ug $Hg_E$

3) #1390605 + 1390606 (ESP-2 Inlet):

0.160 ug $Hg_{H_2O_2}$ + 0.273 ug $Hg_{KMnO_4}$ = 0.433 ug $Hg_E$

4) 1390585 + 1390586 (ESP-2 Outlet):

0.194 ug $Hg_{H_2O_2}$ + 1.31 ug $Hg_{KMnO_4}$ = 1.50 ug $Hg_E$

5) 1390610 + 1390611 (ESP-3 Inlet):

<0.15 ug $Hg_{H_2O_2}$ + <0.16 ug $Hg_{KMnO_4}$ = <0.40 ug $Hg_E$

6) 1390590 + 1390591 (ESP-3 Outlet):

0.213 ug le $Hg_{H_2O_2}$ + 1.33 ug $Hg_{KMnO_4}$ = 1.54 ug $Hg_E$

7) 1390620 + 1390621 (BT Inlet):

<0.17 ug $Hg_{H_2O_2}$ + <0.16 ug $Hg_{KMnO_4}$ = <0.40 ug $Hg_E$

8) 1390595 + 1390596 (BT Outlet):

0.191 ug $Hg_{H_2O_2}$ + <0.17 ug $Hg_{KMnO_4}$ = 0.191 ug $Hg_E$

Calculations for Total Amount of Particle-Bound Mercury ($Hg_{tp}$) - Equation #6:

$$Hg_{(particle)}, ug = \left((Hg_{ash}) - Hg_{fb}\right) + Hg_{pr}$$

where: $Hg_{ash}$ = $Hg_{ash}$ already calculated to ug $Hg_{ash}$.

$Hg_{fb}$ = The thimble blank and filter blank submitted by the client, ug.

$Hg_{pr}$ = Probe Rinse, 0.1N $HNO_3$ result, ug. Analysis was performed on 2/3/00.

1390598 + 1390597 (ESP-Inlet):

(3.45 ug $Hg_{ash}$ - <0.02 ug $Hg_{fb}$) + 2.92 ug $Hg_{pr}$ = 6.37 ug Hg (particle)

1390578 + 1390577 (ESP-1 Outlet):

(0.0201 ug $Hg_{ash}$ - <0.02 ug $Hg_{fb}$) + <0.09 ug $Hg_{pr}$ = <0.11 ug Hg particle

1390603
~~1390598~~ + 1390602 (ESP-2 Inlet):

(5.98 ug $Hg_{ash}$ - <0.02 ug $Hg_{fb}$) + 2.49 ug $Hg_{pr}$ = 8.47 ug Hg particle

# 1390583 + 1390582 (ESP-2 Outlet):

(<0.02 ug $Hg_{ash}$ - <0.02 ug $Hg_{fb}$) + 0.092 ug $Hg_{pr}$ = 0.092 ug Hg particle

# 1390608 + 1390607 (ESP-3 Inlet):

(6.52 ug $Hg_{ash}$ - <0.02 ug $Hg_{fb}$) + 1.75 ug $Hg_{pr}$ = 8.27 ug Hg particle

2/7/00
GKP.

1390588 + 1390587 (ESP-3 Outlet):

$(<0.02\,\mu g\ Hg_{ash} - <0.02\,\mu g\ Hg_{fb}) + <0.082\,\mu g\ Hg_{pr} = <0.11\,\mu g\ Hg_{particle}$

1390618 + 1390617 (BT Inlet):

$(<0.02\,\mu g\ Hg_{ash} - <0.02\,\mu g\ Hg_{fb}) + <0.028\,\mu g\ Hg_{pr} = <0.05\,\mu g\ Hg_{particle}$

1390593 + 1390592 (BT Outlet):

$(<0.02\,\mu g\ Hg_{ash} - <0.02\,\mu g\ Hg_{fb}) + <0.032\,\mu g\ Hg_{pr} = <0.06\,\mu g\ Hg_{particle}$

2A

# Initial and Continuing Calibration Verification

Lab Name: *Philip Analytical Services*

File Name: *HG-020300*

Concentration Units: ug/l

| Analyte | QCS (2nd Hg Stock) | | | Continuing Calibration | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | %R | True | Found | %R | Found | %R |
| Mercury | 5.00 | 5.34 | 106.8 | 5.00 | 5.04 | 100.8 | 5.03 | 100.6 |
| | | | | | | | | |

rms 2/25/98 rev. 1
rms 5/20/98 rev. 2

2A

# Initial and Continuing Calibration Verification Continued

Lab Name: *Philip Analytical Services*

File Name: HG-020300

| Analyte | Continuing Calibration | | | | | | |
|---|---|---|---|---|---|---|---|
| | True | Found | %R | Found | %R | Found | %R |
| Mercury | 5.00 | 5.06 | 101.2 | 4.98 | 99.6 | | |
| | | | | | | | |

rms 2/25/98 rev. 1
rms 5/20/98 rev. 2

# Initial & Continuing Calibration Blanks

Lab Name: *Philip Analytical Services*

File Name: *HG-020300*

Concentration Units: ug/l

| Parameter | Initial Calibration Blank (ug/l) | c | Continuing Calibration Blanks (ug/l) #1 | c | #2 | c | #3 | c | #4 | c |
|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | < 0.2 | | < 0.2 | | < 0.2 | | < 0.2 | | | |

