## II. Influent and Effluent Data Summary

The results of all analyses performed on the WWTP influent and effluent are summarized in tables with monthly and annual averages (and in some cases annual totals) calculated. Graphs of monthly averages are presented.

A. Influent And Effluent Data Summaries
B. Influent And Effluent Graphs
C. Daily Values Of Selected Parameters
D. Toxicity Bioassays
E. 6-Year Tables.

Mass Emissions of Effluent Using 2002 Monthly Averages

| DISCHARGE SPECIFICATIONS from NPDES Permit No. CA0107409/RWQCB Order No. R-2002-0025 effective on September 13, 2002 with limits on pollutant discharges. | | | | |
|---|---|---|---|---|
| **Constituent/Property** | **Benchmarks (mt/yr)** | **2002 Mass Emissions** (mt/yr)[1] | **2002 Concentration** | **Units** |
| Flow (MGD) | | | ***168.8*** | ***MGD*** |
| Total Suspended Solids | **13,995**[2] | 10,114 | 43.5 | mg/L |
| BOD | **B** | 21,763 | 93.6 | mg/L |
| Arsenic | 0.88 | 0.30 | 1.29 | ug/L |
| Cadmium | 1.4 | 0.09 | 0.4 | ug/L |
| Chromium | 14.2 | 0 | 0 | ug/L |
| Copper | 26 | 18 | 77.5 | ug/L |
| Lead | 14.2 | 0 | 0 | ug/L |
| Mercury | 0.19 | 0 | 0 | ug/L |
| Nickel | 11.3 | 0 | 0 | ug/L |
| Selenium | 0.44 | 0.27 | 1.16 | ug/L |
| Silver | 2.8 | 0.19 | 0.8 | ug/L |
| Zinc | 18.3 | 6.5 | 28 | ug/L |
| Cyanide | 1.57 | 0.81 | 0.0035 | mg/L |
| Residual Chlorine | -- | | | |
| Ammonia | 8018 | 6,487 | 27.9 | mg/L |
| Non-Chlor. Phenols | 2.57 | 2.65 | 11.4 | ug/L |
| Chlorinated Phenols | 1.73 | 0.00 | 0 | ug/L |
| Endosulfan | 0.006 | 0.00 | 0 | ng/L |
| Endrin | 0.008 | 0.00 | 0 | ng/L |
| hexachlorocyclohexanes *(HCH) | 0.025 | 0 | 7 | ng/L |
| * (all as Lindane, the gamma isomer) | | | | |
| Acrolein | 17.6 | 0.00 | 0 | ug/L |
| Antimony | 56.6 | 4.0 | 17 | ug/L |
| Bis(2-chloroethoxy) methane | 1.5 | 0.00 | 0 | ug/L |
| Bis(2-chloroisopropyl) ether | 1.61 | 0.00 | 0 | ug/L |
| Chlorobenzene | 1.7 | 0.00 | 0 | ug/L |
| Chromium (III) | -- | -- | -- | |
| di-n-butyl phthalate | 1.33 | 0.00 | 0 | ug/L |
| dichlorobenzenes | 2.8 | 0.00 | 0 | ug/L |
| 1,1-dichloroethylene | 0.79 | 0.00 | 0 | ug/L |
| Diethyl phthalate | 6.23 | 0.53 | 2.3 | ug/L |
| Dimethyl phthalate | 1.59 | 0.00 | 0 | ug/L |
| 4,6-dinitro-2-methylphenol | 6.8 | 0.00 | 0 | ug/L |
| 2,4-dinitrophenol | 11.9 | 0.00 | 0 | ug/L |
| Ethylbenzene | 2.04 | 0.00 | 0 | ug/L |
| Fluoranthene | 0.62 | 0.00 | 0 | ug/L |
| Hexachlorocyclopentadiene | **B** | 0.00 | 0 | ug/L |
| Nitrobenzene | 2.07 | 0.00 | 0 | ug/L |
| Thallium | 36.8 | 0.00 | 0 | ug/L |
| Toluene | 3.31 | 0.70 | 3 | ug/L |
| 1,1,2,2-tetrachloroethane | 1.95 | 0.00 | 0 | ug/L |
| Tributyltin | 0.001 | 0.00 | 0 | ug/L |
| 1,1,1-trichloroethane | 2.51 | 0.00 | 0 | ug/L |
| 1,1,2-trichloroethane | 1.42 | 0.00 | 0 | ug/L |
| Acrylonitrile | 5.95 | 0.00 | 0 | ug/L |

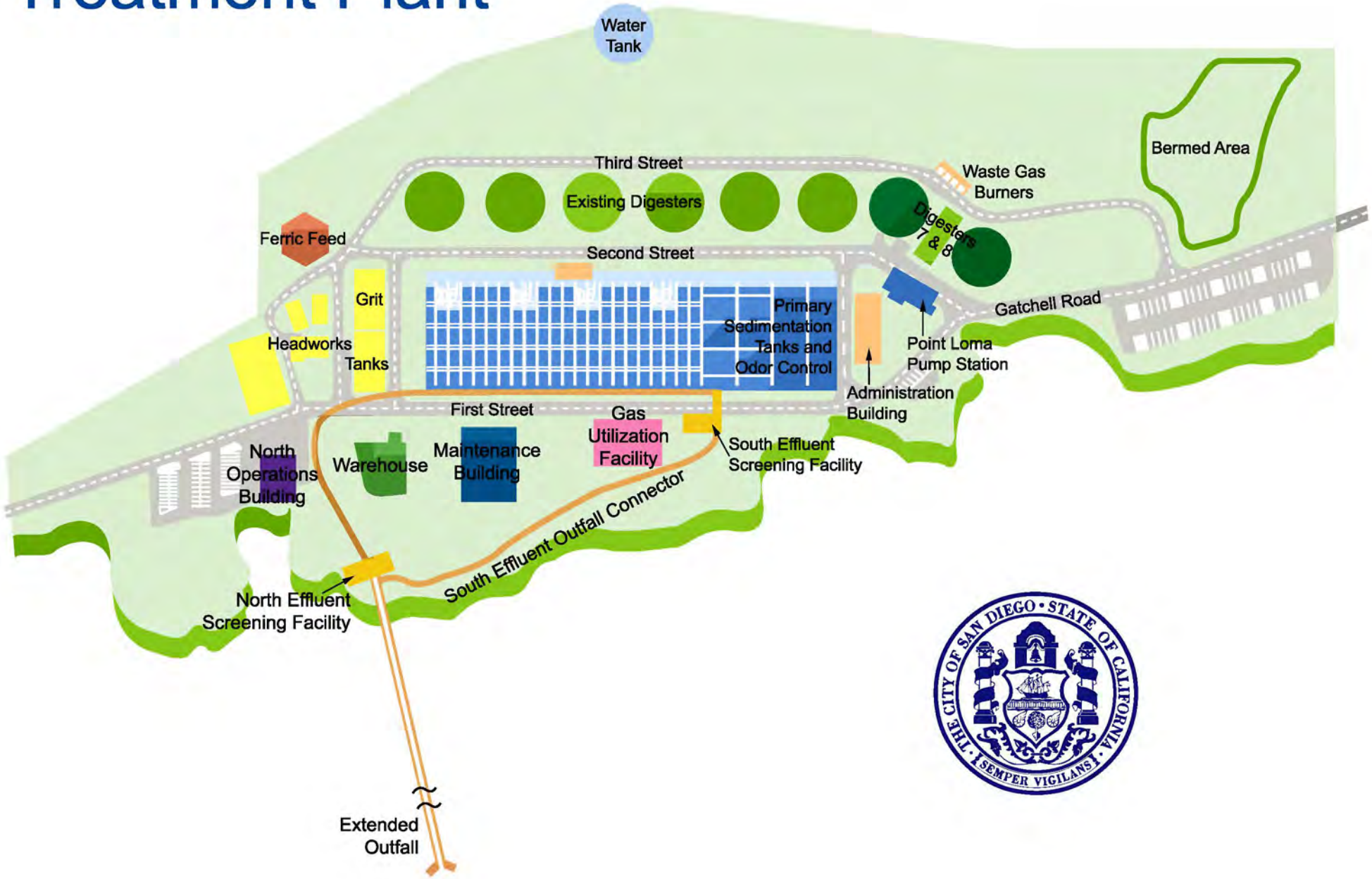
| DISCHARGE SPECIFICATIONS from NPDES Permit No. CA0107409/RWQCB Order No. R-2002-0025 effective on September 13, 2002 with limits on pollutant discharges. | | | | |
|---|---|---|---|---|
| **Constituent/Property** | **Benchmarks (mt/yr)** | **2002 Mass Emissions (mt/yr)[1]** | **2002 Concentration** | **Units** |
| Aldrin | 0.006 | 0.00 | 0 | ng/L |
| Benzene | 1.25 | 0.00 | 0 | ug/L |
| Benzidine | 12.5 | 0.00 | 0 | ug/L |
| Beryllium | 1.42 | 0.00 | 0 | ug/L |
| Bis(2-chloroethyl)ether | 1.61 | 0.00 | 0 | ug/L |
| Bis(2-ethylhexyl)phthalate | 2.89 | 0.98 | 4.2 | ug/L |
| Carbon Tetrachloride | 0.79 | 0.00 | 0 | ug/L |
| Chlordane | 0.014 | 0.00 | 0 | ng/L |
| Chloroform | 2.19 | 1.26 | 5.4 | ug/L |
| DDT | 0.043 | 0.00 | 0 | ng/L |
| 1,4-dichlorobenzene | 1.25 | 0.05 | 0.2 | ug/L |
| 3,3-dichlorobenzidine | 4.67 | 0.00 | 0 | ug/L |
| 1,2-dichloroethane | 0.79 | 0.00 | 0 | ug/L |
| Dichloromethane (methylene chloride) | 13.7 | 0.67 | 2.9 | ug/L |
| 1,3-dichloropropene | 1.42 | 0.00 | 0 | ug/L |
| Dieldrin | 0.011 | 0.00 | 0 | ng/L |
| 2,4-dinitrotoluene | 1.61 | 0.00 | 0 | ug/L |
| 1,2-diphenylhydrazine | 1.52 | 0.00 | 0 | ug/L |
| Halomethanes | 5.86 | 0.33 | 1.4 | ug/L |
| Heptachlor | 0.001 | 0.00 | 0 | ng/L |
| Heptachlor epoxide | 0.024 | 0.00 | 0 | ng/L |
| Hexachlorobenzene | 0.54 | 0.00 | 0 | ug/L |
| Hexachlorobutadiene | 0.054 | 0.00 | 0 | ug/L |
| Hexachloroethane | 1.13 | 0.00 | 0 | ug/L |
| Isophorone | 0.71 | 0.00 | 0 | ug/L |
| N-nitrosodimethylamine | 0.76 | 0.00 | 0 | ug/L |
| N-nitrosodiphenylamine | 1.47 | 0.00 | 0 | ug/L |
| PAHs | 15.45 | 0.00 | 0 | ug/L |
| PCBs | 0.275 | 0.00 | 0 | ng/L |
| TCDD equivalents | -- | 0.00 | 0 | pg/L |
| Tetrachloroethylene | 4 | 0.07 | 0.3 | ug/L |
| Toxaphene | 0.068 | 0.00 | 0 | ng/L |
| Trichloroethylene | 1.56 | 0.00 | 0 | ug/L |
| 2,4,6-trichlorophenol | 0.96 | 0.00 | 0 | ug/L |
| Vinyl Chloride | 0.4 | 0.00 | 0 | ug/L |

[1] Metric tons of mass emissions is calculated assuming the density of effluent is 1. The mean constituent value and mean daily flow value over the year is used to compute the mass emissions, assuming that constant concentration over 365 days.
[2] Total Suspended Solids (TSS)- The discharger shall achieve a mass emission of TSS of no greater than 13,995 mt/yr; this requirement shall be effective through December 31, 2005. Effective January 1, 2006, the discharger shall achieve a mass emission of TSS of no greater than 13,599 mt/yr.

A. Influent and Effluent Data Summaries.

The results of all analyses performed on the WWTP influent and effluent are summarized in tables with monthly and annual averages (and in some cases annual totals) calculated.

# Point Loma Wastewater Treatment Plant



POINT LOMA WASTEWATER TREATMENT PLANT

SEWAGE ANNUAL

From 01-JAN-2002 To 31-DEC-2002

Biochemical Oxygen Demand Concentration
(24-hour composite)

| | Flow | Daily Influent Value (mg/L) | Daily Influent Value (lbs/Day) | Daily Effluent Value (mg/L) | Daily Effluent Value (lbs/Day) | Percent Removal BOD (%) |
|---|---|---|---|---|---|---|
| JANUARY -2002 | 171.0 | 257 | 366518 | 95 | 135483 | 63.0 |
| FEBRUARY -2002 | 170.4 | 257 | 365232 | 107 | 152062 | 58.4 |
| MARCH -2002 | 171.8 | 261 | 373964 | 94 | 134684 | 64.0 |
| APRIL -2002 | 171.4 | 266 | 380241 | 99 | 141518 | 62.8 |
| MAY -2002 | 165.1 | 263 | 362134 | 89 | 122547 | 66.2 |
| JUNE -2002 | 168.5 | 268 | 376618 | 84 | 118044 | 68.7 |
| JULY -2002 | 168.2 | 280 | 392781 | 90 | 126251 | 67.9 |
| AUGUST -2002 | 165.8 | 264 | 365052 | 89 | 123067 | 66.3 |
| SEPTEMBER-2002 | 167.4 | 260 | 362990 | 84 | 117274 | 67.7 |
| OCTOBER -2002 | 166.6 | 270 | 375150 | 95 | 131997 | 64.8 |
| NOVEMBER -2002 | 168.8 | 276 | 388551 | 105 | 147818 | 62.0 |
| DECEMBER -2002 | 171.3 | 266 | 380019 | 94 | 134292 | 64.7 |
| Average | 168.9 | 266 | 374104 | 94 | 132086 | 64.7 |

Total Suspended Solids Concentration
(24-hour composite)

| | Flow | Daily Influent Value (mg/L) | Daily Influent Volatile (mg/L) | Percent VSS of TSS (%) | Daily Influent Value (lbs/Day) | Daily Effluent Value (mg/L) | Daily Effluent Volatile (mg/L) | Percent VSS of TSS (%) |
|---|---|---|---|---|---|---|---|---|
| JANUARY -2002 | 171.0 | 281 | 231 | 82.2 | 400745 | 41 | 31 | 75.6 |
| FEBRUARY -2002 | 170.4 | 260 | 216 | 83.1 | 369495 | 47 | 35 | 74.5 |
| MARCH -2002 | 171.8 | 270 | 220 | 81.5 | 386859 | 41 | 30 | 73.2 |
| APRIL -2002 | 171.4 | 283 | 235 | 83.0 | 404542 | 42 | 31 | 73.8 |
| MAY -2002 | 165.1 | 290 | 238 | 82.1 | 399311 | 43 | 31 | 72.1 |
| JUNE -2002 | 168.5 | 301 | 246 | 81.7 | 422992 | 47 | 35 | 74.5 |
| JULY -2002 | 168.2 | 318 | 260 | 81.8 | 446087 | 52 | 38 | 73.1 |
| AUGUST -2002 | 165.8 | 293 | 238 | 81.2 | 405152 | 46 | 34 | 73.9 |
| SEPTEMBER-2002 | 167.4 | 290 | 236 | 81.4 | 404874 | 39 | 28 | 71.8 |
| OCTOBER -2002 | 166.6 | 287 | 233 | 81.2 | 398770 | 39 | 27 | 69.2 |
| NOVEMBER -2002 | 168.8 | 291 | 234 | 80.4 | 409667 | 42 | 30 | 71.4 |
| DECEMBER -2002 | 171.3 | 283 | 231 | 81.6 | 404306 | 45 | 32 | 71.1 |
| Average | 168.9 | 287 | 235 | | 404400 | 44 | 32 | |

Annual Mass Emissions are calculated from monthly averages of flow and BOD (or TSS), whereas monthly report average mass emissions are calculated from average daily mass emissions.

POINT LOMA WASTEWATER TREATMENT PLANT
Daily Averages
Annual Systemwide BOD Removals

From 01-JAN-2002 To 31-DEC-2002

Mass Emissions are in pounds/day.

| | Pt. Loma Influent Mass Emission | PS64 Influent Mass Emission | Penasquitos Influent Mass Emission | Return Stream Mass Emission | Pt. Loma Effluent Mass Emission | Monthly Systemwide Percent Removal | Pt. Loma Daily Percent Removal |
|---|---|---|---|---|---|---|---|
| JANUARY | 366518 | 27217 | 12611 | 21962 | 135483 | 64.8 | 63.0 |
| FEBRUARY | 365232 | 28683 | 12745 | 16570 | 152062 | 61.0 | 58.4 |
| MARCH | 373964 | 29710 | 8933 | 9178 | 134684 | 66.5 | 64.0 |
| APRIL | 380241 | 32856 | 7876 | 11757 | 141518 | 65.5 | 62.8 |
| MAY | 362134 | 27554 | 14266 | 9681 | 122547 | 68.6 | 66.2 |
| JUNE | 376618 | 27435 | 13968 | 16224 | 118044 | 70.3 | 68.7 |
| JULY | 392781 | 28223 | 13903 | 35786 | 126251 | 68.2 | 67.9 |
| AUGUST | 365052 | 33580 | 6443 | 11291 | 123067 | 68.7 | 66.3 |
| SEPTEMBER | 362990 | 34276 | 11730 | 8413 | 117274 | 70.6 | 67.7 |
| OCTOBER | 375150 | 34190 | 14817 | 7362 | 131997 | 68.3 | 64.8 |
| NOVEMBER | 388551 | 28594 | 15183 | 9127 | 147818 | 65.1 | 62.0 |
| DECEMBER | 380019 | 35803 | 17326 | 9979 | 134292 | 68.3 | 64.7 |
| Average | 374104 | 30677 | 12483 | 13944 | 132086 | 67.2 | 64.7 |

Annual Systemwide TSS Removals
Daily Averages
From 01-JAN-2002 To 31-DEC-2002

Mass Emissions are in pounds/day.

| | Pt. Loma Influent Mass Emission | PS64 Influent Mass Emission | Penasquitos Influent Mass Emission | Return Stream Mass Emission | Pt. Loma Effluent Mass Emission | Monthly Systemwide Percent Removal | Pt. Loma Daily Percent Removal |
|---|---|---|---|---|---|---|---|
| JANUARY | 400745 | 25166 | 15407 | 30675 | 58472 | 85.8 | 85.4 |
| FEBRUARY | 369495 | 28817 | 16842 | 15321 | 66793 | 83.3 | 81.9 |
| MARCH | 386859 | 28664 | 12035 | 15929 | 58745 | 85.5 | 84.8 |
| APRIL | 404542 | 32227 | 9290 | 16730 | 60038 | 86.0 | 85.2 |
| MAY | 399311 | 27939 | 17881 | 16427 | 59208 | 86.4 | 85.2 |
| JUNE | 422992 | 27176 | 18909 | 31052 | 66049 | 84.8 | 84.4 |
| JULY | 446087 | 27196 | 18426 | 68560 | 72945 | 82.6 | 83.6 |
| AUGUST | 405152 | 34517 | 9345 | 23292 | 63608 | 84.9 | 84.3 |
| SEPTEMBER | 404874 | 43204 | 15515 | 17499 | 54449 | 87.7 | 86.6 |
| OCTOBER | 398770 | 32249 | 18221 | 14608 | 54188 | 87.4 | 86.4 |
| NOVEMBER | 409667 | 26322 | 18165 | 22493 | 59127 | 86.0 | 85.6 |
| DECEMBER | 404306 | 38307 | 18349 | 20292 | 64289 | 85.5 | 84.1 |
| Average | 404400 | 30982 | 15699 | 24407 | 61493 | 85.5 | 84.8 |

During the month of January 2002, the Return Stream was sampled from a single sample point. The mass emission from the Return Stream was calculated using the flow from that sample point and the BOD/TSS data obtained from that sample point. From February to December 2002, the Return Stream sample point was discontinued. The mass emission from the Return Stream was then calculated using the data from the four NCWRP sources (plant drain, filter backwash, excess primary effluent, and disinfected final effluent that is not reclaimed) and one MBC source (centrate from the dewatering process)that are diverted to the Return Stream.

POINT LOMA WASTEWATER TREATMENT PLANT

From 01-JAN-2002 To 31-DEC-2002

Influent to Plant
(PLR)

| | pH | Settleable Solids (ml/L) | Biochemical Oxygen Demand (mg/L) | Oil & Grease (mg/L) | Temperature ( C ) |
|---|---|---|---|---|---|
| JANUARY -2002 | 7.39 | 8.38 | 257 | 27.7 | 21.2 |
| FEBRUARY -2002 | 7.34 | 8.59 | 257 | 27.2 | 20.8 |
| MARCH -2002 | 7.34 | 9.15 | 261 | 28.2 | 21.7 |
| APRIL -2002 | 7.33 | 10.00 | 266 | 32.6 | 22.7 |
| MAY -2002 | 7.33 | 9.44 | 263 | 32.8 | 23.5 |
| JUNE -2002 | 7.32 | 9.81 | 268 | 35.8 | 24.9 |
| JULY -2002 | 7.37 | 12.60 | 280 | 37.0 | 26.3 |
| AUGUST -2002 | 7.42 | 11.20 | 264 | 37.6 | 26.6 |
| SEPTEMBER-2002 | 7.40 | 10.60 | 260 | 32.3 | 26.7 |
| OCTOBER -2002 | 7.37 | 9.94 | 270 | 29.3 | 25.7 |
| NOVEMBER -2002 | 7.29 | 9.99 | 276 | 33.7 | 24.5 |
| DECEMBER -2002 | 7.23 | 8.84 | 266 | 33.3 | 22.4 |
| Average | 7.34 | 9.9 | 266 | 32.3 | 23.9 |

Effluent to Ocean Outfall
(PLE)

| | pH | Settleable Solids (ml/L) | Biochemical Oxygen Demand (mg/L) | Oil & Grease (mg/L) | Temperature ( C ) | Floating Particulates (mg/L) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|
| JANUARY -2002 | 7.29 | 0.1 | 95 | 9.8 | 21.5 | <0.10 | 42 |
| FEBRUARY -2002 | 7.25 | 0.1 | 107 | 11.9 | 21.1 | 0.13 | 48 |
| MARCH -2002 | 7.31 | 0.1 | 94 | 10.2 | 21.9 | <0.10 | 45 |
| APRIL -2002 | 7.30 | 0.1 | 99 | 11.0 | 22.7 | <0.10 | 43 |
| MAY -2002 | 7.28 | 0.2 | 89 | 8.9 | 23.8 | <0.10 | 43 |
| JUNE -2002 | 7.26 | 0.2 | 84 | 9.5 | 25.1 | 0.11 | 45 |
| JULY -2002 | 7.27 | 0.3 | 90 | 9.2 | 26.4 | 0.13 | 48 |
| AUGUST -2002 | 7.31 | 0.3 | 89 | 8.6 | 26.8 | 0.10 | 46 |
| SEPTEMBER-2002 | 7.29 | 0.3 | 84 | 7.6 | 26.9 | 0.15 | 44 |
| OCTOBER -2002 | 7.26 | 0.2 | 95 | 7.9 | 25.9 | 0.15 | 46 |
| NOVEMBER -2002 | 7.18 | 0.1 | 105 | 8.7 | 24.6 | 0.14 | 44 |
| DECEMBER -2002 | 7.08 | 0.2 | 94 | 9.5 | 22.5 | 0.10 | 43 |
| Average | 7.26 | 0.2 | 94 | 9.4 | 24.1 | 0.08 | 45 |

ND=not detected; NS=not sampled; NA=not analyzed.

POINT LOMA WASTEWATER TREATMENT PLANT
ANNUAL SEWAGE
Trace Metals
(Limits shown are the 6-Month Median Maximum)

From: 01-JAN-2002 to: 31-DEC-2002

Sampled by: NDL,A4A
Analyzed by: BOA,G8C,JRF,IEN,LXP,JRV, GS

| Analyte: | Antimony | Antimony | Arsenic | Arsenic* | Beryllium | Beryllium | Cadmium | Cadmium |
|---|---|---|---|---|---|---|---|---|
| MDL Units: | 23 | 23 | .4 | .4 | .39 | .39 | 1 | 1 |
| Source: | PLR | PLE | PLR | PLE | PLR | PLE | PLR | PLE |
| JANUARY -2002 | 31 | <23 | 1.14 | 0.86 | ND | ND | 1.3 | ND |
| FEBRUARY -2002 | <23 | <23 | 1.39 | 0.90 | ND | ND | <1.0 | <1.0 |
| MARCH -2002 | <23 | <23 | 0.90 | 0.76 | ND | ND | <1.0 | ND |
| APRIL -2002 | <23 | <23 | 1.33 | 1.09 | ND | ND | 1.9 | <1.0 |
| MAY -2002 | <23 | 42 | 1.79 | 1.35 | ND | ND | ND | ND |
| JUNE -2002 | 45 | 50 | 1.89 | 1.42 | ND | ND | <1.0 | <1.0 |
| JULY -2002 | ND | <23 | 2.44 | 1.86 | ND | ND | 1.8 | 1.0 |
| AUGUST -2002 | <23 | <23 | 2.23 | 1.61 | ND | ND | <1.0 | 2.7 |
| SEPTEMBER-2002 | 61 | 76 | 1.75 | 1.51 | ND | ND | ND | ND |
| OCTOBER -2002 | <23 | 32 | 1.78 | 1.60 | ND | <0.39 | <1.0 | ND |
| NOVEMBER -2002 | <23 | <23 | 1.62 | 1.29 | ND | ND | <1.0 | 1.1 |
| DECEMBER -2002 | <23 | <23 | 1.77 | 1.26 | ND | ND | 1.2 | <1.0 |
| AVERAGE | 11 | 17 | 1.67 | 1.29 | ND | 0.00 | 0.5 | 0.4 |

| Analyte: | Chromium | Chromium | Copper | Copper | Iron | Iron | Lead | Lead |
|---|---|---|---|---|---|---|---|---|
| MDL Units: | 5 | 5 | 4 | 4 | 30 | 30 | 18 | 18 |
| Source: | PLR | PLE | PLR | PLE | PLR | PLE | PLR | PLE |
| JANUARY -2002 | 6.6 | <5.0 | 193 | 61 | 6040 | 3690 | ND | ND |
| FEBRUARY -2002 | <5.0 | ND | 157 | 92 | 5470 | 4760 | ND | ND |
| MARCH -2002 | <5.0 | ND | 195 | 103 | 5800 | 4350 | <18.0 | ND |
| APRIL -2002 | 6.2 | ND | 148 | 60 | 5970 | 4350 | ND | <18.0 |
| MAY -2002 | <5.0 | ND | 141 | 78 | 7670 | 4440 | ND | ND |
| JUNE -2002 | 9.3 | ND | 142 | 86 | 7460 | 4320 | ND | <18.0 |
| JULY -2002 | <5.0 | <5.0 | 192 | 73 | 7030 | 5050 | <18.0 | <18.0 |
| AUGUST -2002 | 5.5 | ND | 165 | 68 | 7540 | 4360 | <18.0 | ND |
| SEPTEMBER-2002 | ND | ND | 121 | 103 | 7830 | 5300 | <18.0 | ND |
| OCTOBER -2002 | ND | ND | 164 | 67 | 7480 | 5390 | ND | <18.0 |
| NOVEMBER -2002 | 5.2 | ND | 185 | 83 | 7910 | 5570 | ND | ND |
| DECEMBER -2002 | 6.3 | ND | 141 | 53 | 8130 | 5540 | ND | ND |
| AVERAGE | 3.3 | 0.0 | 162 | 77 | 7028 | 4760 | 0.0 | 0.0 |

ND= not detected
NA= not analyzed
NS= not sampled

* Arsenic and selenium data reported in the Monthly Monitoring reports for June, July, and August included values as determined by a contract laboratory. Later research and analyses determined that the values were inaccurate. This report includes data from validated followup analyses by our in-house laboratory and excludes the previously reported data. See detailed discussion in the Section I. B. Notes on Specific Analyses.

POINT LOMA WASTEWATER TREATMENT PLANT

ANNUAL SEWAGE
Trace Metals
(Limits shown are the 6-Month Median Maximum)

From: 01-JAN-2002 to: 31-DEC-2002

Sampled by: NDL,A4A
Analyzed by: BOA,G8C,JRF,IEN,LXP,JRV, GS

| Analyte: | Mercury | Mercury | Nickel | Nickel | Selenium | Selenium* | Silver | Silver |
|---|---|---|---|---|---|---|---|---|
| MDL Units: | .5 | .5 | 14 | 14 | .4 | .4 | 6.6 | 6.6 |
| Source: | PLR | PLE | PLR | PLE | PLR | PLE | PLR | PLE |
| JANUARY -2002 | <0.27 | ND | <14 | ND | 1.65 | 1.25 | ND | ND |
| FEBRUARY -2002 | ND | ND | ND | ND | 1.69 | 1.31 | <6.6 | ND |
| MARCH -2002 | ND | ND | <14 | ND | 1.63 | 1.22 | ND | ND |
| APRIL -2002 | <0.27 | ND | ND | <14 | 1.69 | 1.30 | <6.6 | ND |
| MAY -2002 | <0.27 | ND | ND | <14 | 1.47 | 1.22 | ND | ND |
| JUNE -2002 | <0.27 | <0.27 | ND | ND | 1.43 | 1.00 | <6.6 | 9.5 |
| JULY -2002 | ND | ND | <14 | <14 | 1.92 | 1.26 | <6.6 | ND |
| AUGUST -2002 | ND | ND | <14 | ND | 1.58 | 1.13 | <6.6 | ND |
| SEPTEMBER-2002 | ND | ND | ND | ND | 1.54 | 1.02 | ND | ND |
| OCTOBER -2002 | ND | ND | ND | ND | 1.63 | 1.02 | 7.7 | <6.6 |
| NOVEMBER -2002 | 0.28 | <0.09 | ND | <14 | 1.60 | 0.98 | <6.6 | ND |
| DECEMBER -2002 | 0.13 | ND | <14 | ND | 1.57 | 1.23 | ND | ND |
| AVERAGE | 0.03 | 0.00 | 0 | 0 | 1.62 | 1.16 | 0.6 | 0.8 |

| Analyte: | Thallium | Thallium | Zinc | Zinc |
|---|---|---|---|---|
| MDL Units: | 40 | 40 | 4 | 4 |
| Source: | PLR | PLE | PLR | PLE |
| JANUARY -2002 | <40.0 | <40.0 | 147 | 30 |
| FEBRUARY -2002 | ND | ND | 135 | 35 |
| MARCH -2002 | ND | ND | 138 | 27 |
| APRIL -2002 | ND | ND | 142 | 28 |
| MAY -2002 | <40.0 | ND | 138 | 25 |
| JUNE -2002 | ND | ND | 135 | 25 |
| JULY -2002 | ND | <40.0 | 163 | 25 |
| AUGUST -2002 | ND | ND | 134 | 23 |
| SEPTEMBER-2002 | ND | ND | 133 | 38 |
| OCTOBER -2002 | ND | <40.0 | 135 | 34 |
| NOVEMBER -2002 | ND | ND | 143 | 24 |
| DECEMBER -2002 | ND | ND | 118 | 21 |
| AVERAGE | 0.0 | 0.0 | 138 | 28 |

ND= not detected
NA= not analyzed
NS= not sampled

* Arsenic and selenium data reported in the Monthly Monitoring reports for June, July, and August included values as determined by a contract laboratory. Later research and analyses determined that the values were inaccurate. This report includes data from validated followup analyses by our in-house laboratory and excludes the previously reported data. See detailed discussion in the Section I. B. Notes on Specific Analyses.

POINT LOMA WASTEWATER TREATMENT PLANT
ANNUAL SEWAGE
Ammonia-Nitrogen and Total Cyanides
(Limits shown are the 6-Month Median Maximum)

From: 01-JAN-2002 to: 31-DEC-2002

Sampled by: NDL,A4A
Analyzed by: JJI,HHD,JRV

| | Ammonia-N .2 MG/L PLR | Ammonia-N .2 MG/L PLE | Cyanides,Tot .002 MG/L PLR | Cyanides,Total .002 MG/L PLE |
|---|---|---|---|---|
| Limit: | | 492 | | 0.82 |
| JANUARY -2002 | 30.2 | 29.4 | 0.0043 | 0.0050 |
| FEBRUARY -2002 | 28.3 | 27.1 | 0.0063 | 0.0068 |
| MARCH -2002 | 29.4 | 29.0 | 0.0035 | 0.0043 |
| APRIL -2002 | 29.6 | 29.1 | 0.0028 | 0.0032 |
| MAY -2002 | 29.8 | 30.0 | 0.0053 | 0.0054 |
| JUNE -2002 | 27.5 | 26.4 | 0.0030 | 0.0023 |
| JULY -2002 | 27.9 | 26.8 | 0.0033 | 0.0033 |
| AUGUST -2002 | 28.8 | 28.4 | 0.0021 | 0.0027 |
| SEPTEMBER-2002 | 26.7 | 26.9 | 0.0040 | 0.0035 |
| OCTOBER -2002 | 28.2 | 27.3 | 0.0027 | 0.0026 |
| NOVEMBER -2002 | 27.7 | 27.8 | 0.0028 | 0.0026 |
| DECEMBER -2002 | 26.8 | 26.3 | 0.0027 | <0.0020 |
| Average: | 28.4 | 27.9 | 0.0036 | 0.0035 |

ND= not detected
NA= not analyzed
NS= not sampled

POINT LOMA WASTEWATER TREATMENT PLANT
ANNUAL SEWAGE
Radioactivity

From: 01-JAN-2002 to: 31-DEC-2002

Sampled by: NDL,A4A
Analyzed by: Truesdail Labs Inc.

| Source | Month | Gross Alpha Radiation | Gross Beta Radiation |
|---|---|---|---|
| PLE | JANUARY -2002 | 1.6±1.5 | 35.3±4.4 |
| PLE | FEBRUARY -2002 | 1.5±1.3 | 37.1±4.7 |
| PLE | MARCH -2002 | 1.6±1.1 | 33.4±4.5 |
| PLE | APRIL -2002 | 1.9±1.1 | 32.5±4.6 |
| PLE | MAY -2002 | 1.9±1.2 | 13.3±5.1 |
| PLE | JUNE -2002 | 1.2±1.1 | 35.7±5.2 |
| PLE | JULY -2002 | 0.7±1.1 | 21.5±3.8 |
| PLE | AUGUST -2002 | 1.8±1.0 | 12.2±4.5 |
| PLE | SEPTEMBER-2002 | 0.1±0.8 | 27.9±4.7 |
| PLE | OCTOBER -2002 | 1.5±1.2 | 14.9±4.8 |
| PLE | NOVEMBER -2002 | 1.3±1.1 | 25.5±5.1 |
| PLE | DECEMBER -2002 | 0.8±1.0 | 14.9±4.2 |
| AVERAGE | | 1.3±1.1 | 25.4±4.6 |

| Source | Month | Gross Alpha Radiation | Gross Beta Radiation |
|---|---|---|---|
| PLR | JANUARY -2002 | -0.6±1.5 | 35.0±4.6 |
| PLR | FEBRUARY -2002 | 2.0±1.3 | 37.9±4.7 |
| PLR | MARCH -2002 | 2.0±1.0 | 37.6±4.7 |
| PLR | APRIL -2002 | 1.8±1.2 | 35.7±4.6 |
| PLR | MAY -2002 | 2.8±1.3 | 17.2±3.8 |
| PLR | JUNE -2002 | 2.9±1.2 | 36.3±5.9 |
| PLR | JULY -2002 | 1.5±1.6 | 24.9±4.0 |
| PLR | AUGUST -2002 | 3.8±1.6 | 15.2±4.8 |
| PLR | SEPTEMBER-2002 | 1.7±1.4 | 28.9±4.8 |
| PLR | OCTOBER -2002 | 2.2±1.5 | 18.6±4.7 |
| PLR | NOVEMBER -2002 | 1.3±1.6 | 22.7±4.9 |
| PLR | DECEMBER -2002 | 3.4±2.2 | 20.8±4.6 |
| AVERAGE | | 2.1±1.4 | 27.6±4.7 |

ND= not detected
NA= not analyzed
NS= not sampled

Units in picocuries/liter (pCi/L)

POINT LOMA WASTEWATER TREATMENT PLANT
SEWAGE ANNUAL - Chlorinated Pesticide Analysis

From 01-JAN-2002 To 31-DEC-2002

| Analyte | MDL | Units | PLE JAN Avg | PLE FEB Avg | PLE MAR Avg | PLE APR Avg | PLE MAY Avg | PLE JUN Avg | PLE JUL Avg | PLE AUG Avg | PLE SEP Avg | PLE OCT Avg | PLE NOV Avg | PLE DEC Avg | PLE Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aldrin | 60 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Dieldrin | 50 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BHC, Alpha isomer | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BHC, Beta isomer | 30 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BHC, Gamma isomer | 10 | NG/L | 16 | 13 | 14 | 13 | <10 | <10 | ND | 11 | 10 | 11 | <10 | ND | 7 |
| BHC, Delta isomer | 30 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p,p-DDD | 30 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | <20 | ND | ND | 0 |
| p,p-DDE | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p,p-DDT | 50 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o,p-DDD | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o,p-DDE | 100 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o,p-DDT | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptachlor | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptachlor epoxide | 30 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Alpha (cis) Chlordane | 30 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Gamma (trans) Chlordane | 80 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Alpha Chlordene | | NG/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Gamma Chlordene | | NG/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Oxychlordane | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trans Nonachlor | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Cis Nonachlor | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Alpha Endosulfan | 30 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Beta Endosulfan | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Endosulfan Sulfate | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Endrin | 50 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Endrin aldehyde | 23 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Mirex | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methoxychlor | 60 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toxaphene | 4000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1016 | 4000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1221 | 4000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1232 | 4000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1242 | 4000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1248 | 2000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1254 | 2000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1260 | 2000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1262 | 2000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Aldrin + Dieldrin | 60 | NG/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hexachlorocyclohexanes | 30 | NG/L | 16 | 13 | 14 | 13 | 0 | 0 | 0 | 11 | 10 | 11 | 0 | 0 | 7 |
| DDT and derivatives | 100 | NG/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Chlordane + related cmpds. | 80 | NG/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Polychlorinated biphenyls | 4000 | NG/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Endosulfans | 30 | NG/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Heptachlors | 30 | NG/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Chlorinated Hydrocarbons | 4000 | NG/L | 16 | 13 | 14 | 13 | 0 | 0 | 0 | 11 | 10 | 11 | 0 | 0 | 7 |

nd=not detected; NS=not sampled; NA=not analyzed

"Standards for alpha and gamma chlordene are no longer available in the U.S. for the analysis of these compounds."

POINT LOMA WASTEWATER TREATMENT PLANT
SEWAGE ANNUAL - Chlorinated Pesticide Analysis

From 01-JAN-2002 To 31-DEC-2002

| Analyte | MDL | Units | PLR JAN Avg | PLR FEB Avg | PLR MAR Avg | PLR APR Avg | PLR MAY Avg | PLR JUN Avg | PLR JUL Avg | PLR AUG Avg | PLR SEP Avg | PLR OCT Avg | PLR NOV Avg | PLR DEC Avg | PLR Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aldrin | 60 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Dieldrin | 50 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BHC, Alpha isomer | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BHC, Beta isomer | 30 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | <20 | ND | ND | 0 |
| BHC, Gamma isomer | 10 | NG/L | 44 | 37 | 33 | 29 | <10 | 35 | 29 | 28 | 23 | 28 | 12 | 23 | 27 |
| BHC, Delta isomer | 30 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| p,p-DDD | 30 | NG/L | <30 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 |
| p,p-DDE | 20 | NG/L | ND | ND | <20 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0 |
| p,p-DDT | 50 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o,p-DDD | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o,p-DDE | 100 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| o,p-DDT | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptachlor | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Heptachlor epoxide | 30 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Alpha (cis) Chlordane | 30 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | <30 | ND | ND | 0 |
| Gamma (trans) Chlordane | 80 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Alpha Chlordene | | NG/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Gamma Chlordene | | NG/L | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Oxychlordane | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trans Nonachlor | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | 20 | ND | ND | 2 |
| Cis Nonachlor | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | <20 | ND | ND | 0 |
| Alpha Endosulfan | 30 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Beta Endosulfan | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Endosulfan Sulfate | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Endrin | 50 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Endrin aldehyde | 23 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Mirex | 20 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methoxychlor | 60 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toxaphene | 4000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1016 | 4000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1221 | 4000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1232 | 4000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1242 | 4000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1248 | 2000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1254 | 2000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1260 | 2000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PCB 1262 | 2000 | NG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Aldrin + Dieldrin | 60 | NG/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hexachlorocyclohexanes | 30 | NG/L | 44 | 37 | 33 | 29 | 0 | 35 | 29 | 28 | 23 | 28 | 12 | 23 | 27 |
| DDT and derivatives | 100 | NG/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Chlordane + related cmpds. | 80 | NG/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Polychlorinated biphenyls | 4000 | NG/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Endosulfans | 30 | NG/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Heptachlors | 30 | NG/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Chlorinated Hydrocarbons | 4000 | NG/L | 44 | 37 | 33 | 29 | 0 | 35 | 29 | 28 | 23 | 48 | 12 | 23 | 28 |

nd=not detected; NS=not sampled; NA=not analyzed

"Standards for alpha and gamma chlordene are no longer available in the U.S. for the analysis of these compounds."