5/19/98 rms

# 3A
# Method Blank

Lab Name: *Philip Analytical Services*
File Name: *HG-020300*
Batch: *020200 HNO3*

| | Method Blank ug/l |
|---|---|
| Mercury | < 0.2 |
| | |
| | |

5A

# MS/MSD Water

Lab Name: *Philip Analytical Services*

File Name: *HG-020300* Batch: 020200 HNO3

Sample Number: *1390587*

Concentration Units: ug

| | | MATRIX SPIKE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sample | Spike | Matrix Spike | | | | | | | | c |
| Parameter | Conc. | Conc. | Conc. | % Recovery | c | | | | | | |
| Mercury | < 0.082 | 0.823 | 0.807 | 98.0 | | | | | | | |

MS/MSD
5/19/98 rms

# Laboratory Control Sample

Lab Name: *Philip Analytical Services*
File Name: *HG-020300*
Batch: *020200 HNO3*

| LABORATORY CONTROL SAMPLE (LFB) (ug/l) | | | | |
|---|---|---|---|---|
| Parameter | Spike Conc. | Found Conc. | Recovery | C |
| Mercury | 2.00 | 1.91 | 95.5 | |

5/19/98 rms

Acceptance Limit: 85 - 115%

# Metal PQLS

Lab Name: *Philip Analytical Services*
File Name: *HG-020300*

| Element | Water PQL (ug/l) | |
|---|---|---|
| Mercury | < 0.2 | |

PQLs
rms 5/21/98

2A

# Initial and Continuing Calibration Verification

Lab Name: *Philip Analytical Services*

File Name: *HG-020400*

Concentration Units: ug/l

| Analyte | QCS (2nd Hg Stock) | | | Continuing Calibration | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | %R | True | Found | %R | Found | %R |
| Mercury | 5.00 | 5.35 | 107.0 | 5.00 | 4.99 | 99.8 | 5.03 | 100.6 |
| | | | | | | | | |

rms 2/25/98 rev. 1

rms 5/20/98 rev. 2

2A

# Initial and Continuing Calibration Verification Continued

Lab Name: *Philip Analytical Services*

File Name: HG-020400

| Analyte | Continuing Calibration | | | | | | |
|---|---|---|---|---|---|---|---|
| | True | Found | %R | Found | %R | Found | %R |
| Mercury | 5.00 | 5.06 | 101.2 | 5.06 | 101.2 | 5.10 | 102.0 |
| | | | | | | | |

rms 2/25/98 rev. 1
rms 5/20/98 rev. 2

2A

# Initial and Continuing Calibration Verification Continued

Lab Name: *Philip Analytical Services*

File Name: HG-020400

| Analyte | Continuing Calibration | | | | | | |
|---|---|---|---|---|---|---|---|
| | True | Found | %R | Found | %R | Found | %R |
| Mercury | 5.00 | 5.08 | 101.6 | 5.08 | 101.6 | 5.03 | 100.6 |
| | | | | | | | |

rms 2/25/98 rev. 1
rms 5/20/98 rev. 2

2A

# Initial and Continuing Calibration Verification Continued

Lab Name: *Philip Analytical Services*

File Name: HG-020400

| Analyte | Continuing Calibration | | | | | | |
|---|---|---|---|---|---|---|---|
| | True | Found | %R | Found | %R | Found | %R |
| Mercury | 5.00 | 5.00 | 100.0 | 5.05 | 101.0 | 5.09 | 101.8 |
| | | | | | | | |
| | | | | | | rms | 2/25/98 |
| | | | | | | rms | 5/20/98 |

2A

# Initial and Continuing Calibration Verification Continued

Lab Name: *Philip Analytical Services*

File Name: HG-020400

| Analyte | Continuing Calibration | | | | | | |
|---|---|---|---|---|---|---|---|
| | True | Found | %R | Found | %R | Found | %R |
| Mercury | 5.00 | 5.08 | 101.6 | | #VALUE! | | |
| | | | | | | | |

rms 2/25/98

rms 5/20/98

3

# Initial & Continuing Calibration Blanks

Lab Name: *Philip Analytical Services*

File Name: *HG-020400*

Concentration Units: ug/l

| Parameter | Initial Calibration Blank (ug/l) | c | Continuing Calibration Blanks (ug/l) #1 | c | #2 | c | #3 | c | #4 | c |
|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | < 0.2 | | < 0.2 | | < 0.2 | | < 0.2 | | < 0.2 | |