POINT LOMA WASTEWATER TREATMENT PLANT
SEMI-ANNUAL SLUDGE PROJECT- Organophosphorus PesticidesEPA Method 614/622 (with additions)

From 01-JAN-2002 To 31-DEC-2002

Sampling: LC,MC,BGB,RJ,SKB,HHD,NC
Analysis: CW,TB,KD

| Analyte | MDL | Units | PLE 25-JUN-2002 P175051 | PLE 15-OCT-2002 P188969 | PLR 15-OCT-2002 P188974 |
|---|---|---|---|---|---|
| Demeton O | .09 | UG/L | ND | ND | ND |
| Demeton S | .05 | UG/L | ND | ND | ND |
| Diazinon | .07 | UG/L | 0.1 | 0.1 | 0.2 |
| Guthion | .21 | UG/L | ND | ND | ND |
| Malathion | .04 | UG/L | 0.1 | 0.2 | ND |
| Parathion | .03 | UG/L | ND | ND | ND |
| Thiophosphorus Pesticides | .21 | UG/L | 0.1 | 0.2 | 0.0 |
| Demeton -O, -S | .09 | UG/L | 0.0 | 0.0 | 0.0 |
| Total Organophosphorus Pesticides | .21 | UG/L | 0.3 | 0.6 | 0.3 |
| Additional compounds determined…… | | | | | |
| Tetraethylpyrophosphate | | UG/L | ND | NA | NA |
| Dichlorvos | | UG/L | ND | ND | ND |
| Dibrom | | UG/L | ND | ND | ND |
| Ethoprop | | UG/L | ND | ND | ND |
| Phorate | | UG/L | ND | ND | ND |
| Sulfotepp | | UG/L | ND | ND | ND |
| Disulfoton | | UG/L | 0.1 | 0.1 | 0.1 |
| Monocrotophos | | UG/L | ND | 0.2 | ND |
| Dimethoate | | UG/L | ND | ND | ND |
| Ronnel | | UG/L | ND | ND | ND |
| Trichloronate | | UG/L | ND | ND | ND |
| Merphos | | UG/L | ND | ND | ND |
| Dichlofenthion | | UG/L | ND | ND | ND |
| Tokuthion | | UG/L | ND | ND | ND |
| Stirophos | | UG/L | ND | ND | ND |
| Bolstar | | UG/L | ND | ND | ND |
| Fensulfothion | | UG/L | ND | ND | ND |
| EPN | | UG/L | ND | ND | ND |
| Coumaphos | | UG/L | ND | ND | ND |
| Mevinphos, e isomer | | UG/L | ND | ND | ND |
| Mevinphos, z isomer | | UG/L | ND | ND | ND |
| Chlorpyrifos | .05 | UG/L | ND | ND | ND |

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT
ANNUAL SEWAGE MONTHLY - Tributyl Tin analysis

From 01-JAN-2002 To 31-DEC-2002
Sampling: AM  Analysis:CW

| Analyte | MDL | Units | PLE JAN | PLE FEB | PLE MAR | PLE APR | PLE MAY | PLE JUN | PLE JUL | PLE AUG | PLE SEP | PLE OCT | PLE NOV | PLE DEC | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dibutyl tin | .75 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Monobutyl Tin | 4 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tributyl tin | .75 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

| Analyte | MDL | Units | PLR JAN | PLR FEB | PLR MAR | PLR APR | PLR MAY | PLR JUN | PLR JUL | PLR AUG | PLR SEP | PLR OCT | PLR NOV | PLR DEC | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dibutyl tin | .75 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Monobutyl Tin | 4 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Tributyl tin | .75 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

ND=not detected
NS=not sampled
NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT
SEWAGE ANNUAL - Acid Extractables

From 01-JAN-2002 to 31-DEC-2002

| Analyte | MDL | Units | PLE JAN Avg | PLE FEB Avg | PLE MAR Avg | PLE APR Avg | PLE MAY Avg | PLE JUN Avg | PLE JUL Avg | PLE AUG Avg | PLE SEP Avg | PLE OCT Avg | PLE NOV Avg | PLE DEC Avg | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-chlorophenol | 1.76 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-dichlorophenol | 1.95 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-chloro-3-methylphenol | 1.34 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4,6-trichlorophenol | 1.75 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Pentachlorophenol | 5.87 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Phenol | 2.53 | UG/L | 14.8 | 16.4 | 16.6 | 14.7 | 12.5 | 11.0 | 8.6 | 8.4 | 7.9 | 8.6 | 7.5 | 10.3 | 11.4 |
| 2-nitrophenol | 1.88 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-dimethylphenol | 1.32 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-dinitrophenol | 6.07 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-nitrophenol | 3.17 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-methyl-4,6-dinitrophenol | 4.29 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Chlorinated Phenols | 5.87 | UG/L | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Non-Chlorinated Phenols | 6.07 | UG/L | 14.8 | 16.4 | 16.6 | 14.7 | 12.5 | 11.0 | 8.6 | 8.4 | 7.9 | 8.6 | 7.5 | 10.3 | 11.4 |
| Phenols | 6.07 | UG/L | 14.8 | 16.4 | 16.6 | 14.7 | 12.5 | 11.0 | 8.6 | 8.4 | 7.9 | 8.6 | 7.5 | 10.3 | 11.4 |
| Additional analytes determined; | | | | | | | | | | | | | | | |
| 2-methylphenol | 1.51 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 3-methylphenol(4-MP is unresolved) | 4.4 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND | ND |
| 4-methylphenol(3-MP is unresolved) | 4.22 | UG/L | 47.3 | 55.8 | 45.1 | 48.8 | 38.6 | 31.4 | 23.5 | 22.8 | 21.7 | 26.9 | 25.9 | 35.5 | 35.3 |
| 2,4,5-trichlorophenol | 1.66 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

| Analyte | MDL | Units | PLR JAN Avg | PLR FEB Avg | PLR MAR Avg | PLR APR Avg | PLR MAY Avg | PLR JUN Avg | PLR JUL Avg | PLR AUG Avg | PLR SEP Avg | PLR OCT Avg | PLR NOV Avg | PLR DEC Avg | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-chlorophenol | 1.76 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-dichlorophenol | 1.95 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-chloro-3-methylphenol | 1.34 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4,6-trichlorophenol | 1.75 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Pentachlorophenol | 5.87 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Phenol | 2.53 | UG/L | 19.1 | 17.0 | 16.6 | 16.7 | 14.4 | 15.5 | 12.7 | 12.1 | 13.1 | 13.5 | 12.4 | 13.6 | 14.7 |
| 2-nitrophenol | 1.88 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-dimethylphenol | 1.32 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-dinitrophenol | 6.07 | UG/L | ND | ND | <6.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0 |
| 4-nitrophenol | 3.17 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-methyl-4,6-dinitrophenol | 4.29 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Chlorinated Phenols | 5.87 | UG/L | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Non-Chlorinated Phenols | 6.07 | UG/L | 19.1 | 17.0 | 16.6 | 16.7 | 14.4 | 15.5 | 12.7 | 12.1 | 13.1 | 13.5 | 12.4 | 13.6 | 14.7 |
| Phenols | 6.07 | UG/L | 19.1 | 17.0 | 16.6 | 16.7 | 14.4 | 15.5 | 12.7 | 12.1 | 13.1 | 13.5 | 12.4 | 13.6 | 14.7 |
| Additional analytes determined; | | | | | | | | | | | | | | | |
| 2-methylphenol | 1.51 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 3-methylphenol(4-MP is unresolved) | 4.4 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND | ND |
| 4-methylphenol(3-MP is unresolved) | 4.22 | UG/L | 62.8 | 64.7 | 59.1 | 52.8 | 45.6 | 46.5 | 32.5 | 31.3 | 37.1 | 41.0 | 41.9 | 49.2 | 47.0 |
| 2,4,5-trichlorophenol | 1.66 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT
SEWAGE ANNUAL Priority Pollutants Base/Neutrals
From 01-JAN-2002 to 31-DEC-2002

| Analyte | MDL | Units | PLE JAN Avg | PLE FEB Avg | PLE MAR Avg | PLE APR Avg | PLE MAY Avg | PLE JUN Avg | PLE JUL Avg | PLE AUG Avg | PLE SEP Avg | PLE OCT Avg | PLE NOV Avg | PLE DEC Avg | PLE Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| bis(2-chloroethyl) ether | 2.62 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,3-dichlorobenzene | 1.65 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-dichlorobenzene | 1.63 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,4-dichlorobenzene | 2.3 | UG/L | <2.3 | <2.3 | <2.3 | <2.3 | 2.9 | ND | <2.3 | <2.3 | <2.3 | <2.3 | <2.3 | <2.3 | 0.2 |
| Bis-(2-chloroisopropyl) ether | 8.95 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| N-nitrosodi-n-propylamine | 1.63 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Nitrobenzene | 1.52 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexachloroethane | 3.55 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Isophorone | 1.93 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| bis(2-chloroethoxy)methane | 1.57 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-trichlorobenzene | 1.44 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Naphthalene | 1.52 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexachlorobutadiene | 2.87 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexachlorocyclopentadiene | | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acenaphthylene | 2.02 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Dimethyl phthalate | 3.26 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,6-dinitrotoluene | 1.93 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acenaphthene | 2.2 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-dinitrotoluene | 1.49 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Fluorene | 2.43 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-chlorophenyl phenyl ether | 3.62 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Diethyl phthalate | 6.97 | UG/L | ND | ND | 8.7 | ND | 11.1 | <7.0 | ND | ND | ND | 7.3 | ND | ND | 2.3 |
| N-nitrosodiphenylamine | 2.96 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 4-bromophenyl phenyl ether | 4.04 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Hexachlorobenzene | 4.8 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Phenanthrene | 4.15 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Anthracene | 4.04 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Di-n-butyl phthalate | 6.49 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| N-nitrosodimethylamine | 2.01 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Fluoranthene | 6.9 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Pyrene | 5.19 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzidine | 1.02 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Butyl benzyl phthalate | 4.77 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chrysene | 7.49 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzo[A]anthracene | 7.68 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Bis-(2-ethylhexyl) phthalate | 10.43 | UG/L | ND | <10.4 | ND | ND | ND | ND | ND | ND | ND | 49.8 | ND | ND | 4.2 |
| Di-n-octyl phthalate | 8.59 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | 26.3 | ND | ND | 2.2 |
| 3,3-dichlorobenzidine | 2.43 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzo[K]fluoranthene | 7.36 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 3,4-benzo(B)fluoranthene | 6.63 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzo[A]pyrene | 6.53 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Indeno(1,2,3-CD)pyrene | 6.27 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Dibenzo(A,H)anthracene | 6.19 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzo[G,H,I]perylene | 6.5 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-diphenylhydrazine | 2.49 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Total Dichlorobenzenes | 1.65 | UG/L | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Polynuc. Aromatic Hydrocarbons | 7.68 | UG/L | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Base/Neutral Compounds | 10.43 | UG/L | 0.0 | 0.0 | 8.7 | 0.0 | 14.0 | 0.0 | 0.0 | 0.0 | 0.0 | 83.4 | 0.0 | 0.0 | 8.8 |
| Additional analytes determined; | | | | | | | | | | | | | | | |
| 1-methylnaphthalene | 2.18 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-methylnaphthalene | 2.25 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,6-dimethylnaphthalene | 3.31 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,3,5-trimethylnaphthalene | 4.4 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1-methylphenanthrene | 6.29 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzo[e]pyrene | 7.67 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Perylene | 6.61 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Biphenyl | 2.43 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

nd=not detected; NS=not sampled; NA=not analyzed

POINT LOMA WASTEWATER TREATMENT PLANT
SEWAGE ANNUAL Priority Pollutants Base/Neutrals
From 01-JAN-2002 To 31-DEC-2002

| Analyte | MDL | Units | PLR JAN Avg | PLR FEB Avg | PLR MAR Avg | PLR APR Avg | PLR MAY Avg | PLR JUN Avg | PLR JUL Avg | PLR AUG Avg | PLR SEP Avg | PLR OCT Avg | PLR NOV Avg | PLR DEC Avg | PLR Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| bis(2-chloroethyl) ether | 2.62 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 1,3-dichlorobenzene | 1.65 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 1,2-dichlorobenzene | 1.63 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 1,4-dichlorobenzene | 2.3 | UG/L | <2.3 | <2.3 | <2.3 | 2.6 | 3.1 | * | 3.0 | <2.3 | 2.3 | <2.3 | 3.0 | 2.5 | 1.5 |
| Bis-(2-chloroisopropyl) ether | 8.95 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| N-nitrosodi-n-propylamine | 1.63 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Nitrobenzene | 1.52 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Hexachloroethane | 3.55 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Isophorone | 1.93 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| bis(2-chloroethoxy)methane | 1.57 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-trichlorobenzene | 1.44 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Naphthalene | 1.52 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Hexachlorobutadiene | 2.87 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Hexachlorocyclopentadiene | | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Acenaphthylene | 2.02 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Dimethyl phthalate | 3.26 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 2,6-dinitrotoluene | 1.93 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Acenaphthene | 2.2 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 2,4-dinitrotoluene | 1.49 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Fluorene | 2.43 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 4-chlorophenyl phenyl ether | 3.62 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Diethyl phthalate | 6.97 | UG/L | ND | ND | 8.2 | ND | 9.6 | * | ND | ND | ND | 7.5 | ND | ND | 2.3 |
| N-nitrosodiphenylamine | 2.96 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 4-bromophenyl phenyl ether | 4.04 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Hexachlorobenzene | 4.8 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Phenanthrene | 4.15 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Anthracene | 4.04 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Di-n-butyl phthalate | 6.49 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| N-nitrosodimethylamine | 2.01 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Fluoranthene | 6.9 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Pyrene | 5.19 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Benzidine | 1.02 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Butyl benzyl phthalate | 4.77 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Chrysene | 7.49 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Benzo[A]anthracene | 7.68 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Bis-(2-ethylhexyl) phthalate | 10.43 | UG/L | ND | 16.7 | 10.6 | 14.2 | 18.7 | * | 13.6 | 14.8 | 11.4 | 55.0 | 17.9 | 14.0 | 17.0 |
| Di-n-octyl phthalate | 8.59 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | 23.9 | ND | ND | 2.2 |
| 3,3-dichlorobenzidine | 2.43 | UG/L | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzo[K]fluoranthene | 7.36 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 3,4-benzo(B)fluoranthene | 6.63 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Benzo[A]pyrene | 6.53 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Indeno(1,2,3-CD)pyrene | 6.27 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Dibenzo(A,H)anthracene | 6.19 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Benzo[G,H,I]perylene | 6.5 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 1,2-diphenylhydrazine | 2.49 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Total Dichlorobenzenes | 1.65 | UG/L | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | * | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Polynuc. Aromatic Hydrocarbons | 7.68 | UG/L | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | * | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Base/Neutral Compounds | 10.43 | UG/L | 0.0 | 16.7 | 18.8 | 16.8 | 31.4 | 0.0 | 16.6 | 14.8 | 13.7 | 86.4 | 20.9 | 16.5 | 21.1 |
| Additional analytes determined; | | | | | | | | | | | | | | | |
| 1-methylnaphthalene | 2.18 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 2-methylnaphthalene | 2.25 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 2,6-dimethylnaphthalene | 3.31 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 2,3,5-trimethylnaphthalene | 4.4 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 1-methylphenanthrene | 6.29 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Benzo[e]pyrene | 7.67 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Perylene | 6.61 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Biphenyl | 2.43 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |

nd=not detected; NS=not sampled; NA=not analyzed * Data quality objectives were insufficient for compliance monitoring.

POINT LOMA WASTEWATER TREATMENT PLANT
SEWAGE ANNUAL Priority Pollutants Purgeables

From 01-JAN-2002 to 31-DEC-2002

| Analyte | MDL | Units | PLE JAN Avg | PLE FEB Avg | PLE MAR Avg | PLE APR Avg | PLE MAY Avg | PLE JUN Avg | PLE JUL Avg | PLE AUG Avg | PLE SEP Avg | PLE OCT Avg | PLE NOV Avg | PLE DEC Avg | PLE Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Bromomethane | 1 | UG/L | ND | <1.0 | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | 0.0 |
| Vinyl chloride | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Chloroethane | 3 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 1,1-dichloroethene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Trichlorofluoromethane | 2 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | 1 | UG/L | 2.6 | 1.5 | 1.9 | 2.5 | 2.8 | * | 3.2 | 3.7 | 3.2 | 4.9 | 3.6 | 2.4 | 2.9 |
| 1,1-dichloroethane | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-dichloroethene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | 1 | UG/L | 5.9 | 4.3 | 5.7 | 6.7 | 5.6 | * | 6.1 | 4.1 | 5.4 | ND | 9.8 | 6.1 | 5.4 |
| 1,2-dichloroethane | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-trichloroethane | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane | 1 | UG/L | 1.8 | <1.0 | 1.2 | 1.4 | ND | * | 1.1 | ND | ND | ND | 2.1 | 1.3 | 0.8 |
| 1,2-dichloropropane | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| trans-1,3-dichloropropene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Benzene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Dibromochloromethane | 1 | UG/L | 1.6 | 1.0 | 1.0 | 1.1 | ND | * | ND | ND | ND | ND | 1.8 | <1.0 | 0.6 |
| 1,1,2-trichloroethane | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | <1.0 | 0.0 |
| cis-1,3-dichloropropene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 2-chloroethylvinyl ether | 5 | UG/L | ND | * | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Bromoform | 6.1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-tetrachloroethane | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | 1.6 | 1.3 | 0.3 |
| Toluene | 1 | UG/L | 2.0 | 1.9 | 4.2 | 3.1 | 1.9 | * | 1.4 | 1.8 | 8.1 | 2.2 | 4.6 | 2.0 | 3.0 |
| Chlorobenzene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | <1.0 | ND | ND | ND | 0.0 |
| Acrylonitrile | 13.8 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Acrolein | 11.4 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Halomethane Purgeable Cmpnds | 6.1 | UG/L | 3.4 | 1.0 | 2.2 | 2.5 | 0.0 | * | 1.1 | 0.0 | 0.0 | 0.0 | 3.9 | 1.3 | 1.4 |
| Purgeable Compounds | 13.8 | UG/L | 13.9 | 8.7 | 14.0 | 14.8 | 10.3 | * | 11.8 | 22.3 | 37.5 | 7.1 | 23.5 | 20.5 | 16.8 |
| Additional analytes determined; | | | | | | | | | | | | | | | |
| Allyl chloride | 1.4 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| 4-methyl-2-pentanone | 6.1 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| meta,para xylenes | 3.1 | UG/L | ND | ND | ND | ND | * | * | ND | ND | 3.5 | ND | ND | ND | 0.4 |
| Styrene | 4.7 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-trichlorobenzene | 1.44 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Methyl Iodide | 1.3 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Chloroprene | 1.4 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Methyl methacrylate | 4.6 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| 2-nitropropane | 10 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| 1,2-dibromoethane | 3.3 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Isopropylbenzene | 4.4 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Benzyl chloride | 7.2 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| ortho-xylene | 3.4 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Acetone | 20 | UG/L | 903 | 403 | 807 | 746 | * | * | 905 | 1010 | 788 | 859 | 1970 | 1570 | 996 |
| Carbon disulfide | 1 | UG/L | 1.5 | 1.1 | ND | 1.4 | * | * | 1.5 | 1.9 | 2.1 | 1.4 | 8.2 | <1.0 | 1.9 |
| 2-butanone | 4 | UG/L | ND | ND | ND | ND | * | * | ND | 12.7 | 20.8 | ND | ND | 7.4 | 4.1 |
| Methyl tert-butyl ether | 1 | UG/L | 2.1 | 2.0 | 1.8 | 2.4 | * | * | ND | 1.2 | 1.4 | 3.4 | 5.1 | 1.8 | 2.1 |

nd=not detected; NS=not sampled; NA=not analyzed
* Data quality objectives were insufficient for compliance monitoring.

POINT LOMA WASTEWATER TREATMENT PLANT
SEWAGE ANNUAL Priority Pollutants Purgeables

From 01-JAN-2002 to 31-DEC-2002

| Analyte | MDL | Units | PLR JAN Avg | PLR FEB Avg | PLR MAR Avg | PLR APR Avg | PLR MAY Avg | PLR JUN Avg | PLR JUL Avg | PLR AUG Avg | PLR SEP Avg | PLR OCT Avg | PLR NOV Avg | PLR DEC Avg | PLR Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Bromomethane | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Vinyl chloride | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Chloroethane | 3 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 1,1-dichloroethene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Trichlorofluoromethane | 2 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | 1 | UG/L | 1.7 | 1.9 | 2.0 | 6.1 | 2.0 | * | 2.3 | 2.0 | 2.1 | 3.6 | 2.7 | 1.6 | 2.5 |
| 1,1-dichloroethane | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-dichloroethene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | 1 | UG/L | 5.8 | 4.9 | 5.6 | 8.4 | 4.6 | * | 7.7 | 3.7 | 5.8 | ND | 6.9 | 8.8 | 5.7 |
| 1,2-dichloroethane | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-trichloroethane | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane | 1 | UG/L | ND | 1.3 | <1.0 | ND | ND | * | 1.4 | ND | 2.2 | ND | 2.6 | 1.5 | 0.8 |
| 1,2-dichloropropane | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| trans-1,3-dichloropropene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Benzene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Dibromochloromethane | 1 | UG/L | ND | 1.0 | ND | ND | ND | * | ND | ND | 1.8 | ND | 1.9 | 1.5 | 0.6 |
| 1,1,2-trichloroethane | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| cis-1,3-dichloropropene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 2-chloroethylvinyl ether | 5 | UG/L | ND | * | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Bromoform | 6.1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-tetrachloroethane | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | 1 | UG/L | 2.4 | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | 1.2 | 0.3 |
| Toluene | 1 | UG/L | 3.4 | ND | 5.5 | 5.1 | ND | * | 1.4 | 1.1 | 1.1 | 2.5 | 1.5 | 1.4 | 2.1 |
| Chlorobenzene | 1 | UG/L | 1.3 | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | 0.1 |
| Ethylbenzene | 1 | UG/L | ND | ND | ND | ND | ND | * | ND | ND | ND | ND | ND | ND | ND |
| Acrylonitrile | 13.8 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Acrolein | 11.4 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Halomethane Purgeable Cmpnds | 6.1 | UG/L | 0.0 | 2.3 | 0.0 | 0.0 | 0.0 | * | 1.4 | 0.0 | 4.0 | 0.0 | 4.5 | 3.0 | 1.4 |
| Purgeable Compounds | 13.8 | UG/L | 14.6 | 9.1 | 13.1 | 19.6 | 6.6 | * | 12.8 | 14.9 | 13.0 | 6.1 | 15.6 | 24.3 | 13.6 |

Additional analytes determined;

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Allyl chloride | 1.4 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| 4-methyl-2-pentanone | 6.1 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| meta,para xylenes | 3.1 | UG/L | <3.1 | ND | ND | 3.3 | * | * | ND | ND | ND | ND | ND | ND | 0.3 |
| Styrene | 4.7 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| 1,2,4-trichlorobenzene | 1.44 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Methyl Iodide | 1.3 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Chloroprene | 1.4 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Methyl methacrylate | 4.6 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| 2-nitropropane | 10 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| 1,2-dibromoethane | 3.3 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Isopropylbenzene | 4.4 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Benzyl chloride | 7.2 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| ortho-xylene | 3.4 | UG/L | ND | ND | ND | ND | * | * | ND | ND | ND | ND | ND | ND | ND |
| Acetone | 20 | UG/L | 4630 | 285 | **229** | **471** | * | * | 866 | 388 | 305 | 1480 | 1650 | 2150 | 1245 |
| Carbon disulfide | 1 | UG/L | 1.2 | 1.1 | ND | 1.4 | * | * | 1.5 | ND | 1.6 | 1.8 | 5.0 | ND | 1.4 |
| 2-butanone | 4 | UG/L | ND | ND | ND | ND | * | * | ND | 8.1 | ND | ND | ND | 8.3 | 1.6 |
| Methyl tert-butyl ether | 1 | UG/L | 2.7 | 1.5 | 5.3 | 13.8 | * | * | 8.0 | ND | 1.3 | 4.6 | 5.4 | 3.0 | 4.6 |

nd=not detected; NS=not sampled; NA=not analyzed * Data quality objectives were insufficient for compliance monitoring.

POINT LOMA WASTEWATER TREATMENT PLANT
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2002 to 31-DEC-2002

Sampled by: A. Martinez
Analyzed by: Pacific Analytical Inc.

| Analyte | MDL | Units | Equiv | PLE JAN P128540 | PLE FEB P130094 | PLE MAR P132995 | PLE APR P135388 | PLE MAY P138139 | PLE JUN P172172 |
|---|---|---|---|---|---|---|---|---|---|
| 2,3,7,8-tetra CDD | 10 | PG/L | 1.000 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDD | 50 | PG/L | 0.500 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8_hexa_CDD | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDD | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDD | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDD | 50 | PG/L | 0.010 | ND | <50.000 | ND | ND | ND | ND |
| octa CDD | 100 | PG/L | 0.001 | ND | ND | <100.000 | ND | ND | ND |
| 2,3,7,8-tetra CDF | 10 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDF | 50 | PG/L | 0.050 | ND | ND | ND | ND | ND | ND |
| 2,3,4,7,8-penta CDF | 50 | PG/L | 0.500 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 2,3,4,6,7,8-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDF | 50 | PG/L | 0.010 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8,9-hepta CDF | 50 | PG/L | 0.010 | ND | ND | ND | ND | ND | ND |
| octa CDF | 100 | PG/L | 0.001 | ND | ND | ND | ND | ND | ND |

| Analyte | MDL | Units | Equiv | PLE JUL P175848 | PLE AUG P180328 | PLE SEP P186420 | PLE OCT P188969 | PLE NOV P194180 | PLE DEC P197141 |
|---|---|---|---|---|---|---|---|---|---|
| 2,3,7,8-tetra CDD | 10 | PG/L | 1.000 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDD | 50 | PG/L | 0.500 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8_hexa_CDD | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDD | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDD | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDD | 50 | PG/L | 0.010 | ND | ND | ND | ND | ND | ND |
| octa CDD | 100 | PG/L | 0.001 | ND | ND | ND | ND | ND | ND |
| 2,3,7,8-tetra CDF | 10 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDF | 50 | PG/L | 0.050 | ND | ND | ND | ND | ND | ND |
| 2,3,4,7,8-penta CDF | 50 | PG/L | 0.500 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 2,3,4,6,7,8-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDF | 50 | PG/L | 0.010 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8,9-hepta CDF | 50 | PG/L | 0.010 | ND | ND | ND | ND | ND | ND |
| octa CDF | 100 | PG/L | 0.001 | ND | ND | ND | ND | ND | ND |

Above are permit required CDD/CDF isomers.
nd= not detected
NA= not analyzed  NS= not sampled

POINT LOMA WASTEWATER TREATMENT PLANT
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2002 to 31-DEC-2002

Sampled by: A. Martinez
Analyzed by: Pacific Analytical Inc.

TCDD Equivalents for:

| Analyte | MDL | Units | PLE TCDD JAN P128540 | PLE TCDD FEB P130094 | PLE TCDD MAR P132995 | PLE TCDD APR P135388 | PLE TCDD MAY P138139 | PLE TCDD JUN P172172 | PLE TCDD JUL P175848 |
|---|---|---|---|---|---|---|---|---|---|
| 2,3,7,8-tetra CDD | 10 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDD | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8_hexa_CDD | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDD | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDD | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDD | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| octa CDD | 100 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 2,3,7,8-tetra CDF | 10 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 2,3,4,7,8-penta CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 2,3,4,6,7,8-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8,9-hepta CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| octa CDF | 100 | PG/L | ND | ND | ND | ND | ND | ND | ND |

| Analyte | MDL | Units | PLE TCDD AUG P180328 | PLE TCDD SEP P186420 | PLE TCDD OCT P188969 | PLE TCDD NOV P194180 | PLE TCDD DEC P197141 |
|---|---|---|---|---|---|---|---|
| 2,3,7,8-tetra CDD | 10 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDD | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8_hexa_CDD | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDD | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDD | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDD | 50 | PG/L | ND | ND | ND | ND | ND |
| octa CDD | 100 | PG/L | ND | ND | ND | ND | ND |
| 2,3,7,8-tetra CDF | 10 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| 2,3,4,7,8-penta CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| 2,3,4,6,7,8-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8,9-hepta CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| octa CDF | 100 | PG/L | ND | ND | ND | ND | ND |

Above are permit required CDD/CDF isomers.
nd= not detected
NA= not analyzed  NS= not sampled

POINT LOMA WASTEWATER TREATMENT PLANT
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2002 to 31-DEC-2002

Sampled by: A. Martinez
Analyzed by: Pacific Analytical Inc.

| Analyte | MDL | Units | Equiv | PLR JAN P128543 | PLR FEB P130099 | PLR MAR P132998 | PLR APR P135391 | PLR MAY P138144 | PLR JUN P172175 |
|---|---|---|---|---|---|---|---|---|---|
| 2,3,7,8-tetra CDD | 10 | PG/L | 1.000 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDD | 50 | PG/L | 0.500 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8_hexa_CDD | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDD | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDD | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDD | 50 | PG/L | 0.010 | 590.000 | ND | ND | ND | ND | ND |
| octa CDD | 100 | PG/L | 0.001 | 4800.000 | 340.000 | 130.000 | ND | ND | 100.000 |
| 2,3,7,8-tetra CDF | 10 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDF | 50 | PG/L | 0.050 | ND | ND | ND | ND | ND | ND |
| 2,3,4,7,8-penta CDF | 50 | PG/L | 0.500 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 2,3,4,6,7,8-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDF | 50 | PG/L | 0.010 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8,9-hepta CDF | 50 | PG/L | 0.010 | ND | ND | ND | ND | ND | ND |
| octa CDF | 100 | PG/L | 0.001 | 480.000 | ND | ND | ND | ND | ND |

| Analyte | MDL | Units | Equiv | PLR JUL P175851 | PLR AUG P180333 | PLR SEP P186423 | PLR OCT P188974 | PLR NOV P194183 | PLR DEC P197144 |
|---|---|---|---|---|---|---|---|---|---|
| 2,3,7,8-tetra CDD | 10 | PG/L | 1.000 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDD | 50 | PG/L | 0.500 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8_hexa_CDD | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDD | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDD | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDD | 50 | PG/L | 0.010 | ND | ND | ND | ND | ND | ND |
| octa CDD | 100 | PG/L | 0.001 | ND | 150.000 | ND | ND | ND | 270.000 |
| 2,3,7,8-tetra CDF | 10 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDF | 50 | PG/L | 0.050 | ND | ND | ND | ND | ND | ND |
| 2,3,4,7,8-penta CDF | 50 | PG/L | 0.500 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 2,3,4,6,7,8-hexa CDF | 50 | PG/L | 0.100 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDF | 50 | PG/L | 0.010 | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8,9-hepta CDF | 50 | PG/L | 0.010 | ND | ND | ND | ND | ND | ND |
| octa CDF | 100 | PG/L | 0.001 | ND | ND | ND | ND | ND | ND |

Above are permit required CDD/CDF isomers.

nd= not detected
NA= not analyzed
NS= not sampled

POINT LOMA WASTEWATER TREATMENT PLANT
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2002 to 31-DEC-2002

Sampled by: A. Martinez
Analyzed by: Pacific Analytical Inc.

TCDD Equivalents for:

| Analyte | MDL | Units | PLR TCDD JAN P128543 | PLR TCDD FEB P130099 | PLR TCDD MAR P132998 | PLR TCDD APR P135391 | PLR TCDD MAY P138144 | PLR TCDD JUN P172175 | PLR TCDD JUL P175851 |
|---|---|---|---|---|---|---|---|---|---|
| 2,3,7,8-tetra CDD | 10 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDD | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8_hexa_CDD | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDD | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDD | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDD | 50 | PG/L | 5.900 | ND | ND | ND | ND | ND | ND |
| octa CDD | 100 | PG/L | 4.800 | 0.340 | 0.130 | ND | ND | 0.100 | ND |
| 2,3,7,8-tetra CDF | 10 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 2,3,4,7,8-penta CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 2,3,4,6,7,8-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8,9-hepta CDF | 50 | PG/L | ND | ND | ND | ND | ND | ND | ND |
| octa CDF | 100 | PG/L | 0.480 | ND | ND | ND | ND | ND | ND |

| Analyte | MDL | Units | PLR TCDD AUG P180333 | PLR TCDD SEP P186423 | PLR TCDD OCT P188974 | PLR TCDD NOV P194183 | PLR TCDD DEC P197144 |
|---|---|---|---|---|---|---|---|
| 2,3,7,8-tetra CDD | 10 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDD | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8_hexa_CDD | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDD | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDD | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDD | 50 | PG/L | ND | ND | ND | ND | ND |
| octa CDD | 100 | PG/L | 0.150 | ND | ND | ND | 0.270 |
| 2,3,7,8-tetra CDF | 10 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,7,8-penta CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| 2,3,4,7,8-penta CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,6,7,8-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,7,8,9-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| 2,3,4,6,7,8-hexa CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,4,6,7,8-hepta CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| 1,2,3,4,7,8,9-hepta CDF | 50 | PG/L | ND | ND | ND | ND | ND |
| octa CDF | 100 | PG/L | ND | ND | ND | ND | ND |

Above are permit required CDD/CDF isomers.

nd= not detected
NA= not analyzed
NS= not sampled

**2002**
**Point Loma Treatment Plant**
**Total Coliforms**

The following are the monthly Total Coliform results of the Point Loma Treatment Plant Effluent. The value is stated in terms of Most Probable Number (MPN) per 100 milliliters of sample.

SAMPLE SOURCE (Pt. Loma Treatment Plant Effluent)

| DATE | TOTAL COLIFORM (MPN Index/100ml) |
|---|---|
| January 8, 2002 | 2,300,000 |
| February 15, 2002 | 50,000,000 |
| March 14, 2002 | 13,000,000 |
| April 8, 2002 | 30,000,000 |
| May 23, 2002 | 13,000,000 |
| June 19, 2002 | 13,000,000 |
| July 24, 2002 | 3,000,000 |
| August 1, 2002 | 23,000,000 |
| September 24, 2002 | 22,000,000 |
| October 8, 2002 | 3,000,000 |
| November 27, 2002 | 13,000,000 |
| December 13, 2002 | 13,000,000 |
| Average | 16,525,000 |

POINT LOMA WASTEWATER TREATMENT PLANT
From 01-JAN-2002 To 31-DEC-2002

SAMPLED BY: NL,JC,GR,MS,MC
ANALYZED BY: HD,JC,MC,GR,GS,JW,FM

| | Total Hardness | | Calcium Hardness | | Magnesium Hardness | | Calcium | |
|---|---|---|---|---|---|---|---|---|
| MDL: | .22 | mg/L | .2 | mg/L | .08 | mg/L | .08 | mg/L |
| Months | Inf. | Eff. | Inf. | Eff. | Inf. | Eff. | Inf. | Eff. |
| JANUARY -2002 | 429 | 407 | 219 | 205 | 210 | 203 | 88 | 82 |
| FEBRUARY -2002 | 434 | 408 | 222 | 202 | 211 | 207 | 89 | 81 |
| MARCH -2002 | 452 | 431 | 230 | 212 | 222 | 219 | 92 | 85 |
| APRIL -2002 | 443 | 414 | 225 | 203 | 218 | 211 | 90 | 81 |
| MAY -2002 | 477 | 432 | 241 | 211 | 236 | 222 | 97 | 84 |
| JUNE -2002 | 473 | 448 | 231 | 214 | 241 | 235 | 93 | 86 |
| JULY -2002 | 485 | 464 | 237 | 221 | 248 | 243 | 95 | 89 |
| AUGUST -2002 | 459 | 431 | 224 | 204 | 235 | 227 | 90 | 82 |
| SEPTEMBER-2002 | 460 | 424 | 221 | 197 | 240 | 227 | 88 | 79 |
| OCTOBER -2002 | 420 | 399 | 201 | 189 | 218 | 211 | 81 | 76 |
| NOVEMBER -2002 | 420 | 395 | 210 | 193 | 210 | 203 | 84 | 77 |
| DECEMBER -2002 | 495 | 469 | 247 | 228 | 248 | 241 | 99 | 91 |
| Average: | 454 | 427 | 226 | 207 | 228 | 221 | 91 | 83 |

| | Alkalinity | | Total Solids | | Total Volatile Solids | | Conductivity | |
|---|---|---|---|---|---|---|---|---|
| MDL: | 1.5 | mg/L | 100 | mg/L | 100 | mg/L | 10 | umhos/cm |
| Months | Inf. | Eff. | Inf. | Eff. | Inf. | Eff. | Inf. | Eff. |
| JANUARY -2002 | 287 | 253 | 1840 | 1570 | 440 | 244 | 2620 | 2600 |
| FEBRUARY -2002 | 276 | 250 | 1810 | 1610 | 464 | 279 | 2640 | 2640 |
| MARCH -2002 | 288 | 261 | 1790 | 1560 | 460 | 252 | 2740 | 2770 |
| APRIL -2002 | 288 | 260 | 1840 | 1600 | 480 | 285 | 2650 | 2630 |
| MAY -2002 | 290 | 268 | 1930 | 1680 | 508 | 307 | 2730 | 2750 |
| JUNE -2002 | 279 | 252 | 2030 | 1790 | 533 | 332 | 2820 | 2840 |
| JULY -2002 | 289 | 261 | 2150 | 1870 | 575 | 365 | 2940 | 2940 |
| AUGUST -2002 | 292 | 268 | 2040 | 1810 | 559 | 373 | 2780 | 2800 |
| SEPTEMBER-2002 | 278 | 254 | 2030 | 1800 | 522 | 341 | 2820 | 2810 |
| OCTOBER -2002 | 278 | 247 | 1970 | 1710 | 500 | 289 | 2820 | 2810 |
| NOVEMBER -2002 | 281 | 254 | 1960 | 1680 | 494 | 280 | 2730 | 2760 |
| DECEMBER -2002 | 277 | 244 | 1970 | 1770 | 515 | 350 | 2760 | 2770 |
| Average: | 284 | 256 | 1947 | 1704 | 504 | 308 | 2754 | 2760 |

| | Chloride | | Bromide | | Sulfate | | Nitrate | |
|---|---|---|---|---|---|---|---|---|
| MDL: | .8 | mg/L | .02 | mg/L | .5 | mg/L | .03 | mg/L |
| Months | Inf. | Eff. | Inf. | Eff. | Inf. | Eff. | Inf. | Eff. |
| JANUARY -2002 | 528 | 526 | 1.26 | 1.20 | 256 | 251 | ND | 0.61 |
| FEBRUARY -2002 | 532 | 547 | 1.31 | 1.31 | 253 | 251 | ND | 0.49 |
| MARCH -2002 | 577 | 588 | 1.46 | 1.46 | 259 | 254 | ND | 0.10 |
| APRIL -2002 | 527 | 548 | 1.29 | 1.31 | 251 | 247 | ND | 0.52 |
| MAY -2002 | 583 | 595 | 1.43 | 1.30 | 254 | 250 | ND | 0.86 |
| JUNE -2002 | 631 | 646 | 1.38 | 1.50 | 260 | 256 | ND | 0.12 |
| JULY -2002 | 663 | 664 | 1.53 | 1.47 | 257 | 250 | ND | 0.94 |
| AUGUST -2002 | 607 | 625 | 1.57 | 1.33 | 255 | 249 | 0.28 | ND |
| SEPTEMBER-2002 | 621 | 647 | 1.52 | 1.39 | 260 | 256 | ND | 0.87 |
| OCTOBER -2002 | 614 | 623 | 1.06 | 1.34 | 252 | 246 | 0.20 | 2.37 |
| NOVEMBER -2002 | 607 | 627 | 2.03 | 1.16 | 251 | 250 | ND | 1.38 |
| DECEMBER -2002 | 657 | 634 | 0.74 | 0.96 | 275 | 266 | ND | 0.79 |
| Average: | 596 | 606 | 1.38 | 1.31 | 257 | 252 | 0.04 | 0.75 |

ND=not detected; NS=not sampled; NA=not analyzed; NR=not required
Samples are 24 hour composites

POINT LOMA WASTEWATER TREATMENT PLANT
From 01-JAN-2002 To 31-DEC-2002

SAMPLED BY: NL,JC,GR,MS,MC
ANALYZED BY: HD,JC,MC,GR,GS,JW,FM

| | Lithium | | Sodium | | Potassium | | Chemical Oxygen Demand | |
|---|---|---|---|---|---|---|---|---|
| MDL: | .01 | mg/L | .3 | mg/L | 2 | mg/L | 22 | mg/L |
| Months | Inf. | Eff. | Inf. | Eff. | Inf. | Eff. | Inf. | Eff. |
| JANUARY -2002 | 0.04 | 0.04 | 339 | 329 | 29.2 | 27.6 | 580 | 243 |
| FEBRUARY -2002 | 0.04 | 0.04 | 338 | 339 | 33.4 | 33.3 | 605 | 253 |
| MARCH -2002 | 0.05 | 0.05 | 356 | 353 | 34.6 | 33.9 | 578 | 250 |
| APRIL -2002 | 0.04 | 0.04 | 341 | 342 | 31.0 | 29.9 | 664 | 243 |
| MAY -2002 | 0.02 | 0.05 | 376 | 358 | 33.7 | 33.2 | 607 | 251 |
| JUNE -2002 | 0.05 | 0.04 | 390 | 382 | 30.6 | 30.3 | 571 | 236 |
| JULY -2002 | 0.05 | 0.04 | 412 | 395 | 33.9 | 34.9 | 583 | 241 |
| AUGUST -2002 | 0.04 | 0.04 | 382 | 370 | 29.6 | 28.4 | 575 | 222 |
| SEPTEMBER-2002 | 0.06 | 0.04 | 389 | 371 | 35.1 | 30.0 | 568 | 228 |
| OCTOBER -2002 | 0.05 | 0.03 | 355 | 346 | 31.5 | 29.1 | 548 | 198 |
| NOVEMBER -2002 | 0.04 | 0.04 | 337 | 331 | 28.0 | 25.9 | 691 | 244 |
| DECEMBER -2002 | 0.03 | 0.04 | 400 | 393 | 29.5 | 27.7 | 607 | 253 |
| Average: | 0.04 | 0.04 | 368 | 359 | 31.7 | 30.4 | 598 | 239 |

| | Total Dissolved Solids | | Floatables | | Turbidity | | Aluminum | |
|---|---|---|---|---|---|---|---|---|
| MDL: | 42 | mg/L | .1 | mg/L | | NTU | 50 | ug/L |
| Months | Inf. | Eff. | Inf. | Eff. | Inf. | Eff. | Inf. | Eff. |
| JANUARY -2002 | 1490 | 1480 | 3.5 | 0.1 | 149 | 42 | 1720 | 138 |
| FEBRUARY -2002 | 1490 | 1490 | 1.7 | 0.1 | 144 | 48 | 1730 | 184 |
| MARCH -2002 | 1550 | 1540 | 2.6 | 0.1 | 144 | 45 | 1680 | 151 |
| APRIL -2002 | 1560 | 1540 | 3.4 | 0.1 | 148 | 43 | 2130 | 228 |
| MAY -2002 | 1590 | 1580 | 1.6 | 0.1 | 156 | 43 | 1910 | 240 |
| JUNE -2002 | 1690 | 1700 | 2.7 | 0.1 | 159 | 45 | 2030 | 214 |
| JULY -2002 | 1770 | 1760 | 1.9 | 0.1 | 166 | 48 | 2310 | 201 |
| AUGUST -2002 | 1640 | 1640 | 1.3 | 0.1 | 154 | 46 | 1870 | 302 |
| SEPTEMBER-2002 | 1730 | 1720 | 1.9 | 0.2 | 154 | 44 | 1790 | 138 |
| OCTOBER -2002 | 1600 | 1590 | 2.7 | 0.2 | 151 | 46 | 1650 | 108 |
| NOVEMBER -2002 | 1620 | 1600 | 3.8 | 0.1 | 137 | 44 | 1990 | 118 |
| DECEMBER -2002 | 1610 | 1590 | 4.4 | 0.1 | 137 | 43 | 1600 | 182 |
| Average: | 1612 | 1603 | 2.6 | 0.1 | 150 | 45 | 1868 | 184 |

| | Boron | | Cobalt | | Molybdenum | | Manganese | |
|---|---|---|---|---|---|---|---|---|
| MDL: | 15 | ug/L | 4 | ug/L | 3 | ug/L | 4 | ug/L |
| Months | Inf. | Eff. | Inf. | Eff. | Inf. | Eff. | Inf. | Eff. |
| JANUARY -2002 | 456 | 458 | ND | ND | 10 | 5 | 121 | 130 |
| FEBRUARY -2002 | 527 | 448 | ND | ND | 9 | 8 | 123 | 134 |
| MARCH -2002 | 457 | 405 | NR | NR | NR | NR | 141 | 152 |
| APRIL -2002 | 528 | 482 | 4 | <4 | 9 | 5 | 128 | 138 |
| MAY -2002 | 541 | 537 | ND | ND | 5 | 5 | 185 | 181 |
| JUNE -2002 | 509 | 368 | ND | ND | 17 | 6 | 172 | 169 |
| JULY -2002 | 466 | 313 | <4 | ND | 16 | 3 | 160 | 183 |
| AUGUST -2002 | 515 | 507 | ND | ND | 11 | 10 | 178 | 179 |
| SEPTEMBER-2002 | 547 | 504 | NR | NR | NR | NR | 155 | 178 |
| OCTOBER -2002 | 423 | 427 | <4 | <4 | 9 | 7 | 129 | 150 |
| NOVEMBER -2002 | 472 | 457 | ND | ND | NR | NR | 134 | 146 |
| DECEMBER -2002 | 484 | 451 | NR | NR | NR | NR | 150 | 162 |
| Average: | 494 | 446 | 0 | 0 | 11 | 6 | 148 | 159 |

ND=not detected; NS=not sampled; NA=not analyzed; NR=not required
Samples are 24 hour composites

POINT LOMA WASTEWATER TREATMENT PLANT
From 01-JAN-2002 To 31-DEC-2002

SAMPLED BY: NL,JC,GR,MS,MC
ANALYZED BY: HD,JC,MC,GR,GS,JW,FM

| | Magnesium | | Fluoride | | Ortho Phosphate | | Soluble BOD | |
|---|---|---|---|---|---|---|---|---|
| MDL: | .02 | mg/L | .03 | mg/L | .05 | mg/L | 2 | mg/L |
| Months | Inf. | Eff. | Inf. | Eff. | Inf. | Eff. | Inf. | Eff. |
| JANUARY -2002 | 51 | 49 | 0.72 | 0.78 | 6.65 | 1.20 | 86 | 58 |
| FEBRUARY -2002 | 51 | 50 | 0.59 | 0.63 | 6.37 | 1.35 | 91 | 67 |
| MARCH -2002 | 54 | 53 | 0.82 | 0.96 | 6.07 | 1.30 | 94 | 63 |
| APRIL -2002 | 53 | 51 | 0.58 | 0.60 | 6.43 | 0.65 | 88 | 59 |
| MAY -2002 | 57 | 54 | 0.80 | 0.96 | 5.28 | 1.07 | 81 | 56 |
| JUNE -2002 | 59 | 57 | 0.86 | 0.89 | 5.77 | 0.96 | 79 | 48 |
| JULY -2002 | 60 | 59 | 0.79 | 0.66 | 5.47 | 1.74 | 81 | 49 |
| AUGUST -2002 | 57 | 55 | 0.91 | 0.84 | 6.14 | 2.30 | 80 | 49 |
| SEPTEMBER-2002 | 58 | 55 | 1.10 | 0.78 | 6.31 | 1.63 | 82 | 59 |
| OCTOBER -2002 | 53 | 51 | 0.74 | 0.77 | 4.36 | 0.98 | 87 | 67 |
| NOVEMBER -2002 | 51 | 49 | 0.78 | 0.79 | 4.90 | 1.20 | 92 | 73 |
| DECEMBER -2002 | 60 | 59 | 0.77 | 0.78 | 3.09 | ND | 87 | 62 |
| Average: | 55 | 54 | 0.79 | 0.79 | 5.57 | 1.20 | 86 | 59 |

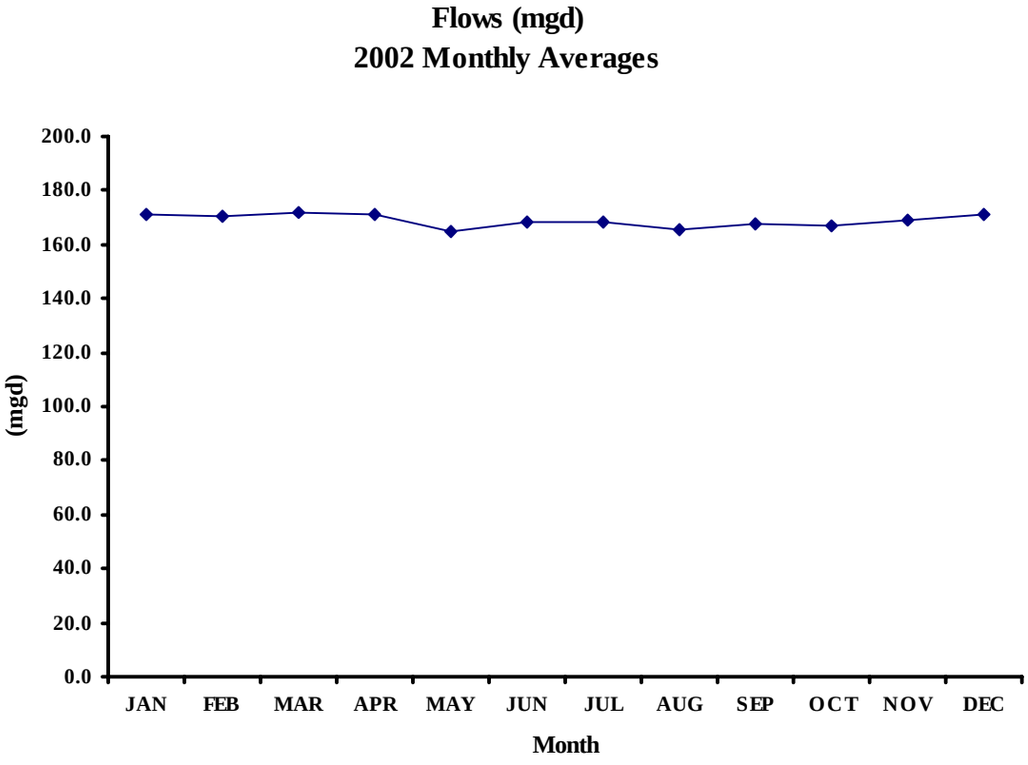
| | Barium | | Vanadium | |
|---|---|---|---|---|
| MDL: | 10 | ug/L | 7 | ug/L |
| Months | Inf. | Eff. | Inf. | Eff. |
| JANUARY -2002 | 121 | 34 | ND | ND |
| FEBRUARY -2002 | 109 | 37 | ND | ND |
| MARCH -2002 | 116 | 37 | NR | NR |
| APRIL -2002 | 121 | 37 | ND | ND |
| MAY -2002 | 123 | 37 | ND | ND |
| JUNE -2002 | 115 | 35 | <7 | ND |
| JULY -2002 | 126 | 41 | ND | ND |
| AUGUST -2002 | 113 | 36 | <7 | ND |
| SEPTEMBER-2002 | 105 | 36 | NR | NR |
| OCTOBER -2002 | 105 | 34 | <7 | <7 |
| NOVEMBER -2002 | 116 | 37 | NR | NR |
| DECEMBER -2002 | 106 | 37 | NR | NR |
| Average: | 115 | 37 | 0 | 0 |

ND=not detected; NS=not sampled; NA=not analyzed; NR=not required
Samples are 24 hour composites

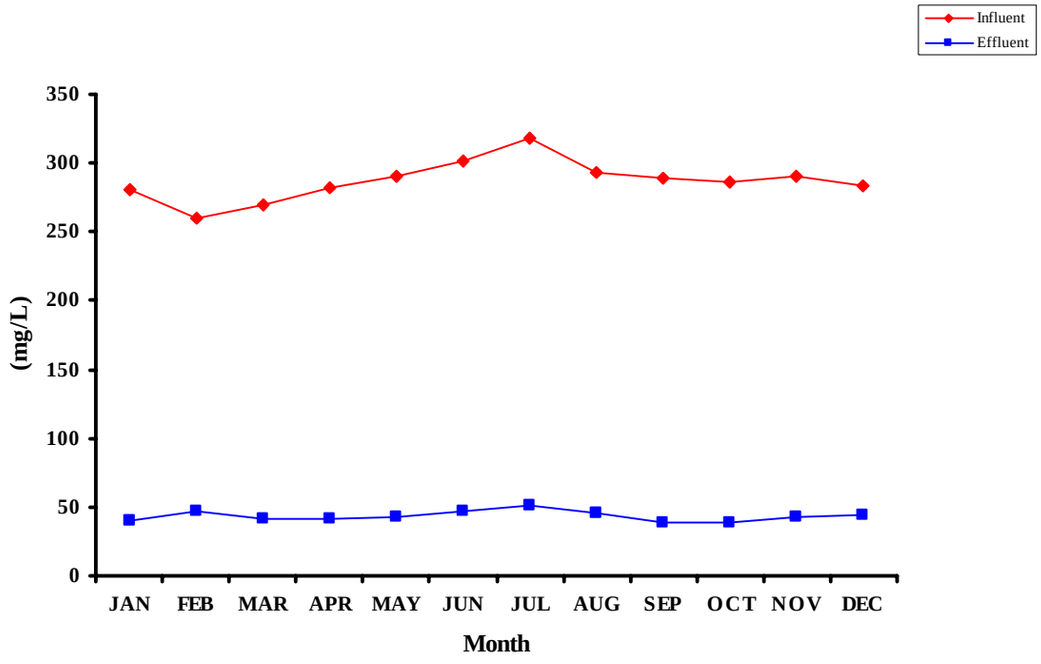
B. Influent and Effluent Graphs.

Graphs of monthly averages for permit parameters with measurable concentration averages.

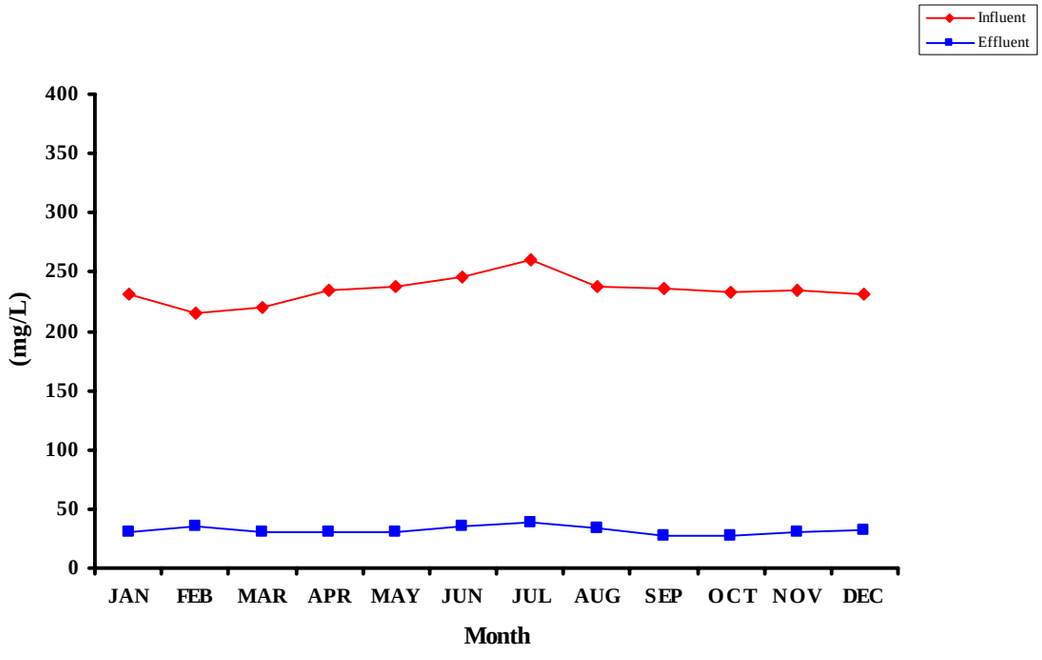
Where possible, the influent and effluent values of a given parameter have been included on the same graph so that removals and other relationships are readily apparent. Please note that many of the graphs are on expanded scales. That is, they normally don't go to zero concentrations but show, in magnified scale, that range of concentrations where variation takes place. This makes differences and some trends obvious that might normally not be noticed. However, it also provides the temptation to interpret minor changes or trends as being of more significance than they are. Frequent reference to the scales and the actual differences in concentrations is therefore necessary.



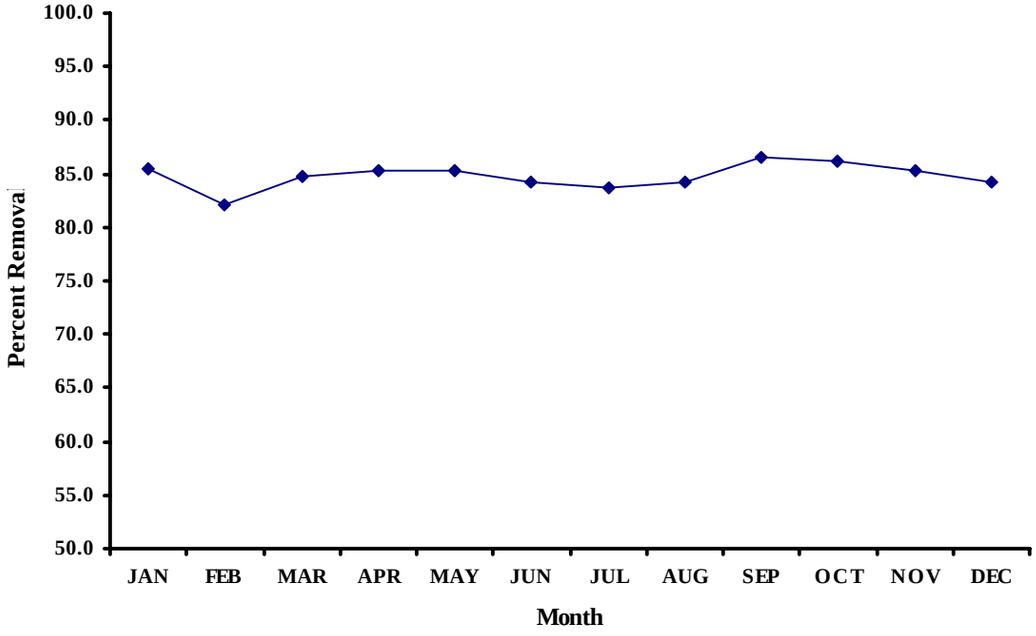
**Total Suspended Solids (mg/L)**
**2002 Monthly Averages**



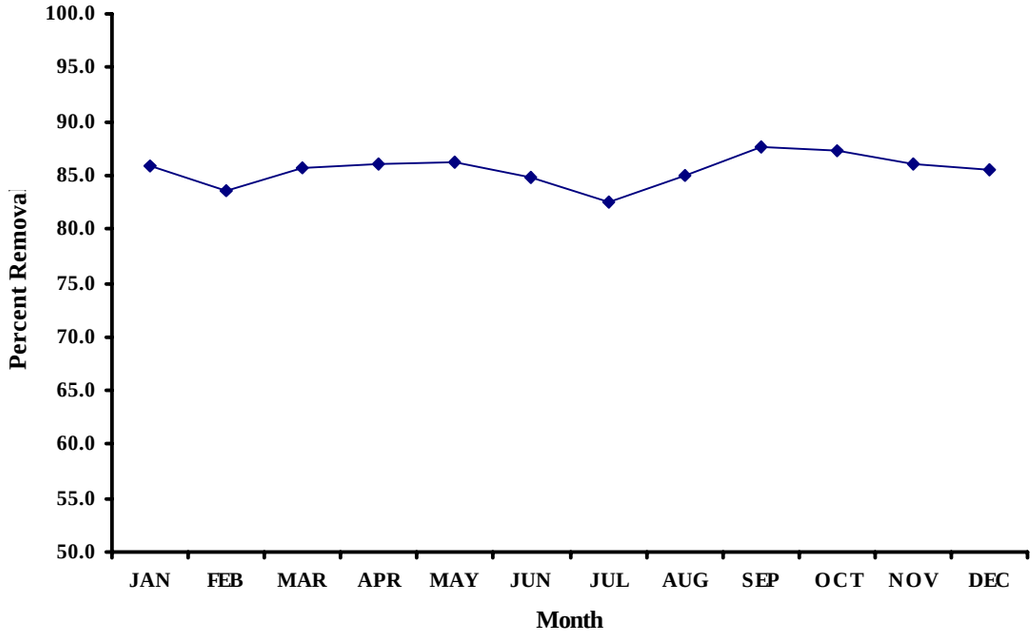

**Volatile Suspended Solids (mg/L)**
**2002 Monthly Averages**



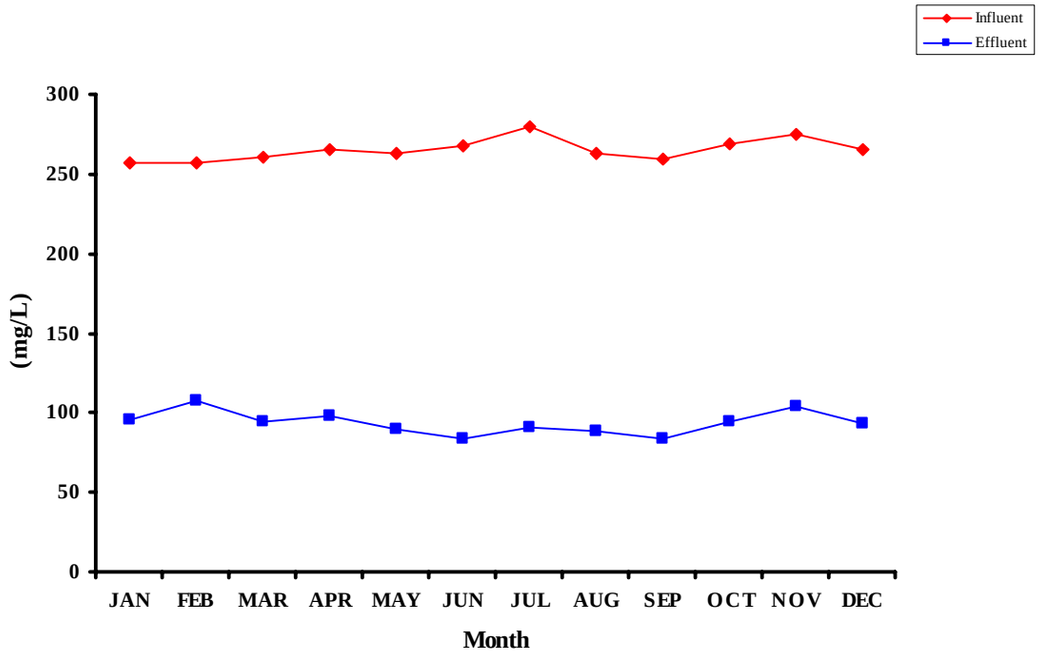
**Total Suspended Solids (%) Removal**
**2002 Monthly Averages at Point Loma**



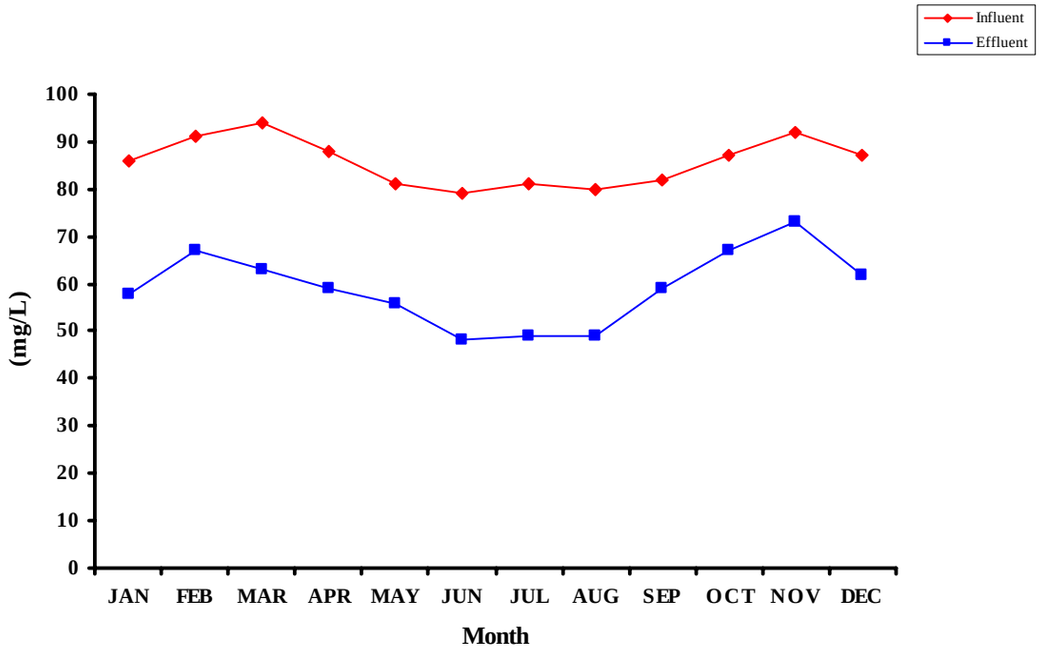

**Total Suspended Solids (%) Removal**
**2002 Monthly Averages Systemwide**



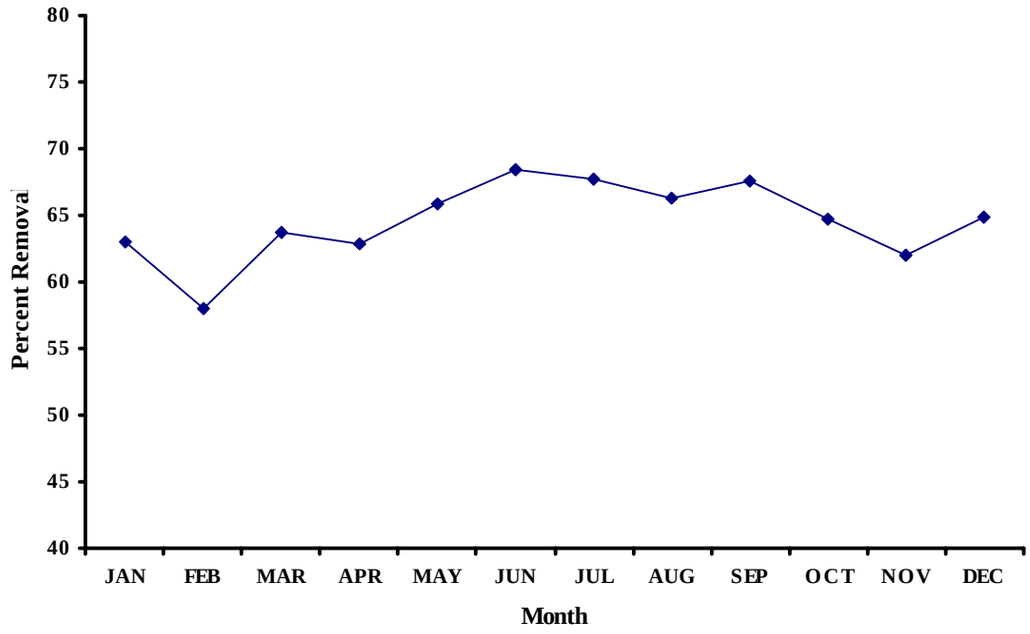
## Biochemical Oxygen Demand
## 2002 Monthly Averages



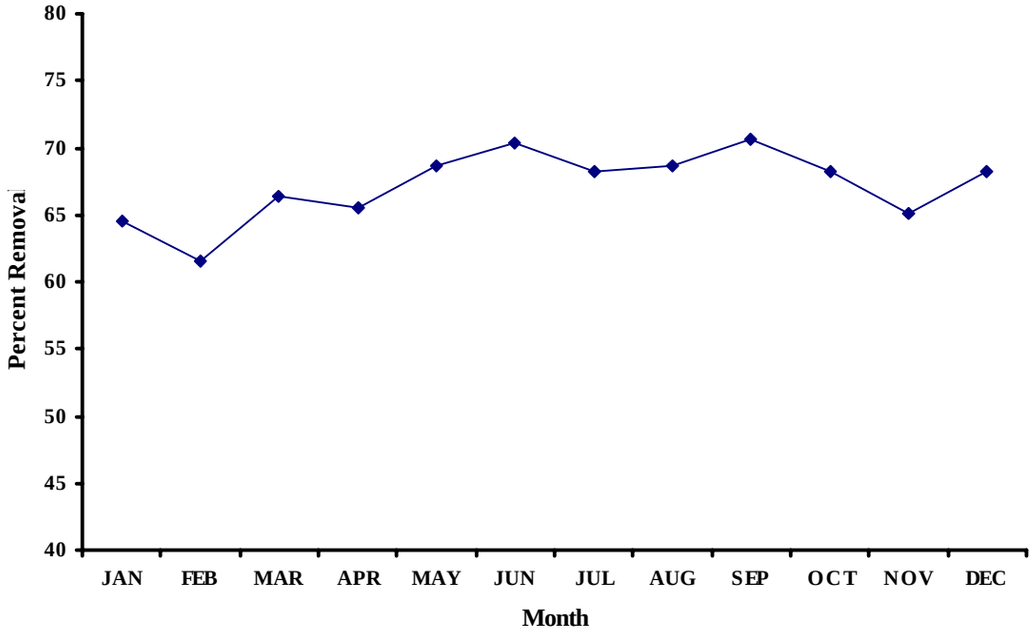

## Soluble Biochemical Oxygen Demand
## 2002 Monthly Averages



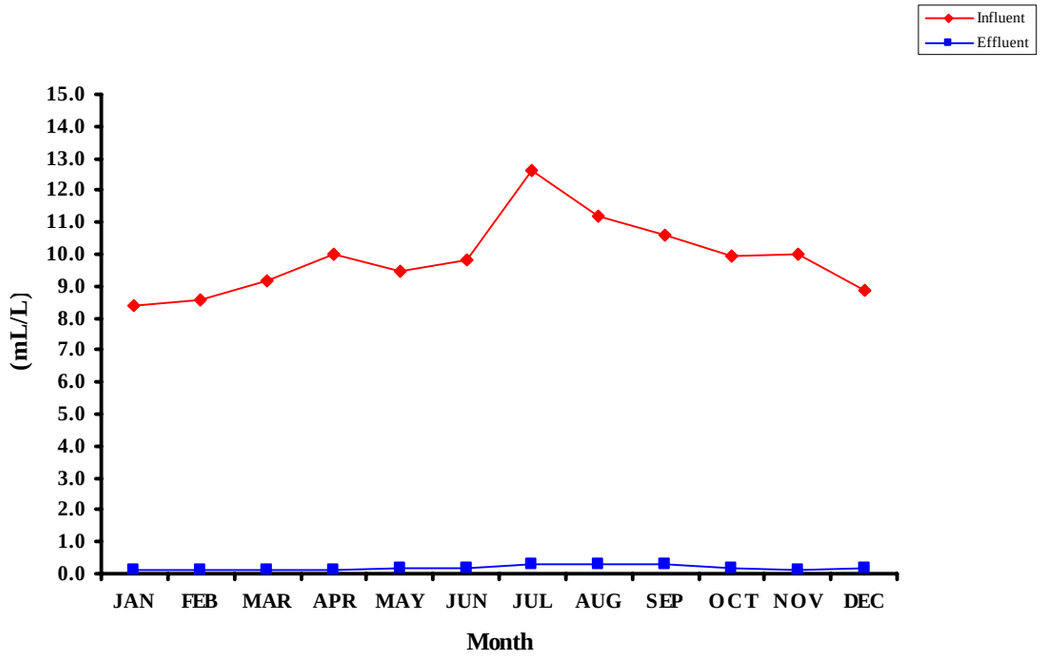
**Biochemical Oxygen Demand (%) Removal**
**2002 Monthly Averages at Point Loma**



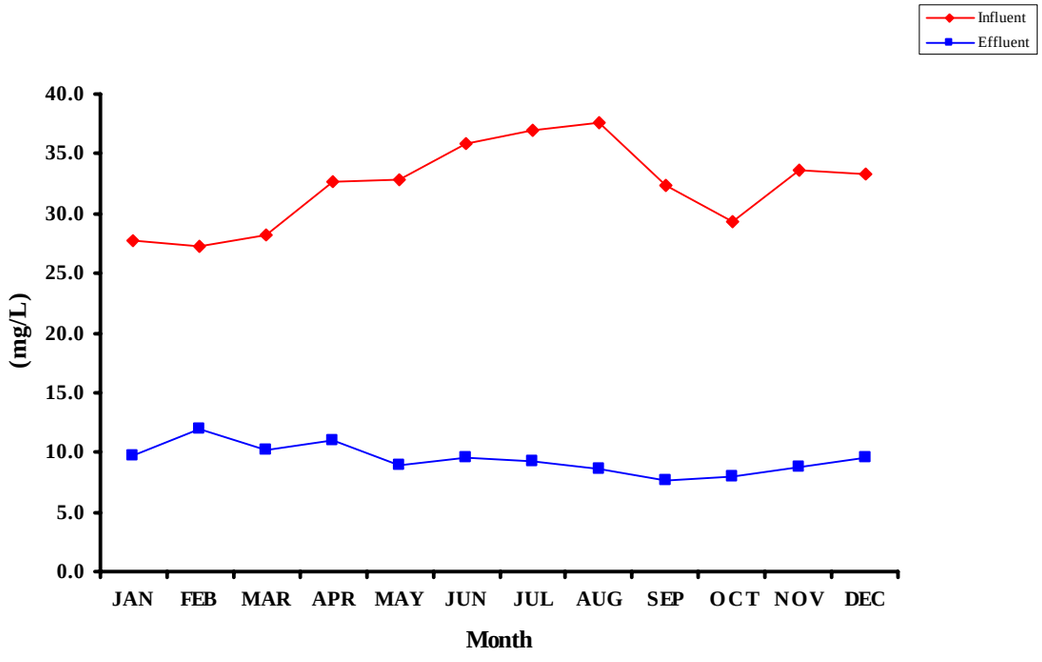

**Biochemical Oxygen Demand (%) Removal**
**2002 Monthly Averages Systemwide**



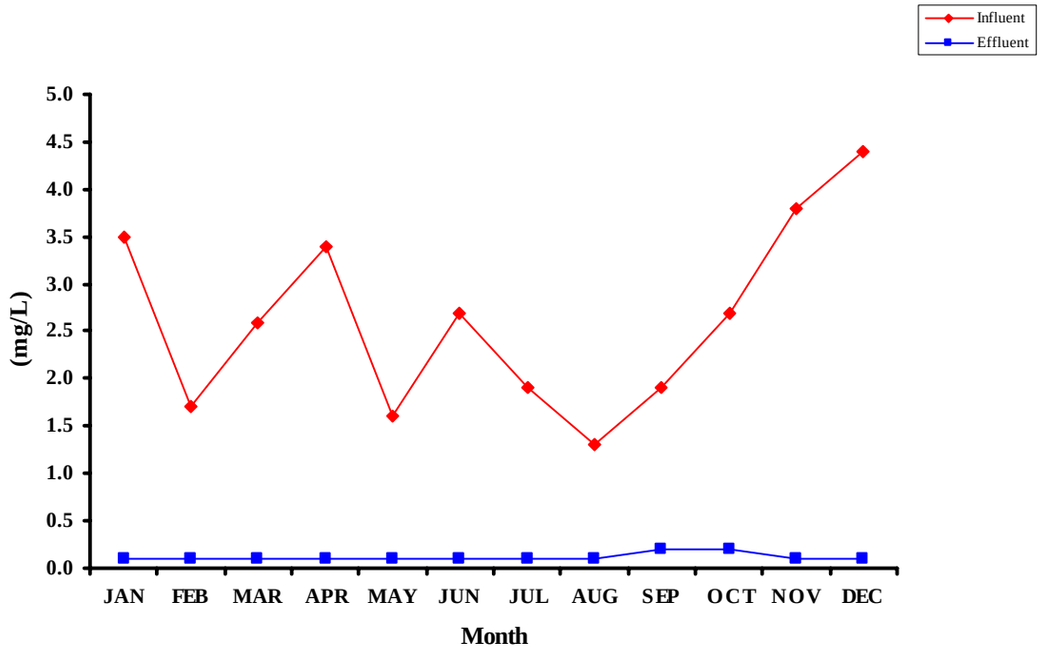
**Settleable Solids (mL/L)**
**2002 Monthly Averages**



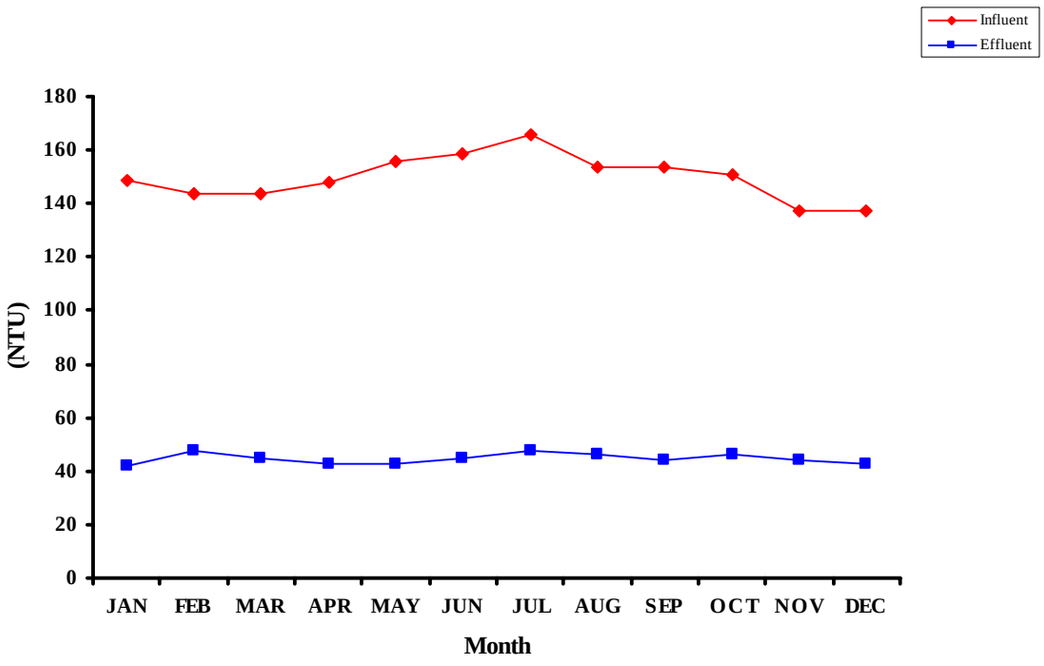

**Oil and Grease (mg/L)**
**2002 Monthly Averages**



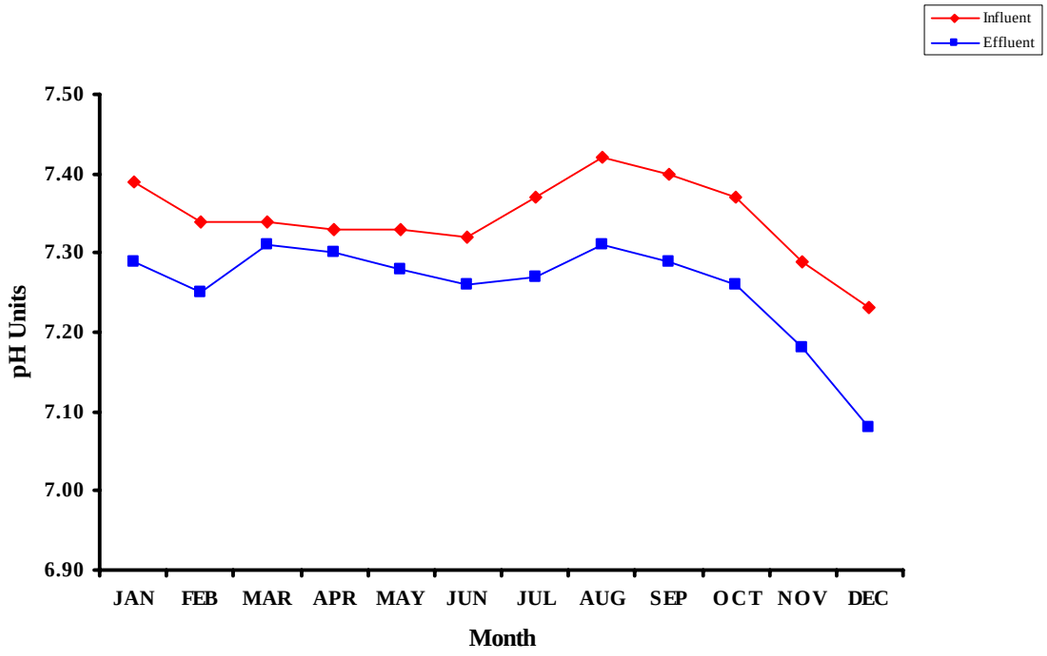
## Floatables (mg/L)
## 2002 Monthly Averages



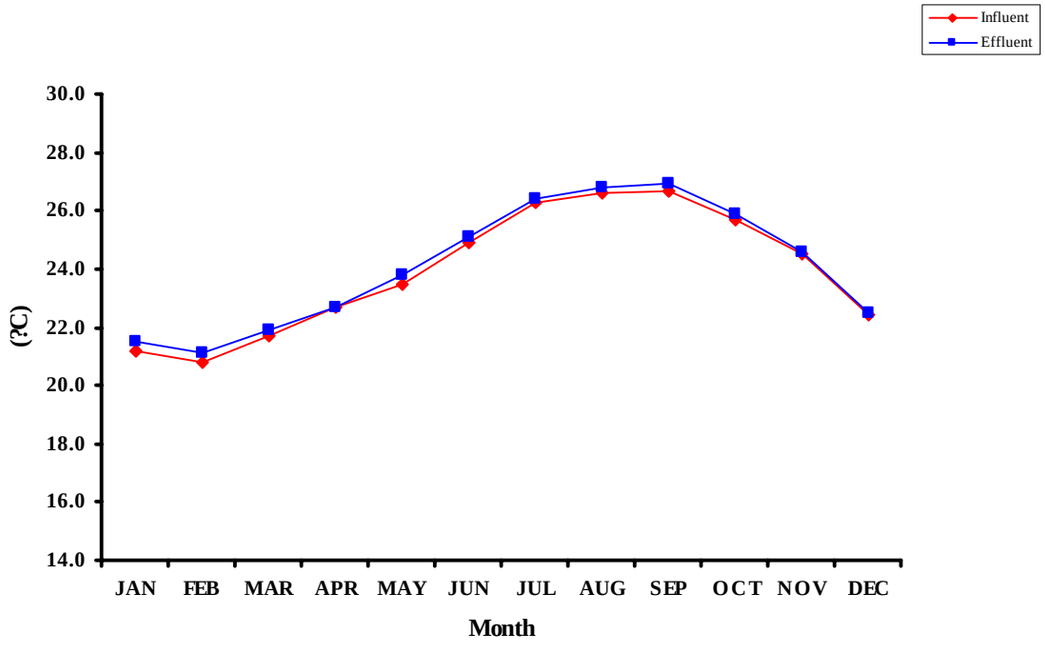

## Turbidity (NTU)
## 2002 Monthly Averages



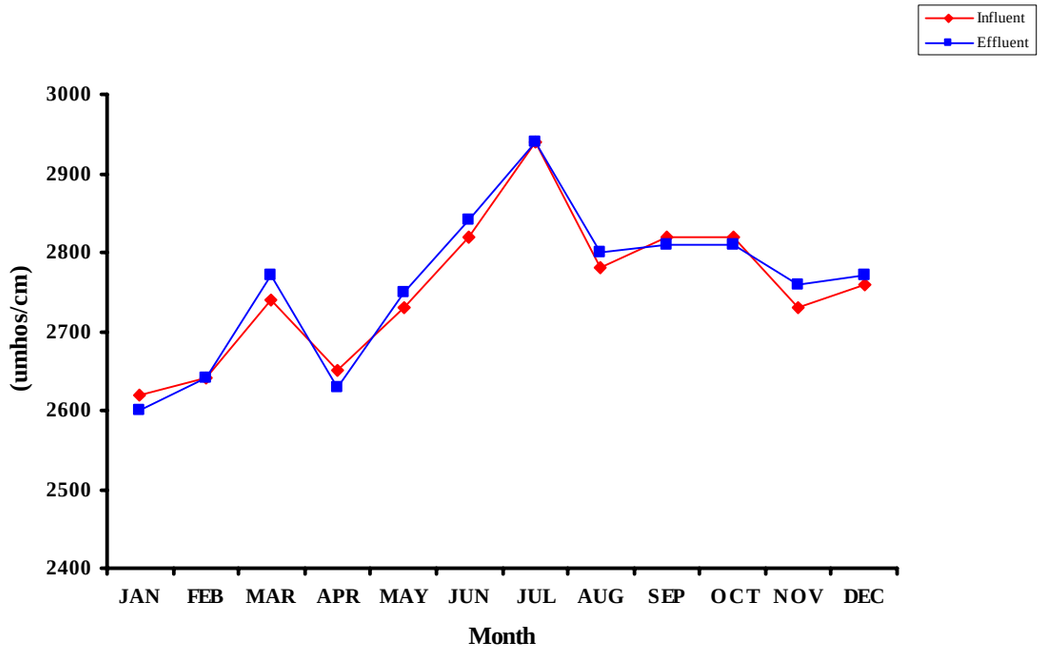
## pH
## 2002 Monthly Averages



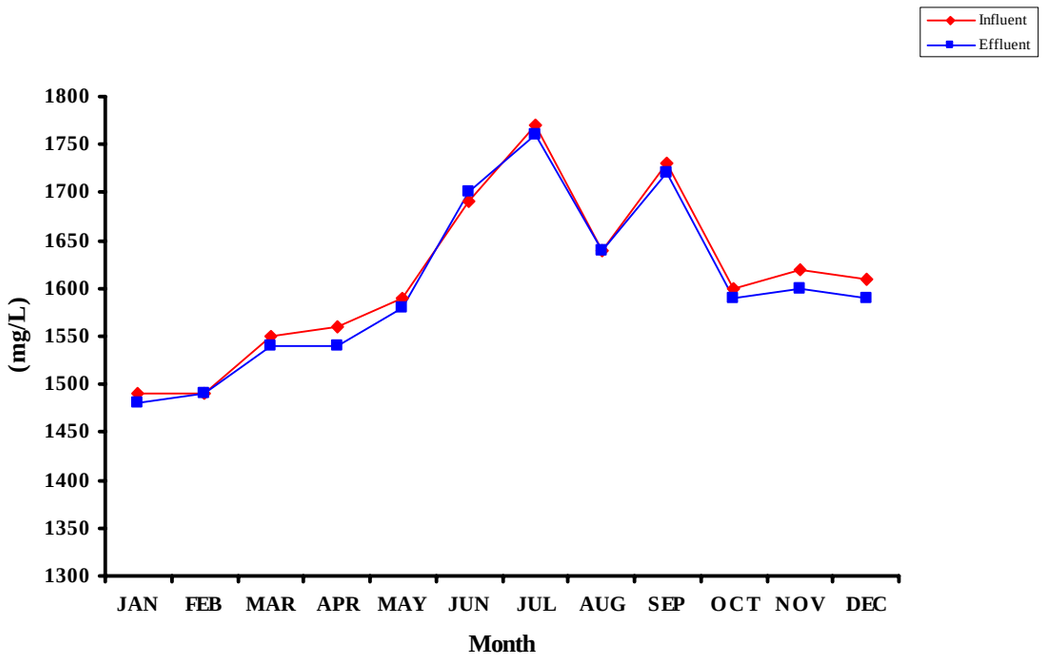

## Temperature (?C)
## 2002 Monthly Averages



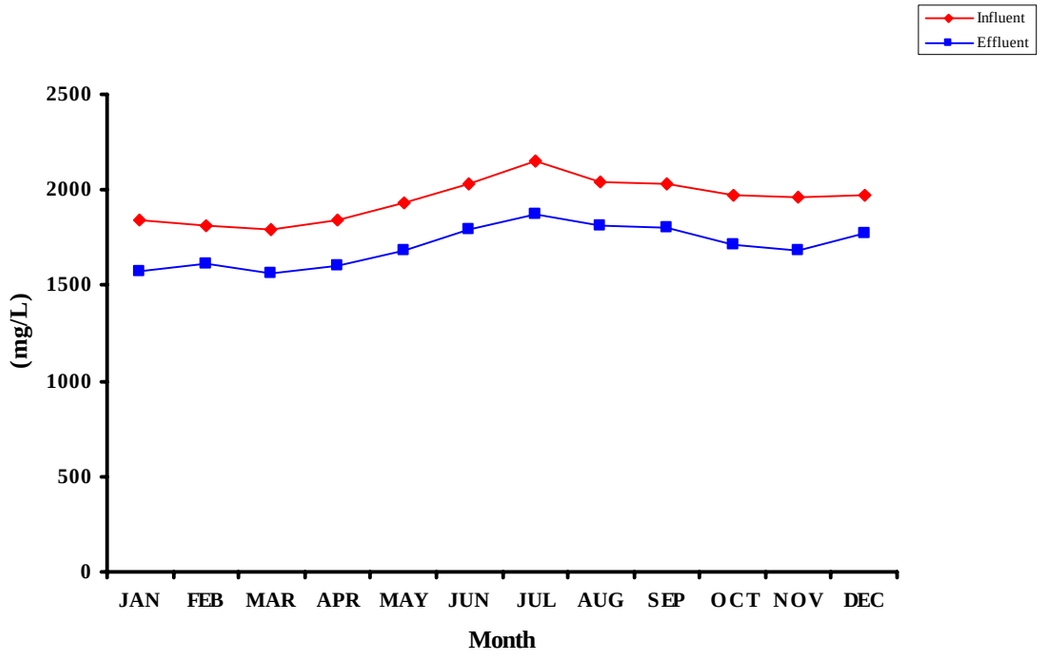
## Conductivity (umhos/cm)
## 2002 Monthly Averages



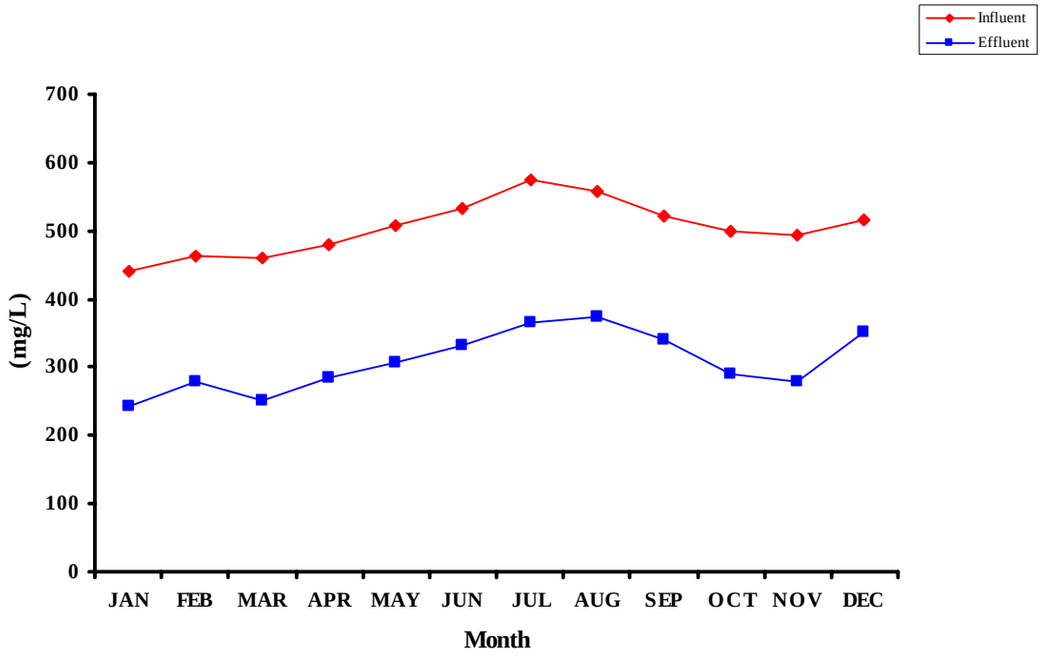

## Total Dissolved Solids (mg/L)
## 2002 Monthly Averages



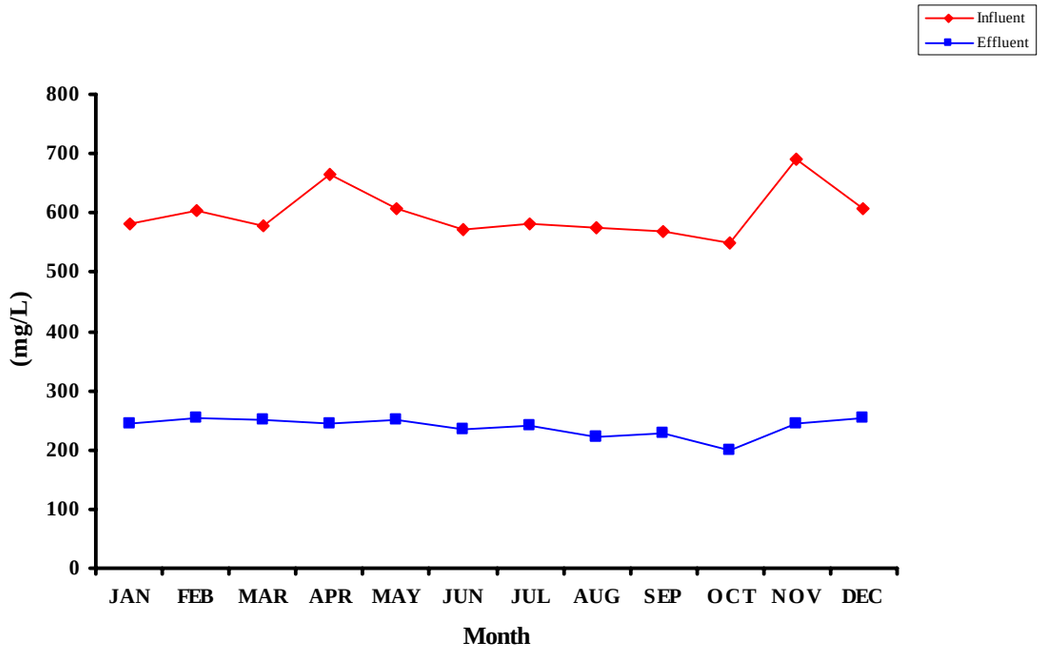
**Total Solids (mg/L)**
**2002 Monthly Averages**



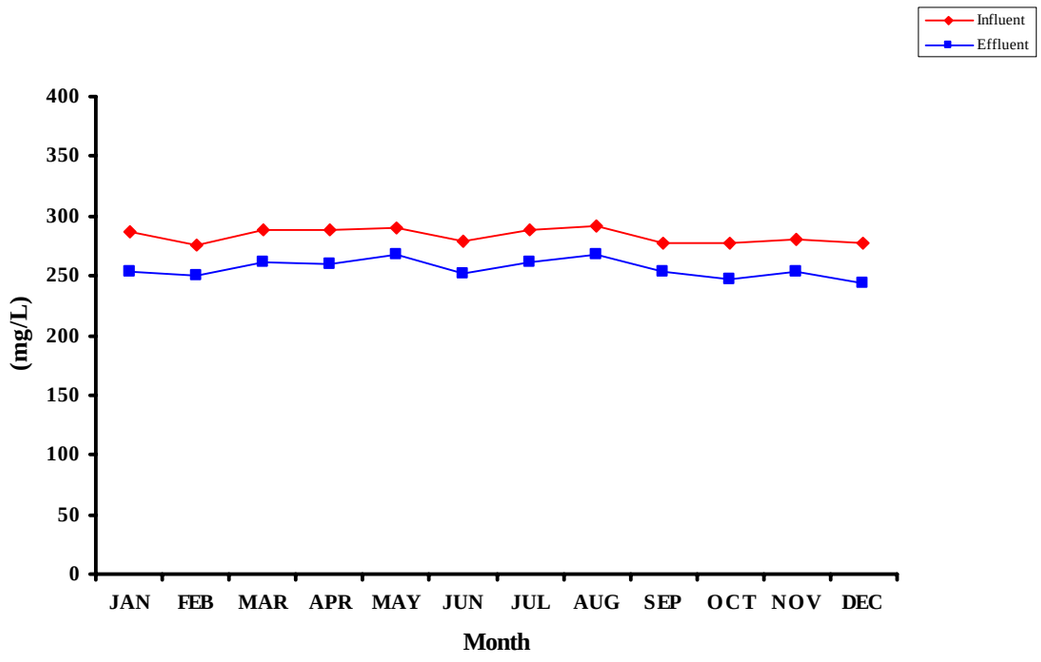

**Total Volatile Solids (mg/L)**
**2002 Monthly Averages**

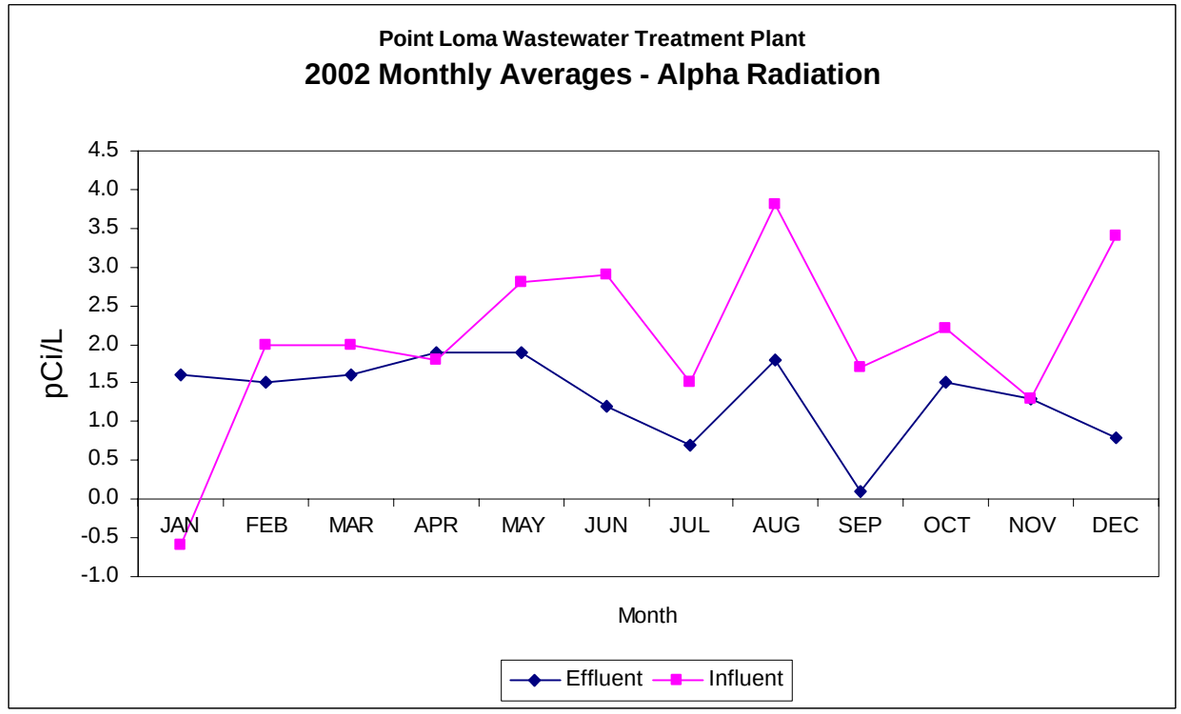


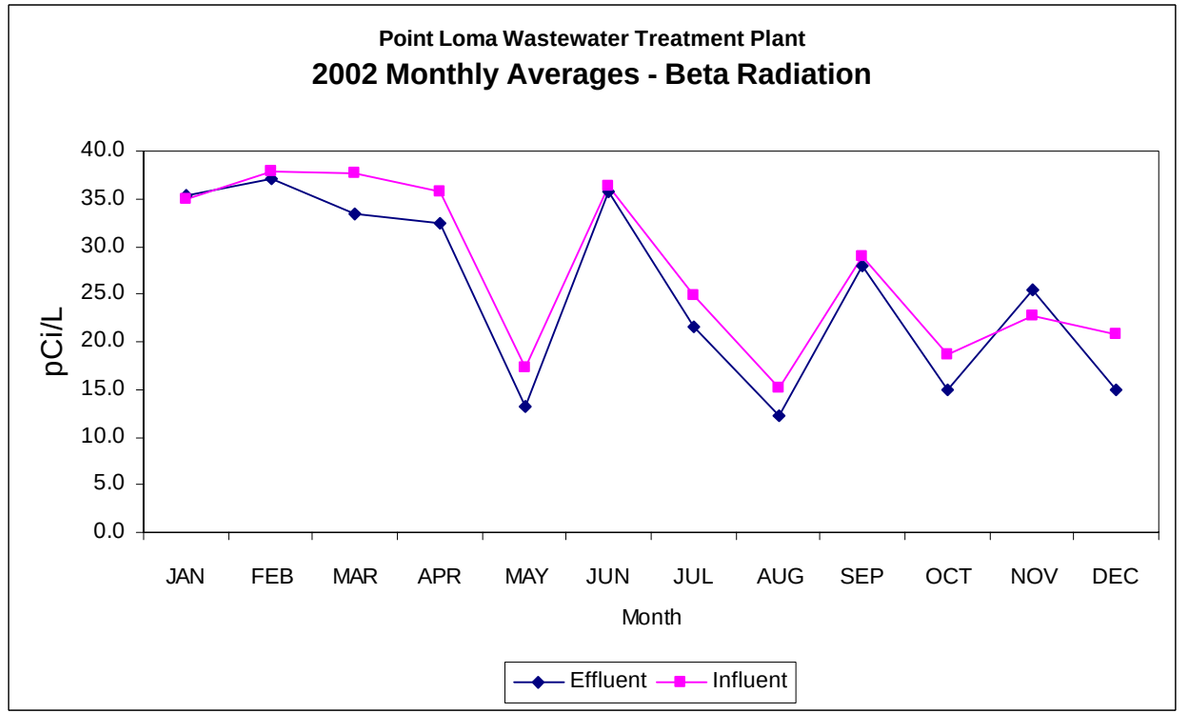
## Chemical Oxygen Demand (mg/L)
## 2002 Monthly Averages