5/19/98 rms

# Initial & Continuing Calibration Blanks

Lab Name *Philip Analytical Services*

File Name *HG-020400*

Concentration Units: ug/l

| | Continuing Calibration Blanks (ug/l) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Parameter** | #5 | | #6 | c | #7 | c | #8 | c | #9 | c |
| Mercury | < 0.2 | | < 0.2 | | < 0.2 | | < 0.2 | | < 0.2 | |

5/19/98 rms

# Initial & Continuing Calibration Blanks

Lab Name: *Philip Analytical Services*

File Name: *HG-020400*

Concentration Units: ug/l

| | Continuing Calibration Blanks (ug/l) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Parameter** | #10 | | #11 | c | #12 | c | #13 | c | #14 | c |
| Mercury | < 0.2 | | < 0.2 | | < 0.2 | | | | | |

5/19/98 rms

# 3A
# Method Blank

Lab Name: *Philip Analytical Services*
File Name: *HG-020400*
Batch: *020200 KCL PORTION*

| | Method Blank ug/l |
|---|---|
| Mercury | < 0.2 |
| | |
| | |

# 3A
# Method Blank

Lab Name: *Philip Analytical Services*
File Name: *HG-020400*
Batch: *020300 KMNO4*

| | Method Blank (ug) |
|---|---|
| Mercury | < 0.3 |
| | |
| | |

# 3A
# Method Blank

Lab Name: *Philip Analytical Services*
File Name: *HG-020400*

Batch: *020300 H2O2*

| | Method Blank(ug) |
|---|---|
| Mercury | < 0.7 |
| | |
| | |

# 3A
# Method Blank

Lab Name: *Philip Analytical Services*
File Name: *HG-020400*
Batch: *020200 Ash PORTION*

| | **Method Blank ug/l** |
|---|---|
| Mercury | < 0.2 |
| | |
| | |

5A

# MS/MSD Water

Lab Name: *Philip Analytical Services*

File Name: *HG-020400* Batch: 020200 KCL PORTION

Sample Number: *1390619*

Concentration Units: ug

| | | MATRIX SPIKE | | | |
|---|---|---|---|---|---|
| | Sample | Spike | Matrix Spike | | |
| Parameter | Conc. | Conc. | Conc. | % Recovery | c |
| Mercury | < 0.15 | 1.53 | 1.59 | 104.0 | |

c

rms

5A

# MS/MSD Water

Lab Name: *Philip Analytical Services*

File Name: *HG-020400* Batch: 020300 KMNO4

Sample Number: *1390591*

Concentration Units: ug

| | | MATRIX SPIKE | | | |
|---|---|---|---|---|---|
| | Sample | Spike | Matrix Spike | | |
| Parameter | Conc. | Conc. | Conc. | % Recovery | c |
| Mercury | 1.33 | 1.47 | 2.77 | 98.0 | |

5A

# MS/MSD Water

Lab Name: *Philip Analytical Services*

File Name: *HG-020400* Batch: 020300 H2O2

Sample Number: *1390610*

Concentration Units: ug

| | | MATRIX SPIKE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sample | Spike | Matrix Spike | | | | | | | | |
| Parameter | Conc. | Conc. | Conc. | % Recovery | c | | | | | | |
| Mercury | < 0.15 | 1.45 | 1.40 | 97.0 | | | | | | | |

5A

# MS/MSD Water

Lab Name: *Philip Analytical Services*

File Name: *HG-020400* Batch: 020200 Ash PORTION

Sample Number: *1390618*

Concentration Units: ug

| | | MATRIX SPIKE | | | |
|---|---|---|---|---|---|
| | Sample | Spike | Matrix Spike | | |
| Parameter | Conc. | Conc. | Conc. | % Recovery | c |
| Mercury | < 0.02 | 0.200 | 0.208 | 104.0 | |

c

rms

## Laboratory Control Sample

Lab Name: *Philip Analytical Services*
File Name: *HG-020400*
Batch: *020200 KCL PORTION*

| LABORATORY CONTROL SAMPLE (LFB) (ug/l) | | | | |
|---|---|---|---|---|
| Parameter | Spike Conc. | Found Conc. | Recovery | C |
| Mercury | 2.00 | 1.91 | 95.5 | |

5/19/98 rms

# Laboratory Control Sample

Lab Name: *Philip Analytical Services*
File Name: *HG-020400*
Batch: *020300 KMNO4*

| LABORATORY CONTROL SAMPLE (LFB) (ug/l) | | | | |
|---|---|---|---|---|
| Parameter | Spike Conc. | Found Conc. | Recovery | C |
| Mercury | 2.00 | 1.93 | 96.5 | |

5/19/98 rms

## Laboratory Control Sample

Lab Name: *Philip Analytical Services*
File Name: *HG-020400*
Batch: *020300 H2O2*

| LABORATORY CONTROL SAMPLE (LFB) (ug/l) | | | | |
|---|---|---|---|---|
| Parameter | Spike Conc. | Found Conc. | Recovery | C |
| Mercury | 6.00 | 6.11 | 101.8 | |