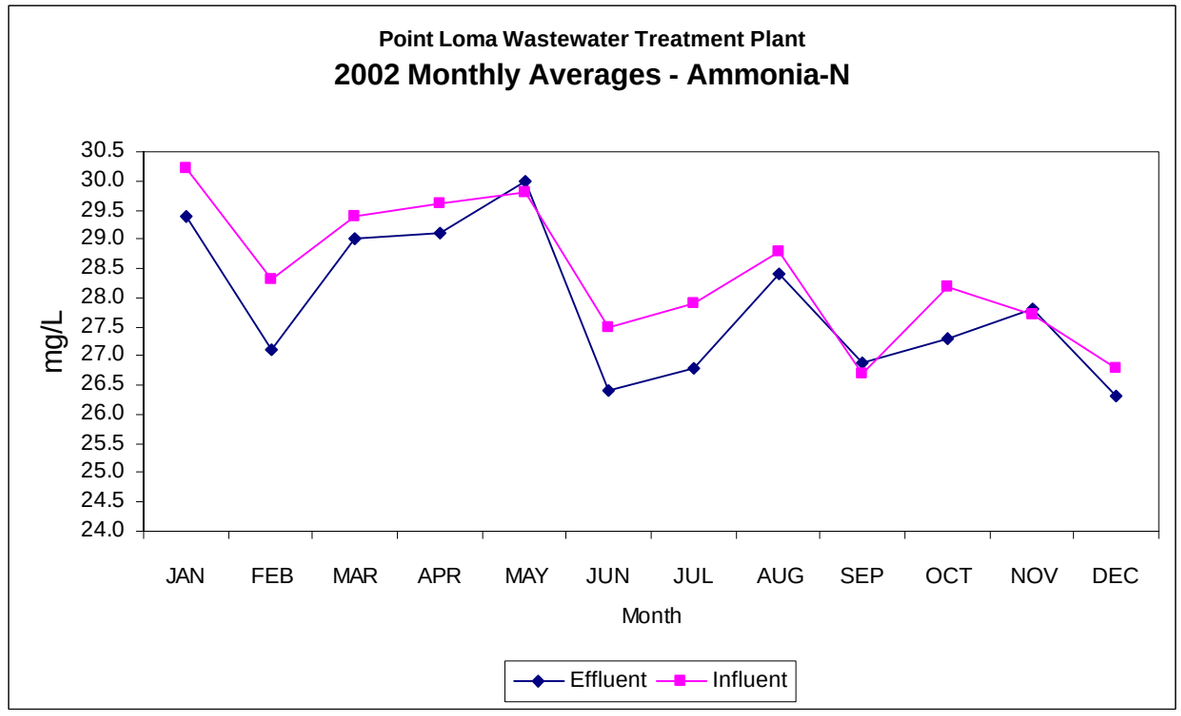


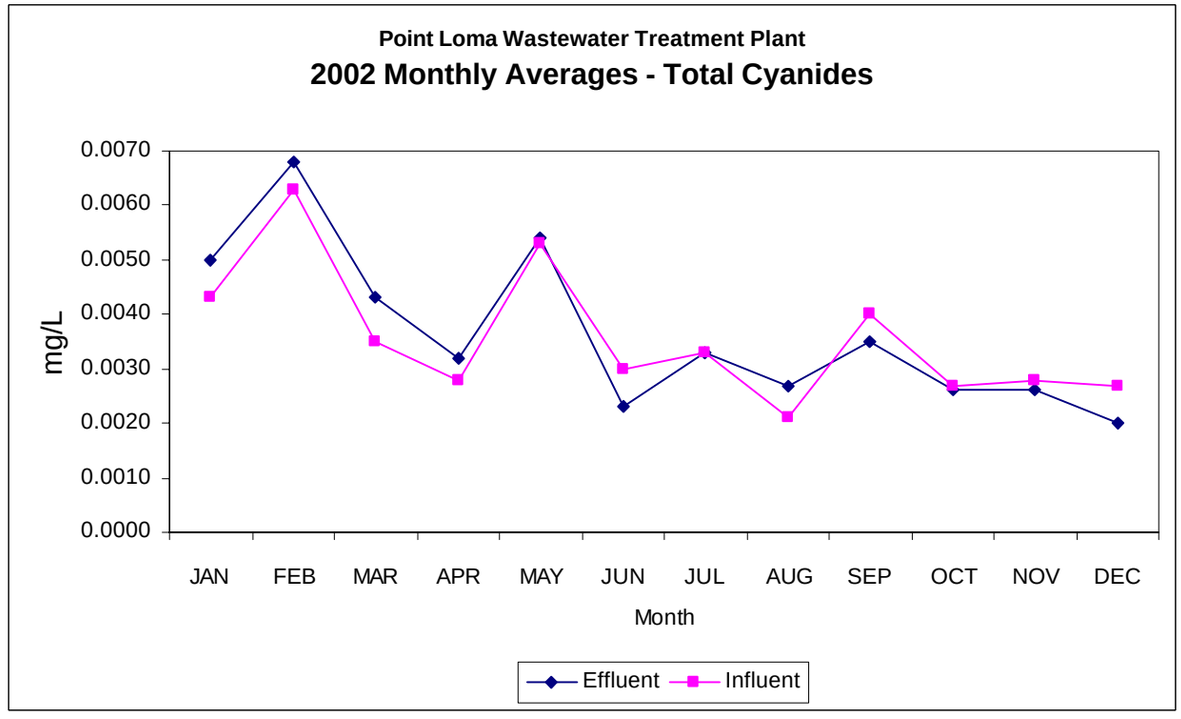

## Alkalinity (mg/L)
## 2002 Monthly Averages



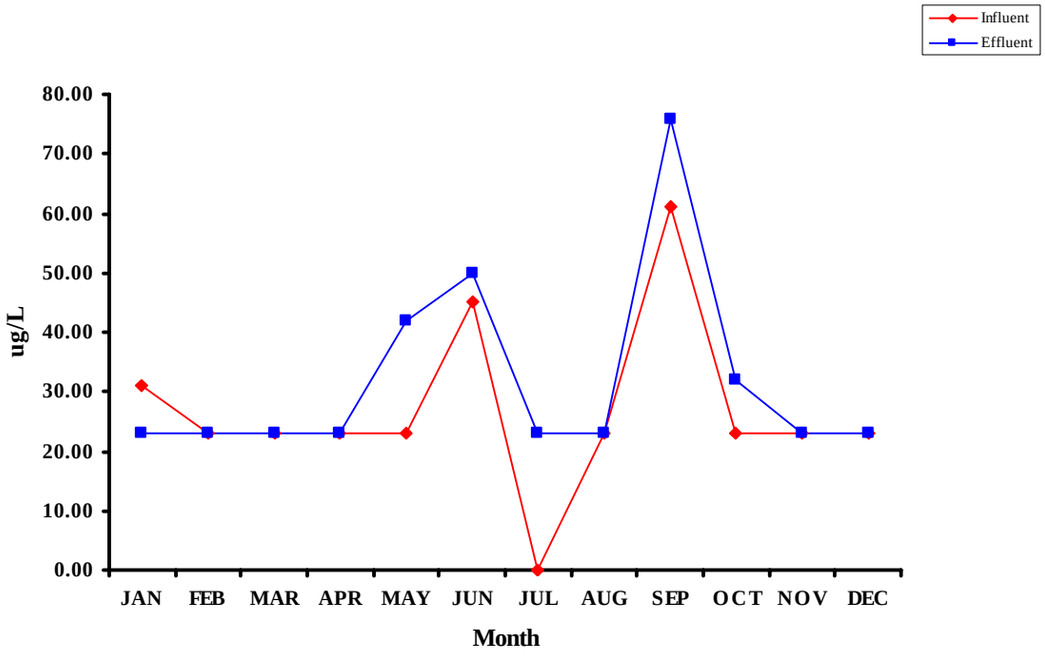

Point Loma Wastewater Treatment Plant
2002 Monthly Averages - Alpha Radiation
pCi/L
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
Month
Effluent
Influent


Point Loma Wastewater Treatment Plant
2002 Monthly Averages - Beta Radiation
pCi/L
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
Month
Effluent
Influent

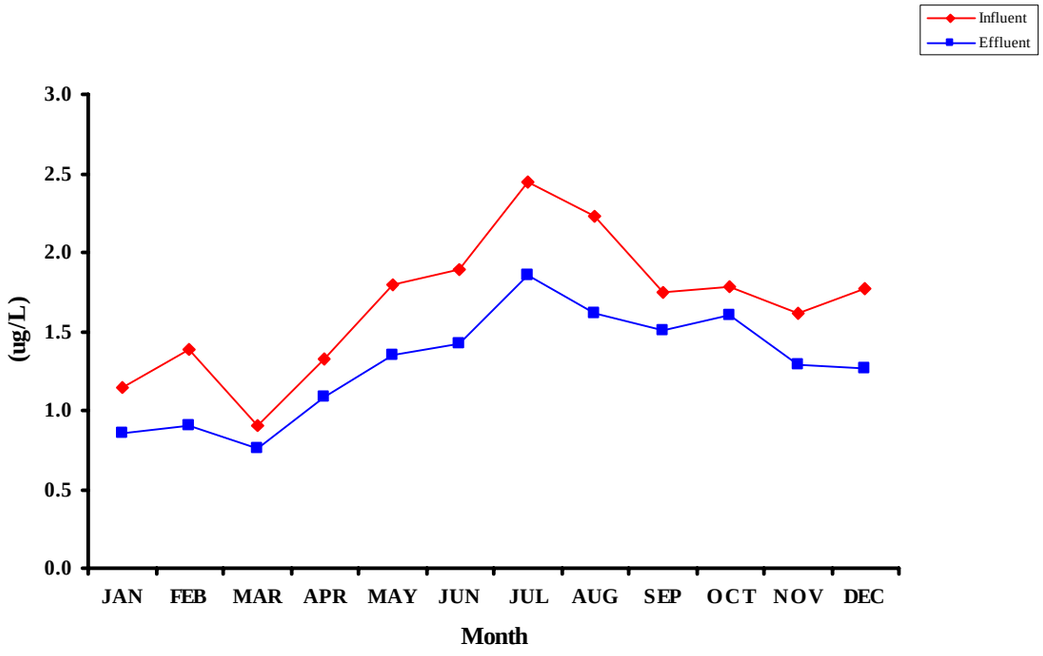

Point Loma Wastewater Treatment Plant
2002 Monthly Averages - Ammonia-N
mg/L
30.5
30.0
29.5
29.0
28.5
28.0
27.5
27.0
26.5
26.0
25.5
25.0
24.5
24.0
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
Month
Effluent
Influent


Point Loma Wastewater Treatment Plant
2002 Monthly Averages - Total Cyanides
mg/L
0.0070
0.0060
0.0050
0.0040
0.0030
0.0020
0.0010
0.0000
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
Month
Effluent
Influent