5/19/98 rms

## Laboratory Control Sample

Lab Name: *Philip Analytical Services*
File Name: *HG-020400*
Batch: *020200 Ash PORTION*

| NIST 1633B (ug/g) | | | | |
|---|---|---|---|---|
| Parameter | True Value | Found Conc. | Recovery | C |
| Mercury | 0.141 | 0.154 | 109.2 | |

# Metal PQLS

Lab Name: *Philip Analytical Services*
File Name: *HG-020400*

| Element | Water PQL (ug/l) | |
|---|---|---|
| Mercury | < 0.2 | |

PQLs
rms 5/21/98

Coal Samples

| | |
|---|---|
| Philip # | 1390576 |
| QC Batch # | 1390576 |

| | |
|---|---|
| Philip Report # | 189938 |
| Client Name | Weston |

| | MATRIX SPIKE(mg/kg) | | | | SAMPLE DUPLICATE(mg/kg) | | | METHOD BLANK | LABORATORY CONTROL SAMPLE(mg/L) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample Conc | Spike Conc | Matrix Conc | Spike Recovery % | Sample Conc | Duplicate Conc | Precision RPD % | mg/L | Spike Conc | Found Conc | Recovery % |
| Mercury | 0.059 | 0.333 | 0.345 | 86 | 0.059 | 0.052 | 13 | < 0.0002 | 0.0020 | 0.00214 | 107 |

# APPENDIX E
# SAMPLE CALCULATIONS

# SAMPLE CALCULATIONS
## Unit No. 4 – ESP Inlet
## Run No. 1

**Meter Pressure (Pm), in. Hg**

$$Pm = Pb + \frac{\Delta H}{13.6\ in.\ H_2O/in.\ Hg}$$

where, Pb = barometric pressure, in. Hg
ΔH = Pressure differential of orifice in. $H_2O$

$$Pm = 30.03\ in.\ Hg + \frac{1.126\ in.\ H_2O}{13.6\ in.\ H_2O/in.\ Hg} = 30.11\ in.\ Hg$$

**Absolute Stack Gas Pressure (Ps), in. Hg**

$$Ps = Pb + \frac{Pg}{13.6\ in.\ H_2O/in.\ Hg}$$

where, Pb = barometric pressure, in. Hg
Pg = Static Pressure, in. $H_2O$

$$Ps = 30.03\ in.\ Hg + \frac{-10.50\ in.\ H_2O}{13.6\ in.\ H_2O/in.\ Hg} = 29.26\ in.\ Hg$$

**Standard Meter Volume (Vmstd), dscf**

$$Vmstd = \frac{17.647\ °R/in.\ Hg\ \ x\ Y\ \ x\ Vm\ \ x\ Pm}{Tm}$$

where, Y = meter correction factor
Vm = meter volume, dscf
Pm = meter pressure, in. Hg
Tm = meter temperature, °R

$$Vmstd = \frac{17.647\ °R/in.\ Hg\ \ x\ 0.9961\ \ x\ 80.683\ dscf\ \ x\ 30.11\ in.\ Hg}{(83+460)\ °R} = 78.652\ dscf$$

**Standard Wet Volume (Vwstd), scf**

$$Vwstd = 0.04707\ ft^3/mL\ \ x\ Vlc$$

where, Vlc = volume of $H_2O$ collected, mL from impingers and silica gel

$$Vwstd = 0.04707\ ft^3/mL\ \ x\ 166.8\ mL = 7.851\ scf$$

**Moisture Fraction (Measured), (Bws)**

$$Bws = \frac{Vwstd}{(Vwstd + Vmstd)} = \frac{7.851\,scf}{7.851\,scf + 78.652\,dscf} = 0.091$$

where, Vwstd = standard wet volume, scf
Vmstd = standard meter volume, dscf

**Moisture %, (Bws %)**

$$Bws = Bws \times 100 = 0.091 \times 100 = 9.1$$

**Molecular Weight (DRY) (Md), lb/lb-mole**

$$Md = (0.44 \times \%\,CO_2) + (0.32 \times \%\,O_2) + (0.28(100 - \%\,CO_2 - \%\,O_2))$$

$$Md = (0.44 \times 12.5) + (0.32 \times 6.7) + (0.28(100 - 12.5 - 6.7)) = 30.27\,lb/lb\text{-}mole$$

**Molecular Weight (WET) (Ms), lb/lb-mole**

$$Ms = Md\,(1 - Bws) + 18(Bws)$$

where, Md = molecular weight (DRY), lb/lb-mole
Bws = moisture fraction, dimensionless

$$Ms = 30.27\,lb/lb\text{-}mole\,(1 - 0.091) + 18(0.091) = 29.15\,lb/lb\text{-}mole$$