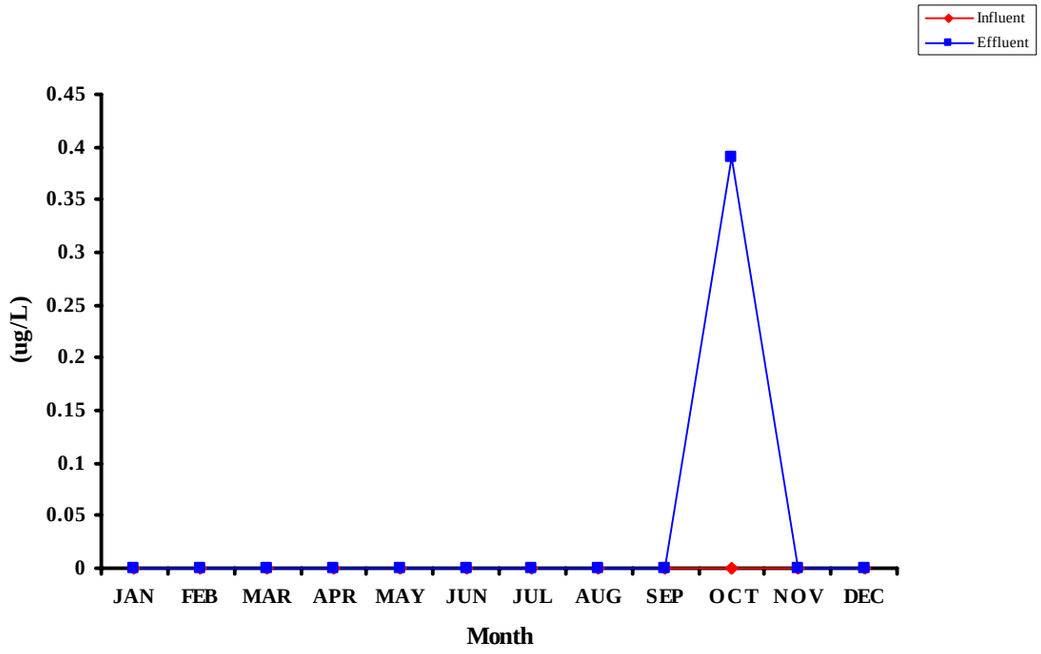
## Antimony
## 2002 Monthly Averages



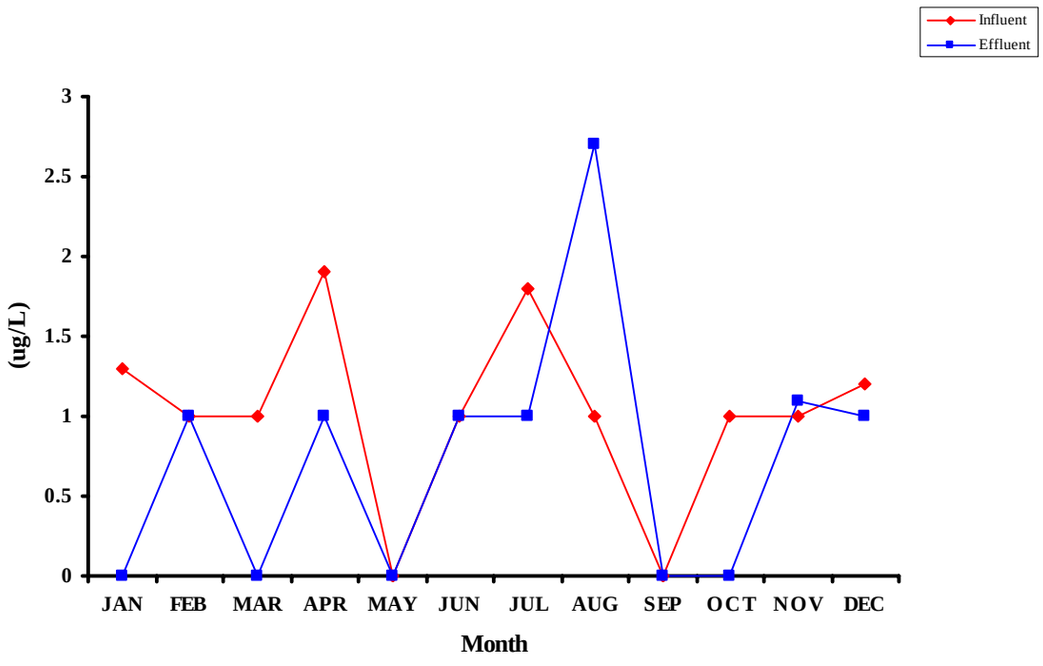

## Arsenic
## 2002 Monthly Averages



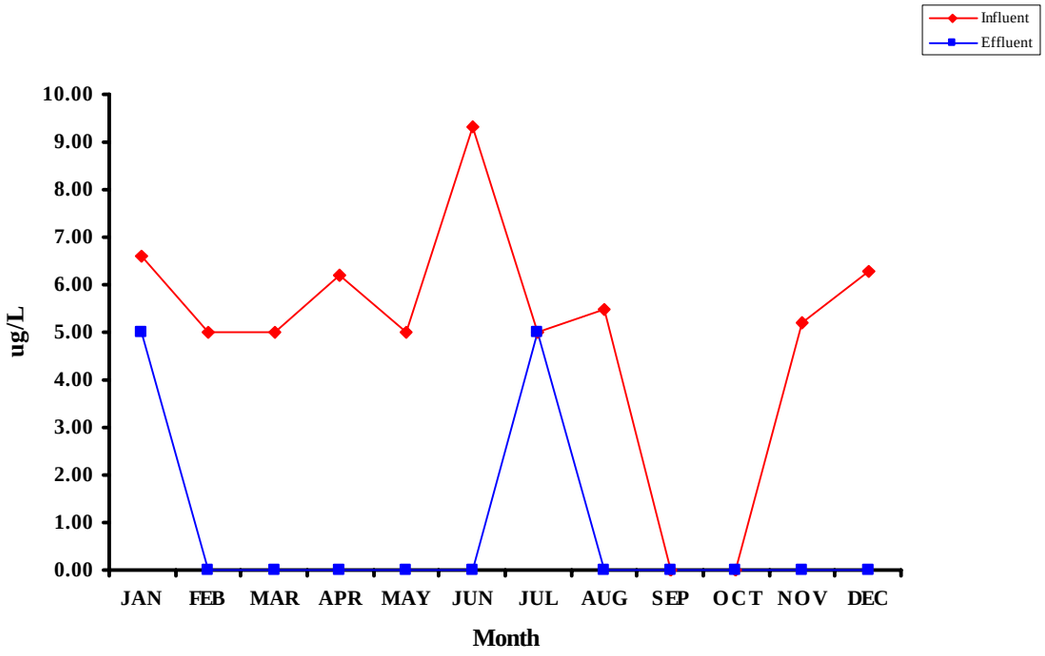
## Beryllium
## 2002 Monthly Averages



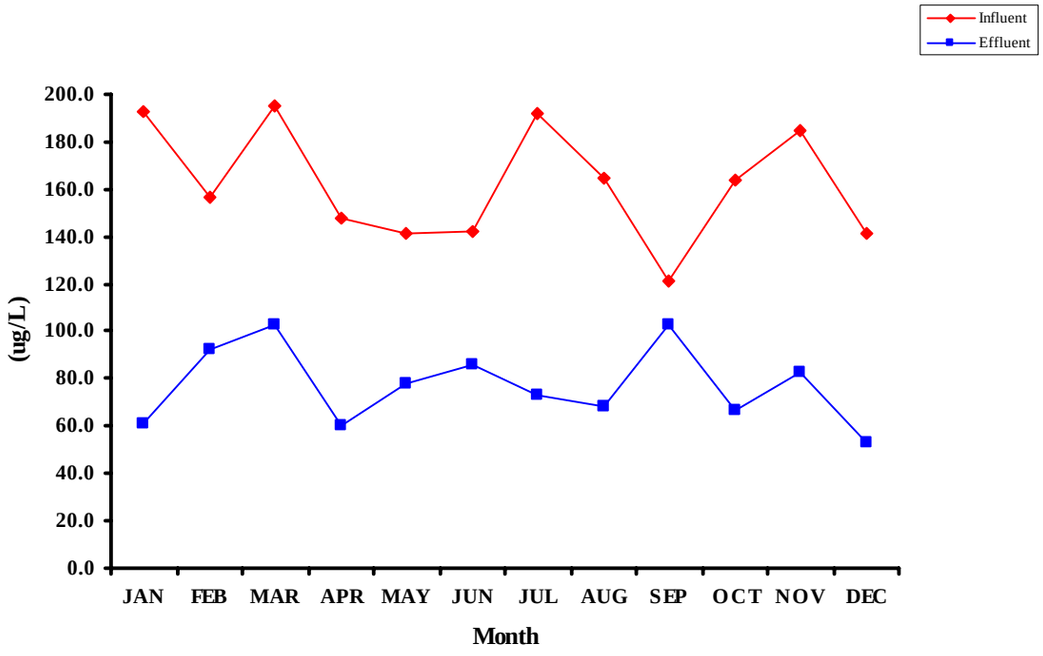

## Cadmium
## 2002 Monthly Averages



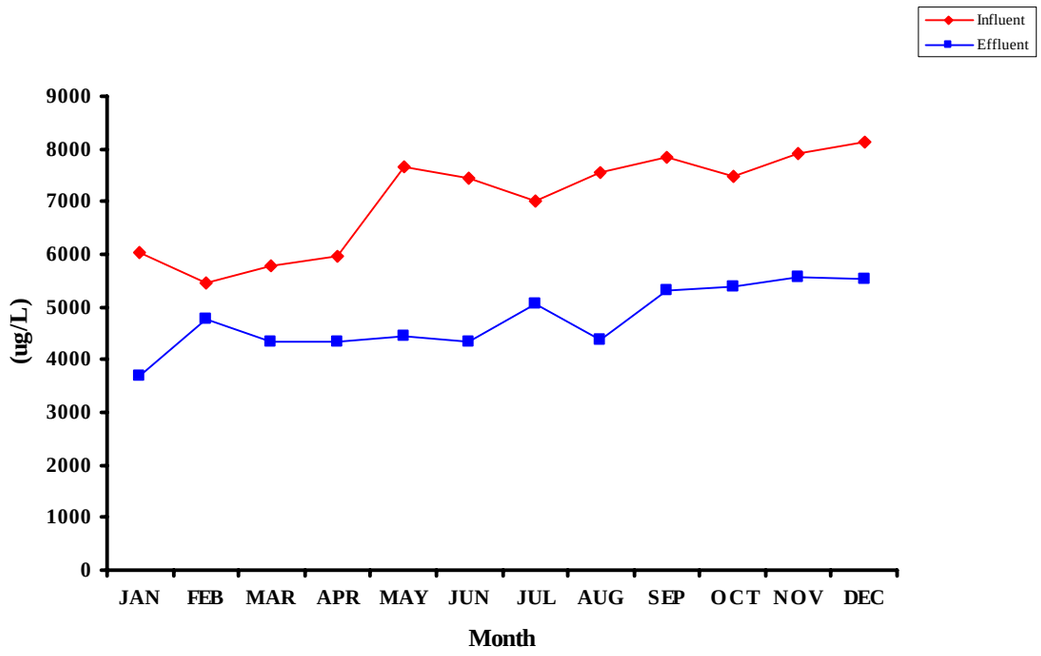
## Chromium
## 2002 Monthly Averages



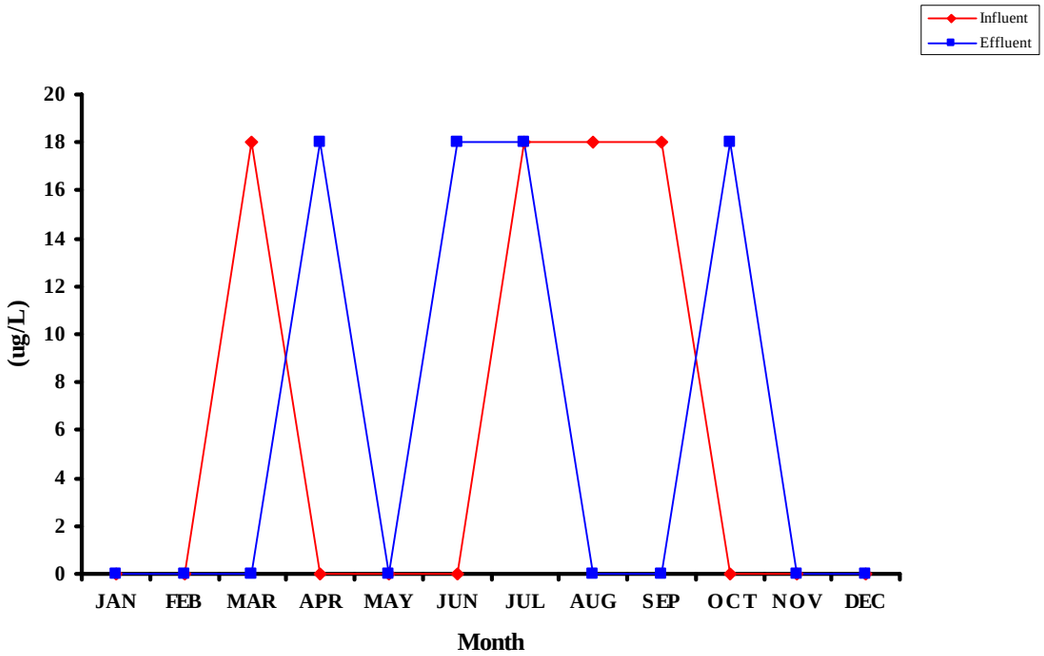

## Copper
## 2002 Monthly Averages



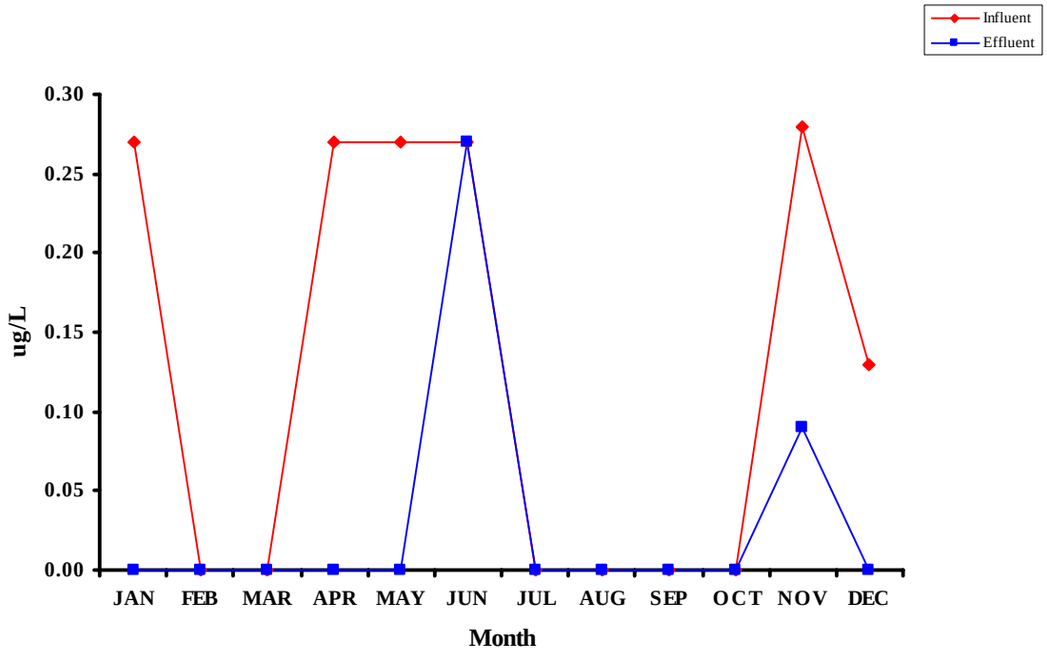
## Iron
## 2002 Monthly Averages



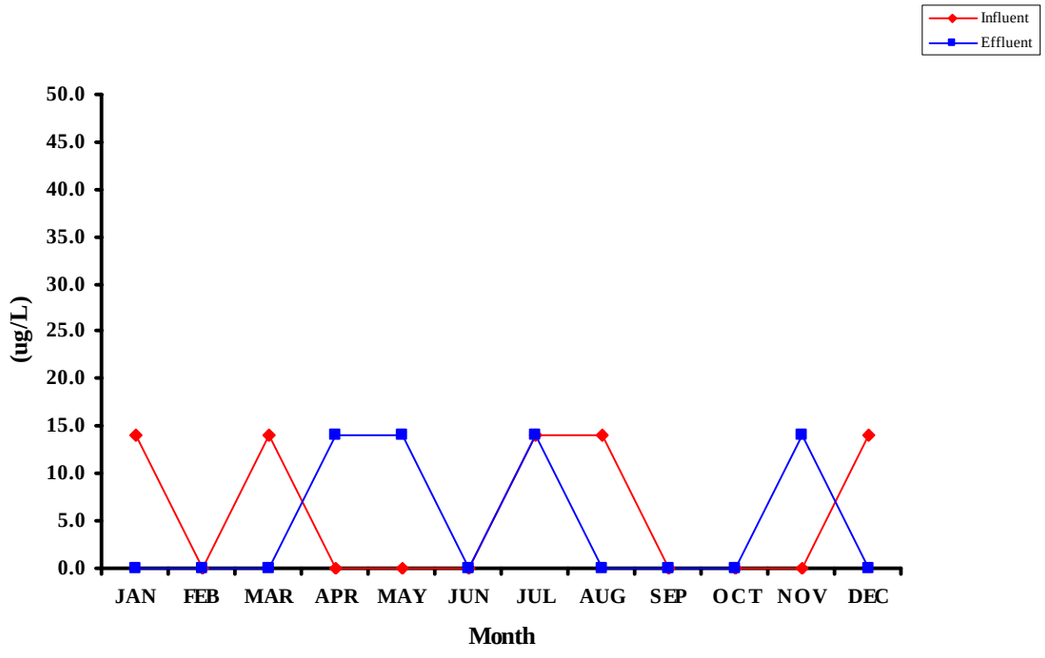

## Lead
## 2002 Monthly Averages



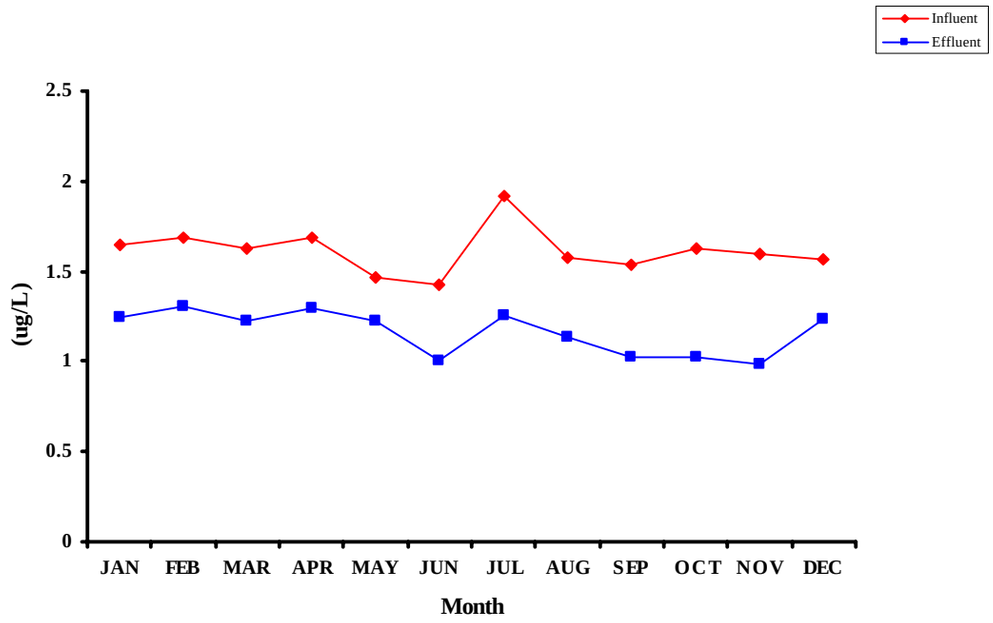
## Chromium
## 2002 Monthly Averages



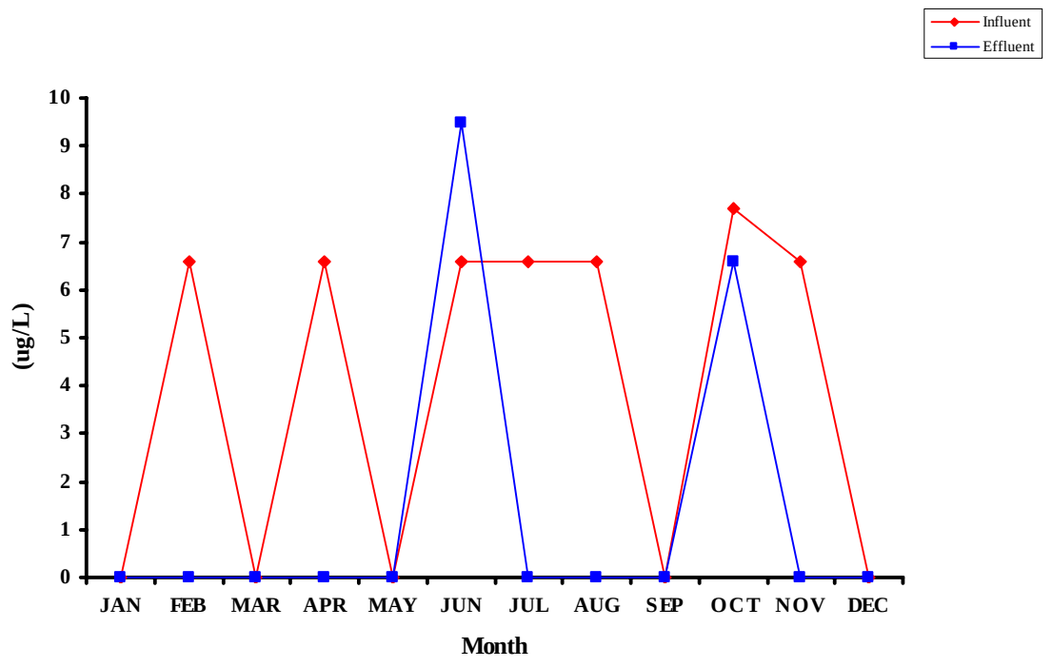

## Nickel
## 2002 Monthly Averages



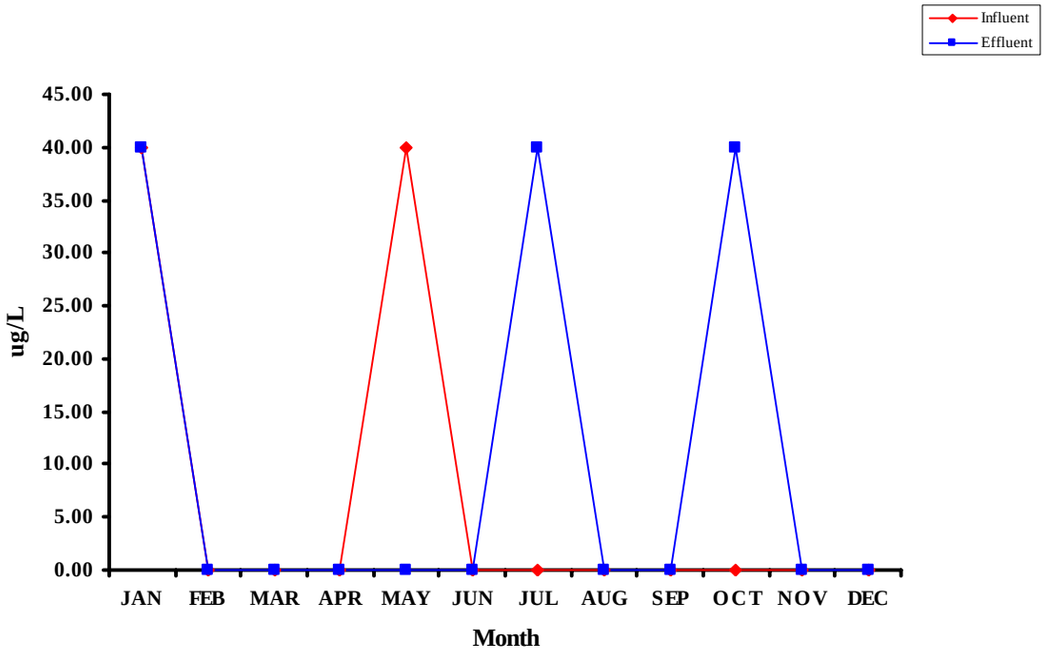
## Selenium
## 2002 Monthly Averages



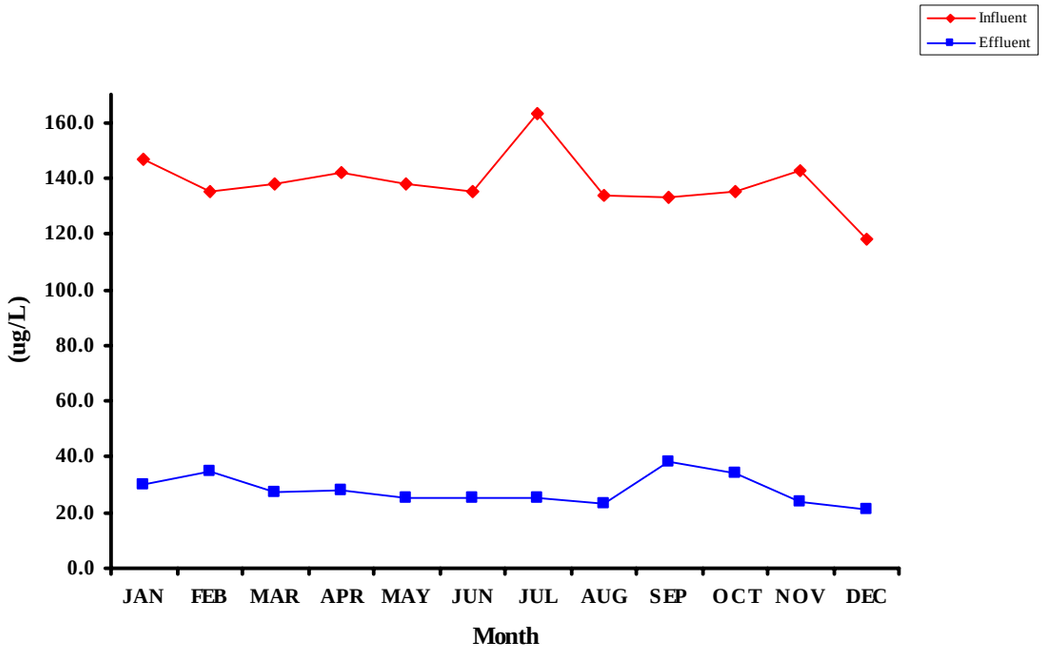

## Silver
## 2002 Monthly Averages



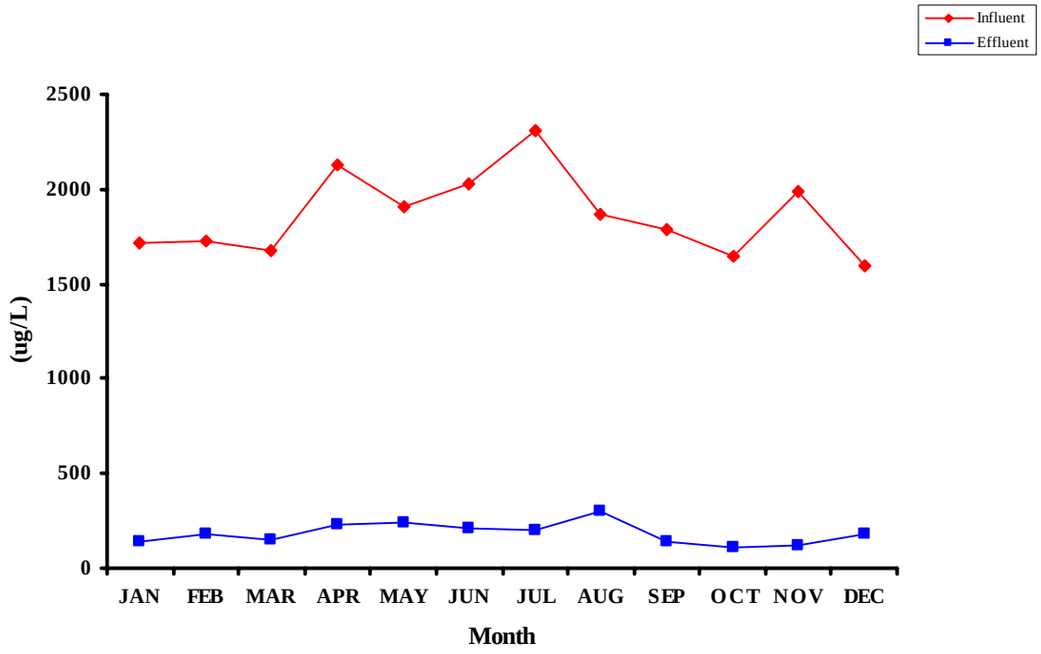
## Thallium
## 2002 Monthly Averages



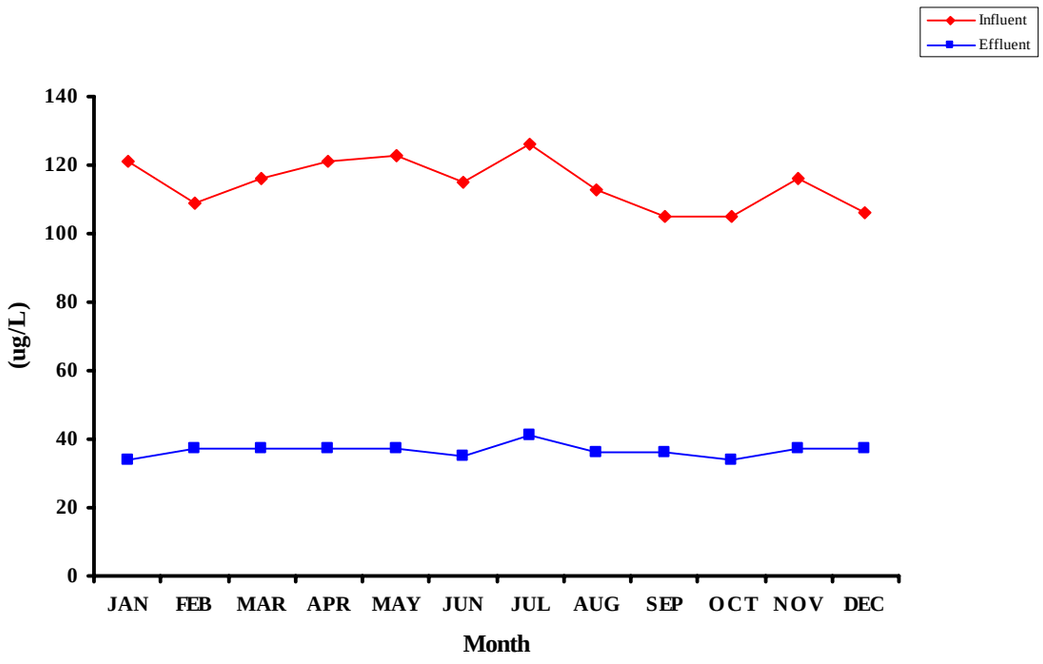

## Zinc
## 2002 Monthly Averages



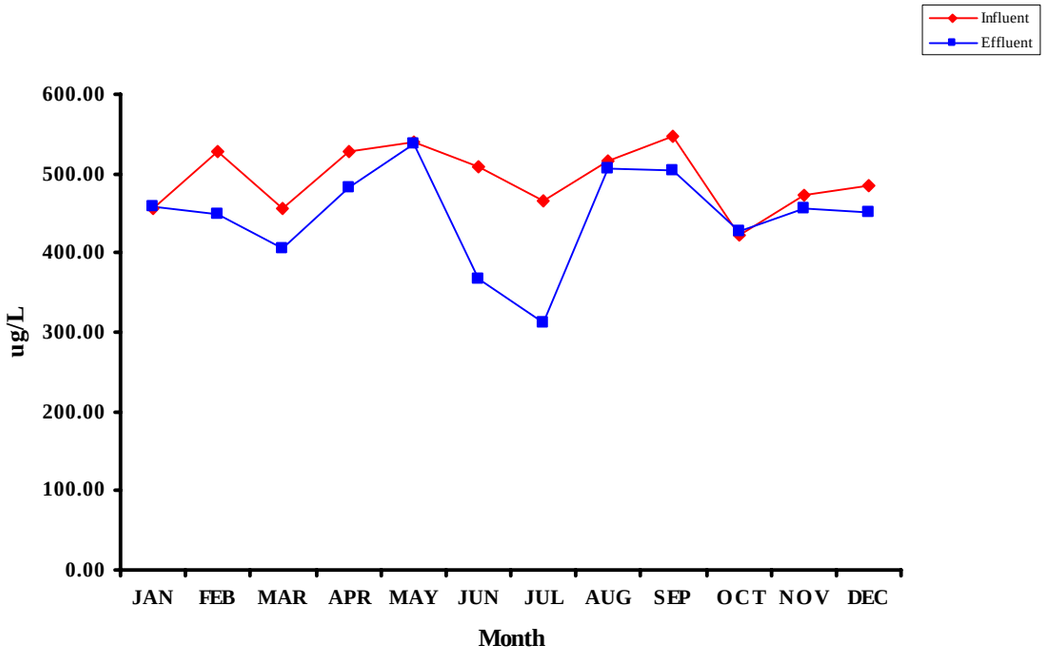
## Aluminum
## 2002 Monthly Averages



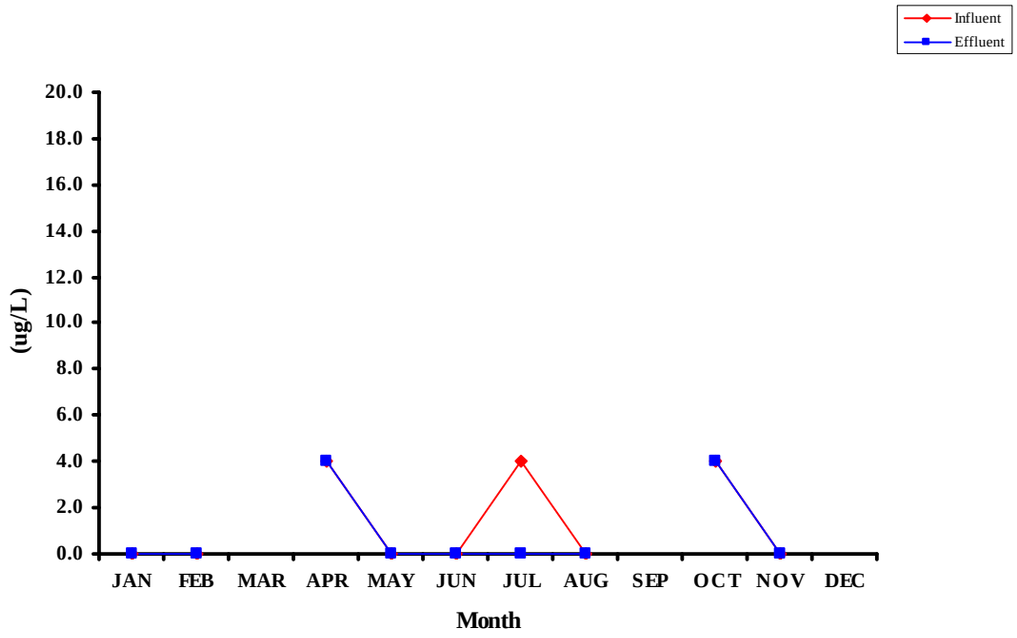

## Barium
## 2002 Monthly Averages



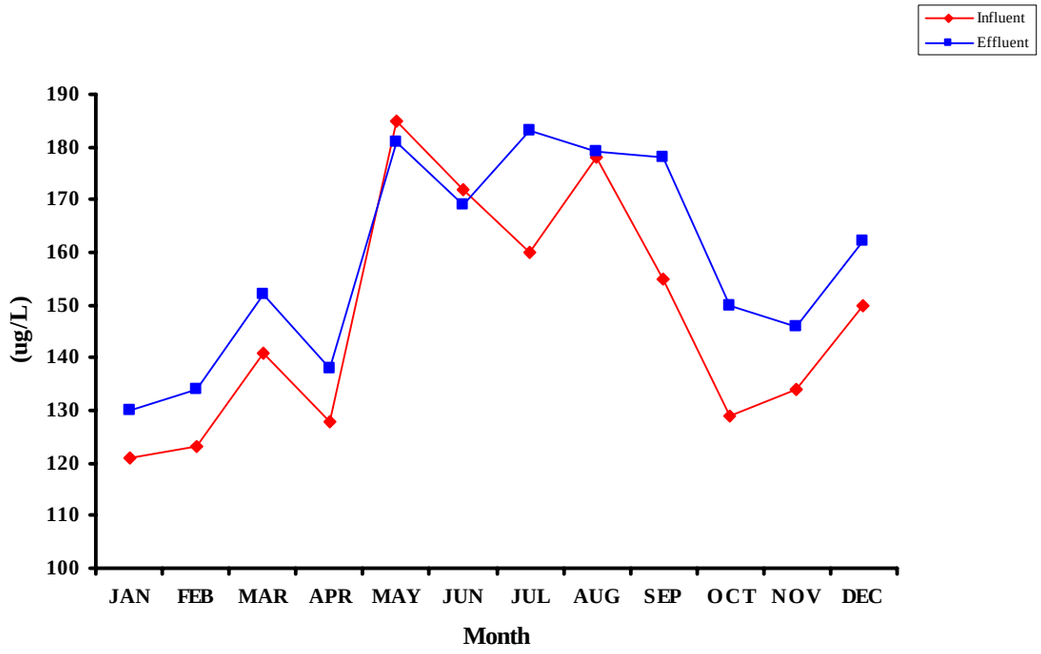
## Boron
## 2002 Monthly Averages



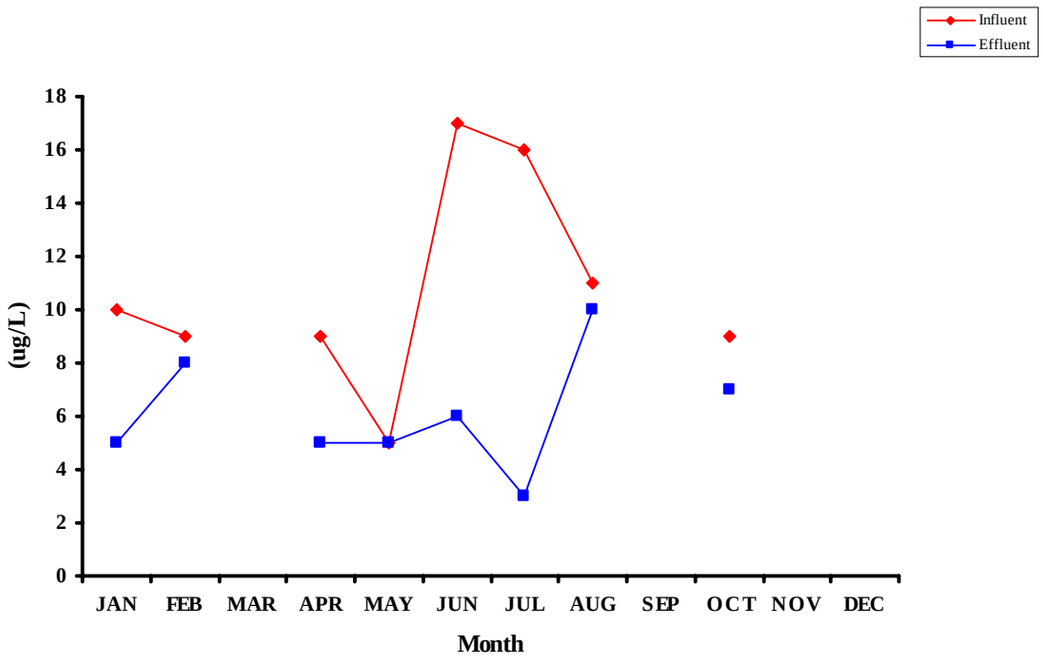

## Colbalt
## 2002 Monthly Averages



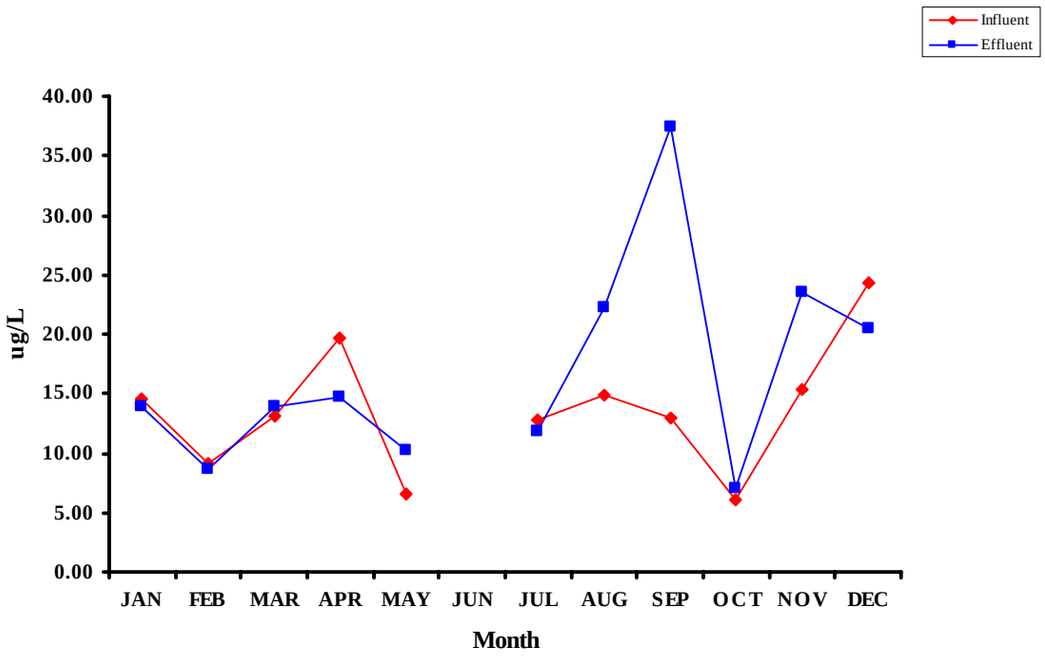
## Manganese
## 2002 Monthly Averages



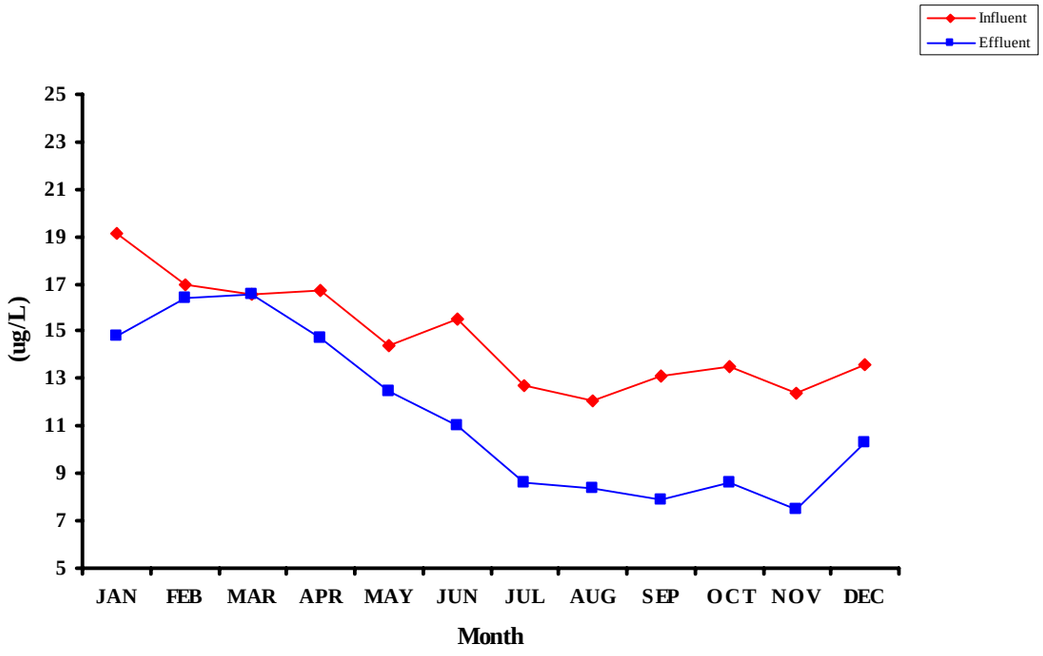

## Molybdeum
## 2002 Monthly Averages



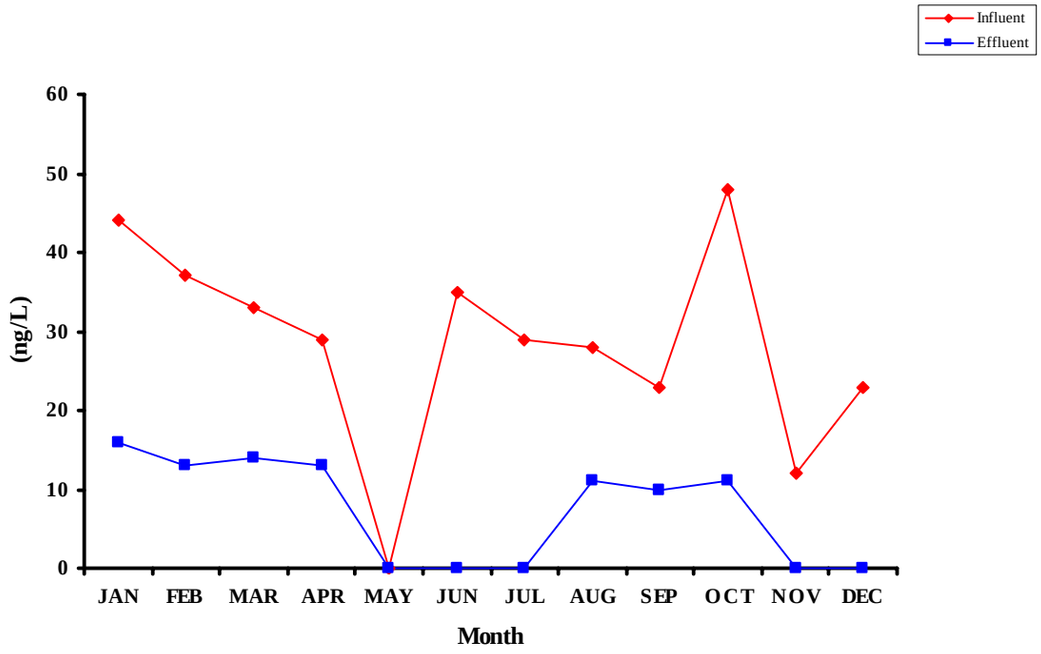
## Purgeables
## 2002 Monthly Averages



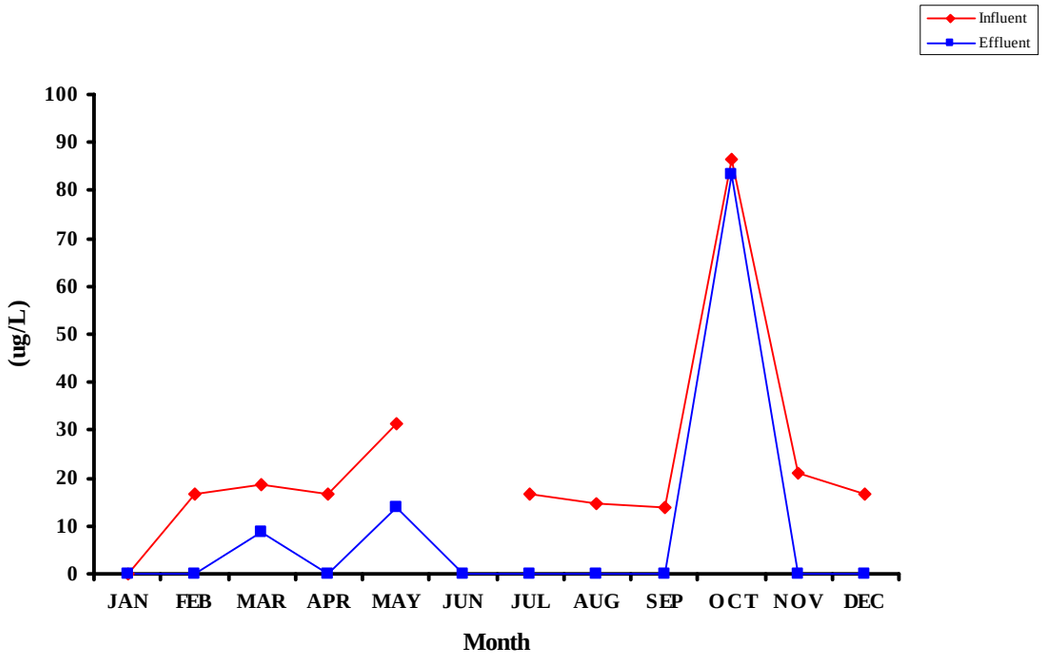

## Phenols
## 2002 Monthly Averages



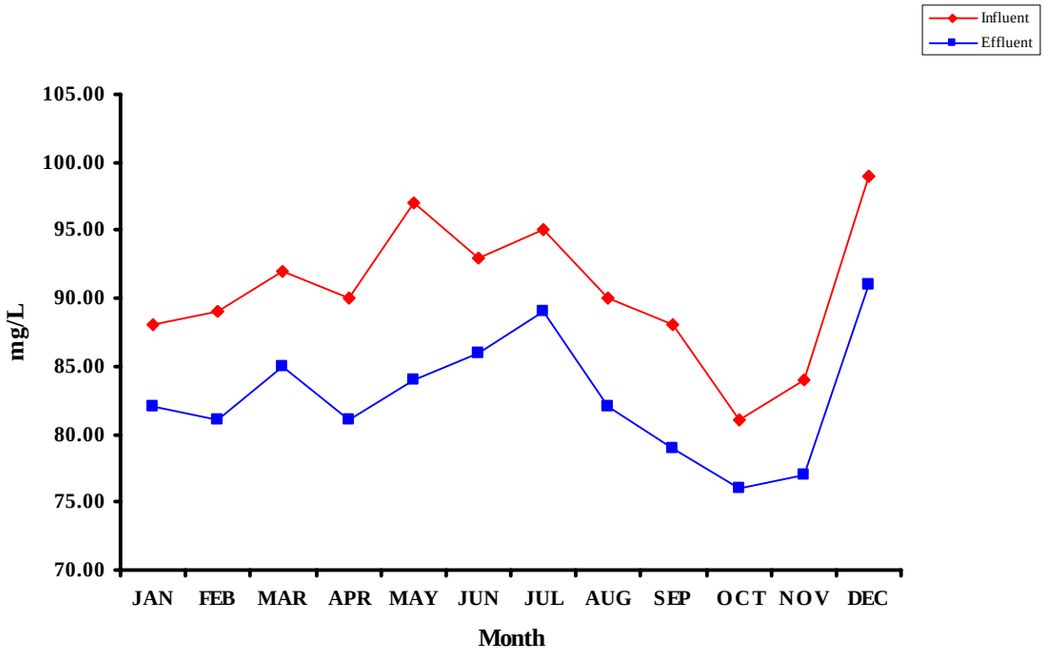
## Total Chlorinated Hydrocarbons
## 2002 Monthly Averages



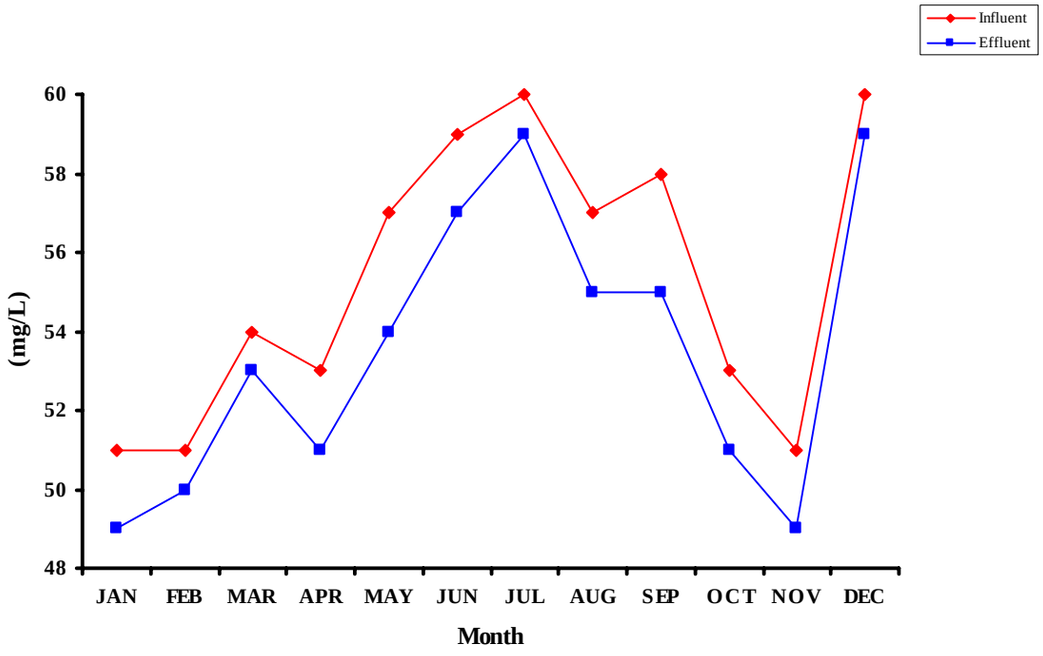

## Base Neutrals
## 2002 Monthly Averages



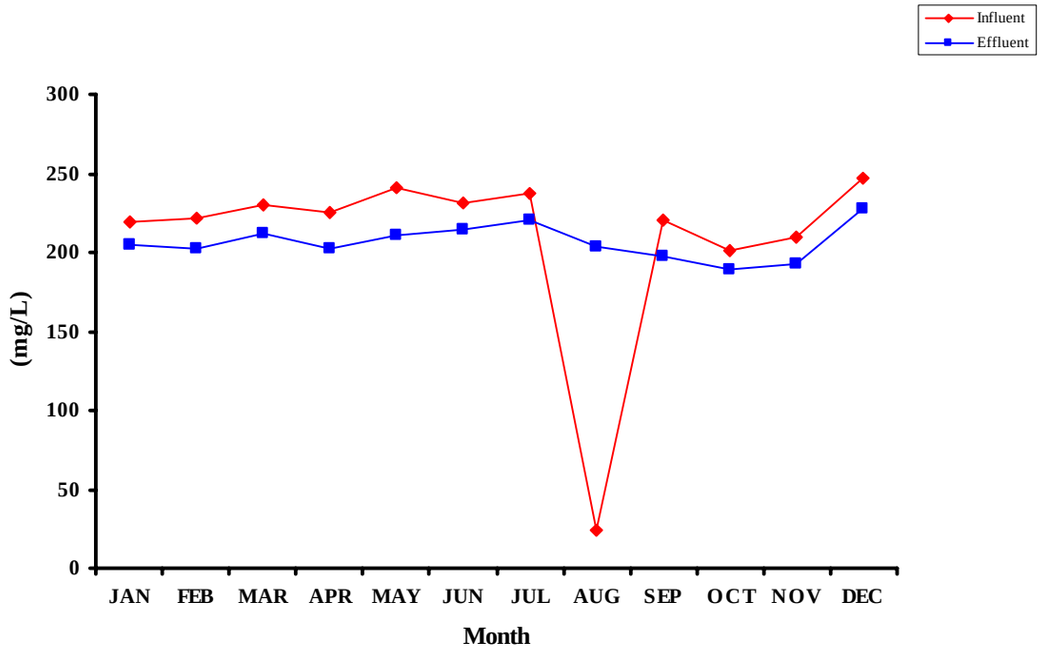
## Calcium
## 2002 Monthly Averages



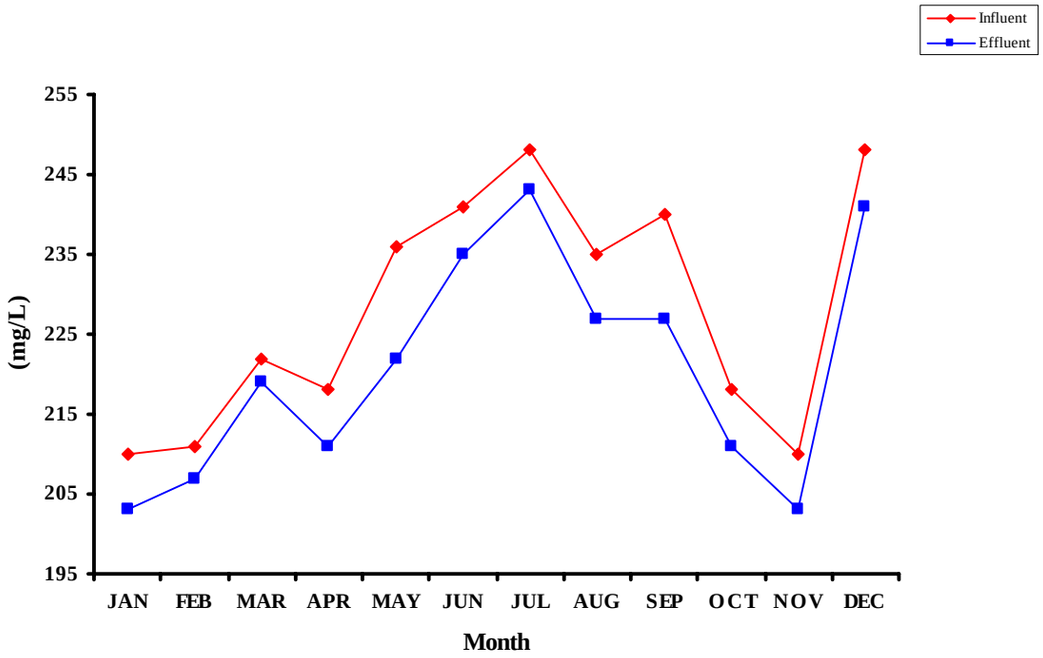

## Magnesium
## 2002 Monthly Averages



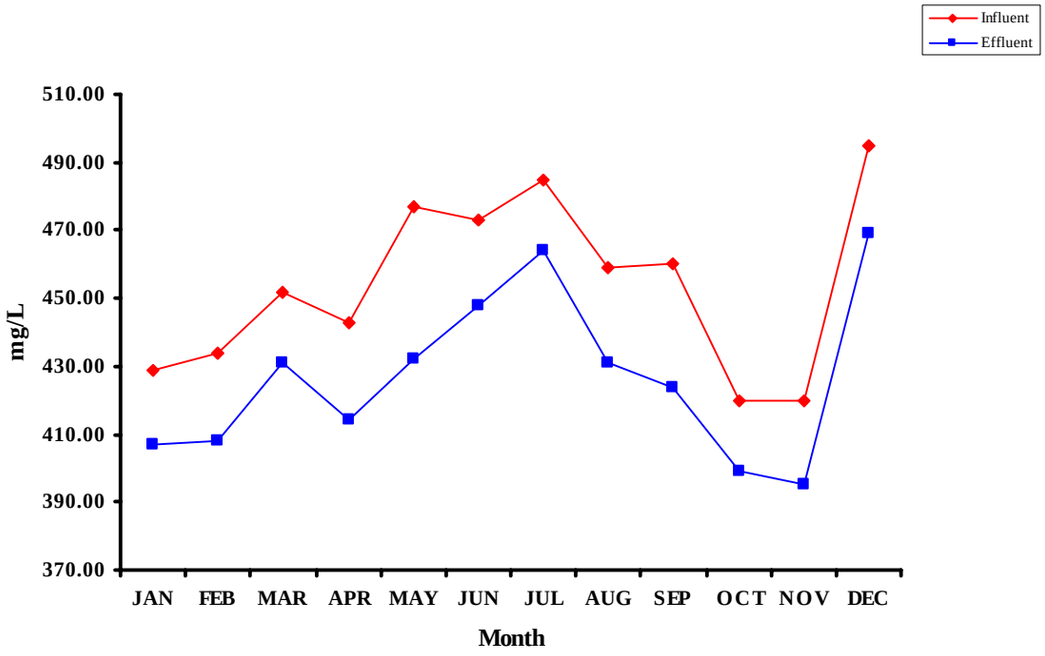
## Calcium Hardness
## 2002 Monthly Averages



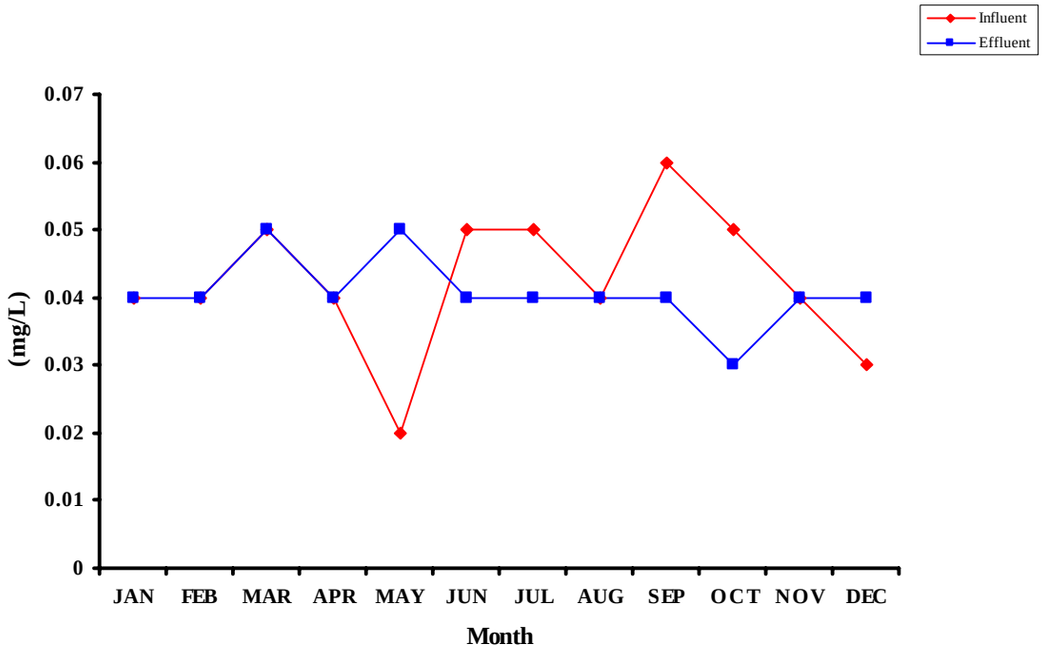

## Magnesium Hardness
## 2002 Monthly Averages



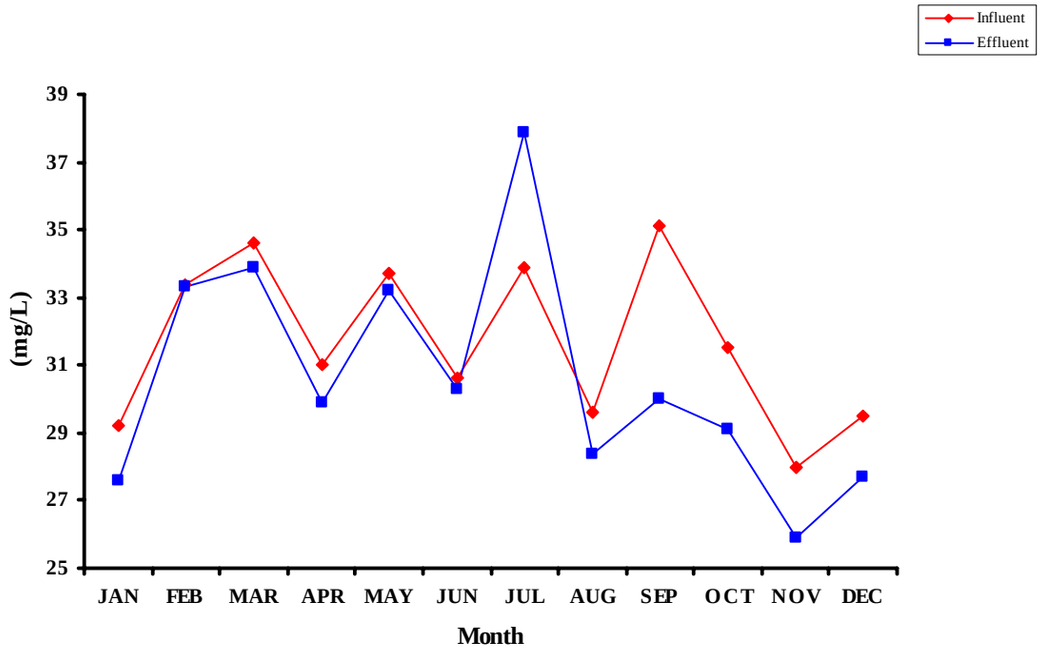
## Total Hardness
## 2002 Monthly Averages



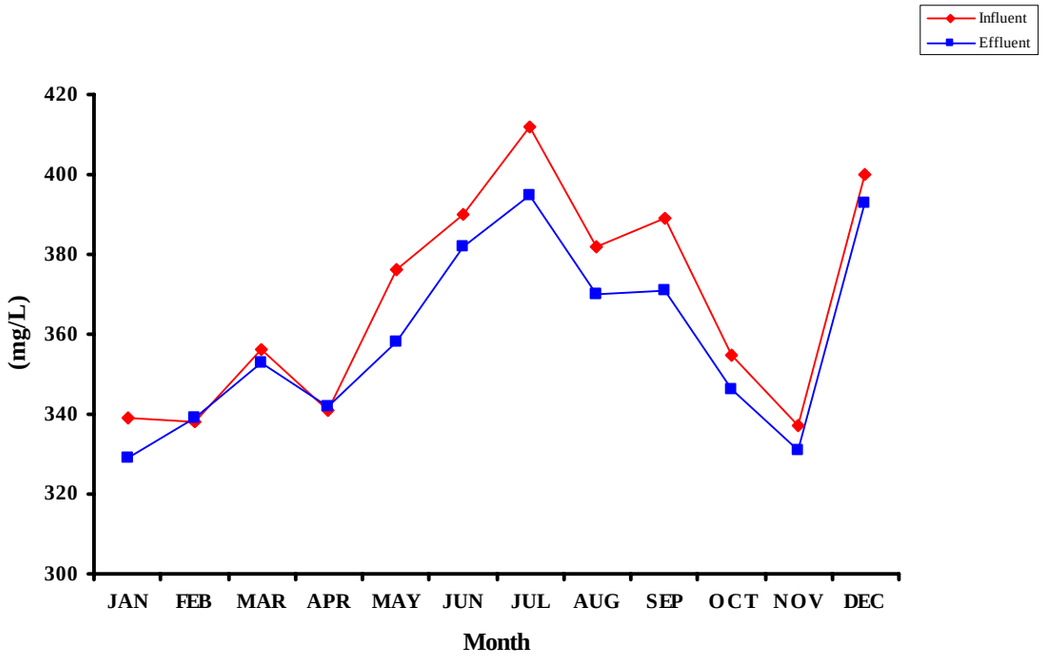

## Lithium
## 2002 Monthly Averages



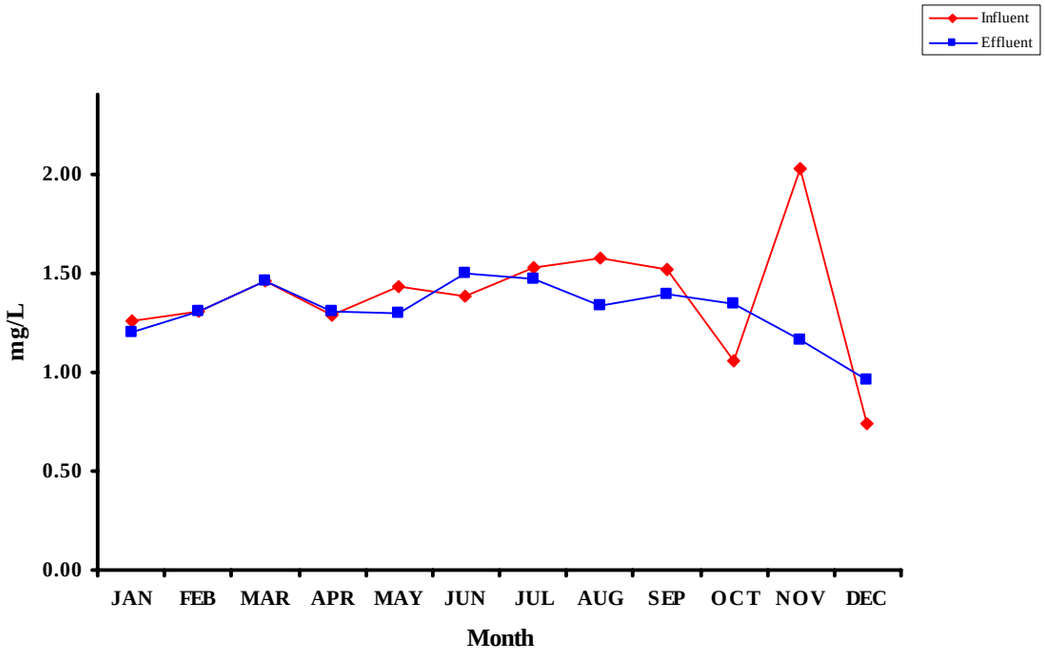
## Potassium
## 2002 Monthly Averages



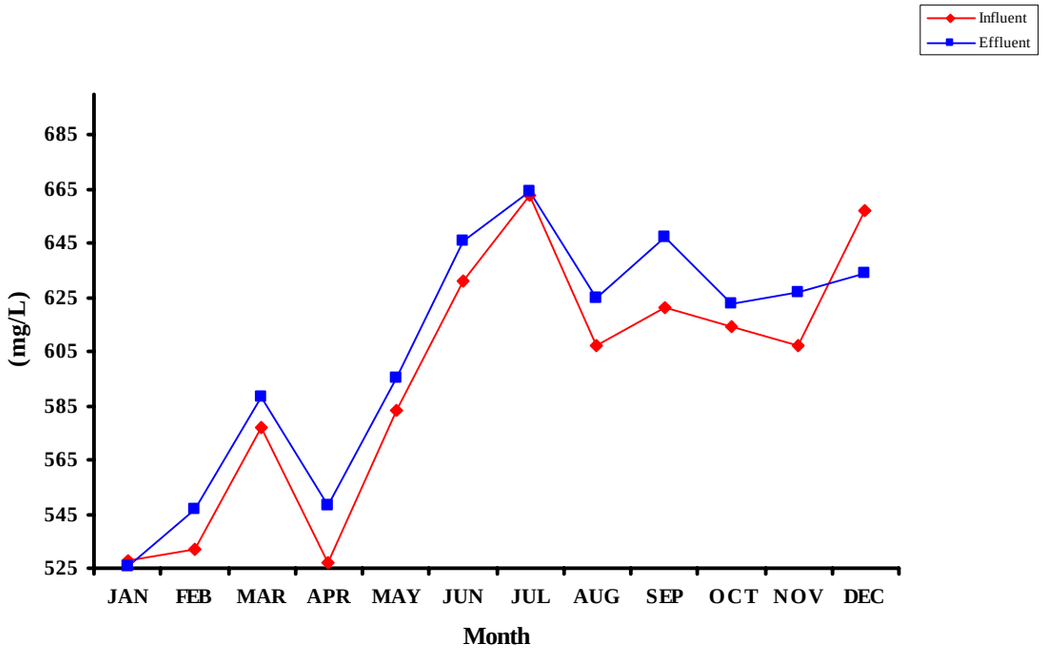

## Sodium
## 2002 Monthly Averages



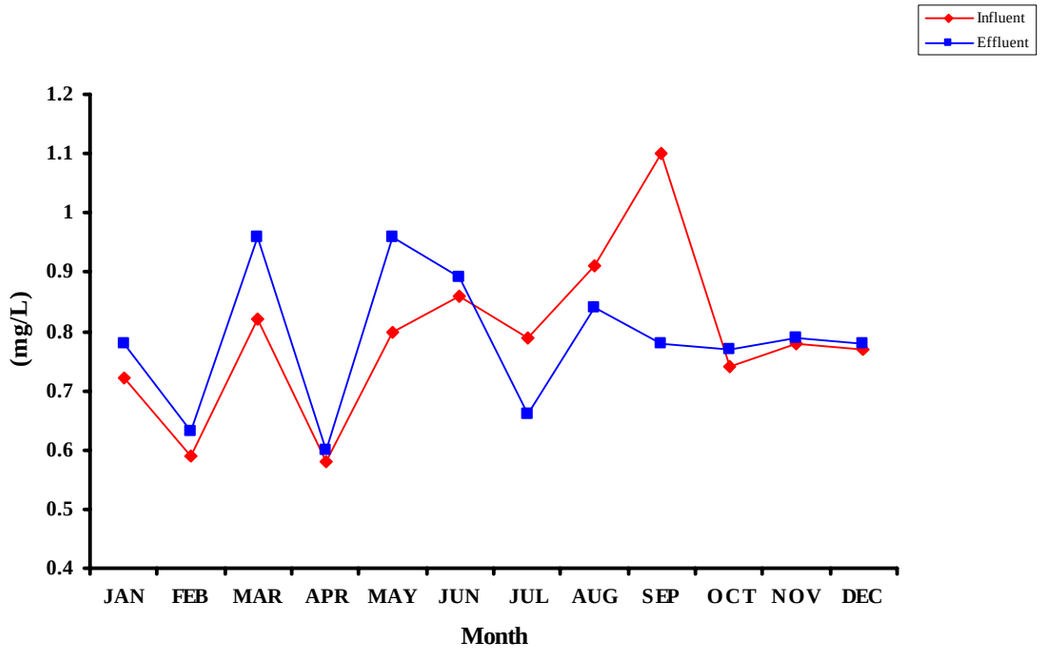
## Bromide
## 2002 Monthly Averages



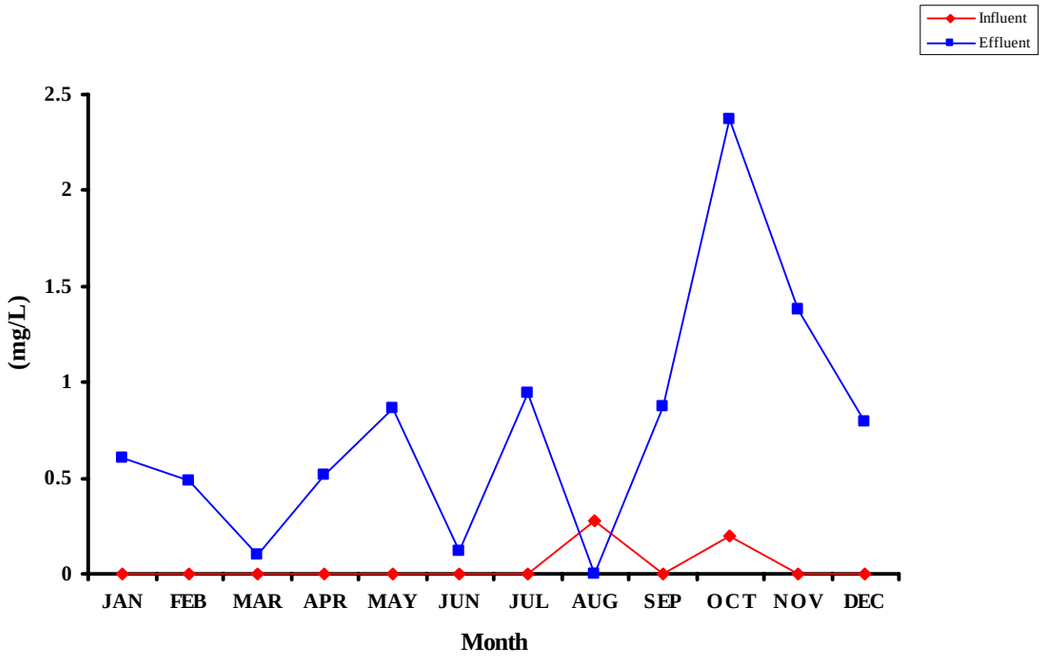

## Chloride
## 2002 Monthly Averages



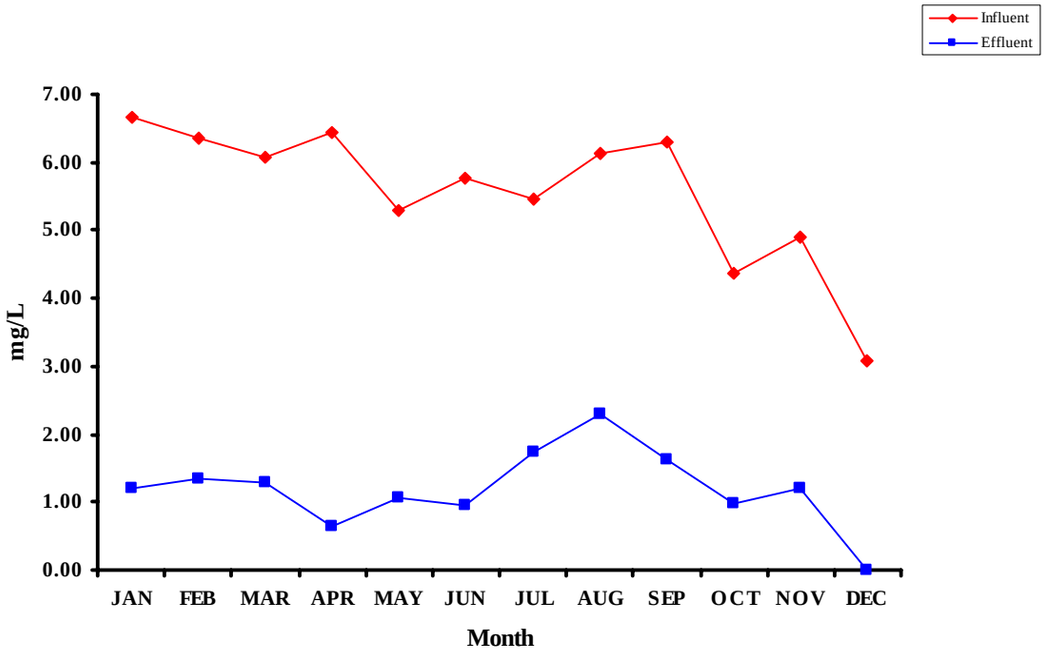
## Fluoride
## 2002 Monthly Averages



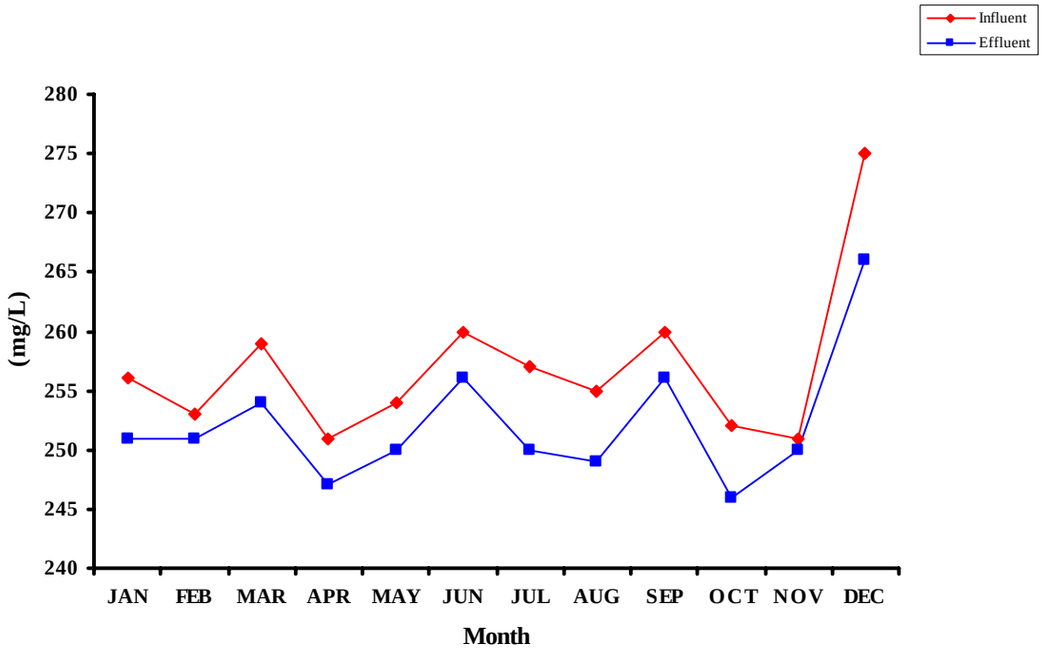

## Nitrate
## 2002 Monthly Averages



## O-Phosphate
## 2002 Monthly Averages

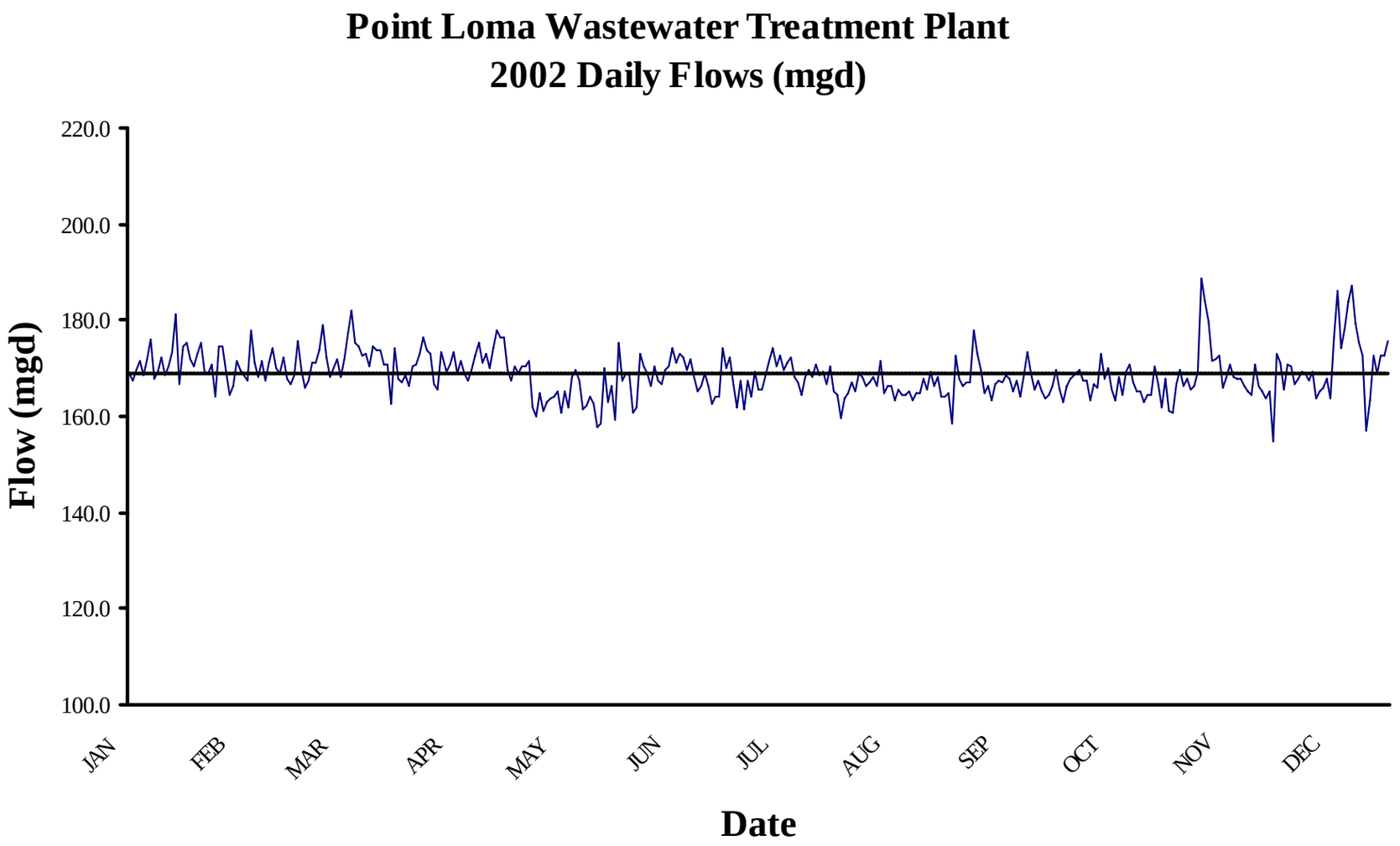



## Chloride
## 2002 Monthly Averages



C. Daily Values of Selected Parameters.

Daily values of selected parameters (e.g. TSS, Flow, TSS Removals, etc.) are tabulated and presented graphically; statistical summary information is provided.