**Average Velocity (Vs), ft/sec**

$$Vs = 85.49\,\frac{ft}{sec}\sqrt{\frac{(lb/lb\text{-}mole)(in.\,Hg)}{(°R)(in.\,H_2O)}} \times Cp \times \sqrt{Delta\,P}\,avg. \times \sqrt{\frac{Ts}{Ps \times Ms}}$$

where, Cp = pitot tube coefficient
Delta P = velocity head of stack gas, in. $H_2O$
Ts = absolute stack temperature, °R
Ps = absolute stack gas pressure, in. Hg
Ms = molecular weight of stack gas, lb/lb-mole

$$Vs = 85.49\,\frac{ft}{sec}\sqrt{\frac{(lb/lb\text{-}mole)(in.\,Hg)}{(°R)(in.\,H_2O)}} \times 0.84 \times 0.621\,in.\,H_2O \times \sqrt{\frac{(311 + 460)\,°R}{28.53\,in.\,Hg \times 29.12\,lb/lb\text{-}mole}}$$

$$Vs = 42.40\,ft/sec$$

**Average Stack Gas Flow at Stack Conditions (Qa), acfm**

$$Qa = 60\,sec/min \times Vs \times As$$

where, Vs = stack gas velocity, ft/sec
As = cross-sectional area of stack, $ft^2$

$$Qa = 60\,sec/min \times 42.40\,ft/sec \times 194.53\,ft^2 = 4.95\,E + 05\,acfm$$

**Average Stack Gas Flow at Standard Conditions (Qs), dscfm**

$$Qs = 17.647 \frac{°R}{in.Hg} \ x \ Qa \ x \ (1 - Bws) \ x \ \frac{Ps}{Ts}$$

where, Qa = average stack gas flow at stack conditions, $ft^3/min$
Bws = moisture content (dimensionless)
Ps = absolute stack gas pressure, in. Hg
Ts = absolute stack temperature, °R

$$Qs = 17.647 \frac{°R}{in.Hg} \ x \ 4.95E+05 \frac{acf}{min} \ x \ (1 - 0.091) \ x \ \frac{29.26 \ in.Hg}{771°R} = 3.01E+05 \ dscfm$$

**Recalculated Inlet Flow Rate, dscfm**

$$VFR = Stack \ VFR, dscfm \ x \left( \frac{21 - Stack \ O_2}{21 - Inlet \ O_2} \right)$$

$$VFR = 614249 \ x \left( \frac{21 - 6.3}{21 - 6.7} \right)$$

$$VFR = 631431$$

**Percent Isokinetic Sampling Rate (%I)**

$$\%I = \frac{0.0945 (in.Hg)(min)/(°R)(sec) \ x \ Ts \ x \ Vmstd}{Ps \ x \ Vs \ x \ An \ x \ \Theta \ x \ (1 - Bws)}$$

where, Ts = avg. stack temperature, °R
Vmstd = standard meter volume, dscf
Ps = absolute stack gas pressure, in. Hg
Vs = stack gas velocity, ft/sec
An = cross-sectional area of nozzle, $ft^2$
Θ = total sampling time, min
Bws = moisture content (dimensionless)

$$\%I = \frac{0.0945 (in.Hg)(min)/(°R)(sec) \ x \ 771°R \ x \ 78.652 \ dscf}{29.26 \ in.Hg \ x \ 42.4 \ ft/sec \ x \ 3.3E-0.4 \ ft^2 \ x \ 150 \ min \ x \ (1 - 0.091)}$$

$$\%I = 101.8$$

**Total Mercury Concentration, lb/dscf**

$$C_1 = \frac{W \times 2.2046 \times 1.0\,E-9}{Vm_{(std)}}$$

$$C_1 = \frac{10.14 \times 2.2046 \times 1.0\,E-9}{78.64}$$

$$C_1 = 2.84\,E-10$$

where, $C_1$ = total mercury concentration, lb/dscf
W = weight of total mercury collected in sample in µg
$2.2045 \times 10^{-9}$ = conversion factor from µg to pounds

**Total Mercury Concentration, µg/dscm**

$$C_2 = \frac{W}{Vm_{(std)} \times 0.02832}$$

$$C_2 = \frac{10.14}{78.64 \times 0.02832}$$

$$C_2 = 4.55$$

where, $C_2$ = total mercury concentration, µg/dscm
W = total mercury catch, µg
0.02832 = conversion factor from cubic feet to cubic meters

**Total Mercury Concentration, µg/Nm$^3$**

$$C_3 = \frac{W}{Vm_{(std)} \times 0.02832 \times (16.44/17.64)}$$

$$C_3 = \frac{10.14}{78.64 \times 0.02832 \times (16.44/17.64)}$$

$$C_3 = 4.89$$

where, $C_3$ = total mercury concentration, µg/Nm$^3$
W = total mercury catch, µg
0.02832 = Conversion factor from cubic feet to cubic meters
16.44/17.64 = Ratio of conversion factors for standard temperature and pressure and normal temperature

**Total Mercury Mass Emission Rate, lbs/hr**

$$MR1 = C_1 \times Qs(std) \times 60$$

$$MR1 = 2.84\,E-10 \times 631431 \times 60$$

$$MR1 = 1.08\,E-02$$

where, MR1 = total mercury mass emission rate, lbs/hr
60 = conversion factor from minutes to hours

**Total Mercury Mass Emission Rate, lbs/10E+12 Btu**

$$MR2 = MR1/Heat\ Input$$

$$MR2 = \frac{1.08\,E-02 \times 1000000}{2311}$$

$$MR2 = 4.66$$

where, MR2 = total mercury mass emission rate, lbs/10E+12 Btu
Heat Input = 2058 x 10E+6 Btu/hr

**Mercury Emissions from Coal Feed, lb/hr**

$$Hg\,(lb/hr) = 0.052\,\frac{mg}{Kg} \times \frac{Kg}{2.2046\,lb} \times 184667\,\frac{lb}{hr} \times \frac{g}{1000\,mg} \times \frac{lb}{454\,g}$$

$$Hg\,(lb/hr) = 0.0096\ lbHg/hr$$

where, 0.052 mg/Kg = coal analysis analytical result
184667 lb/hr = coal feed rate

# APPENDIX F
# EQUIPMENT CALIBRATION RECORDS

Missippi Power
Gulfport

12251.001.001
Unit 4
inlet

WC-7

| Run Number | | 1 | 2 | 3 | Mean |
|---|---|---|---|---|---|
| Sampling Time, min | (Theta) | 150 | 150 | 150 | 150 |
| Meter Volume, $ft^3$ | (Vm) | 80.683 | 78.148 | 83.524 | 80.785 |
| Meter Temperature, R | (tm) | 543 | 539 | 553 | 545 |
| Barometric Pressure, in. Hg | (Pb) | 30.03 | 30.00 | 30.00 | 30.01 |
| Meter Orifice Pressure, in. $H_2O$ | (dH) | 1.126 | 0.998 | 1.110 | 1.078 |
| Meter Pressure, in. Hg | (Pm) | 30.11 | 30.07 | 30.08 | 30.09 |
| Ave Sq Rt Meter Orifice Pressure, in. $H_2O$ | ((sqrt. dH)ave. | 1.027 | 0.979 | 1.038 | 1.015 |
| Meter Orifice Calibraion Coefficient, in. $H_2O$ | (dH@) | 2.0355 | 2.0355 | 2.0355 | 2.036 |
| Dry Mol. Wt. of Stack Gas, lb/lb-mole | (Md) | 30.27 | 30.27 | 30.24 | 30.26 |
| Dry Gas Meter Cal. Check Value | (Yqa) | 0.9938 | 0.9745 | 0.9794 | 0.9826 |
| Meter Correction Factor | (Y) | 0.9961 | 0.9961 | 0.9961 | 0.9961 |
| Mean Percent Difference, % | < +/- 5% | | | | -1.36 |

Missippi Power
Gulfport

12251.001.001
Unit 4
Outlet

WC-7

| Run Number | | 1 | 2 | 3 | Mean |
|---|---|---|---|---|---|
| Sampling Time, min | (Theta) | 150 | 150 | 150 | 150 |
| Meter Volume, $ft^3$ | (Vm) | 102.953 | 76.258 | 76.421 | 85.211 |
| Meter Temperature, R | (tm) | 537 | 525 | 527 | 530 |
| Barometric Pressure, in. Hg | (Pb) | 30.03 | 30.00 | 30.00 | 30.01 |
| Meter Orifice Pressure, in. $H_2O$ | (dH) | 1.508 | 0.856 | 0.860 | 1.075 |
| Meter Pressure, in. Hg | (Pm) | 30.14 | 30.06 | 30.06 | 30.09 |
| Ave Sq Rt Meter Orifice Pressure, in. $H_2O$ | ((sqrt. dH)ave. | 1.213 | 0.914 | 0.915 | 1.014 |
| Meter Orifice Calibraion Coefficient, in. $H_2O$ | (dH@) | 1.8062 | 1.8062 | 1.8062 | 1.806 |
| Dry Mol. Wt. of Stack Gas, lb/lb-mole | (Md) | 30.22 | 30.20 | 30.24 | 30.22 |
| Dry Gas Meter Cal. Check Value | (Yqa) | 0.9712 | 0.9784 | 0.9781 | 0.9759 |
| Meter Correction Factor | (Y) | 0.9936 | 0.9936 | 0.9936 | 0.9936 |
| Mean Percent Difference, % | < +/- 5% | | | | -1.78 |

WESTON

# NOZZLE CALIBRATION DATA FORM

Date 1/19/00 Calibrated by Mills

| Nozzle Identification Number | Nozzle Diameter, Inches[1] | | | $\Delta D$,[2] | $D_{avg}$[3] |
|---|---|---|---|---|---|
| | $D_1$ | $D_2$ | $D_3$ | | |
| outlet | .200 | .201 | .200 | .001 | .200 |
| Inlet | .247 | .248 | .246 | .002 | .247 |
| outlet | .191 | .190 | .190 | .001 | .190 |

Where:

[1] $D_{1,2,3}$ = Three different nozzle diameters, inches; each diameter must be measured to nearest 0.001 in.