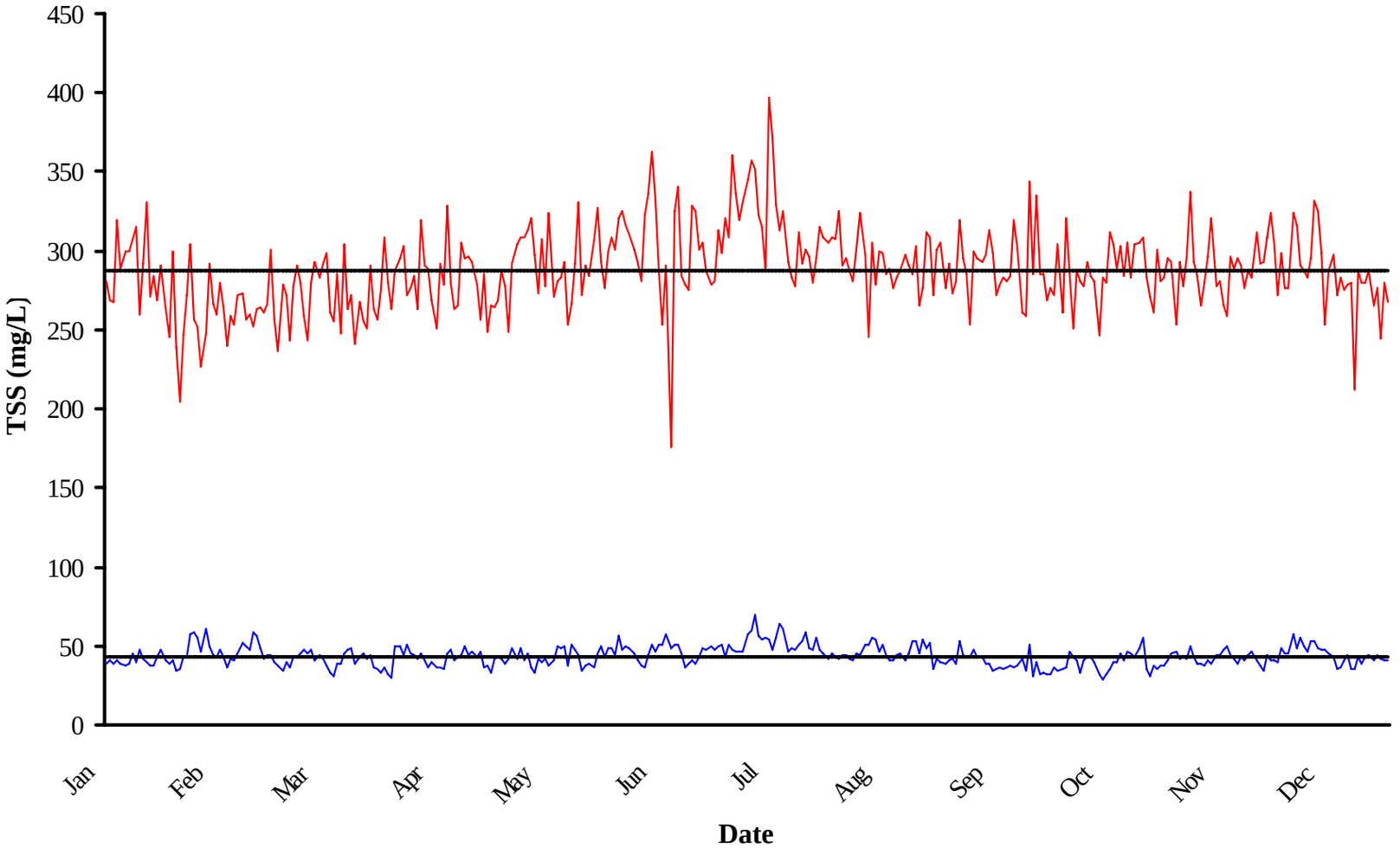

Point Loma Wastewater Treatment Plant
2002 Daily Flows (mgd)
Flow (mgd)
220.0
200.0
180.0
160.0
140.0
120.0
100.0
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
Date

# Point Loma Wastewater Treatment Plant

## 2002 Flows (mgd)

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 160.1 | 171.8 | 166.6 | 167.0 | 167.4 | 167.6 | 172.4 | 159.5 | 158.5 | 165.6 | 160.8 | 171.3 | |
| 2 | 166.7 | 170.4 | 168.7 | 168.5 | 170.3 | 169.1 | 166.7 | 163.7 | 172.6 | 162.8 | 166.8 | 165.5 | |
| 3 | 170.2 | 173.1 | 175.5 | 166.4 | 169.0 | 168.4 | 161.9 | 164.9 | 167.8 | 166.3 | 169.6 | 170.7 | |
| 4 | 177.8 | 175.4 | 169.8 | 170.5 | 170.5 | 160.8 | 167.6 | 167.2 | 166.5 | 167.9 | 166.5 | 170.5 | |
| 5 | 169.4 | 169.4 | 166.1 | 170.7 | 170.4 | 161.9 | 161.6 | 165.4 | 167.2 | 168.8 | 168.0 | 166.8 | |
| 6 | 171.5 | 169.0 | 167.5 | 172.9 | 171.5 | 172.9 | 167.6 | 169.0 | 167.2 | 169.6 | 165.7 | 167.8 | |
| 7 | 172.9 | 170.7 | 171.3 | 176.5 | 161.8 | 170.3 | 164.2 | 168.2 | 178.1 | 167.5 | 166.5 | 169.3 | |
| 8 | 168.2 | 164.1 | 171.1 | 173.7 | 160.1 | 168.8 | 169.2 | 166.4 | 173.2 | 167.4 | 169.4 | 168.9 | |
| 9 | 168.7 | 174.7 | 173.7 | 173.0 | 164.9 | 166.5 | 165.5 | 167.0 | 169.6 | 163.4 | 188.6 | 167.4 | |
| 10 | 172.4 | 174.4 | 179.1 | 166.8 | 161.1 | 170.4 | 165.7 | 168.1 | 164.9 | 166.8 | 183.9 | 169.3 | |
| 11 | 167.0 | 169.3 | 172.5 | 165.7 | 163.2 | 167.4 | 168.8 | 166.3 | 166.3 | 166.1 | 179.9 | 163.6 | |
| 12 | 172.9 | 164.6 | 168.1 | 173.3 | 163.6 | 166.7 | 171.4 | 171.5 | 163.3 | 173.0 | 171.6 | 165.1 | |
| 13 | 171.1 | 166.3 | 170.2 | 169.4 | 164.0 | 169.7 | 174.2 | 164.9 | 166.7 | 167.7 | 171.8 | 166.1 | |
| 14 | 176.6 | 171.6 | 172.0 | 170.7 | 165.3 | 170.3 | 170.5 | 166.3 | 167.6 | 170.2 | 172.8 | 167.8 | |
| 15 | 168.9 | 169.7 | 168.3 | 173.4 | 160.9 | 174.1 | 172.6 | 166.4 | 166.9 | 165.7 | 166.0 | 163.7 | |
| 16 | 167.6 | 168.5 | 172.0 | 168.9 | 165.4 | 171.2 | 169.7 | 163.3 | 168.5 | 163.4 | 168.1 | 176.3 | |
| 17 | 169.7 | 167.6 | 177.1 | 171.4 | 161.8 | 172.9 | 171.3 | 165.6 | 167.8 | 168.3 | 170.7 | 186.2 | |
| 18 | 171.5 | 177.8 | 181.9 | 169.1 | 168.2 | 172.4 | 172.4 | 164.4 | 165.3 | 164.4 | 168.3 | 174.1 | |
| 19 | 168.5 | 171.0 | 175.3 | 167.4 | 169.6 | 169.8 | 168.1 | 164.5 | 167.4 | 169.2 | 167.8 | 178.4 | |
| 20 | 171.9 | 168.4 | 174.5 | 169.7 | 167.3 | 172.0 | 167.2 | 165.2 | 164.0 | 170.9 | 167.7 | 183.9 | |
| 21 | 176.2 | 171.5 | 172.8 | 172.8 | 161.5 | 168.2 | 164.6 | 163.2 | 168.6 | 167.2 | 166.2 | 187.2 | |
| 22 | 168.0 | 167.5 | 173.2 | 175.4 | 162.3 | 165.1 | 168.2 | 164.7 | 173.3 | 165.3 | 165.1 | 179.4 | |
| 23 | 169.3 | 171.3 | 170.3 | 171.2 | 164.3 | 166.4 | 169.7 | 164.8 | 168.8 | 165.2 | 164.6 | 175.2 | |
| 24 | 172.2 | 174.0 | 174.7 | 173.1 | 162.8 | 169.1 | 168.1 | 167.8 | 165.5 | 163.0 | 170.8 | 172.5 | |
| 25 | 168.6 | 170.1 | 173.8 | 169.9 | 157.7 | 166.4 | 170.7 | 165.4 | 167.4 | 164.6 | 166.4 | 157.0 | |
| 26 | 170.6 | 168.8 | 173.7 | 174.3 | 158.5 | 162.7 | 168.6 | 169.3 | 165.3 | 164.7 | 165.1 | 163.4 | |
| 27 | 173.4 | 172.2 | 170.8 | 177.9 | 170.0 | 164.2 | 169.4 | 166.3 | 163.6 | 170.6 | 163.6 | 172.5 | |
| 28 | 181.4 | 167.7 | 170.7 | 176.2 | 162.9 | 164.2 | 166.8 | 168.2 | 164.5 | 166.9 | 165.0 | 169.0 | |
| 29 | 166.9 | | 162.5 | 176.5 | 166.3 | 174.3 | 170.5 | 164.2 | 166.4 | 161.8 | 154.9 | 172.5 | |
| 30 | 174.7 | | 174.1 | 169.7 | 159.4 | 170.2 | 165.4 | 164.2 | 169.6 | 167.9 | 173.0 | 172.7 | Annual |
| 31 | 175.2 | | 167.8 | | 175.4 | | 164.4 | 165.0 | | 161.2 | | 175.5 | Summary |
| Average | 171.0 | 170.4 | 171.8 | 171.4 | 165.1 | 168.5 | 168.2 | 165.8 | 167.4 | 166.6 | 168.8 | 171.3 | 168.8 |
| Minimum | 160.1 | 164.1 | 162.5 | 165.7 | 157.7 | 160.8 | 161.6 | 159.5 | 158.5 | 161.2 | 154.9 | 157.0 | 154.9 |
| Maximum | 181.4 | 177.8 | 181.9 | 177.9 | 175.4 | 174.3 | 174.2 | 171.5 | 178.1 | 173.0 | 188.6 | 187.2 | 188.6 |
| Total | 5300.0 | 4770.5 | 5325.7 | 5142.0 | 5117.0 | 5053.9 | 5215.0 | 5140.5 | 5022.4 | 5163.3 | 5065.0 | 5309.4 | 61624.6 |

# Point Loma Wastewater Treatment Plant
# 2002 Total Suspended Solids

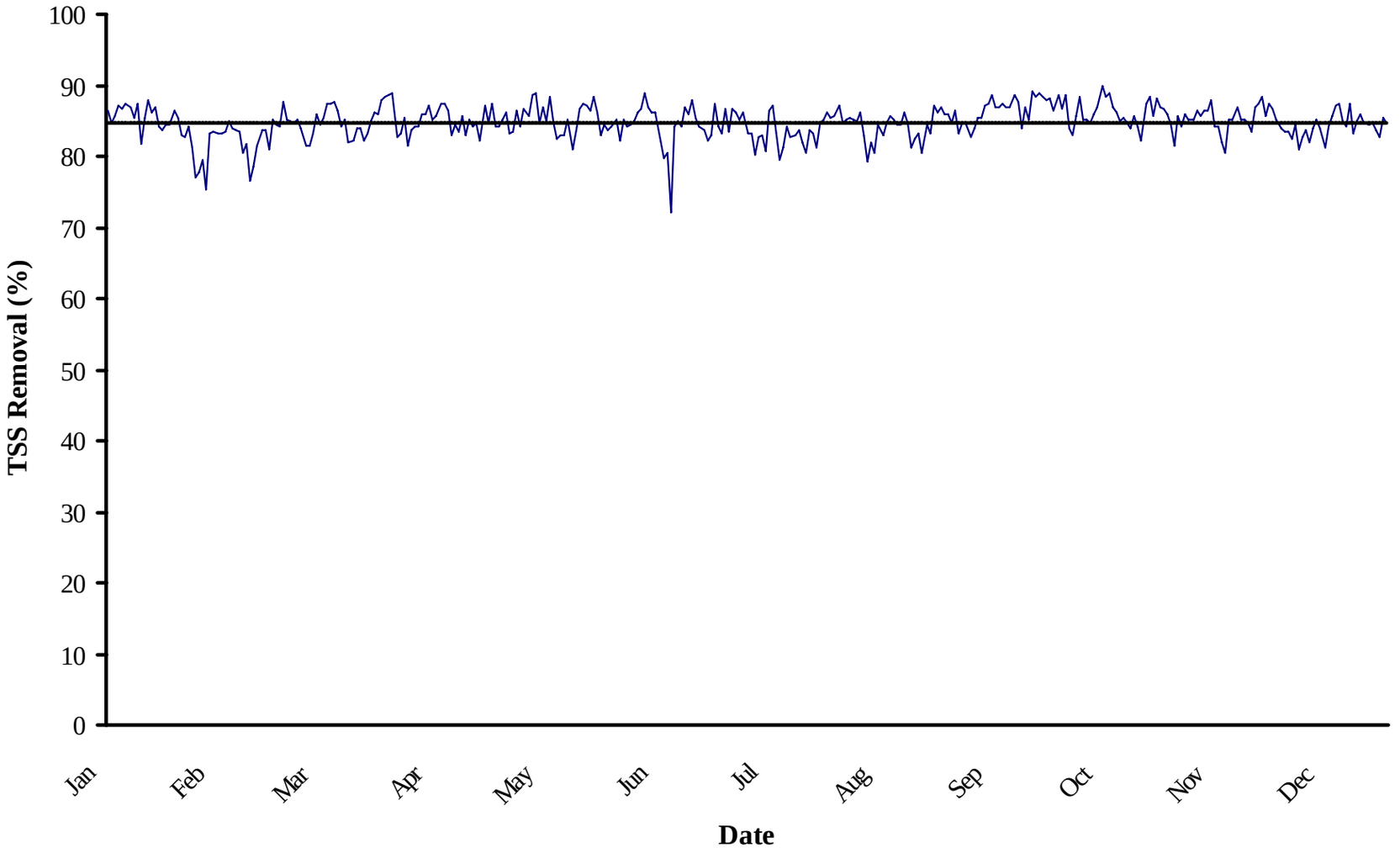


Point Loma Wastewater Treatment Plant

## 2002 Total Suspended Solids (mg/L)

| | Jan | | Feb | | Mar | | Apr | | May | | Jun | | Jul | | Aug | | Sep | | Oct | | Nov | | Dec | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Day | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 260.0 | 39.8 | 245.0 | 38.2 | 301.0 | 44.4 | 309.0 | 36.2 | 264.0 | 41.5 | 300.0 | 48.5 | 313.0 | 49.3 | 309.0 | 45.1 | 276.0 | 38.7 | 272.0 | 36.7 | 295.0 | 41.3 | 272.0 | 40.2 |
| 2 | 271.0 | 35.6 | 300.0 | 40.5 | 257.0 | 40.2 | 280.0 | 31.6 | 269.0 | 42.9 | 309.0 | 48.7 | 299.0 | 50.4 | 307.0 | 43.6 | 292.0 | 41.3 | 304.0 | 34.4 | 293.0 | 45.6 | 299.0 | 48.2 |
| 3 | 272.0 | 39.6 | 239.0 | 34.7 | 237.0 | 37.4 | 263.0 | 29.3 | 287.0 | 42.4 | 301.0 | 44.7 | 321.0 | 42.9 | 325.0 | 41.8 | 273.0 | 41.8 | 261.0 | 34.9 | 253.0 | 46.9 | 276.0 | 45.8 |
| 4 | 292.0 | 42.7 | 205.0 | 34.9 | 279.0 | 34.2 | 287.0 | 49.3 | 277.0 | 38.4 | 321.0 | 56.9 | 309.0 | 50.9 | 291.0 | 44.6 | 281.0 | 38.4 | 321.0 | 36.7 | 293.0 | 42.2 | 276.0 | 45.5 |
| 5 | 284.0 | 45.4 | 247.0 | 42.7 | 272.0 | 40.2 | 295.0 | 49.6 | 249.0 | 41.6 | 325.0 | 48.0 | 360.0 | 48.0 | 295.0 | 43.8 | 320.0 | 53.6 | 285.0 | 46.0 | 277.0 | 43.6 | 324.0 | 57.1 |
| 6 | 276.0 | 43.1 | 272.0 | 42.7 | 243.0 | 36.7 | 303.0 | 44.2 | 292.0 | 48.2 | 316.0 | 50.0 | 336.0 | 46.7 | 287.0 | 41.8 | 295.0 | 44.7 | 251.0 | 42.9 | 296.0 | 41.5 | 316.0 | 48.9 |
| 7 | 253.0 | 35.6 | 304.0 | 57.3 | 277.0 | 42.7 | 272.0 | 50.7 | 304.0 | 41.8 | 311.0 | 48.4 | 319.0 | 46.9 | 281.0 | 41.3 | 285.0 | 43.5 | 288.0 | 41.1 | 337.0 | 50.2 | 291.0 | 55.6 |
| 8 | 287.0 | 41.6 | 257.0 | 58.9 | 291.0 | 43.1 | 276.0 | 45.1 | 309.0 | 48.7 | 301.0 | 45.1 | 331.0 | 46.0 | 301.0 | 45.6 | 253.0 | 43.5 | 281.0 | 32.7 | 293.0 | 43.1 | 287.0 | 49.3 |
| 9 | 291.0 | 42.7 | 252.0 | 55.8 | 280.0 | 44.9 | 284.0 | 44.7 | 308.0 | 41.1 | 292.0 | 40.4 | 345.0 | 58.0 | 324.0 | 44.7 | 300.0 | 48.0 | 277.0 | 40.7 | 284.0 | 38.2 | 283.0 | 46.0 |
| 10 | 285.0 | 32.2 | 227.0 | 46.2 | 259.0 | 47.8 | 263.0 | 41.8 | 313.0 | 44.9 | 281.0 | 37.5 | 357.0 | 60.2 | 297.0 | 50.9 | 295.0 | 42.7 | 293.0 | 43.5 | 265.0 | 38.2 | 295.0 | 53.1 |
| 11 | 272.0 | 40.7 | 248.0 | 60.9 | 243.0 | 44.9 | 319.0 | 44.9 | 321.0 | 36.7 | 323.0 | 36.2 | 352.0 | 69.3 | 245.0 | 50.9 | 293.0 | 42.9 | 284.0 | 43.5 | 280.0 | 37.8 | 332.0 | 53.1 |
| 12 | 269.0 | 41.4 | 292.0 | 49.3 | 280.0 | 47.3 | 291.0 | 40.7 | 297.0 | 32.9 | 336.0 | 44.2 | 323.0 | 56.2 | 305.0 | 55.1 | 297.0 | 38.4 | 281.0 | 39.3 | 296.0 | 40.7 | 325.0 | 48.2 |
| 13 | 240.0 | 43.5 | 267.0 | 44.2 | 293.0 | 41.1 | 289.0 | 36.9 | 273.0 | 42.0 | 363.0 | 50.5 | 315.0 | 53.8 | 279.0 | 54.2 | 313.0 | 39.1 | 247.0 | 32.5 | 321.0 | 39.1 | 299.0 | 47.8 |
| 14 | 261.0 | 37.1 | 260.0 | 43.6 | 283.0 | 43.8 | 269.0 | 40.0 | 307.0 | 40.0 | 333.0 | 46.2 | 288.0 | 55.3 | 300.0 | 46.7 | 299.0 | 33.8 | 283.0 | 28.4 | 277.0 | 43.8 | 253.0 | 47.5 |
| 15 | 281.0 | 38.6 | 280.0 | 47.3 | 292.0 | 42.4 | 251.0 | 36.2 | 277.0 | 41.5 | 287.0 | 51.1 | 397.0 | 54.4 | 299.0 | 50.9 | 272.0 | 35.3 | 280.0 | 32.2 | 281.0 | 44.4 | 287.0 | 45.1 |
| 16 | 269.0 | 40.9 | 264.0 | 43.6 | 299.0 | 37.8 | 292.0 | 36.5 | 324.0 | 38.0 | 253.0 | 51.3 | 372.0 | 47.6 | 285.0 | 43.8 | 279.0 | 36.4 | 312.0 | 35.1 | 265.0 | 48.0 | 297.0 | 42.7 |
| 17 | 268.0 | 38.2 | 240.0 | 36.0 | 261.0 | 32.9 | 279.0 | 35.1 | 271.0 | 41.1 | 291.0 | 57.1 | 329.0 | 55.1 | 289.0 | 40.9 | 283.0 | 35.3 | 304.0 | 40.0 | 259.0 | 50.2 | 272.0 | 35.1 |
| 18 | 320.0 | 41.1 | 259.0 | 41.6 | 255.0 | 31.3 | 328.0 | 44.9 | 281.0 | 49.3 | 176.0 | 48.9 | 313.0 | 63.8 | 276.0 | 40.9 | 281.0 | 36.4 | 289.0 | 40.2 | 296.0 | 44.0 | 283.0 | 36.0 |
| 19 | 289.0 | 38.4 | 253.0 | 41.1 | 285.0 | 38.7 | 280.0 | 47.8 | 283.0 | 48.5 | 325.0 | 50.9 | 325.0 | 60.7 | 283.0 | 44.2 | 284.0 | 37.1 | 303.0 | 45.4 | 289.0 | 42.4 | 275.0 | 41.3 |
| 20 | 300.0 | 37.8 | 272.0 | 45.1 | 248.0 | 38.9 | 263.0 | 41.1 | 293.0 | 50.2 | 340.0 | 51.3 | 293.0 | 46.4 | 288.0 | 44.9 | 320.0 | 36.2 | 284.0 | 41.1 | 295.0 | 38.9 | 279.0 | 43.8 |
| 21 | 300.0 | 38.9 | 273.0 | 52.0 | 304.0 | 45.1 | 265.0 | 43.6 | 253.0 | 37.1 | 284.0 | 44.9 | 283.0 | 48.9 | 297.0 | 41.3 | 303.0 | 37.3 | 305.0 | 46.6 | 291.0 | 43.1 | 280.0 | 35.3 |
| 22 | 307.0 | 44.9 | 257.0 | 49.8 | 263.0 | 47.5 | 305.0 | 43.8 | 267.0 | 50.7 | 279.0 | 36.9 | 277.0 | 47.5 | 291.0 | 44.9 | 261.0 | 41.8 | 283.0 | 45.6 | 276.0 | 40.7 | 212.0 | 35.3 |
| 23 | 315.0 | 40.0 | 260.0 | 47.3 | 272.0 | 48.2 | 295.0 | 50.2 | 292.0 | 48.0 | 275.0 | 38.4 | 312.0 | 51.1 | 285.0 | 53.6 | 259.0 | 33.8 | 304.0 | 43.6 | 287.0 | 44.0 | 288.0 | 43.6 |
| 24 | 260.0 | 47.3 | 252.0 | 59.1 | 241.0 | 38.5 | 296.0 | 44.0 | 331.0 | 44.0 | 328.0 | 41.3 | 292.0 | 52.9 | 303.0 | 52.9 | 344.0 | 50.5 | 305.0 | 48.2 | 283.0 | 46.7 | 280.0 | 39.1 |
| 25 | 292.0 | 42.4 | 263.0 | 56.4 | 268.0 | 42.9 | 293.0 | 46.2 | 272.0 | 34.4 | 325.0 | 39.1 | 301.0 | 59.1 | 265.0 | 44.9 | 285.0 | 31.1 | 308.0 | 55.1 | 312.0 | 40.9 | 280.0 | 43.1 |
| 26 | 331.0 | 39.8 | 264.0 | 49.1 | 255.0 | 45.1 | 279.0 | 43.1 | 291.0 | 37.3 | 301.0 | 43.6 | 296.0 | 48.2 | 276.0 | 54.0 | 335.0 | 39.3 | 283.0 | 35.8 | 292.0 | 37.1 | 288.0 | 44.5 |
| 27 | 271.0 | 37.8 | 261.0 | 42.4 | 251.0 | 42.2 | 257.0 | 46.0 | 284.0 | 38.7 | 305.0 | 48.5 | 280.0 | 47.3 | 312.0 | 48.4 | 285.0 | 31.8 | 271.0 | 31.3 | 293.0 | 34.2 | 265.0 | 40.5 |
| 28 | 284.0 | 37.5 | 267.0 | 43.8 | 291.0 | 43.8 | 285.0 | 36.5 | 307.0 | 36.0 | 288.0 | 47.1 | 295.0 | 55.3 | 309.0 | 52.0 | 285.0 | 33.1 | 261.0 | 37.4 | 309.0 | 43.8 | 276.0 | 44.7 |
| 29 | 269.0 | 42.7 | | | 263.0 | 36.5 | 249.0 | 38.0 | 327.0 | 45.3 | 279.0 | 50.0 | 315.0 | 47.8 | 272.0 | 35.1 | 269.0 | 32.2 | 301.0 | 35.8 | 324.0 | 41.3 | 244.0 | 42.2 |
| 30 | 291.0 | 47.3 | | | 256.0 | 35.8 | 265.0 | 33.4 | 293.0 | 50.2 | 281.0 | 48.0 | 309.0 | 45.6 | 301.0 | 41.6 | 276.0 | 32.5 | 281.0 | 37.1 | 304.0 | 40.4 | 280.0 | 40.9 |
| 31 | 263.0 | 40.7 | | | 275.0 | 32.9 | | | 276.0 | 43.1 | | | 305.0 | 42.0 | 305.0 | 40.2 | | | 283.0 | 37.5 | | | 268.0 | 41.1 |
| Avg | 281.4 | 40.5 | 260.0 | 46.6 | 270.1 | 40.9 | 282.7 | 41.7 | 290.1 | 42.5 | 301.0 | 46.5 | 318.1 | 51.9 | 293.0 | 46.0 | 289.8 | 39.0 | 286.6 | 39.4 | 290.5 | 42.4 | 283.3 | 44.5 |
| Min | 240.0 | 32.2 | 205.0 | 34.7 | 237.0 | 31.3 | 249.0 | 29.3 | 249.0 | 32.9 | 176.0 | 36.2 | 277.0 | 42.0 | 245.0 | 35.1 | 253.0 | 31.1 | 247.0 | 28.4 | 253.0 | 34.2 | 212.0 | 35.1 |
| Max | 331.0 | 47.3 | 304.0 | 60.9 | 304.0 | 48.2 | 328.0 | 50.7 | 331.0 | 50.7 | 363.0 | 57.1 | 397.0 | 69.3 | 325.0 | 55.1 | 344.0 | 53.6 | 321.0 | 55.1 | 337.0 | 50.2 | 332.0 | 57.1 |

# Point Loma Wastewater Treatment Plant
# 2002 TSS Removal (%) at Point Loma

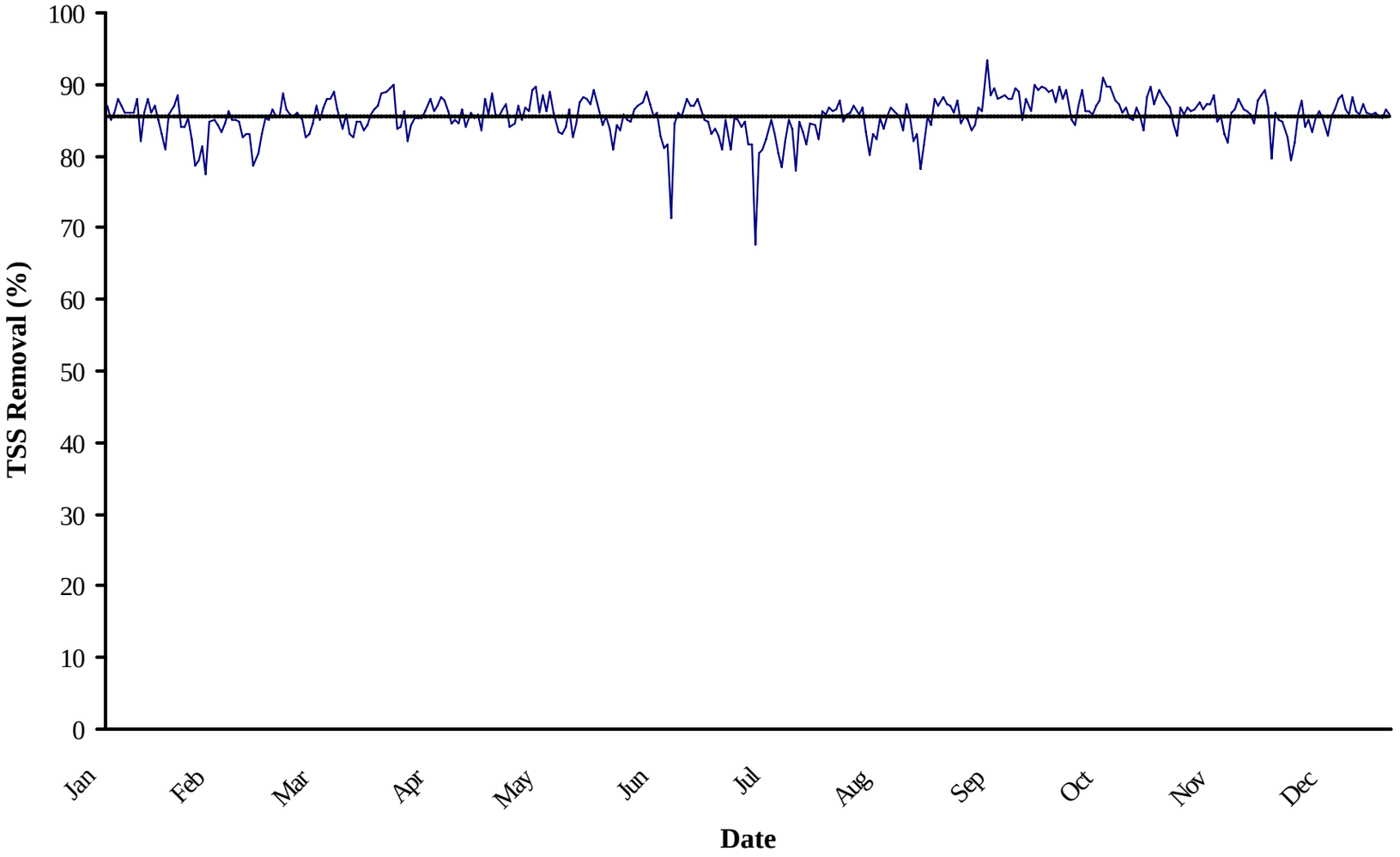


Point Loma Wastewater Treatment Plant

# 2002 Total Suspended Solids Removals (%) at Point Loma

| Day | Jan % Rem | Feb % Rem | Mar % Rem | Apr % Rem | May % Rem | Jun % Rem | Jul % Rem | Aug % Rem | Sep % Rem | Oct % Rem | Nov % Rem | Dec % Rem |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 84.7 | 84.4 | 85.2 | 88.3 | 84.3 | 83.8 | 84.2 | 85.4 | 86.0 | 86.5 | 86.0 | 85.2 |
| 2 | 86.9 | 86.5 | 84.4 | 88.7 | 84.1 | 84.2 | 83.1 | 85.8 | 85.9 | 88.7 | 84.4 | 83.9 |
| 3 | 85.4 | 85.5 | 84.2 | 88.9 | 85.2 | 85.1 | 86.6 | 87.1 | 84.7 | 86.6 | 81.5 | 83.4 |
| 4 | 85.4 | 83.0 | 87.7 | 82.8 | 86.1 | 82.3 | 83.5 | 84.7 | 86.3 | 88.6 | 85.6 | 83.5 |
| 5 | 84.0 | 82.7 | 85.2 | 83.2 | 83.3 | 85.2 | 86.7 | 85.2 | 83.3 | 83.9 | 84.3 | 82.4 |
| 6 | 84.4 | 84.3 | 84.9 | 85.4 | 83.5 | 84.2 | 86.1 | 85.4 | 84.8 | 82.9 | 86.0 | 84.5 |
| 7 | 85.9 | 81.2 | 84.6 | 81.4 | 86.3 | 84.4 | 85.3 | 85.3 | 84.7 | 85.7 | 85.1 | 80.9 |
| 8 | 85.5 | 77.1 | 85.2 | 83.7 | 84.2 | 85.0 | 86.1 | 84.9 | 82.8 | 88.4 | 85.3 | 82.8 |
| 9 | 85.3 | 77.9 | 84.0 | 84.3 | 86.7 | 86.2 | 83.2 | 86.2 | 84.0 | 85.3 | 86.5 | 83.7 |
| 10 | 88.7 | 79.6 | 81.5 | 84.1 | 85.7 | 86.7 | 83.1 | 82.9 | 85.5 | 85.2 | 85.6 | 82.0 |
| 11 | 85.0 | 75.4 | 81.5 | 85.9 | 88.6 | 88.8 | 80.3 | 79.2 | 85.4 | 84.7 | 86.5 | 84.0 |
| 12 | 84.6 | 83.1 | 83.1 | 86.0 | 88.9 | 86.8 | 82.6 | 81.9 | 87.1 | 86.0 | 86.3 | 85.2 |
| 13 | 81.9 | 83.4 | 86.0 | 87.2 | 84.6 | 86.1 | 82.9 | 80.6 | 87.5 | 86.8 | 87.8 | 84.0 |
| 14 | 85.8 | 83.2 | 84.5 | 85.1 | 87.0 | 86.1 | 80.8 | 84.4 | 88.7 | 90.0 | 84.2 | 81.2 |
| 15 | 86.3 | 83.1 | 85.5 | 85.6 | 85.0 | 82.2 | 86.3 | 83.0 | 87.0 | 88.5 | 84.2 | 84.3 |
| 16 | 84.8 | 83.5 | 87.4 | 87.5 | 88.3 | 79.7 | 87.2 | 84.6 | 87.0 | 88.8 | 81.9 | 85.6 |
| 17 | 85.7 | 85.0 | 87.4 | 87.4 | 84.8 | 80.4 | 83.3 | 85.8 | 87.5 | 86.8 | 80.6 | 87.1 |
| 18 | 87.2 | 83.9 | 87.7 | 86.3 | 82.5 | 72.2 | 79.6 | 85.2 | 87.0 | 86.1 | 85.1 | 87.3 |
| 19 | 86.7 | 83.8 | 86.4 | 82.9 | 82.9 | 84.3 | 81.3 | 84.4 | 86.9 | 85.0 | 85.3 | 85.0 |
| 20 | 87.4 | 83.4 | 84.3 | 84.4 | 82.9 | 84.9 | 84.2 | 84.4 | 88.7 | 85.5 | 86.8 | 84.3 |
| 21 | 87.0 | 80.6 | 85.2 | 83.5 | 85.3 | 84.2 | 82.7 | 86.1 | 87.7 | 84.7 | 85.2 | 87.4 |
| 22 | 85.4 | 81.8 | 81.9 | 85.6 | 81.0 | 86.8 | 82.9 | 84.6 | 84.0 | 83.9 | 85.3 | 83.3 |
| 23 | 87.3 | 76.5 | 82.3 | 83.0 | 83.6 | 86.0 | 83.6 | 81.2 | 86.9 | 85.7 | 84.7 | 84.9 |
| 24 | 81.8 | 78.6 | 84.0 | 85.1 | 86.7 | 88.0 | 81.9 | 82.5 | 85.3 | 84.2 | 83.5 | 86.0 |
| 25 | 85.5 | 81.4 | 84.0 | 84.2 | 87.4 | 85.5 | 80.4 | 83.1 | 89.1 | 82.1 | 86.9 | 84.6 |
| 26 | 88.0 | 83.8 | 82.3 | 84.6 | 87.2 | 84.1 | 83.7 | 80.4 | 88.3 | 87.3 | 87.3 | 84.5 |
| 27 | 86.1 | 83.6 | 83.2 | 82.1 | 86.4 | 83.6 | 83.1 | 84.5 | 88.8 | 88.5 | 88.3 | 84.7 |
| 28 | 86.8 | 81.0 | 84.9 | 87.2 | 88.3 | 82.1 | 81.3 | 83.2 | 88.4 | 85.7 | 85.8 | 83.8 |
| 29 | 84.1 | | 86.1 | 84.7 | 86.1 | 82.9 | 84.8 | 87.1 | 88.0 | 88.1 | 87.3 | 82.7 |
| 30 | 83.7 | | 86.0 | 87.4 | 82.9 | 87.4 | 85.2 | 86.2 | 88.2 | 86.8 | 86.7 | 85.4 |
| 31 | 84.5 | | 88.0 | | 84.4 | | 86.2 | 86.8 | | 86.7 | | 84.7 |
| Avg | 85.5 | 82.0 | 84.8 | 85.2 | 85.3 | 84.3 | 83.6 | 84.3 | 86.5 | 86.2 | 85.3 | 84.3 |
| Min | 81.8 | 75.4 | 81.5 | 81.4 | 81.0 | 72.2 | 79.6 | 79.2 | 82.8 | 82.1 | 80.6 | 80.9 |
| Max | 88.7 | 86.5 | 88.0 | 88.9 | 88.9 | 88.8 | 87.2 | 87.1 | 89.1 | 90.0 | 88.3 | 87.4 |

# Point Loma Wastewater Treatment Plant
# 2002 TSS Removal (%) Systemwide

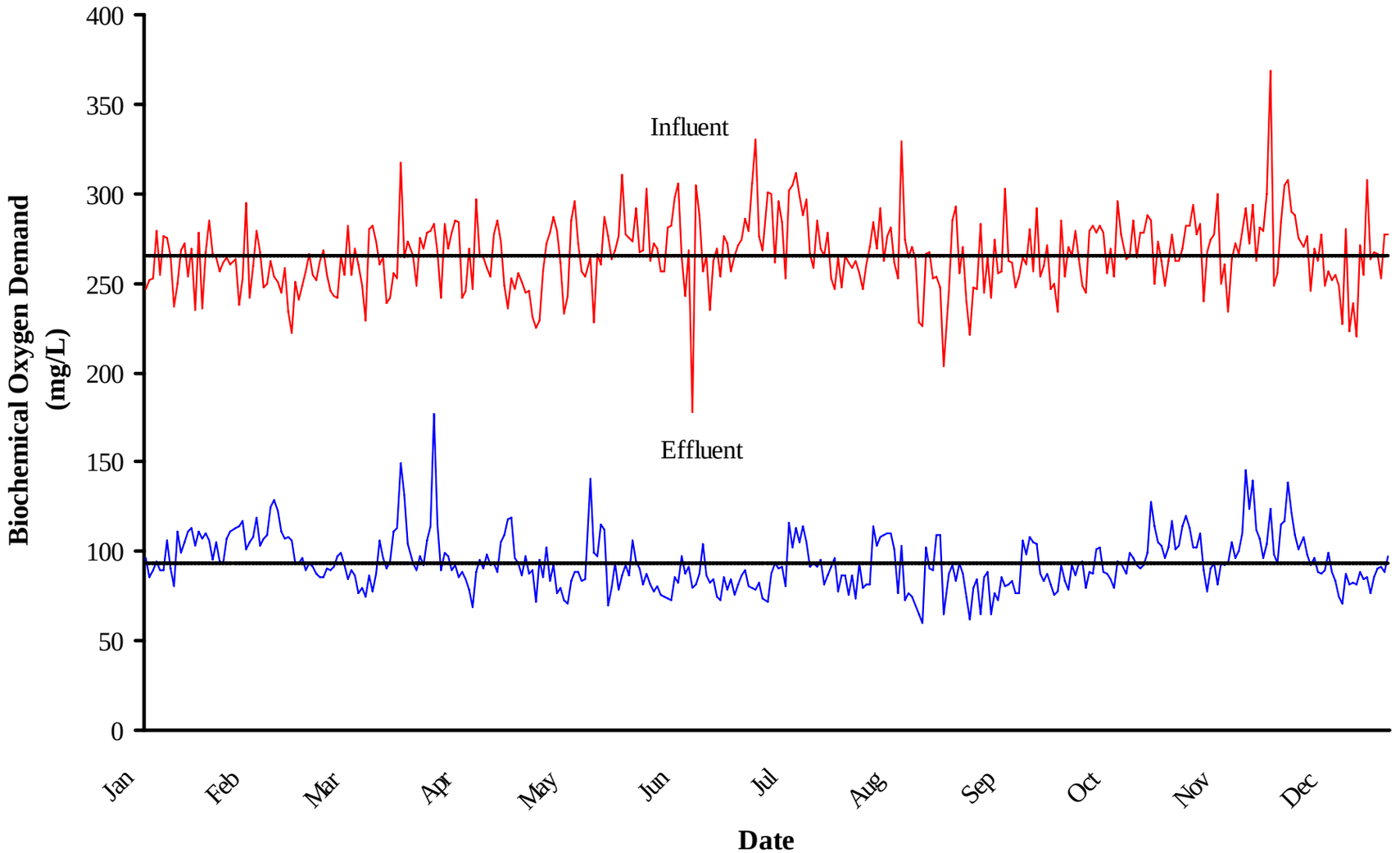


Point Loma Wastewater Treatment Plant

# 2002 Total Suspended Solids Removals (%) Systemwide

| Day | Jan % Rem | Feb % Rem | Mar % Rem | Apr % Rem | May % Rem | Jun % Rem | Jul % Rem | Aug % Rem | Sep % Rem | Oct % Rem | Nov % Rem | Dec % Rem |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 85.7 | 85.8 | 86.5 | 88.9 | 85.7 | 83.8 | 82.9 | 86.4 | 87.3 | 87.5 | 86.8 | 85.1 |
| 2 | 87.7 | 87.0 | 85.6 | 89.5 | 85.5 | 81.0 | 81.0 | 86.4 | 87.0 | 89.7 | 84.6 | 84.8 |
| 3 | 85.9 | 88.5 | 85.6 | 89.9 | 86.5 | 84.3 | 85.0 | 87.7 | 86.0 | 87.9 | 82.8 | 82.7 |
| 4 | 86.0 | 84.0 | 88.6 | 83.9 | 87.3 | 83.7 | 80.9 | 84.7 | 87.8 | 89.2 | 86.7 | 79.5 |
| 5 | 85.0 | 84.0 | 86.4 | 84.0 | 84.2 | 85.8 | 85.4 | 85.9 | 84.5 | 85.2 | 85.7 | 81.9 |
| 6 | 85.0 | 85.2 | 85.8 | 86.2 | 84.6 | 85.1 | 85.1 | 86.1 | 85.6 | 84.4 | 86.8 | 85.8 |
| 7 | 87.0 | 82.4 | 85.5 | 82.2 | 87.0 | 84.9 | 84.0 | 87.0 | 85.1 | 87.1 | 86.2 | 87.7 |
| 8 | 86.0 | 78.7 | 86.1 | 84.2 | 85.1 | 86.4 | 84.7 | 85.8 | 83.5 | 89.2 | 86.5 | 84.1 |
| 9 | 86.0 | 79.4 | 85.0 | 85.2 | 86.8 | 87.0 | 81.6 | 86.7 | 84.3 | 86.3 | 87.4 | 85.1 |
| 10 | 89.0 | 81.3 | 82.7 | 85.2 | 86.3 | 87.4 | 81.6 | 83.4 | 86.7 | 86.3 | 86.5 | 83.3 |
| 11 | 86.0 | 77.5 | 83.0 | 85.4 | 89.1 | 89.0 | 67.7 | 80.0 | 86.2 | 85.7 | 87.4 | 85.2 |
| 12 | 85.0 | 84.8 | 84.5 | 86.3 | 89.7 | 87.2 | 80.4 | 83.1 | 93.3 | 87.1 | 87.2 | 86.4 |
| 13 | 83.0 | 85.0 | 87.0 | 88.0 | 86.1 | 85.6 | 81.0 | 82.5 | 88.5 | 87.8 | 88.5 | 85.2 |
| 14 | 87.0 | 84.4 | 85.1 | 86.3 | 88.4 | 86.0 | 82.3 | 85.2 | 89.3 | 91.0 | 84.9 | 82.7 |
| 15 | 87.0 | 83.3 | 86.8 | 86.9 | 86.3 | 82.8 | 85.1 | 83.7 | 88.1 | 89.7 | 85.4 | 85.6 |
| 16 | 85.0 | 84.5 | 88.0 | 88.3 | 89.0 | 81.1 | 83.1 | 85.5 | 88.2 | 89.6 | 83.0 | 86.5 |
| 17 | 86.0 | 86.2 | 88.0 | 87.7 | 86.1 | 81.6 | 80.3 | 86.7 | 88.5 | 87.8 | 81.9 | 88.0 |
| 18 | 88.0 | 85.0 | 88.9 | 86.3 | 83.3 | 71.4 | 78.5 | 86.3 | 88.1 | 87.2 | 86.1 | 88.4 |
| 19 | 87.0 | 85.1 | 86.5 | 84.6 | 83.1 | 84.7 | 82.2 | 85.5 | 88.0 | 86.2 | 86.5 | 86.4 |
| 20 | 86.0 | 84.9 | 83.8 | 85.1 | 84.0 | 85.9 | 85.0 | 83.7 | 89.4 | 86.8 | 87.9 | 85.9 |
| 21 | 86.0 | 82.5 | 85.7 | 84.5 | 86.5 | 85.4 | 83.8 | 87.2 | 88.9 | 85.3 | 86.5 | 88.3 |
| 22 | 86.0 | 83.1 | 83.1 | 86.4 | 82.7 | 87.9 | 77.9 | 85.6 | 85.1 | 85.1 | 86.3 | 86.2 |
| 23 | 88.0 | 83.1 | 82.7 | 84.1 | 84.7 | 87.0 | 84.7 | 82.1 | 88.1 | 86.8 | 85.8 | 85.8 |
| 24 | 82.0 | 78.6 | 84.9 | 86.0 | 87.5 | 87.0 | 83.4 | 83.0 | 86.4 | 85.6 | 84.5 | 87.4 |
| 25 | 86.0 | 80.4 | 84.8 | 85.4 | 88.3 | 88.0 | 81.6 | 78.3 | 90.0 | 83.7 | 87.8 | 86.0 |
| 26 | 88.0 | 83.1 | 83.6 | 85.8 | 88.1 | 86.5 | 84.5 | 81.6 | 89.3 | 88.3 | 88.4 | 85.8 |
| 27 | 86.0 | 85.2 | 84.3 | 83.5 | 87.2 | 85.0 | 84.2 | 85.5 | 89.7 | 89.6 | 89.2 | 86.0 |
| 28 | 87.0 | 85.1 | 85.8 | 88.0 | 89.1 | 84.8 | 82.4 | 84.2 | 89.4 | 87.3 | 86.8 | 85.5 |
| 29 | 85.0 | | 86.5 | 85.8 | 87.3 | 83.2 | 86.2 | 87.9 | 89.0 | 89.2 | 79.5 | 85.4 |
| 30 | 83.0 | | 86.9 | 88.8 | 84.2 | 83.9 | 85.7 | 87.1 | 89.2 | 88.3 | 86.1 | 86.6 |
| 31 | 81.0 | | 88.7 | | 85.5 | | 86.8 | 88.2 | | 87.5 | | 85.8 |
| Avg | 85.9 | 83.5 | 85.7 | 86.1 | 86.3 | 84.8 | 82.5 | 84.9 | 87.7 | 87.4 | 86.0 | 85.5 |
| Min | 81.0 | 77.5 | 82.7 | 82.2 | 82.7 | 71.4 | 67.7 | 78.3 | 83.5 | 83.7 | 79.5 | 79.5 |
| Max | 89.0 | 88.5 | 88.9 | 89.9 | 89.7 | 89.0 | 86.8 | 88.2 | 93.3 | 91.0 | 89.2 | 88.4 |