[2] $\Delta D$ = Maximum difference between any two diameters, inches. $\Delta D$ must be $\leq$0.004 in.

[3] $D_{avg}$ = Nozzle diameter = average of $D_1$, $D_2$, and $D_3$.

nozzle.frm

# APPENDIX G
# TECHNICAL SYSTEM AUDIT

# PROCEDURAL CHECKLIST
# FOR EPA METHODS 1, 2, 3 AND 4

## METHOD 1 DETERMINATIONS

Date 1/18/2000 Time _____ Operator _____ Observer _____

Stack diameter properly determined? yes
Distance to nearest upstream disturbance properly determined? yes

Number of stack diameters? Inlet - <1 OUTLET <1

Distance of nearest downstream disturbance properly determined? yes

Number of sampling points properly selected? yes
Points properly marked on pitot tube? yes
Verification of cyclonic flow acceptable? yes

## METHOD 2 SAMPLING

Date _____ Time _____ Operator _____ Observer _____

Equipment identity matches pretest calibration list? yes

Pitot tube, lines, and manometer assembled correctly? yes

Pitot tube and components mounted interference-free manner? yes
Differential pressure gauge has correct sensitivity? yes

Differential pressure gauge leveled and zeroed? yes

Pretest leak check? yes Cyclonic flow checked? yes
Orientation of pitot tube correct during traverse? yes
Sampling port adequately sealed around pitot tube? yes
Process operating at correct conditions? yes
Stable reading taken at each traverse point? yes
Static pressure measured? yes Method used? rotate pitot so perpendicular to flow + remove 1 leg
Moisture content determined? yes Method used? Method 4
Orsat samples taken? yes If not, explain why: _____

Post-test leak-check performed? yes Leak check results: <0.02 CFM
Data recorded properly? yes Calculations correct? yes

# PROCEDURAL CHECKLIST
# FOR EPA METHODS 1, 2, 3 AND 4

## METHOD 3 SAMPLING

Date 1/19/00 Time _____ Operator JW/PG Observer Mills

Method: Single-point grab NO Single-point integrated NO
Multi-point integrated yes
Is a filter used to remove particulate matter? no
Sampling train leak checked? yes
Sampling train purged with stack gas prior to collecting the sample? yes

Sampling port properly sealed? yes

Sampling rate held constant? yes

## METHOD 3 ANALYSIS

Molecular weight determination by Orsat: yes

Reagents at the proper level? yes Analyzer level? yes
Analyzer leak checked? yes Analyzed within 8 hours? yes
Sample line purged? yes Complete absorption of gases? yes
The analysis repeated until following analysis criteria met? yes

$CO_2$ - Any three analyses differ by:

a. $\leq$ 0.3% when $CO_2$ $\geq$ 4.0% NO

b. $\leq$ 0.2% when $CO_2$ $\leq$ 4.0% N/A

$O_2$ - Any three analyses differ by:

a. $\leq$ 0.3% when $O_2$ $\leq$ 15.0% NO

b. $\leq$ 0.2% when $O_2$ $\geq$ 14.0% N/A

All readings averaged and reported to nearest 0.1% yes

# PROCEDURAL CHECKLIST
# FOR EPA METHODS 1. 2, 3 AND 4

## METHOD 4 SAMPLING

Date 4/19/2000 Time Preliminary Site Operator VW / Jm PG Observer Mills

Method conducted in conjunction with pollutant emission test? yes
Impingers properly placed? yes

Impinger contents: 1st 100 ml 2nd 100 ml 3rd Dry
4th 300 g Silica Gel ~~5th~~ ~~6th~~
Modifications? none

Cooling System: Crushed ice yes Other
Sampling time per point as long as OH Test Number of points one

Probe heater on? no Temperature Stable?
Filter heater on? no Temperature Stable?

Crushed ice in ice bath around impingers? yes
Pretest leak check conducted? yes Leakage rate? <.02 CFM
Sampling rate constant? yes Isokinetic sampling? no
All data recorded properly? yes
Post-leak check conducted? yes Leakage rate? <.02 CFM

Analysis - Impinger Contents:
Method: Volumetric yes
Glassware cleaned following protocol for concurrent emission test?
Gravimetric? Trip balance calibrated?