# Point Loma Wastewater Treatment Plant
# 2002 Biochemical Oxygen Demand



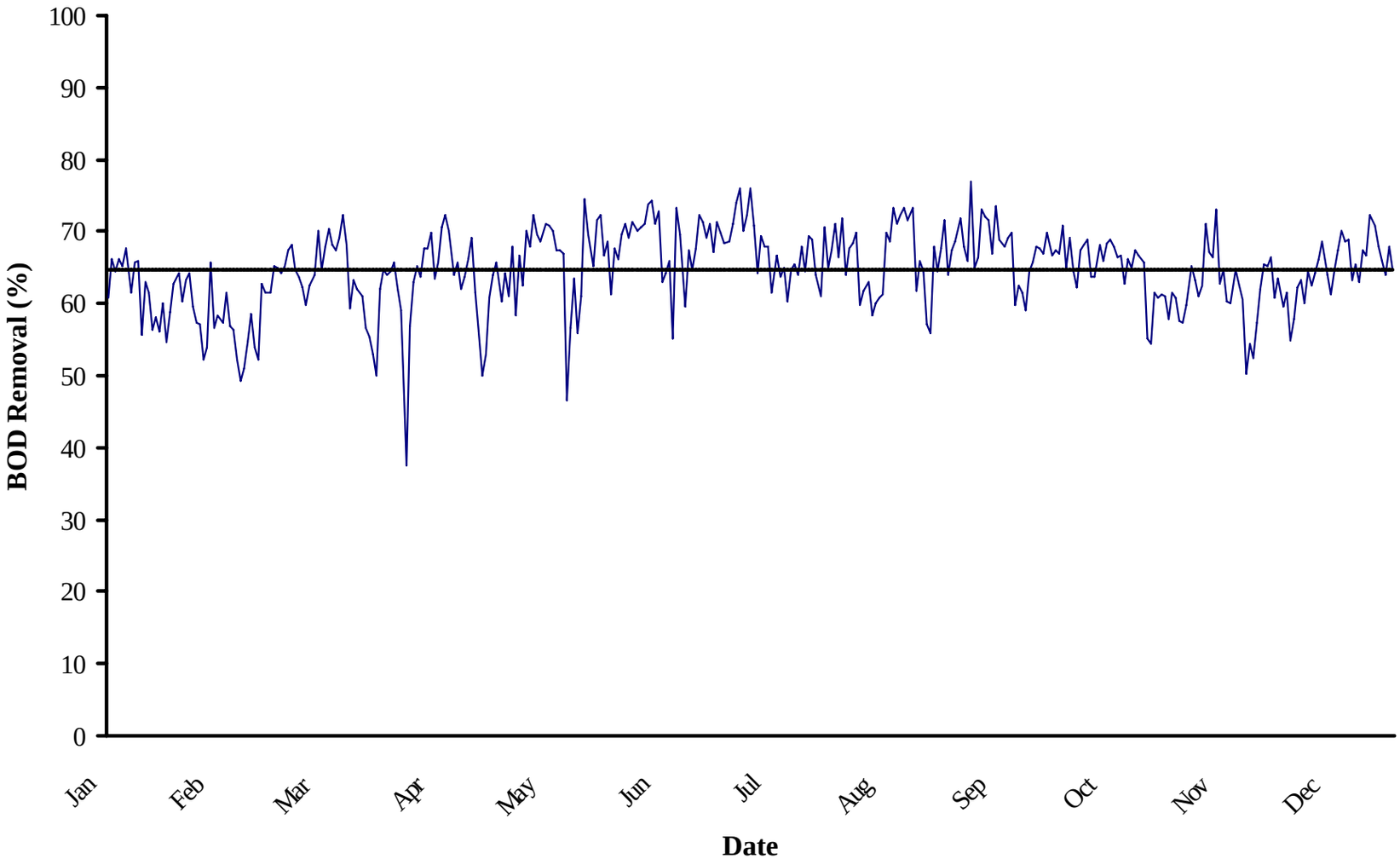
Point Loma Wastewater Treatment Plant

## 2002 Biochemical Oxygen Demand (mg/L)

| | Jan | | Feb | | Mar | | Apr | | May | | Jun | | Jul | | Aug | | Sep | | Oct | | Nov | | Dec | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Day | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 245.0 | 90.1 | 267.0 | 110.0 | 257.0 | 89.7 | 249.0 | 89.8 | 251.0 | 86.2 | 273.0 | 106.0 | 271.0 | 81.6 | 261.0 | 75.2 | **256.0** | **93.2** | 254.0 | 83.9 | 262.0 | 101.0 | 284.0 | 115.0 |
| 2 | 277.0 | 92.6 | 285.0 | 106.0 | 266.0 | 93.1 | 275.0 | 97.5 | 245.0 | 97.2 | 292.0 | 94.5 | 274.0 | 86.4 | 258.0 | 86.7 | 270.0 | 87.8 | 270.0 | 78.6 | 262.0 | 103.0 | 305.0 | 117.0 |
| 3 | 260.0 | 88.4 | 266.0 | 95.4 | 255.0 | 91.1 | 269.0 | 91.9 | 246.0 | 87.7 | 267.0 | 90.4 | 286.0 | 89.9 | 262.0 | 74.2 | 240.0 | 75.1 | 265.0 | 92.7 | 269.0 | 114.0 | 308.0 | 139.0 |
| 4 | 282.0 | 86.6 | 264.0 | 105.0 | 252.0 | 87.8 | 278.0 | 106.0 | 231.0 | 89.9 | 268.0 | 81.4 | 279.0 | 81.0 | **256.0** | **93.2** | 221.0 | 62.3 | 279.0 | 86.5 | 282.0 | 120.0 | 290.0 | 122.0 |
| 5 | 215.0 | 82.8 | 257.0 | 94.2 | 262.0 | 85.2 | 279.0 | 114.0 | 225.0 | 71.9 | 303.0 | 87.7 | 306.0 | 79.2 | 247.0 | 80.0 | 248.0 | 79.8 | 263.0 | 93.3 | 282.0 | 113.0 | 288.0 | 109.0 |
| 6 | 255.0 | 90.8 | 261.0 | 93.5 | 268.0 | 85.5 | 283.0 | 177.0 | 229.0 | 95.6 | 262.0 | 81.3 | 330.0 | 78.9 | 260.0 | 81.9 | 247.0 | 84.2 | 249.0 | 94.1 | 294.0 | 102.0 | 275.0 | 101.0 |
| 7 | 270.0 | 87.8 | 264.0 | 107.0 | 255.0 | 90.2 | 267.0 | 115.0 | 257.0 | 85.5 | 272.0 | 78.0 | 276.0 | 82.4 | 270.0 | 81.6 | 283.0 | 65.1 | 245.0 | 79.6 | 277.0 | 102.0 | 270.0 | 108.0 |
| 8 | 268.0 | 85.8 | 260.0 | 111.0 | 246.0 | 89.3 | 242.0 | 89.4 | 272.0 | 102.0 | 269.0 | 80.7 | 268.0 | 74.0 | 284.0 | 114.0 | 245.0 | 85.9 | 279.0 | 88.6 | 283.0 | 110.0 | 276.0 | 98.0 |
| 9 | 260.0 | 88.3 | 263.0 | 113.0 | 243.0 | 91.8 | 283.0 | 98.9 | 278.0 | 83.2 | 257.0 | 75.6 | 301.0 | 72.0 | 269.0 | 103.0 | 264.0 | 88.9 | 282.0 | 87.9 | 240.0 | 89.8 | 246.0 | 92.4 |
| 10 | 257.0 | 94.9 | 238.0 | 114.0 | 242.0 | 97.5 | 269.0 | 97.4 | 287.0 | 92.2 | 257.0 | 74.5 | 300.0 | 87.2 | 292.0 | 108.0 | 242.0 | 65.3 | 278.0 | 101.0 | 267.0 | 77.3 | 269.0 | 96.1 |
| 11 | 233.0 | 82.0 | 253.0 | 117.0 | 265.0 | 99.6 | 278.0 | 89.9 | 279.0 | 76.9 | 281.0 | 73.8 | 261.0 | 93.3 | 262.0 | 109.0 | 274.0 | 76.6 | 282.0 | 102.0 | 274.0 | 90.1 | 262.0 | 88.6 |
| 12 | 245.0 | 89.8 | 295.0 | 101.0 | 255.0 | 92.0 | 285.0 | 92.2 | 261.0 | 79.7 | 282.0 | 72.5 | 296.0 | 90.7 | 276.0 | 110.0 | 256.0 | 72.9 | 278.0 | 88.8 | 277.0 | 93.2 | 277.0 | 87.1 |
| 13 | 252.0 | 105.0 | 242.0 | 105.0 | 282.0 | 84.6 | 284.0 | 85.4 | 233.0 | 72.9 | 298.0 | 85.8 | 284.0 | 91.1 | 281.0 | 110.0 | 257.0 | 85.3 | 256.0 | 87.4 | 300.0 | 81.1 | 249.0 | 89.6 |
| 14 | 251.0 | 99.1 | 259.0 | 108.0 | 255.0 | 89.7 | 242.0 | 88.1 | 243.0 | 70.3 | 306.0 | 82.9 | 253.0 | 80.9 | 261.0 | 101.0 | 303.0 | 80.2 | 269.0 | 84.7 | 250.0 | 93.2 | 257.0 | 99.7 |
| 15 | 247.0 | 96.8 | 279.0 | 119.0 | 269.0 | 86.0 | 246.0 | 84.1 | 285.0 | 83.1 | 264.0 | 97.6 | 302.0 | 116.0 | 253.0 | 76.2 | 262.0 | 81.5 | 254.0 | 79.2 | 260.0 | 92.0 | 252.0 | 88.7 |
| 16 | 252.0 | 85.5 | 267.0 | 103.0 | 260.0 | 77.0 | 269.0 | 79.0 | 296.0 | 88.6 | 243.0 | 87.0 | 305.0 | 102.0 | 329.0 | 103.0 | 261.0 | 83.7 | 296.0 | 94.6 | 234.0 | 93.0 | 255.0 | 83.4 |
| 17 | 253.0 | 89.7 | 248.0 | 107.0 | 249.0 | 79.2 | 247.0 | 68.5 | 272.0 | 88.5 | 268.0 | 91.4 | 312.0 | 113.0 | 274.0 | 73.2 | 248.0 | 76.4 | 277.0 | 93.3 | 263.0 | 105.0 | 249.0 | 74.6 |
| 18 | 279.0 | 94.7 | 250.0 | 109.0 | 229.0 | 74.7 | 297.0 | 88.8 | 257.0 | 83.7 | 178.0 | 79.7 | 299.0 | 105.0 | 264.0 | 76.6 | 254.0 | 76.6 | 263.0 | 87.9 | 272.0 | 96.0 | 227.0 | 71.0 |
| 19 | 255.0 | 89.1 | 262.0 | 125.0 | 280.0 | 86.8 | 265.0 | 95.4 | 254.0 | 84.1 | 305.0 | 81.6 | 288.0 | 114.0 | 270.0 | 75.1 | 264.0 | 106.0 | 265.0 | 98.8 | 266.0 | 100.0 | 280.0 | 87.4 |
| 20 | 276.0 | 89.1 | 254.0 | 129.0 | 282.0 | 78.1 | 264.0 | 90.6 | 264.0 | 141.0 | 288.0 | 87.2 | 297.0 | 105.0 | 263.0 | 70.1 | 260.0 | 97.8 | 285.0 | 96.5 | 279.0 | 110.0 | 223.0 | 81.8 |
| 21 | 275.0 | 106.0 | 251.0 | 123.0 | 273.0 | 87.1 | 258.0 | 98.1 | 228.0 | 99.2 | 257.0 | 104.0 | 266.0 | 91.7 | 228.0 | 65.0 | 280.0 | 108.0 | 264.0 | 92.4 | 292.0 | 145.0 | 239.0 | 82.6 |
| 22 | 265.0 | 90.8 | 245.0 | 111.0 | 260.0 | 106.0 | 254.0 | 92.1 | 266.0 | 97.3 | 265.0 | 86.3 | 258.0 | 92.9 | 226.0 | 60.4 | 257.0 | 105.0 | 278.0 | 90.4 | 272.0 | 124.0 | 220.0 | 81.7 |
| 23 | 237.0 | 80.6 | 258.0 | 107.0 | 264.0 | 96.8 | 277.0 | 93.5 | 260.0 | 115.0 | 235.0 | 82.7 | 285.0 | 91.3 | 266.0 | 102.0 | 292.0 | 104.0 | 278.0 | 92.8 | 294.0 | 140.0 | 271.0 | 88.3 |
| 24 | 250.0 | 111.0 | 234.0 | 108.0 | 239.0 | 90.6 | 285.0 | 88.0 | 287.0 | 112.0 | 262.0 | 84.8 | 269.0 | 95.5 | 267.0 | 90.8 | 254.0 | 87.3 | 288.0 | 99.2 | 262.0 | 112.0 | 255.0 | 84.9 |
| 25 | 268.0 | 99.1 | 222.0 | 106.0 | 242.0 | 94.3 | 273.0 | 105.0 | 276.0 | 70.2 | 269.0 | 74.9 | 265.0 | 81.4 | 253.0 | 89.7 | 259.0 | 83.1 | 285.0 | 128.0 | 281.0 | 107.0 | 308.0 | 85.1 |
| 26 | 272.0 | 105.0 | 251.0 | 93.7 | 256.0 | 111.0 | 249.0 | 109.0 | 263.0 | 80.0 | 254.0 | 72.6 | 278.0 | 86.5 | 254.0 | 109.0 | 271.0 | 87.6 | 250.0 | 114.0 | 279.0 | 96.4 | 263.0 | 76.5 |
| 27 | 254.0 | 111.0 | 241.0 | 93.1 | 253.0 | 113.0 | 236.0 | 118.0 | 268.0 | 93.6 | 276.0 | 85.5 | 253.0 | 91.1 | 248.0 | 109.0 | 247.0 | 81.7 | 273.0 | 105.0 | 300.0 | 104.0 | 267.0 | 85.5 |
| 28 | 269.0 | 113.0 | 249.0 | 96.0 | 317.0 | 149.0 | 253.0 | 119.0 | 276.0 | 78.4 | 272.0 | 78.5 | 247.0 | 96.4 | 203.0 | 65.0 | 250.0 | 75.3 | 262.0 | 103.0 | 369.0 | 124.0 | 266.0 | 90.7 |
| 29 | 235.0 | 103.0 | | | 264.0 | 132.0 | 247.0 | 96.6 | 311.0 | 86.5 | 257.0 | 84.6 | 264.0 | 77.9 | 246.0 | 87.6 | 234.0 | 77.9 | 249.0 | 96.3 | 249.0 | 97.8 | 253.0 | 91.1 |
| 30 | 278.0 | 111.0 | | | 273.0 | 104.0 | **256.0** | **93.2** | 277.0 | 92.2 | 265.0 | 75.7 | 248.0 | 86.9 | 285.0 | 92.3 | 285.0 | 92.5 | 262.0 | 102.0 | **256.0** | **93.2** | 277.0 | 88.7 |
| 31 | 236.0 | 107.0 | | | 265.0 | 93.3 | | | 275.0 | 86.3 | | | 265.0 | 86.6 | 293.0 | 83.2 | | | 277.0 | 117.0 | | | 277.0 | 97.7 |
| Avg | 257.1 | 95.0 | 256.6 | 107.5 | 260.6 | 94.4 | 265.3 | 98.4 | 263.0 | 89.4 | 268.2 | 84.0 | 280.2 | 90.4 | 263.3 | 88.9 | 259.5 | 84.2 | 269.5 | 94.8 | 274.9 | 104.3 | 265.7 | 93.6 |
| Min | 215.0 | 80.6 | 222.0 | 93.1 | 229.0 | 74.7 | 236.0 | 68.5 | 225.0 | 70.2 | 178.0 | 72.5 | 247.0 | 72.0 | 203.0 | 60.4 | 221.0 | 62.3 | 245.0 | 78.6 | 234.0 | 77.3 | 220.0 | 71.0 |
| Max | 282.0 | 113.0 | 295.0 | 129.0 | 317.0 | 149.0 | 297.0 | 177.0 | 311.0 | 141.0 | 306.0 | 106.0 | 330.0 | 116.0 | 329.0 | 114.0 | 303.0 | 108.0 | 296.0 | 128.0 | 369.0 | 145.0 | 308.0 | 139.0 |

**BOLD=**Batches failed QC on these dates. Used median BOD values from 2001, instead of result value.

# Point Loma Wastwater Treatment
# 2002 BOD Removal (%) at Point Loma

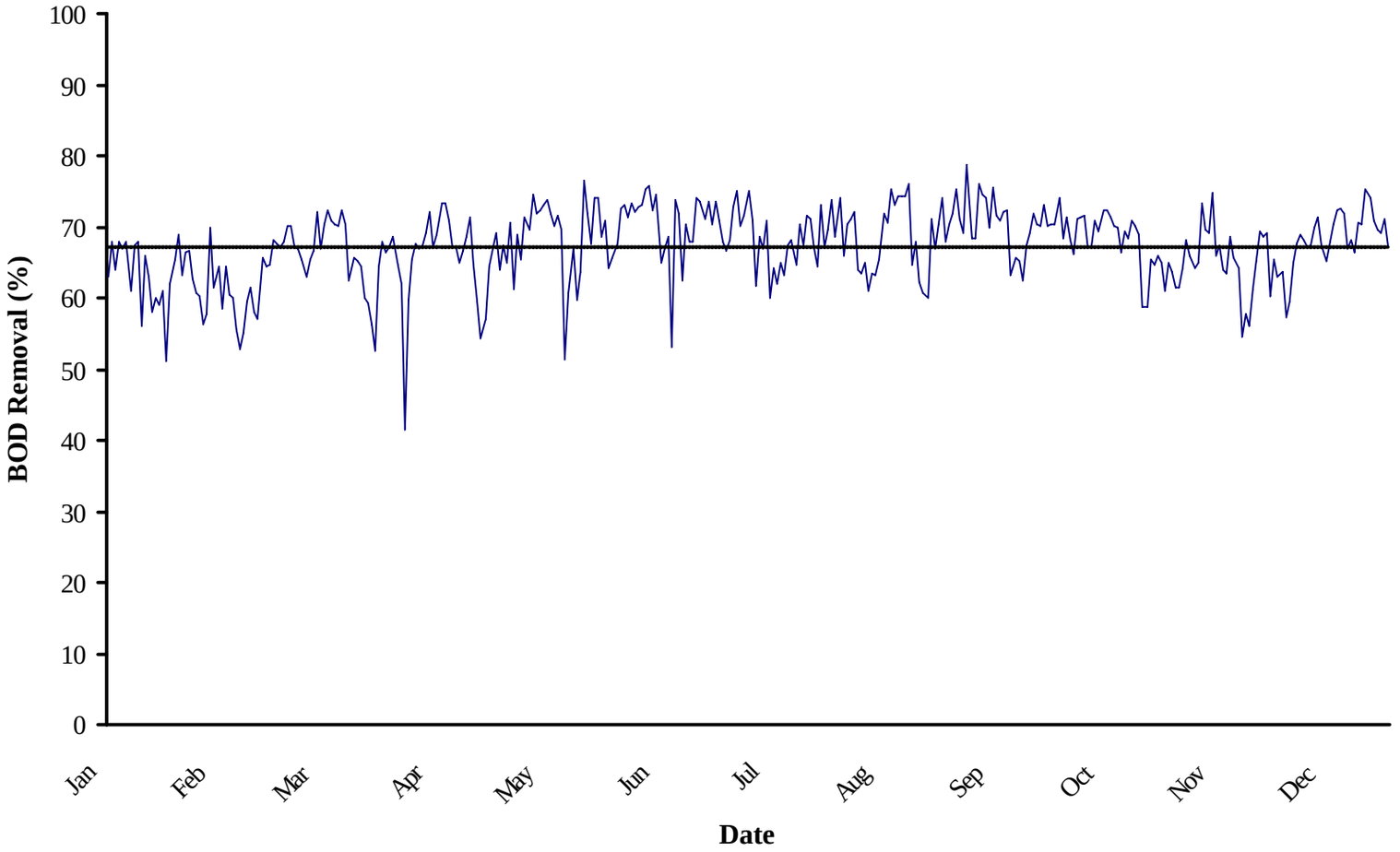


Point Loma Wastewater Treatment Plant

# 2002 Biochemical Oxygen Demand Removals (%) at Point Loma

| Day | Jan % Rem | Feb % Rem | Mar % Rem | Apr % Rem | May % Rem | Jun % Rem | Jul % Rem | Aug % Rem | Sep % Rem | Oct % Rem | Nov % Rem | Dec % Rem |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 63.2 | 58.8 | 65.1 | 63.9 | 65.7 | 61.2 | 69.9 | 71.2 | 64.0 | 67.0 | 61.5 | 59.5 |
| 2 | 66.6 | 62.8 | 65.0 | 64.5 | 60.3 | 67.6 | 68.5 | 66.4 | 67.5 | 70.9 | 60.7 | 61.6 |
| 3 | 66.0 | 64.1 | 64.3 | 65.8 | 64.3 | 66.1 | 68.6 | 71.7 | 68.7 | 65.0 | 57.6 | 54.9 |
| 4 | 69.3 | 60.2 | 65.2 | 61.9 | 61.1 | 69.6 | 71.0 | 64.0 | 71.8 | 69.0 | 57.4 | 57.9 |
| 5 | 61.5 | 63.3 | 67.5 | 59.1 | 68.0 | 71.1 | 74.1 | 67.6 | 67.8 | 64.5 | 59.9 | 62.2 |
| 6 | 64.4 | 64.2 | 68.1 | 37.5 | 58.3 | 69.0 | 76.1 | 68.5 | 65.9 | 62.2 | 65.3 | 63.3 |
| 7 | 67.5 | 59.5 | 64.6 | 56.9 | 66.7 | 71.3 | 70.1 | 69.8 | 77.0 | 67.5 | 63.2 | 60.0 |
| 8 | 68.0 | 57.3 | 63.7 | 63.1 | 62.5 | 70.0 | 72.4 | 59.9 | 64.9 | 68.2 | 61.1 | 64.5 |
| 9 | 66.0 | 57.0 | 62.2 | 65.1 | 70.1 | 70.6 | 76.1 | 61.7 | 66.3 | 68.8 | 62.6 | 62.4 |
| 10 | 63.1 | 52.1 | 59.7 | 63.8 | 67.9 | 71.0 | 70.9 | 63.0 | 73.0 | 63.7 | 71.0 | 64.3 |
| 11 | 64.8 | 53.8 | 62.4 | 67.7 | 72.4 | 73.7 | 64.3 | 58.4 | 72.0 | 63.8 | 67.1 | 66.2 |
| 12 | 63.3 | 65.8 | 63.9 | 67.6 | 69.5 | 74.3 | 69.4 | 60.1 | 71.5 | 68.1 | 66.4 | 68.6 |
| 13 | 58.3 | 56.6 | 70.0 | 69.9 | 68.7 | 71.2 | 67.9 | 60.9 | 66.8 | 65.9 | 73.0 | 64.0 |
| 14 | 60.5 | 58.3 | 64.8 | 63.6 | 71.1 | 72.9 | 68.0 | 61.3 | 73.5 | 68.5 | 62.7 | 61.2 |
| 15 | 60.8 | 57.3 | 68.0 | 65.8 | 70.8 | 63.0 | 61.6 | 69.9 | 68.9 | 68.8 | 64.6 | 64.8 |
| 16 | 66.1 | 61.4 | 70.4 | 70.6 | 70.1 | 64.2 | 66.6 | 68.7 | 67.9 | 68.0 | 60.3 | 67.3 |
| 17 | 64.5 | 56.9 | 68.2 | 72.3 | 67.5 | 65.9 | 63.8 | 73.3 | 69.2 | 66.3 | 60.1 | 70.0 |
| 18 | 66.1 | 56.4 | 67.4 | 70.1 | 67.4 | 55.2 | 64.9 | 71.0 | 69.8 | 66.6 | 64.7 | 68.7 |
| 19 | 65.1 | 52.3 | 69.0 | 64.0 | 66.9 | 73.2 | 60.4 | 72.2 | 59.8 | 62.7 | 62.4 | 68.8 |
| 20 | 67.7 | 49.2 | 72.3 | 65.7 | 46.6 | 69.7 | 64.6 | 73.3 | 62.4 | 66.1 | 60.6 | 63.3 |
| 21 | 61.5 | 51.0 | 68.1 | 62.0 | 56.5 | 59.5 | 65.5 | 71.5 | 61.4 | 65.0 | 50.3 | 65.4 |
| 22 | 65.7 | 54.7 | 59.2 | 63.7 | 63.4 | 67.4 | 64.0 | 73.3 | 59.1 | 67.5 | 54.4 | 62.9 |
| 23 | 66.0 | 58.5 | 63.3 | 66.2 | 55.8 | 64.8 | 68.0 | 61.7 | 64.4 | 66.6 | 52.4 | 67.4 |
| 24 | 55.6 | 53.8 | 62.1 | 69.1 | 61.0 | 67.6 | 64.5 | 66.0 | 65.6 | 65.6 | 57.3 | 66.7 |
| 25 | 63.0 | 52.3 | 61.0 | 61.5 | 74.6 | 72.2 | 69.3 | 64.5 | 67.9 | 55.1 | 61.9 | 72.4 |
| 26 | 61.4 | 62.7 | 56.6 | 56.2 | 69.6 | 71.4 | 68.9 | 57.1 | 67.7 | 54.4 | 65.4 | 70.9 |
| 27 | 56.3 | 61.4 | 55.3 | 50.0 | 65.1 | 69.0 | 64.0 | 56.0 | 66.9 | 61.5 | 65.3 | 68.0 |
| 28 | 58.0 | 61.4 | 53.0 | 53.0 | 71.6 | 71.1 | 61.0 | 68.0 | 69.9 | 60.7 | 66.4 | 65.9 |
| 29 | 56.2 | | 50.0 | 60.9 | 72.2 | 67.1 | 70.5 | 64.4 | 66.7 | 61.3 | 60.7 | 64.0 |
| 30 | 60.1 | | 61.9 | 64.0 | 66.7 | 71.4 | 65.0 | 67.6 | 67.5 | 61.1 | 63.6 | 68.0 |
| 31 | 54.7 | | 64.8 | | 68.6 | | 67.3 | 71.6 | | 57.8 | | 64.7 |
| Avg | 62.9 | 58.0 | 63.8 | 62.9 | 65.8 | 68.4 | 67.7 | 66.3 | 67.5 | 64.8 | 62.0 | 64.8 |
| Min | 54.7 | 49.2 | 50.0 | 37.5 | 46.6 | 55.2 | 60.4 | 56.0 | 59.1 | 54.4 | 50.3 | 54.9 |
| Max | 69.3 | 65.8 | 72.3 | 72.3 | 74.6 | 74.3 | 76.1 | 73.3 | 77.0 | 70.9 | 73.0 | 72.4 |

# Point Loma Wastewater Treatment Plant
# 2002 BOD Removal (%) Systemwide

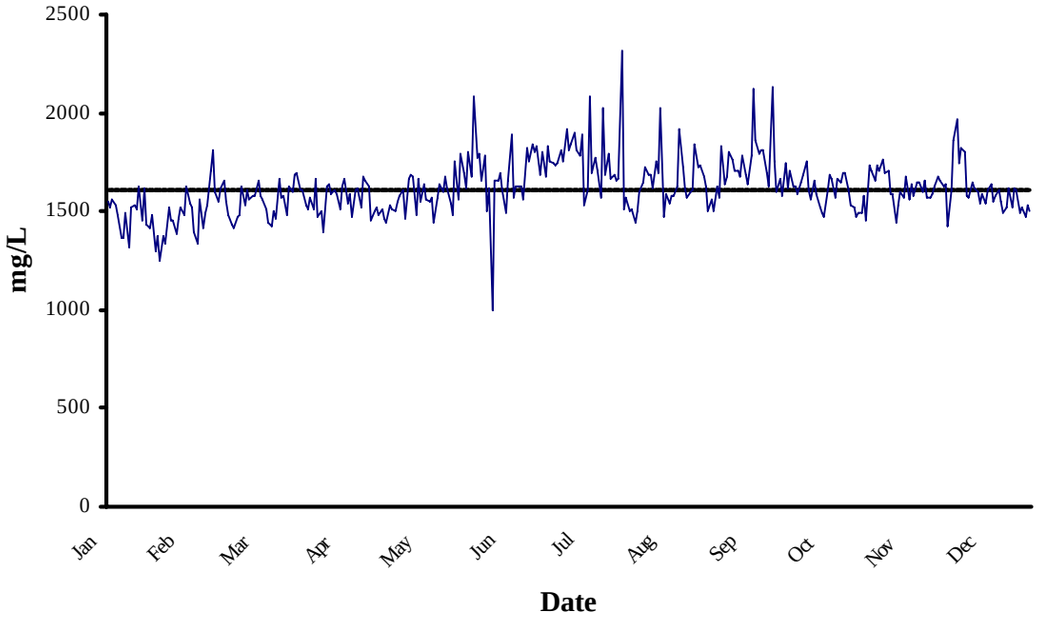


Point Loma Wastewater Treatment Plant

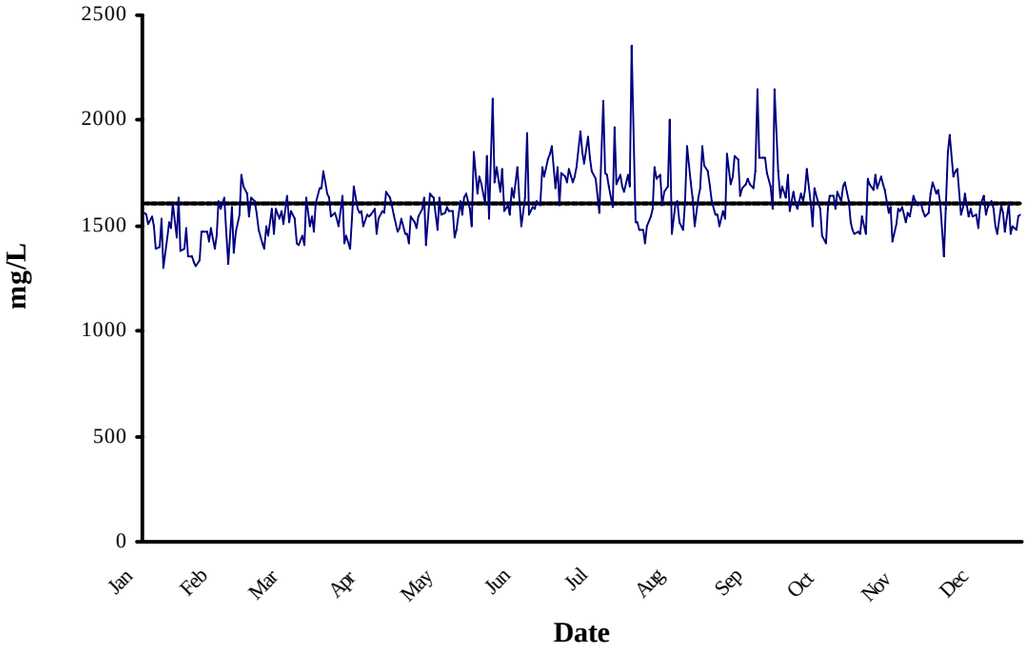
# 2002 Biochemical Oxygen Demand Removals (%) Systemwide

| Day | Jan % Rem | Feb % Rem | Mar % Rem | Apr % Rem | May % Rem | Jun % Rem | Jul % Rem | Aug % Rem | Sep % Rem | Oct % Rem | Nov % Rem | Dec % Rem |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 66.4 | 62.0 | 68.1 | 66.5 | 69.1 | 64.1 | 70.8 | 73.8 | 68.0 | 70.3 | 64.8 | 62.9 |
| 2 | 68.6 | 65.4 | 67.7 | 67.2 | 63.8 | 65.7 | 68.0 | 68.8 | 70.3 | 74.1 | 63.7 | 63.7 |
| 3 | 68.2 | 69.0 | 67.1 | 68.7 | 67.4 | 67.7 | 66.7 | 74.1 | 71.9 | 68.4 | 61.6 | 57.3 |
| 4 | 71.0 | 63.3 | 68.0 | 64.7 | 64.9 | 72.6 | 68.1 | 66.0 | 75.2 | 71.3 | 61.4 | 59.4 |
| 5 | 64.0 | 66.4 | 70.2 | 62.0 | 70.7 | 73.2 | 72.7 | 70.3 | 71.1 | 68.2 | 64.3 | 64.8 |
| 6 | 66.1 | 66.8 | 70.2 | 41.6 | 61.3 | 71.3 | 75.0 | 71.2 | 69.2 | 66.1 | 68.0 | 67.7 |
| 7 | 69.1 | 62.6 | 67.2 | 59.7 | 69.0 | 73.3 | 70.2 | 72.0 | 78.7 | 71.2 | 65.9 | 68.8 |
| 8 | 70.0 | 60.7 | 66.8 | 65.3 | 65.4 | 72.1 | 71.7 | 63.9 | 68.4 | 71.3 | 64.2 | 68.2 |
| 9 | 68.0 | 60.3 | 65.4 | 67.6 | 71.4 | 72.9 | 75.0 | 63.4 | 68.4 | 71.7 | 65.0 | 67.1 |
| 10 | 66.0 | 56.3 | 63.0 | 66.9 | 69.5 | 73.0 | 70.9 | 65.0 | 76.1 | 67.2 | 73.3 | 67.5 |
| 11 | 67.0 | 57.7 | 65.5 | 67.5 | 74.5 | 75.3 | 61.7 | 61.0 | 74.6 | 67.1 | 69.6 | 70.0 |
| 12 | 65.0 | 69.8 | 66.6 | 69.2 | 71.9 | 75.9 | 68.6 | 63.5 | 74.0 | 71.0 | 69.3 | 71.2 |
| 13 | 60.0 | 61.4 | 72.1 | 72.2 | 72.4 | 72.3 | 67.0 | 63.2 | 70.0 | 69.4 | 74.9 | 67.4 |
| 14 | 62.0 | 64.4 | 66.9 | 67.1 | 73.1 | 74.5 | 70.8 | 65.3 | 75.6 | 72.3 | 65.9 | 65.2 |
| 15 | 63.0 | 58.6 | 70.5 | 68.8 | 73.8 | 65.1 | 60.1 | 72.0 | 71.5 | 72.4 | 67.5 | 67.9 |
| 16 | 68.0 | 64.4 | 72.5 | 73.3 | 71.9 | 66.9 | 64.1 | 70.6 | 70.9 | 71.4 | 64.0 | 70.3 |
| 17 | 64.0 | 60.5 | 70.8 | 73.3 | 70.0 | 68.6 | 61.9 | 75.3 | 72.1 | 70.0 | 63.4 | 72.3 |
| 18 | 68.0 | 59.9 | 70.3 | 70.9 | 71.7 | 53.2 | 65.0 | 73.1 | 72.2 | 69.8 | 68.5 | 72.6 |
| 19 | 67.0 | 55.5 | 70.2 | 67.3 | 69.5 | 73.8 | 63.2 | 74.4 | 63.2 | 66.3 | 65.6 | 71.8 |
| 20 | 68.0 | 53.0 | 72.2 | 67.2 | 51.4 | 71.9 | 67.5 | 74.4 | 65.7 | 69.3 | 64.1 | 66.8 |
| 21 | 61.0 | 55.0 | 70.3 | 65.1 | 60.8 | 62.6 | 68.1 | 74.4 | 65.2 | 68.5 | 54.5 | 68.1 |
| 22 | 67.4 | 59.5 | 62.4 | 66.7 | 66.9 | 70.5 | 64.7 | 76.0 | 62.6 | 70.7 | 57.7 | 66.3 |
| 23 | 68.0 | 61.5 | 65.7 | 68.8 | 59.6 | 68.0 | 70.4 | 64.7 | 67.4 | 70.1 | 56.0 | 70.6 |
| 24 | 56.0 | 57.9 | 65.3 | 71.4 | 63.7 | 68.0 | 67.5 | 67.9 | 69.1 | 68.8 | 61.3 | 70.4 |
| 25 | 66.0 | 57.1 | 64.4 | 64.6 | 76.6 | 74.0 | 71.6 | 62.1 | 71.9 | 58.8 | 65.3 | 75.3 |
| 26 | 63.0 | 65.7 | 60.1 | 59.4 | 71.7 | 73.5 | 71.1 | 60.8 | 70.4 | 58.8 | 69.3 | 74.1 |
| 27 | 58.0 | 64.6 | 59.3 | 54.3 | 67.7 | 71.2 | 67.3 | 60.0 | 70.0 | 65.5 | 68.7 | 70.9 |
| 28 | 60.0 | 64.7 | 56.2 | 57.0 | 74.1 | 73.6 | 64.5 | 71.1 | 73.0 | 64.7 | 69.2 | 69.7 |
| 29 | 59.0 | | 52.7 | 64.5 | 74.0 | 70.3 | 73.2 | 66.9 | 70.2 | 66.0 | 60.3 | 69.2 |
| 30 | 61.0 | | 64.5 | 67.0 | 68.5 | 73.6 | 67.3 | 70.3 | 70.3 | 65.0 | 65.4 | 71.1 |
| 31 | 51.0 | | 67.8 | | 71.0 | | 69.5 | 74.1 | | 61.0 | | 67.5 |
| Avg | 64.5 | 61.6 | 66.5 | 65.5 | 68.6 | 70.3 | 68.2 | 68.7 | 70.6 | 68.3 | 65.1 | 68.3 |
| Min | 51.0 | 53.0 | 52.7 | 41.6 | 51.4 | 53.2 | 60.1 | 60.0 | 62.6 | 58.8 | 54.5 | 57.3 |
| Max | 71.0 | 69.8 | 72.5 | 73.3 | 76.6 | 75.9 | 75.0 | 76.0 | 78.7 | 74.1 | 74.9 | 75.3 |

**Point Loma Influent**
**2002 Total Dissolved Solids (mg/L)**




**Point Loma Effluent**
**2002 Total Dissolved Solids (mg/L)**



Point Loma Wastewater Treatment Plant

# 2002 Total Dissolved Solids (mg/L)

| | Jan | | Feb | | Mar | | Apr | | May | | Jun | | Jul | | Aug | | Sep | | Oct | | Nov | | Dec | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Day | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 1580 | 1440 | 1480 | 1490 | 1550 | 1560 | 1510 | 1560 | 1440 | 1420 | 1800 | 1830 | 1830 | 1750 | 1500 | 1480 | 1560 | 1550 | 1710 | 1660 | 1710 | 1700 | 1610 | 1580 |
| 2 | 1450 | 1580 | 1300 | 1350 | 1480 | 1480 | 1570 | 1530 | 1530 | 1540 | 1680 | 1530 | 1750 | 1730 | 1510 | 1480 | 1500 | 1500 | 1630 | 1610 | 1660 | 1670 | 1860 | 1850 |
| 3 | 1500 | 1460 | 1380 | 1350 | 1430 | 1420 | 1510 | 1500 | 1510 | 1520 | 2080 | 2100 | 1740 | 1710 | 1440 | 1420 | 1630 | 1570 | 1630 | 1580 | 1730 | 1740 | 1970 | 1930 |
| 4 | 1330 | 1320 | 1250 | 1330 | 1410 | 1390 | 1670 | 1640 | 1500 | 1490 | 1770 | 1710 | 1730 | 1770 | 1500 | 1500 | 1570 | 1530 | 1590 | 1650 | 1710 | 1680 | 1740 | 1730 |
| 5 | 1380 | 1380 | 1380 | 1310 | 1470 | 1500 | 1470 | 1420 | 1550 | 1540 | 1790 | 1780 | 1740 | 1710 | 1600 | 1540 | 1830 | 1840 | 1650 | 1620 | 1760 | 1730 | 1820 | 1760 |
| 6 | 1310 | 1320 | 1340 | 1340 | 1480 | 1450 | 1500 | 1450 | 1580 | 1580 | 1660 | 1660 | 1810 | 1730 | 1650 | 1580 | 1640 | 1700 | 1690 | 1670 | 1700 | 1700 | 1800 | 1770 |
| 7 | 1410 | 1470 | 1520 | 1470 | 1630 | 1580 | 1400 | 1390 | 1610 | 1630 | 1780 | 1770 | 1750 | 1780 | 1720 | 1780 | 1680 | 1730 | 1750 | 1770 | 1710 | 1670 | 1580 | 1550 |
| 8 | 1510 | 1470 | 1450 | 1470 | 1530 | 1460 | 1630 | 1530 | 1460 | 1410 | 1500 | 1570 | 1920 | 1950 | 1690 | 1720 | 1800 | 1830 | 1610 | 1610 | 1590 | 1560 | 1570 | 1590 |
| 9 | 1530 | 1540 | 1450 | 1470 | 1610 | 1580 | 1640 | 1690 | 1670 | 1650 | 1620 | 1600 | 1810 | 1850 | 1690 | 1740 | 1760 | 1810 | 1560 | 1500 | 1590 | 1590 | 1650 | 1650 |
| 10 | 1690 | 1650 | 1390 | 1430 | 1560 | 1530 | 1590 | 1580 | 1690 | 1640 | 1000 | 1550 | 1840 | 1800 | 1620 | 1600 | 1710 | 1640 | 1660 | 1680 | 1440 | 1430 | 1620 | 1540 |
| 11 | 1600 | 1620 | 1460 | 1490 | 1580 | 1570 | 1610 | 1560 | 1680 | 1630 | 1660 | 1680 | 1900 | 1920 | 1750 | 1660 | 1710 | 1680 | 1590 | 1610 | 1530 | 1510 | 1600 | 1580 |
| 12 | 1500 | 1520 | 1520 | 1390 | 1580 | 1510 | 1590 | 1570 | 1480 | 1480 | 1660 | 1630 | 1810 | 1820 | 1700 | 1690 | 1680 | 1700 | 1520 | 1580 | 1600 | 1580 | 1540 | 1540 |
| 13 | 1620 | 1570 | 1480 | 1450 | 1660 | 1640 | 1510 | 1500 | 1670 | 1630 | 1700 | 1780 | 1780 | 1760 | 2030 | 2000 | 1780 | 1720 | 1490 | 1450 | 1570 | 1570 | 1590 | 1550 |
| 14 | 1500 | 1510 | 1630 | 1620 | 1580 | 1520 | 1630 | 1550 | 1550 | 1550 | 1610 | 1620 | 1890 | 1720 | 1470 | 1460 | 1690 | 1700 | 1470 | 1420 | 1680 | 1590 | 1540 | 1490 |
| 15 | 1550 | 1560 | 1540 | 1580 | 1560 | 1570 | 1670 | 1540 | 1640 | 1560 | 1490 | 1500 | 1530 | 1640 | 1590 | 1610 | 1640 | 1680 | 1610 | 1580 | 1560 | 1520 | 1610 | 1600 |
| 16 | 1520 | 1550 | 1520 | 1630 | 1510 | 1530 | 1540 | 1550 | 1560 | 1590 | 1660 | 1630 | 1610 | 1560 | 1540 | 1620 | 1780 | 1760 | 1690 | 1640 | 1640 | 1560 | 1640 | 1640 |
| 17 | 1560 | 1510 | 1400 | 1480 | 1440 | 1420 | 1590 | 1580 | 1550 | 1570 | 1890 | 1940 | 2080 | 2090 | 1580 | 1520 | 2120 | 2150 | 1670 | 1640 | 1580 | 1540 | 1550 | 1550 |
| 18 | 1530 | 1540 | 1340 | 1320 | 1420 | 1410 | 1470 | 1460 | 1570 | 1570 | 1570 | 1550 | 1700 | 1750 | 1580 | 1480 | 1860 | 1820 | 1570 | 1580 | 1650 | 1640 | 1580 | 1590 |
| 19 | 1480 | 1500 | 1560 | 1590 | 1500 | 1450 | 1610 | 1530 | 1440 | 1440 | 1630 | 1590 | 1770 | 1740 | 1630 | 1610 | 1790 | 1820 | 1670 | 1660 | 1650 | 1620 | 1610 | 1620 |
| 20 | 1370 | 1390 | 1410 | 1370 | 1460 | 1410 | 1620 | 1570 | 1570 | 1480 | 1630 | 1580 | 1710 | 1690 | 1920 | 1880 | 1810 | 1820 | 1650 | 1620 | 1600 | 1600 | 1550 | 1580 |
| 21 | 1370 | 1400 | 1490 | 1470 | 1670 | 1630 | 1520 | 1560 | 1640 | 1620 | 1630 | 1620 | 1570 | 1590 | 1720 | 1710 | 1810 | 1750 | 1700 | 1690 | 1660 | 1610 | 1490 | 1500 |
| 22 | 1490 | 1530 | 1530 | 1550 | 1570 | 1500 | 1680 | 1660 | 1600 | 1550 | 1560 | 1600 | 2030 | 1970 | 1620 | 1630 | 1700 | 1690 | 1700 | 1710 | 1570 | 1570 | 1520 | 1460 |
| 23 | 1320 | 1300 | 1710 | 1740 | 1580 | 1540 | 1660 | 1630 | 1680 | 1630 | 1820 | 1780 | 1690 | 1700 | 1570 | 1500 | 1630 | 1580 | 1610 | 1620 | 1570 | 1540 | 1620 | 1600 |
| 24 | 1520 | 1440 | 1810 | 1690 | 1480 | 1470 | 1630 | 1600 | 1620 | 1650 | 1750 | 1730 | 1790 | 1740 | 1600 | 1630 | 2130 | 2150 | 1530 | 1520 | 1590 | 1560 | 1520 | 1560 |
| 25 | 1530 | 1520 | 1600 | 1650 | 1630 | 1610 | 1450 | 1550 | 1540 | 1580 | 1840 | 1810 | 1670 | 1690 | 1610 | 1680 | 1750 | 1760 | 1520 | 1480 | 1630 | 1650 | 1620 | 1470 |
| 26 | 1510 | 1490 | 1550 | 1540 | 1600 | 1680 | 1500 | 1470 | 1480 | 1500 | 1800 | 1840 | 1690 | 1660 | 1840 | 1880 | 1600 | 1630 | 1470 | 1460 | 1680 | 1710 | 1610 | 1610 |
| 27 | 1630 | 1610 | 1620 | 1630 | 1690 | 1680 | 1520 | 1490 | 1750 | 1850 | 1830 | 1880 | 1660 | 1740 | 1720 | 1790 | 1670 | 1690 | 1490 | 1470 | 1660 | 1650 | 1490 | 1460 |
| 28 | 1450 | 1440 | 1660 | 1620 | 1700 | 1760 | 1480 | 1530 | 1560 | 1650 | 1690 | 1680 | 1670 | 1690 | 1730 | 1760 | 1580 | 1630 | 1490 | 1460 | 1630 | 1670 | 1520 | 1500 |
| 29 | 1620 | 1630 | | | 1610 | 1650 | 1510 | 1460 | 1790 | 1730 | 1800 | 1780 | 2320 | 2360 | 1680 | 1690 | 1740 | 1740 | 1580 | 1540 | 1640 | 1610 | 1470 | 1480 |
| 30 | 1430 | 1380 | | | 1610 | 1630 | 1460 | 1460 | 1700 | 1700 | 1680 | 1600 | 1510 | 1520 | 1630 | 1620 | 1620 | 1570 | 1450 | 1460 | 1420 | 1350 | 1530 | 1540 |
| 31 | 1410 | 1390 | | | 1530 | 1540 | | | 1620 | 1610 | | | 1570 | 1520 | 1500 | 1550 | | | 1730 | 1720 | | | 1500 | 1550 |
| Avg | 1490 | 1485 | 1492 | 1494 | 1552 | 1538 | 1558 | 1537 | 1588 | 1580 | 1686 | 1697 | 1770 | 1763 | 1643 | 1639 | 1726 | 1725 | 1603 | 1589 | 1624 | 1604 | 1610 | 1594 |
| Min | 1310 | 1300 | 1250 | 1310 | 1410 | 1390 | 1400 | 1390 | 1440 | 1410 | 1000 | 1500 | 1510 | 1520 | 1440 | 1420 | 1500 | 1500 | 1450 | 1420 | 1420 | 1350 | 1470 | 1460 |
| Max | 1690 | 1650 | 1810 | 1740 | 1700 | 1760 | 1680 | 1690 | 1790 | 1850 | 2080 | 2100 | 2320 | 2360 | 2030 | 2000 | 2130 | 2150 | 1750 | 1770 | 1760 | 1740 | 1970 | 1930 |

# Toxicity Testing: Point Loma Ocean Outfall 2002

## INTRODUCTION

The City of San Diego conducts aquatic bioassays as required by the City's National Pollutant Discharge Elimination System permit (No. CA0107409 and Order No. 95-106). The permit was renewed (Order No. R9-2002-0025) by U.S. EPA and adopted by the California Regional Water Quality Control Board on April 10, 2002. This testing is designed to determine the acute and chronic toxicity of effluent samples collected from the Point Loma Wastewater Treatment Plant. This chapter presents summaries and discussion of toxicity testing conducted in 2002.

Toxicity testing of wastewater effluent measures the bioavailability of toxicants in a complex mixture, accounts for synergistic and antagonistic actions, and integrates any potentially adverse effects of the constituents. Acute and chronic toxicity tests are characterized by the duration of exposure to a toxicant as well as the adverse effect (measured response) produced as the result of exposure to a toxicant. Acute toxicity testing consists of a short-term exposure period, usually 96 hours or less, and the acute effect refers to mortality of the test organism.

Chronic toxicity testing, in the classic sense, refers to long-term exposure of the test organism to a potential toxicant. This may involve exposing the test organism for its entire reproductive life cycle which may exceed 12 months for organisms such as fish. In general, chronic tests are inherently more sensitive to toxicants than acute tests in that adverse effects are detected at lower toxicant concentrations. The City of San Diego is required to conduct critical/early lifestage chronic tests that are intermediate between the acute and chronic toxicity testing protocols discussed above. These test results serve as short-term estimates of chronic toxicity.

## MATERIALS & METHODS

### Test Material

Twenty-four hour, flow-weighted, effluent composite samples were collected at the Point Loma Wastewater Treatment Plant and stored at 4EC until test initiation. All tests were initiated within 36 hours of sample collection. The acute toxicity test concentrations were 18, 32, 56, 75, and 100% effluent for the fathead minnow and *Ceriodaphnia* (water flea) tests, and 3.87, 7.75, 15.5, 31.0, and 62% (nominal) for the topsmelt and mysid tests. Dilution water for the effluent acute toxicity bioassays consisted of carbon filtered, aerated, and dechlorinated tap water for the fathead minnow tests, and dilute mineral water for the *Ceriodaphnia* tests. Dilution water for the acute topsmelt and mysid tests consisted of the same receiving water used in the chronic toxicity tests.

Chronic toxicity test concentrations were 0.15, 0.27, 0.49, 0.88, and 1.56% effluent. The protocols for the chronic bioassays specify the use of unimpacted receiving water as dilution water. Receiving water was collected at water quality station B8 (see City of San Diego 2002) and used within 96 hours of collection. The receiving water samples were collected from a depth of 2 m and stored at 4EC until test initiation. Dilution water for chronic reference toxicant testing was obtained from the Scripps Institution of Oceanography (SIO), filtered, held at 4EC, and used within 96 hours of collection. Detailed methodology for all toxicity testing are described in the City Bioassay Lab Standard Operating Procedures Manual.

### Acute Bioassays

***Fathead Minnow Survival Bioassay***

Fathead minnow acute bioassays were conducted in accordance with USEPA protocol EPA/600/4-85/013 (USEPA 1985). The test organisms, *Pimephales promelas*, were purchased from Aquatic Bio Systems (Fort Collins, Colorado). Juvenile fish approximately 60-90 days old were exposed for 96 hours to the test material while being kept in a static non-renewal system where the test solutions were aerated, but otherwise left undisturbed throughout the test period.

Simultaneous reference toxicant testing was performed using sodium dodecyl sulfate (SDS). Test concentrations were 10, 18 and 32 mg/L SDS. Upon the conclusion of the exposure period, percent survival was recorded.

Tests were declared valid if control mortality did not exceed 10%. The data were analyzed using a multiple comparison procedure and linear interpolation method prescribed by USEPA (1985). ToxCalc software (Tidepool

Scientific Software 1994) was used for all statistical analyses.

***Ceriodaphnia Survival Bioassay***

*Ceriodaphnia* acute bioassays were conducted in accordance with USEPA protocol EPA/600/4-90/027F (USEPA 1993). The test organisms, *Ceriodaphnia dubia*, were cultured in-house at the bioassay laboratory. Newly released (< 24 hr) neonates were exposed for 48 hours to a series of effluent and reference toxicant concentrations while being kept in a static system.

Simultaneous reference toxicant testing was performed using reagent grade copper chloride. The concentrations of copper in the exposure series were 3, 6, 12, 24, and 48 Fg/L. Upon conclusion of the exposure period, percent survival was recorded. Tests were declared valid if control mortality did not exceed 10%. The data were analyzed using a multiple comparison procedure and point estimation method prescribed by USEPA (1993). ToxCalc software (Tidepool Scientific Software 1994) was used for all statistical analyses.