Measurement of silica gel? Gravimetric Balance? yes
Color of silica gel? Blue Condition? Good
All analytical data recorded properly? yes

All readings averaged and reported to nearest 0.1%

# TECHNICAL SYSTEM AUDIT CHECKLIST
# TRACE METALS SAMPLING

Date 1/19 + 1/20 Time _____ Operator JW/PG/KA Observer Mills

**Equipment Setup**

Equipment identity matches pretest calibration list? yes

Probe nozzle: _____ Glass

Button-hook yes Elbow _____ Size Inlet .147 outlet .192

Cleaned according to sampling protocol? yes

Probe Liner: Borosilicate yes Quartz _____ Other TFE Inlet

Cleaned according to sampling protocol? yes

Probe heating system: yes

Checked? _____ Temperature _____ Stable? yes

Pitot Tube: Type S yes Other _____

Properly attached to probe (no interference to nozzle)? yes

Modifications: _____

Pitot tube coefficient 0.841

Differential Pressure Gauge: Inclined manometers yes

Magnehelics _____ Ranges 0-10"

Cylone (inlet only): Borosilicate Glass _____ Other _____

Cleaned according to sampling protocol? _____

Filter Holder: Borosilicate Glass yes - outlet - Thimble Inlet Other _____

Frit material: Borosilicate Glass _____ Stainless _____

Teflon yes Other _____

Gasket Material: Silicone _____ Other _____

Cleaned according to sampling protocol? yes

Filter Type(s): Quartz Fiber - Thimble - Quartz fiber

Impinger train: Number of impingers 7

Cleaned according to sampling protocol? yes

Contents: 1st 3x1 KCl ~~2nd~~ 4th HNO3/H2O2 3rd 4+5+6 KMnO4

7th Silica Gel 5th _____ 6th _____

Impinger Weights recorded? yes

Cooling System ice bath

Proper connections? yes

Modifications none

Silica Gel: Type _____ New? _____ Used? yes

Barometer: Mercury _____ Aneroid _____ Other Electronic

Gas Density Determination: Temperature sensor yes

Pressure gauge yes

Temperature sensor properly attached to probe? yes



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TECHNICAL SYSTEM AUDIT CHECKLIST
CH/M ~~TRACE~~ METALS SAMPLING

Date 1/19 + 1/20/00 Time _____ Operator _____ Observer Mills

**Test Procedures**

Recent Calibrations: Pitot tubes yes
Meter Box yes Thermocouples/thermometers yes
Filters checked visually for irregularities? yes
Filters properly centered? yes Labeled? yes
Nozzle size properly selected? yes
All openings of sampling train plugged (pre-test and post-test) yes - GLASS PLUGS + yes
Impingers properly assembled? yes
Pitot lines checked for leaks and plugging? yes
Meter box leveled? yes Manometers zeroed? yes
Delta H from most recent calibration yes
Calculator ~~Nomograph~~ setup correctly? yes K factor yes
Pretest leak check conducted? yes Leakage rate? NONE
Care taken to avoid scraping port or stack wall? yes
Effective seal around probe when in-stack? yes
Probe moved to traverse points at proper time? yes
Leak check conducted during port change? Before yes After? yes
Nozzle and pitot tubes kept parallel to stack at all times? yes
Filter(s) changed during run? NO Run 1 Trimble - yes
Any particulate lost during filter change? NO
Data forms completed and data recorded properly? yes
Calculator ~~Nomograph~~ setting changed with significant change in the stack temperature? yes
Velocity pressure and orifice pressure recorded accurately? yes
Post-test leak check conducted? yes Leakage rate <.02 CFM
at inches of mercury _____
Orsat analysis? yes Stack _____ Integrated yes
Approximate stack temperature 300°F Gas sample volume > 1 m3
Percent isokinetic calculated 100% ± 10%



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OHM

# TECHNICAL SYSTEM AUDIT CHECKLIST
## ~~TRACE METALS~~ SAMPLING

Date 1/20/06 Time _____ Operator MMS Observer _____

**Sample Recovery**

Brushes: Nylon bristle _____ Other Teflon
Cleaned according to sampling protocol? yes
Wash Bottles: Glass _____ Polyethylene yes Other _____
Cleaned according to sampling protocol? yes
Storage containers: Borosilicate glass yes Other _____
Cleaned according to sampling protocol? yes
Cap material Teflon Leak free? yes
Petri dishes: Borosilicate glass _____ Other GLASS JARS
Cleaned according to sampling protocol? yes
Graduated cylinder: Borosilicate glass yes Other _____
Subdivisions of graduated cylinder ≤ 2 ml? yes
Cleaned according to sampling protocol? yes
Balance type Electronic Calibrated? yes
Probe allowed to cool sufficiently? yes
Probe and sample train openings covered? yes
Clean-up area(s) used Weston Trailer
Silica gel: Color? Blue Condition? Good
Probe handling: Acetone rinse NO 0.1 N Nitric rinse yes
Particulate recovery: Probe nozzle yes Probe fitting yes
Probe liner yes Front half of filter holder yes
Blanks collected: Reagent(s) All received By OHM
0.1 N Nitric _____ Acetone _____
Impinger rinses: 0.1 N Nitric yes Other rinses All required by OHM
Recovery efficiency samples collected from this train? _____
Sample numbers: _____
Samples labeled and stored properly? yes
Liquid levels marked? yes
Filter handling: tweezers used? yes Surgical gloves? yes
Any particulate lost? no
NOTE: The above TSA would also be applied to the EPA Method ~~12~~ test train.

OHM



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