***Topsmelt Survival Bioassay***

The topsmelt acute bioassays were conducted in accordance with USEPA protocol EPA/600/4-90/027F (USEPA 1993) by EVS Environment consultants (N. Vancouver, BC) and the City's bioassay laboratory. Larval *Atherinops affinis* (9-14 days old) were purchased from Aquatic Bio Systems (Fort Collins, CO), and were exposed for 48 hours in a static system or 96 hours in a static renewal system to 3.83, 7.75, 15.5, 31.0, and 62% effluent (nominal). For the 96 hours tests, the test solutions were renewed at 48 hours.

Simultaneous reference toxicant testing was performed using reagent grade copper chloride. Test concentrations consisted of 56, 100, 180, 320 and 560 Fg/L copper. Dilution water for chronic reference toxicant testing was obtained from SIO, filtered, held at 4EC, and used within 96 hours of collection. Upon conclusion of the exposure period, percent survival was recorded. Tests were declared valid if control mortality did not exceed 10%. The data were analyzed using a multiple comparison procedure and point estimation method prescribed by USEPA (1993). ToxCalc software (Tidepool Scientific Software 1994) was used for all statistical analyses.

***Mysid Survival Bioassay***

The mysid acute bioassay was conducted in accordance with USEPA protocol EPA/600/4-90/027F (USEPA 1993) by EVS Environment consultants (N. Vancouver, BC) and the City's bioassay laboratory. Larval *Mysidopsis bahia* (4-5 days old) were purchased from Aquatic Bio Systems (Fort Collins, CO), and were exposed for 48 hours in a static system to 3.83, 7.75, 15.5, 31.0, and 62% effluent (nominal). For the 96 hours tests, the test solutions were renewed at 48 hours.

Simultaneous reference toxicant testing was performed using reagent grade copper chloride. Test concentrations consisted of 56, 100, 180, 320, and 560 Fg/L copper. Dilution water for chronic reference toxicant testing was obtained from SIO filtered, held at 4EC, and used within 96 hours of collection. Upon conclusion of the exposure period, percent survival was recorded. Tests were declared valid if control mortality did not exceed 10%. The data were analyzed using a multiple comparison procedure and point estimation method prescribed by USEPA (1993). ToxCalc software (Tidepool Scientific Software 1994) was used for all statistical analyses.

## Chronic Bioassays

***Kelp Germination and Growth Test***

Chronic bioassays using the giant kelp, *Macrocystis pyrifera*, were conducted in accordance with USEPA protocol EPA/600/R-95/136 (USEPA 1995). Kelp zoospores were kept in a static system and exposed for 48 hours to a series of effluent and reference toxicant concentrations. Zoospores were obtained one day prior to test initiation from the reproductive blades (sporophylls) of adult *Macrocystis* plants collected in the kelp beds near La Jolla, California.

Simultaneous reference toxicant testing was performed using reagent grade copper chloride. The concentrations of copper in the exposure series were 5.6, 10, 18, 32, 56, 100, and 180 Fg/L. A reference toxicant control consisting of SIO dilution water was also tested. Upon conclusion of the exposure period, percent germination and germ-tube length were recorded.

The data were analyzed in accordance with "Flowchart for statistical analysis of giant kelp, *Macrocystis pyrifera*, germination data" and "Flowchart for statistical analysis of giant kelp, *Macrocystis pyrifera*, growth data" (see USEPA 1995). ToxCalc software (Tidepool Scientific Software 1994) was used for all statistical analyses.

***Red Abalone Development Bioassay***

Chronic bioassays using the red abalone, *Haliotis rufescens*, were conducted in accordance with USEPA protocol EPA/600/R-95/136 (USEPA 1995). Test organisms were purchased from Cultured Abalone (Goleta, California), and shipped via overnight delivery to the City's bioassay laboratory. Mature male and female abalone were placed in natural seawater tanks at 15EC. Prior to test initiation, spawning was induced and abalone eggs and sperm were retained for the analysis. Subsequently, the eggs were fertilized, and a known quantity of fertilized embryos was added to each test replicate at the beginning of the 48 hour exposure period.

Simultaneous reference toxicant testing was performed using reagent grade zinc sulfate. The concentrations of zinc in the exposure series were 10, 18, 32, 56, and 100 Fg/L. A reference toxicant control consisting of SIO dilution water was also tested. Upon conclusion of the exposure period, percent normal embryo development was recorded.

The percentage of normally developed embryos for each replicate was arcsine square root transformed. The data were analyzed in accordance with "Flowchart for statistical analysis of red abalone *Haliotis rufescens*, development data" (see USEPA 1995). ToxCalc software (Tidepool Scientific Software 1994) was used for all statistical analyses.

***Topsmelt Survival and Growth Bioassay***

Chronic bioassays using larvae of the topsmelt, *Atherinops affinis*, were conducted in accordance with USEPA protocol EPA/600/R-95/136 (USEPA 1995). Topsmelt larvae were purchased from Aquatic Bio Systems (Fort Collins, CO), and shipped via overnight delivery to the City's bioassay laboratory. Prior to test initiation, the test organisms were held in seawater tanks and gradually acclimated to test temperature and salinity. The bioassays were subsequently initiated when the topsmelt larvae were 9-14 days old. Larval fish were then exposed to a series of effluent and reference toxicant concentrations for a period of seven days while being maintained in a static renewal system. The test solutions were renewed daily.

Reference toxicant testing was performed using reagent grade copper chloride. The concentrations of copper in the exposure series were 32, 56, 100, 180, and 320 Fg/L. A separate control consisting of SIO dilution water was also tested. Upon conclusion of the exposure period, the percent survival and the percent growth (i.e., weight gain) of larval fish were recorded.

The survival data were arcsine square root transformed and then analyzed in accordance with the "Flowchart for statistical analysis of the topsmelt, *Atherinops affinis*, larval survival data" (USEPA 1995). Growth data were analyzed in accordance with the "Flowchart for statistical analysis of the topsmelt, *Atherinops affinis*, larval growth data" (USEPA 1995). ToxCalc software (Tidepool Scientific Software 1994) was used for all statistical analyses.

## RESULTS & DISCUSSION

### Acute Bioassays

The City conducted acute bioassays from January to April 2002 using both Fathead minnows (*Pimephales promelas*) and freshwater water fleas (*Ceriodaphnia dubia*) in accordance with Order No. 95-106. One additional *Ceriodaphnia* bioassay was performed in May immediately prior to adoption of Order No. R9-2002-0025. The toxic unit acute (TUa) values for the fathead minnows averaged 1.2 TUa and were within established NPDES limits throughout 2002 (Table T.2). In contrast, the *Ceriodaphnia* tests averaged 1.3 TUa for the year and exceeded the NPDES permit limits on several occasions, most notably in the 30-day average category (Table T.3). The *Ceriodaphnia* acute toxicity tests were conducted on a weekly basis to better characterize the persistence and source of toxicity. The increased test frequency did not produce a discernable pattern of toxicity as the incidences of toxicity were clearly sporadic and short-lived.

As stated in the City's 2000 receiving water monitoring report (City of San Diego 2001), the State of California has revised acute testing procedures for ocean dischargers. The new California Ocean Plan (COP) requires utilization of marine species instead of freshwater species. The document was approved by the Office of Administrative Law (OAL) and the EPA in December of 2001. The new COP requirements were incorporated into Order No. R9-2002-0025, and the City revised the acute test frequency and duration of the marine species (i.e., topsmelt, *Atherinops affinis* and mysid, *Mysidopsis bahia*) in May 2002 in response to the new permit. All tests demonstrated complete compliance with the new standards (Table T.4).

### Chronic Bioassays

An annual screening of three species was conducted to verify sensitivity of the selected test organisms to Point Loma effluent. Giant kelp (*Macrocystis pyrifera),* red abalone (*Haliotis rufescens*), and topsmelt (*Atherinops affinis*) were screened and the results of these comparative bioassays are summarized in Table T.1. The results indicated equal sensitivity among all species. Subsequent chronic bioassays on effluent samples were conducted using both giant kelp and abalone since the giant kelp has been the most sensitive species in previous years and the red abalone remains ecologically important to the region.

The giant kelp and red abalone chronic toxicity tests conducted during 2002 are summarized in Table T.5. All red abalone tests were within compliance limits. The City began bi-weekly accelerated testing in November 2001 after the giant kelp test exceeded the compliance limit. The bi-weekly testing continued through July 2002 and the results revealed sporadic toxicity which may have been associated with operational reconfiguration of the NPDES sampling location and plant maintenance operations at PLWTP. All kelp tests were within established NPDES limits for the remainder of 2002.

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**Table T.1**
Results of the chronic screening bioassays conducted during April 2002 to verify the sensitivity of the selected test organisms. Data are presented as No Observed Effect Concentration (NOEC)

***Chronic***

| Test Species | End-point Determination | Test Results (NOEC) |
|---|---|---|
| Giant Kelp | Percent germination | 1.56 |
| | Germ-tube length | 1.56 |
| Red Abalone | Percent normal development | 1.56 |
| Topsmelt | Percent survival | 1.56 |
| | Growth | 1.56 |

**Table T.2**
Results and compliance summary for the acute toxicity testing of Point Loma Wastewater Plant effluent using the fathead minnow, *Pimephales promelas*, from January to April 2002. Data are presented in toxic unit acute (TUa) values. Numbers in parentheses indicate NPDES limits.

| Sample Date | Daily (2.5) | 7-day average (2.0) | 30-day average (1.5) |
|---|---|---|---|
| 9-Jan | 1.1 | 1.1 | 1.1 |
| 2-Feb | 1.1 | 1.1 | 1.1 |
| 14-Mar | 1.5 | 1.5 | 1.5 |
| 16-Apr | 1.0 | 1.0 | 1.0 |
| N | 4 | 4 | 4 |
| No. in Compliance | 4 | 4 | 4 |

**Table T.3**
Results and compliance summary for the acute toxicity testing of Point Loma Wastewater Plant effluent using the water flea, *Ceriodaphnia dubia*, from January to May 2002. Data are presented in toxic unit acute (TUa) values. Numbers in parentheses indicate NPDES limits.

| Sample Date | Daily (2.5) | 7-day average (2.0) | 30-day average (1.5) |
|---|---|---|---|
| 2-Jan | 1.5 | 2.4 | 1.6 |
| 9-Jan | 1.1 | 1.1 | 1.7 |
| 15-Jan | 1.2 | 1.2 | 1.6 |
| 23-Jan | 1.6 | 1.6 | 1.7 |
| 29-Jan | 1.2 | 1.4 | 1.3 |
| 2-Feb | 1.4 | 1.3 | 1.3 |
| 15-Feb | 1.1 | 1.1 | 1.3 |
| 22-Feb | 1.4 | 1.4 | 1.3 |
| 26-Feb | 2.0 | 1.7 | 1.4 |
| 5-Mar | 1.7 | 1.7 | 1.6 |
| 11-Mar | 1.2 | 1.5 | 1.5 |
| 14-Mar | 1.3 | 1.3 | 1.5 |
| 20-Mar | 0.9 | 1.1 | 1.4 |
| 27-Mar | 1.5 | 1.5 | 1.4 |
| 3-Apr | 1.3 | 1.3 | 1.3 |
| 10-Apr | 1.1 | 1.1 | 1.2 |
| 16-Apr | 0.9 | 1.0 | 1.1 |
| 23-Apr | 1.1 | 1.1 | 1.2 |
| 3-May | 1.6 | 1.6 | 1.2 |
| N | 19 | 19 | 19 |
| No. in compliance | 19 | 18 | 14 |

**Table T.4**
Results and compliance summary of acute bioassays conducted during 2002 using the new California Ocean Plan approved marine species. Data are presented in toxic unit acute (TUa) values. The new California Ocean Plan compliance limit will be 6.5 TUa. All tests were conducted with B-8 receiving water as dilution unless otherwise indicated. N.T. = Not tested

| Sample Date | Topsmelt 48-Hour Bioassay | Mysid 48-Hour Bioassay |
|---|---|---|
| | **48 h Static Non-Renewal** | |
| 9-Jan | 1.6 | 0.8 |
| 2-Feb | 2.1 | 1.3 |
| 14-Mar | 2.7 | 3.4 |
| 16-Apr | <1.5 | <1.5 |

| Sample Date | Topsmelt 48-Hour Bioassay | Mysid 48-Hour Bioassay |
|---|---|---|
| | **96 h Static Renewal** | |
| 12-Jul | 1.5 | 1.5 |
| 8-Oct | 2.1 | - |
| 8-Oct | 2.1 | - |

**Table T.5**
Results of chronic toxicity testing of Point Loma Wastewater Plant effluent from January to December 2002. Data are presented in toxic unit chronic (TUc) values. NPDES permit limit is 205 Tuc. N.T. = Not tested. N.V. = Not valid

| | Giant Kelp Bioassay | | Red Abalone Bioassay |
|---|---|---|---|
| Sample date | % Germination | Germ-tube Length | % Normal Development |
| 9-Jan | 64 | 64 | 64 |
| 16-Jan | 64 | 64 | |
| 2-Feb | 114 | >667 | 64 |
| 8-Feb | 64 | 64 | |
| 13-Feb[1] | 64 | >667 | |
| 26-Feb | 64 | 64 | |
| 26-Feb[1] | 64 | 64 | |
| 14-Mar | 64 | 64 | 64 |
| 14-Mar[1] | 64 | 64 | |
| 26-Mar | 64 | 64 | |
| 26-Mar[1] | 114 | >667 | |
| 7-Apr | 64 | 64 | 64 |
| 23-Apr | 64 | 64 | |
| 9-May | 114 | 64 | 64 |
| 22-May | 64 | 114 | |
| 2-Jun | 64 | 64 | 64 |
| 18-Jun | 64 | 64 | |
| 12-Jul | 64 | 667 | 64 |
| 23-Jul | 64 | 64 | |
| 5-Aug | 64 | 64 | 64 |
| 6-Sep | 64 | 64 | 64 |
| 8-Oct | 64 | 114 | 64 |
| 5-Nov | 64 | 64 | 64 |
| 3-Dec | 64 | 64 | 64 |
| N | 24 | 24 | 12 |
| No in compliance | 24 | 20 | 12 |
| Mean TUc | 70 | 169 | 64 |

[1]Sample collected in North Effluent Outfall Channel

E. 6-Year Tables.

Results of the determination of selected parameters on a weekly basis for the past 6-years.

ARSENIC (ug/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 2.1 | 1.3 | 2.3 | 1.3 | 1.4 | 1.1 | 1.8 | 1.3 | 2.6 | 1.3 | 2.1 | 1.6 | 2.8 | 2.2 | 2.1 | 0.7 | 2.7 | 2.0 | 2.8 | 1.6 | 2.8 | 1.6 | 1.3 | 1.1 |
| 2 | 2.2 | 1.4 | 2.6 | 1.2 | 2.0 | 2.3 | 2.2 | 1.4 | 2.1 | 1.6 | 2.2 | 1.9 | 3.5 | 1.5 | 1.4 | 0.8 | 2.6 | 2.6 | 2.3 | 1.4 | 2.2 | 1.6 | 1.0 | 1.0 |
| 3 | 2.5 | 1.5 | 1.7 | 1.1 | 2.0 | 2.4 | 2.4 | 1.8 | 2.6 | 1.8 | 2.0 | 1.6 | 2.9 | 1.5 | 1.2 | 0.8 | 2.6 | 1.7 | 2.1 | 1.9 | 2.1 | 1.5 | 1.4 | 1.0 |
| 4 | 4.6 | 1.8 | 2.1 | 1.4 | 1.6 | 1.2 | | | 2.3 | 2.1 | 2.1 | 1.4 | 2.7 | 1.4 | 1.3 | 1.1 | | | 3.2 | 1.8 | 2.4 | 1.7 | 1.5 | 0.7 |
| Average | 2.8 | 1.5 | 2.2 | 1.3 | 1.7 | 1.8 | 2.1 | 1.5 | 2.4 | 1.7 | 2.1 | 1.6 | 2.9 | 1.6 | 1.5 | 0.8 | 2.6 | 2.1 | 2.6 | 1.6 | 2.4 | 1.6 | 1.3 | 1.0 |

ARSENIC (ug/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 1.8 | 1.0 | 2.6 | 1.3 | 2.1 | 1.6 | 2.0 | 1.2 | 1.9 | 0.9 | 1.5 | 0.9 | 1.7 | 1.2 | 2.3 | 1.3 | 2.2 | 1.2 | 2.1 | 1.2 | 1.9 | 1.3 | 3.6 | 1.2 |
| 2 | 1.8 | 0.8 | 3.3 | 1.3 | 1.9 | 1.2 | 1.8 | 1.1 | 2.2 | 1.2 | 1.3 | 1.1 | 1.9 | 1.2 | 2.4 | 1.5 | 3.2 | 1.3 | 2.2 | 1.0 | 1.5 | 1.2 | 2.1 | 1.6 |
| 3 | 1.8 | 0.8 | 2.8 | 2.3 | 1.9 | 1.4 | 1.4 | 0.9 | 1.6 | 0.9 | 1.3 | 1.1 | 1.7 | 1.2 | 2.2 | 1.4 | 2.9 | 1.4 | 2.3 | 1.6 | 2.1 | 1.1 | 1.3 | 0.8 |
| 4 | 2.8 | 1.1 | | | 2.1 | 1.0 | 1.4 | 0.8 | 1.4 | 1.1 | 1.8 | 0.7 | | | 2.4 | 1.4 | 1.9 | 1.2 | 2.0 | 1.1 | 1.8 | 1.1 | 1.4 | 0.7 |
| Average | 2.0 | 0.9 | 2.9 | 1.6 | 2.0 | 1.3 | 1.7 | 1.0 | 1.8 | 1.0 | 1.5 | 1.0 | 1.7 | 1.2 | 2.3 | 1.4 | 2.6 | 1.3 | 2.1 | 1.2 | 1.9 | 1.2 | 2.1 | 1.1 |

ARSENIC (ug/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 1.5 | 0.8 | 1.8 | 1.0 | 1.4 | 0.8 | 1.3 | 0.8 | 1.3 | 0.9 | 1.7 | 1.0 | 1.6 | 1.1 | 1.7 | 1.1 | 1.8 | 1.1 | 1.9 | 1.5 | 1.5 | 0.7 | 1.7 | 0.9 |
| 2 | 1.6 | 0.8 | 1.7 | 0.8 | 1.6 | 0.9 | 1.6 | 1.0 | 1.6 | 0.9 | 1.9 | 1.2 | 2.0 | 1.2 | 2.0 | 1.1 | 1.7 | 1.1 | 1.6 | 1.2 | 1.9 | 1.0 | 1.5 | 1.0 |
| 3 | 1.6 | 0.9 | 1.6 | 0.8 | 1.4 | 0.8 | 1.7 | 0.7 | 1.5 | 1.2 | 1.5 | 1.0 | 1.6 | 1.1 | 1.9 | 1.1 | 1.8 | 1.2 | 2.1 | 1.4 | 2.0 | 1.2 | 1.2 | 1.0 |
| 4 | | | 1.7 | 1.1 | 2.9 | 1.3 | 2.0 | 1.1 | | | 1.5 | 1.0 | 1.5 | 1.4 | 1.7 | 1.1 | 1.4 | 1.0 | 2.1 | 1.0 | | | 1.1 | 0.9 |
| Average | 1.6 | 0.8 | 1.7 | 0.9 | 2.0 | 1.3 | 1.7 | 0.9 | 1.5 | 1.0 | 1.6 | 1.1 | 1.7 | 1.2 | 1.8 | 1.1 | 1.7 | 1.1 | 1.9 | 1.3 | 1.8 | 1.0 | 1.4 | 0.9 |

ARSENIC (ug/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 1.4 | 0.6 | 1.6 | 0.9 | 1.1 | 1.2 | 1.5 | 0.8 | 2.1 | <0.2 | 0.3 | <0.2 | 1.2 | 0.7 | 1.2 | 0.9 | 1.2 | 1.0 | 1.3 | 1.1 | 1.6 | 0.9 | 1.0 | 0.4 |
| 2 | 1.5 | 0.7 | 1.4 | 1.0 | 1.2 | 0.8 | 1.5 | 0.9 | 1.5 | <0.2 | 1.4 | 1.1 | 1.5 | 0.8 | 1.1 | 1.0 | 1.3 | 1.0 | 1.3 | 0.8 | 1.2 | 1.1 | 1.2 | 0.7 |
| 3 | 1.3 | 0.8 | 1.5 | 1.1 | 0.9 | 0.7 | 1.4 | 0.9 | 2.3 | 0.2 | 1.1 | 0.9 | 1.3 | 0.8 | 1.0 | 0.7 | 0.8 | 0.7 | 1.4 | 1.0 | 1.3 | 0.9 | 1.0 | 0.7 |
| 4 | 1.2 | 0.7 | 1.4 | 0.8 | 1.1 | 0.6 | | | 0.2 | 0.7 | 1.5 | 0.8 | 1.3 | 1.2 | 2.2 | 1.4 | | | 1.5 | 1.1 | 0.9 | 0.8 | 1.2 | 0.9 |
| Average | 1.3 | 0.8 | 1.5 | 0.9 | 1.1 | 0.8 | 1.5 | 0.9 | 1.5 | 0.2 | 1.1 | 0.7 | 1.3 | 0.9 | 1.8 | 1.1 | 1.1 | 0.9 | 1.4 | 1.0 | 1.2 | 0.9 | 1.1 | 0.7 |

ARSENIC (ug/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 1.1 | 0.7 | 1.3 | 0.8 | 1.3 | 1.0 | 0.9 | <0.2 | 1.2 | 0.8 | 4.3 | 1.0 | 1.2 | 0.7 | 1.6 | 1.1 | 1.6 | 1.1 | 2.0 | 0.9 | 1.0 | 1.1 | 1.7 | 0.9 |
| 2 | 1.5 | 0.8 | 1.5 | 0.9 | 0.7 | 1.0 | 0.7 | 0.5 | 1.2 | 1.0 | 1.1 | 0.7 | 1.1 | 0.7 | 1.4 | 0.9 | 0.7 | 1.2 | 1.0 | 0.3 | 1.7 | 1.1 | 1.3 | 0.6 |
| 3 | 0.8 | 0.6 | 0.9 | 0.6 | 1.1 | <0.2 | 1.1 | 0.6 | 1.0 | 1.0 | 1.4 | 1.0 | 1.3 | 0.9 | 1.6 | 1.1 | 1.4 | 0.8 | 1.1 | 1.0 | 1.8 | 1.1 | 1.1 | 0.8 |
| 4 | 1.4 | 1.0 | | | 0.6 | 0.4 | 0.8 | 0.4 | 1.2 | 0.8 | 1.4 | 1.0 | | | 1.5 | 1.1 | 0.6 | 0.2 | 1.5 | 1.1 | 1.5 | 0.9 | 1.4 | 0.8 |
| Average | 1.2 | 0.8 | 1.2 | 0.8 | 0.9 | 0.6 | 0.9 | 0.4 | 1.1 | 0.9 | 2.1 | 0.9 | 1.2 | 0.8 | 1.5 | 1.1 | 1.1 | 0.8 | 1.4 | 0.8 | 1.5 | 1.0 | 1.3 | 0.8 |

ARSENIC (ug/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 0.88 | 0.65 | 1.4 | 0.89 | 1.1 | 0.62 | 1.60 | 1.54 | 1.20 | 1.14 | 1.74 | 0.98 | 2.31 | 1.89 | 1.23 | 1.17 | 1.73 | 1.72 | 1.86 | 1.52 | 1.87 | 1.56 | 1.29 | 0.91 |
| 2 | 1.33 | 0.84 | 1.72 | 0.92 | 1.16 | 0.90 | 0.99 | 0.57 | 1.83 | 1.34 | 1.53 | 0.90 | 2.96 | 2.34 | 2.76 | 2.25 | 2.18 | 1.95 | 1.06 | 0.74 | 1.88 | 1.58 | 2.73 | 2.36 |
| 3 | 1.21 | 1.09 | 1.05 | 0.65 | 0.61 | 0.69 | 1.57 | 1.59 | 2.34 | 1.56 | 2.84 | 2.74 | 2.65 | 1.74 | 2.13 | 1.14 | 1.87 | 1.55 | 1.86 | 1.74 | 1.12 | 0.75 | 1.53 | 1.02 |
| 4 | | | 1.38 | 1.13 | 0.72 | 0.82 | 1.14 | 0.66 | | | 1.44 | 1.06 | 1.83 | 1.46 | 2.81 | 1.87 | 1.20 | 0.81 | 2.33 | 2.41 | | | 1.52 | 0.76 |
| Average | 1.14 | 0.86 | 1.39 | 0.90 | 0.90 | 0.76 | 1.33 | 1.09 | 1.79 | 1.35 | 1.89 | 1.42 | 2.44 | 1.86 | 2.23 | 1.61 | 1.75 | 1.51 | 1.78 | 1.60 | 1.62 | 1.30 | 1.77 | 1.26 |

CADMIUM (ug/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.2 | <1.0 | <1.0 | 1.2 | <1.0 | 2.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.7 |
| 2 | <1.0 | <1.0 | 3.0 | <1.0 | 1.1 | 1.5 | 1.9 | <1.0 | <1.0 | <1.0 | 1.7 | 1.0 | <1.0 | 1.5 | <1.0 | <1.0 | 1.1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 2.1 |
| 3 | <1.0 | <1.0 | 1.3 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.6 |
| 4 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | | | <1.0 | 1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | | | <1.0 | <1.0 | 1.7 | <1.0 | <1.0 | <1.0 |
| Average | <1.0 | <1.0 | 1.1 | <1.0 | 0.3 | <1.0 | <1.0 | <1.0 | 0.3 | 0.3 | 0.9 | 0.3 | <1.0 | 0.4 | <1.0 | <1.0 | 0.4 | <1.0 | <1.0 | <1.0 | 0.4 | <1.0 | <1.0 | 1.4 |

CADMIUM (ug/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.2 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.5 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 2 | <1.0 | <1.0 | <1.0 | <1.0 | 2.1 | 1.6 | <1.0 | <1.0 | <1.0 | <1.0 | 1.3 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.7 | 2.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.9 | <1.0 |
| 3 | <1.0 | <1.0 | <1.0 | <1.0 | 1.2 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.4 | 1.4 | <1.0 | <1.0 | <1.0 | <1.0 | 2.4 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.3 | <1.0 |
| 4 | <1.0 | <1.0 | | | 1.5 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 2.1 | <1.0 | | | <1.0 | <1.0 | 2.4 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| Average | <1.0 | <1.0 | <1.0 | <1.0 | 1.2 | 0.4 | <1.0 | <1.0 | <1.0 | <1.0 | 1.5 | 0.4 | <1.0 | <1.0 | <1.0 | <1.0 | 1.6 | 0.9 | <1.0 | <1.0 | <1.0 | <1.0 | 0.8 | <1.0 |

CADMIUM (ug/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <1.0 | <1.0 | <1.0 | <1.0 | 1.3 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.2 | 1.2 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.2 | <1.0 |
| 2 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.2 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.3 | <1.0 |
| 3 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.4 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 4 | | | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | | | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | | | <1.0 | <1.0 |
| Average | <1.0 | <1.0 | <1.0 | <1.0 | 0.3 | <1.0 | 0.6 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 0.3 | 0.3 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 0.6 | <1.0 |

CADMIUM (ug/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 1.0 | 1.1 | 1.7 | <1.0 | 1.0 | <1.0 | <1.0 | <1.0 | 1.2 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.6 | 1.3 | <1.0 | 1.6 | <1.0 | <1.0 | <1.0 |
| 2 | 1.1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.5 | 1.5 | <1.0 | <1.0 | 1.7 | <1.0 | 1.4 | <1.0 | <1.0 | <1.0 |
| 3 | 1.2 | <1.0 | 1.0 | <1.0 | 2.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.6 | 1.4 | <1.0 | 1.3 | <1.0 | <1.0 | <1.0 | 1.2 | <1.0 | 2.8 | <1.0 |
| 4 | 1.7 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | | | <1.0 | <1.0 | 14.6 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | | | <1.0 | 1.4 | <1.0 | <1.0 | <1.0 | <1.0 |
| Average | 1.3 | 0.3 | 0.7 | <1.0 | 0.8 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 3.7 | <1.0 | <1.0 | 0.4 | 0.7 | 0.4 | 0.4 | 0.5 | 0.8 | 0.4 | <1.0 | <1.0 | 0.7 | <1.0 |

CADMIUM (ug/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.5 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 2 | <1.0 | <1.0 | 2.8 | <1.0 | <1.0 | 2.2 | 1.3 | <1.0 | 2.8 | <1.0 | 2.2 | <1.0 | <1.0 | <1.0 | 2.5 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 3 | <1.0 | 2.5 | 2.6 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 3.7 | 2.8 | <1.0 | <1.0 | <1.0 | <1.0 | 1.1 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 4 | <1.0 | <1.0 | | | <1.0 | 2.3 | 1.4 | <1.0 | 2.5 | <1.0 | 1.8 | 1.3 | | | 2.8 | 1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.4 | <1.0 | <1.0 |
| Average | <1.0 | 0.6 | 1.8 | <1.0 | <1.0 | 1.10 | 0.7 | <1.0 | 2.6 | 0.7 | 1.0 | 0.3 | <1.0 | <1.0 | 1.6 | 0.3 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 0.4 | <1.0 | <1.0 |

CADMIUM (ug/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 1.3 | <1.0 | <1.0 | <1.0 | 2.5 | <1.0 | 2.1 | <1.0 | <1.0 | <1.0 | 1.3 | 1.6 | 2.2 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.9 | <1.0 |
| 2 | 1.7 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.3 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 2.1 | <1.0 | <1.0 | 3.8 | <1.0 | <1.0 | <1.0 | <1.0 | 1.4 | 1.6 | <1.0 | <1.0 |
| 3 | 1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.6 | <1.0 | <1.0 | <1.0 | 1.2 | <1.0 | 2.2 | <1.0 | 1.5 | 2.4 | <1.0 | <1.0 | 1.0 | <1.0 | 1.2 | 1.8 | 1.7 | <1.0 |
| 4 | | | 1.5 | <1.0 | <1.0 | <1.0 | 2.5 | 1.8 | | | <1.0 | <1.0 | <1.0 | 3.4 | <1.0 | 4.5 | <1.0 | <1.0 | 1.1 | <1.0 | | | <1.0 | <1.0 |
| Average | 1.3 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.9 | <1.0 | <1.0 | <1.0 | 0.6 | <1.0 | 1.6 | <1.0 | <1.0 | 2.7 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.1 | <1.0 | <1.0 |

CHROMIUM (ug/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <5 | <5 | 10 | <5 | 10 | <5 | <5 | <5 | 7 | <5 | 7 | <5 | 12 | <5 | <5 | <5 | <5 | <5 | 10 | <5 | 21 | 6 | 11 | <5 |
| 2 | 8 | 6 | 16 | <5 | 13 | <5 | <5 | <5 | <5 | <5 | 12 | <5 | 8 | <5 | <5 | <5 | <5 | 5 | <5 | 9 | <5 | 7 | <5 | 10 | <5 |
| 3 | 9 | <5 | 12 | <5 | 7 | <5 | <5 | <5 | 7 | <5 | 12 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | 11 | <5 | 7 | <5 | 12 | <5 |
| 4 | 8 | <5 | 10 | <5 | <5 | <5 | | | <5 | <5 | 10 | <5 | 10 | <5 | <5 | <5 | | | 26 | <5 | 18 | <5 | 5 | <5 |
| Average | 6 | 2 | 12 | <5 | 8 | <5 | <5 | <5 | 6 | <5 | 10 | <5 | 7 | <5 | <5 | <5 | 2 | <5 | 14 | <5 | 13 | 2 | 10 | <5 |

CHROMIUM (ug/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 9 | <5 | 7 | <5 | 7 | <5 | <5 | <5 | 58 | <5 | <5 | <5 | 13 | <5 | <5 | <5 | 16 | <5 | 7 | <5 | 12 | <5 | 13 | <5 |
| 2 | 14 | <5 | 10 | <5 | <5 | 9 | <5 | <5 | 6 | <5 | <5 | <5 | 13 | <5 | 8 | <5 | 12 | <5 | <5 | <5 | 11 | <5 | 10 | <5 |
| 3 | 11 | <5 | 9 | 9 | 10 | 8 | <5 | <5 | <5 | <5 | <5 | <5 | 14 | <5 | 14 | <5 | 12 | <5 | 9 | <5 | 15 | <5 | 14 | <5 |
| 4 | 15 | <5 | | | 11 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | | | 12 | <5 | 14 | 5 | 12 | <5 | 9 | <5 | 8 | <5 |
| Average | 12 | <5 | 9 | 3 | 7 | 4 | <5 | <5 | 16 | <5 | <5 | <5 | 13 | <5 | 9 | <5 | 14 | 1 | 7 | <5 | 11 | <5 | 11 | <5 |

CHROMIUM (ug/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 65 | <5 | 8 | <5 | 18 | <5 | <5 | <5 | <5 | <5 | 8 | <5 | 7 | <5 | 10 | 6 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 2 | 13 | <5 | 17 | <5 | 9 | 6 | <5 | <5 | <5 | <5 | 12 | <5 | <5 | <5 | 14 | <5 | 8 | 8 | <5 | <5 | <5 | <5 | 7 | <5 |
| 3 | 10 | <5 | 12 | <5 | 13 | <5 | <5 | <5 | 8 | <5 | 11 | <5 | 5 | <5 | 9 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | 7 | <5 |
| 4 | | | 9 | <5 | 10 | <5 | <5 | <5 | | | 6 | <5 | <5 | <5 | 14 | 7 | <5 | <5 | <5 | <5 | | | 7 | <5 |
| Average | 29 | <5 | 11 | <5 | 13 | 2 | <5 | <5 | 3 | <5 | 9 | <5 | 3 | <5 | 12 | 3 | 2 | 2 | <5 | <5 | <5 | <5 | 5 | <5 |

CHROMIUM (ug/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 6 | <5 | <5 | <5 | <5 | <5 | 14 | <5 | 11 | <5 | 12 | <5 | <5 | <5 | 6 | <5 | 8 | <5 | 7 | <5 | 6 | <5 | 15 | <5 |
| 2 | 8 | <5 | <5 | <5 | <5 | <5 | 7 | <5 | 9 | <5 | 7 | <5 | <5 | <5 | <5 | <5 | 11 | <5 | 13 | <5 | 9 | <5 | 16 | <5 |
| 3 | 10 | <5 | 8 | <5 | <5 | <5 | 7 | <5 | 9 | <5 | 8 | <5 | <5 | 30 | 9 | <5 | 11 | <5 | 7 | <5 | <5 | <5 | 16 | 9 |
| 4 | <5 | <5 | <5 | <5 | <5 | <5 | | | 13 | <5 | 10 | <5 | <5 | <5 | 7 | <5 | | | <5 | <5 | <5 | <5 | 17 | 7 |
| Average | 6 | <5 | 2 | <5 | <5 | <5 | 9 | <5 | 10 | <5 | 9 | <5 | <5 | 7 | 6 | <5 | 10 | <5 | 7 | <5 | <5 | <5 | 16 | 4 |

CHROMIUM (ug/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 15 | 32 | 16 | 12 | <5 | <5 | <5 | <5 | 11 | <5 | 8 | <5 | <5 | <5 | 5 | <5 | 14 | <5 | 8 | <5 | 15 | <5 | <5 | <5 |
| 2 | 9 | 9 | <5 | <5 | 9 | <5 | <5 | <5 | <5 | <5 | 11 | <5 | 12 | <5 | 6 | <5 | 7 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 3 | <5 | 8 | <5 | <5 | 7 | <5 | <5 | <5 | 11 | <5 | 9 | <5 | 11 | <5 | <5 | <5 | <5 | <5 | 6 | <5 | <5 | <5 | <5 | <5 |
| 4 | 16 | 21 | | | 11 | 6 | <5 | <5 | 6 | <5 | <5 | 6 | | | <5 | <5 | 6 | <5 | 8 | <5 | <5 | <5 | <5 | <5 |
| Average | 11 | 18 | 5 | 4 | 7 | 2 | <5 | <5 | 7 | <5 | 7 | 1 | 8 | <5 | 3 | <5 | 7 | <5 | <5 | <5 | 4 | <5 | <5 | <5 |

CHROMIUM (ug/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 6.3 | <5 | <5 | <5 | 6.8 | <5 | <5 | <5 | <5 | <5 | 9.1 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | 9.3 | <5 | 8.3 | <5 |
| 2 | 8.3 | <5 | <5 | <5 | 7.4 | <5 | 9.7 | <5 | <5 | <5 | 7.8 | <5 | 8.9 | 7.2 | 8.0 | <5 | <5 | <5 | <5 | <5 | 6.5 | <5 | 7.2 | <5 |
| 3 | 5.4 | <5 | <5 | <5 | <5 | <5 | 7.1 | <5 | 8.8 | <5 | 13.7 | <5 | 6.8 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | 6.1 | <5 |
| 4 | | | 6.0 | <5 | <5 | <5 | <5 | <5 | | | 6.7 | <5 | <5 | <5 | 11.4 | <5 | <5 | <5 | <5 | <5 | | | <5 | <5 |
| Average | 6.7 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | 9.3 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | 5.3 | <5 | 5.4 | <5 |

COPPER (ug/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 2 | 60 | 95 | 49 | 69 | 27 | 121 | 69 | 166 | 108 | 169 | 115 | 139 | 72 | 166 | 123 | 100 | 145 | 89 | 37 | 87 | 54 | 165 | 306 |
| 2 | 73 | 33 | 117 | 67 | 77 | 26 | 128 | 79 | 207 | 68 | 127 | 64 | 115 | 83 | 123 | 99 | 92 | 39 | 76 | 60 | 117 | 53 | 118 | 103 |
| 3 | 67 | 26 | 102 | 48 | 69 | 39 | 113 | 45 | 151 | 21 | 135 | 80 | 116 | 52 | 65 | 54 | 93 | 64 | 87 | 87 | 61 | 43 | 135 | 95 |
| 4 | 79 | 48 | 112 | 46 | 131 | 28 | | | 108 | 45 | 166 | 234 | 104 | 63 | 64 | 151 | | | 94 | 29 | 130 | 59 | 124 | 100 |
| Average | 55 | 42 | 107 | 53 | 87 | 30 | 121 | 64 | 158 | 61 | 149 | 123 | 119 | 68 | 105 | 107 | 95 | 83 | 87 | 53 | 99 | 52 | 136 | 151 |

COPPER (ug/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 97 | 198 | 99 | 31 | 75 | 48 | 74 | 56 | 192 | 51 | 88 | 46 | 122 | 62 | 96 | 82 | 132 | 48 | 81 | 58 | 121 | 49 | 107 | 68 |
| 2 | 117 | 66 | 129 | 36 | 165 | 40 | 111 | 38 | 85 | 18 | 76 | 40 | 123 | 57 | 93 | 69 | 108 | 58 | 87 | 45 | 114 | 41 | 116 | 44 |
| 3 | 159 | 59 | 126 | 63 | 98 | 49 | 101 | 96 | 131 | 27 | 100 | 30 | 94 | 35 | 137 | 48 | 150 | 55 | 111 | 29 | 95 | 30 | 127 | 74 |
| 4 | 114 | 28 | | | 103 | 49 | 89 | 70 | 92 | 43 | 142 | 222 | | | 113 | 32 | 129 | 29 | 104 | 16 | 83 | 29 | 113 | 21 |
| Average | 122 | 88 | 118 | 43 | 110 | 47 | 94 | 65 | 125 | 35 | 102 | 85 | 113 | 51 | 110 | 58 | 130 | 48 | 96 | 37 | 103 | 37 | 116 | 52 |

COPPER (ug/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 96 | 60 | 97 | 98 | 159 | 75 | 117 | 46 | 149 | 55 | 103 | 72 | 133 | 64 | 99 | 44 | 118 | 45 | 108 | 75 | 136 | 73 | 93 | 31 |
| 2 | 119 | 88 | 110 | 40 | 156 | 43 | 88 | 40 | 133 | 45 | 129 | 70 | 133 | 159 | 143 | 24 | 169 | 60 | 104 | 72 | 137 | 53 | 116 | 120 |
| 3 | 90 | 29 | 91 | 65 | 121 | 40 | 112 | 70 | 246 | 124 | 178 | 45 | 167 | 58 | 107 | 117 | 116 | 34 | 130 | 33 | 142 | 46 | 97 | 31 |
| 4 | | | 120 | 66 | 106 | 37 | 82 | 46 | | | 119 | 33 | 128 | 56 | 96 | 38 | 235 | 155 | 131 | 115 | | | 112 | 68 |
| Average | 102 | 59 | 105 | 67 | 136 | 49 | 100 | 51 | 176 | 75 | 132 | 55 | 140 | 84 | 111 | 56 | 160 | 74 | 118 | 74 | 138 | 57 | 105 | 63 |

COPPER (ug/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 150 | 49 | 158 | 58 | 206 | 47 | 88 | 32 | 215 | 45 | 203 | 95 | 156 | 199 | 156 | 52 | 280 | 74 | 137 | 60 | 209 | 106 | 167 | 155 |
| 2 | 153 | 60 | 125 | 51 | 154 | 72 | 185 | 29 | 219 | 59 | 139 | 133 | 73 | 213 | 191 | 133 | 192 | 56 | 291 | 66 | 215 | 150 | 135 | 67 |
| 3 | 115 | 47 | 157 | 73 | 164 | 56 | 198 | 93 | 131 | 41 | 147 | 53 | 210 | 366 | 162 | 48 | 133 | 39 | 217 | 149 | 137 | 83 | 204 | 58 |
| 4 | 127 | 75 | 107 | 57 | 180 | 79 | | | 169 | 120 | 250 | 52 | 197 | 98 | 174 | 66 | | | 201 | 85 | 188 | 147 | 157 | 51 |
| Average | 136 | 58 | 137 | 60 | 176 | 64 | 157 | 51 | 184 | 66 | 185 | 83 | 159 | 219 | 171 | 75 | 202 | 56 | 212 | 90 | 187 | 122 | 166 | 83 |

COPPER (ug/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 193 | 114 | 185 | 98 | 174 | 121 | 223 | 99 | 152 | 63 | 165 | 226 | 160 | 90 | 185 | 79 | 253 | 73 | 329 | 63 | 129 | 26 | 196 | 84 |
| 2 | 202 | 141 | 158 | 205 | 162 | 61 | 168 | 90 | 178 | 177 | 268 | 69 | 164 | 68 | 327 | 185 | 138 | 70 | 234 | 121 | 169 | 110 | 181 | 81 |
| 3 | 194 | 93 | 197 | 157 | 204 | 127 | 177 | 84 | 192 | 163 | 207 | 95 | 178 | 159 | 323 | 174 | 274 | 149 | 122 | 256 | 109 | 94 | 198 | 91 |
| 4 | 186 | 112 | | | 165 | 92 | 185 | 88 | 270 | 102 | 131 | 88 | | | 157 | 141 | 197 | 176 | 218 | 91 | 162 | 109 | 185 | 85 |
| Average | 194 | 115 | 180 | 153 | 176 | 100 | 188 | 90 | 198 | 126 | 193 | 120 | 167 | 106 | 248 | 145 | 216 | 117 | 226 | 133 | 142 | 85 | 190 | 85 |

COPPER (ug/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 140 | 49 | 126 | 42 | 256 | 185 | 156 | 59 | 130 | 39 | 139 | 107 | 174 | 115 | 120 | 39 | 117 | 44 | 127 | 51 | 202 | 38 | 159 | 60 |
| 2 | 194 | 49 | 223 | 72 | 243 | 45 | 161 | 46 | 190 | 101 | 139 | 76 | 252 | 67 | 144 | 65 | 156 | 219 | 179 | 89 | 199 | 134 | 159 | 89 |
| 3 | 246 | 83 | 140 | 154 | 144 | 122 | 135 | 45 | 104 | 92 | 143 | 41 | 231 | 29 | 197 | 75 | 119 | 76 | 143 | 78 | 153 | 77 | 143 | 45 |
| 4 | | | 140 | 100 | 129 | 63 | 141 | 91 | | | 147 | 120 | 110 | 82 | 199 | 94 | 92 | 73 | 206 | 49 | | | 105 | 20 |
| Average | 193 | 60 | 157 | 92 | 195 | 104 | 148 | 60 | 141 | 77 | 142 | 86 | 192 | 73 | 165 | 68 | 121 | 103 | 164 | 67 | 185 | 83 | 142 | 54 |

LEAD (ug/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 2 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 3 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | 26 | <18 |
| 4 | <18 | <18 | <18 | <18 | <18 | <18 | | | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | | | <18 | <18 | <18 | <18 | <18 | <18 |
| Average | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | 7 | <18 |

LEAD (ug/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | 25 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 2 | <18 | <18 | <18 | <18 | 29 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 3 | <18 | <18 | <18 | <18 | 19 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | 46 | <18 | <18 | <18 | <18 |
| 4 | <18 | <18 | | | 41 | <18 | 28 | <18 | <18 | <18 | <18 | <18 | | | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| Average | <18 | <18 | <18 | <18 | 22 | <18 | 7 | 6 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | 12 | <18 | <18 | <18 | <18 |

LEAD (ug/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 2 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 3 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 4 | | | <18 | <18 | <18 | <18 | <18 | <18 | | | <18 | <18 | 26 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | | | <18 | <18 |
| Average | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | 6 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |

LEAD (ug/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 2 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 3 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 4 | <18 | <18 | <18 | <18 | <18 | <18 | | | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | | | <18 | <18 | <18 | <18 | <18 | <18 |
| Average | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |

LEAD (ug/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 2 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 3 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 4 | <18 | <18 | | | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | | | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| Average | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |

LEAD (ug/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | 22 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 2 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 3 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | 25 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |
| 4 | | | <18 | <18 | <18 | <18 | <18 | <18 | | | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | | | <18 | <18 |
| Average | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 | <18 |

NICKEL (ug/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <14 | <14 | 18 | <14 | 25 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | 22 | 20 | <14 | <14 | <14 | 16 | 17 | <14 | <14 | <14 |
| 2 | <14 | <14 | 20 | 19 | 18 | <14 | <14 | <14 | <14 | <14 | 24 | <14 | <14 | <14 | 23 | 22 | 28 | <14 | <14 | 18 | <14 | <14 | 18 | <14 |
| 3 | <14 | <14 | 20 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | 24 | <14 | <14 | <14 | <14 | <14 | 20 | <14 | <14 | <14 | <14 | <14 | <14 | <14 |
| 4 | <14 | <14 | <14 | <14 | <14 | 17 | | | <14 | <14 | 17 | <14 | <14 | <14 | <14 | <14 | | | 32 | <14 | <14 | 17 | <14 | <14 |
| Average | <14 | <14 | 15 | 5 | 11 | 4 | <14 | <14 | <14 | <14 | 16 | <14 | <14 | <14 | 11 | 11 | <14 | <14 | 8 | 9 | 4 | 4 | 5 | <14 |

NICKEL (ug/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | 29 | 20 | <14 | <14 | 29 | <14 | <14 | <14 |
| 2 | 19 | <14 | <14 | <14 | 21 | <14 | 31 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | 26 | <14 | <14 | <14 | <14 | <14 | <14 | <14 |
| 3 | 20 | <14 | <14 | <14 | 17 | <14 | <14 | <14 | 18 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | 22 | <14 | 31 | <14 | <14 | <14 |
| 4 | <14 | <14 | | | <14 | <14 | 16 | <14 | 14 | <14 | <14 | <14 | | | 20 | <14 | <14 | 17 | <14 | <14 | 25 | <14 | <14 | <14 |
| Average | 10 | <14 | <14 | <14 | 10 | <14 | 12 | <14 | 8 | <14 | <14 | <14 | <14 | <14 | 5 | <14 | 14 | 9 | 6 | <14 | 21 | <14 | <14 | <14 |

NICKEL (ug/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 45 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | 20 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | 20 | <14 |
| 2 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | 16 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | 27 | <14 |
| 3 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | 21 | <14 |
| 4 | | | <14 | <14 | <14 | <14 | 17 | <14 | | | 17 | <14 | <14 | <14 | <14 | <14 | <14 | 15 | <14 | <14 | | | <14 | 29 |
| Average | 15 | <14 | <14 | <14 | <14 | <14 | 4 | <14 | <14 | <14 | 8 | <14 | <14 | <14 | 5 | <14 | <14 | 4 | <14 | <14 | <14 | <14 | 17 | 7 |

NICKEL (ug/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | 19 | 15 | <14 | <14 | <14 | 19 | 19 | 19 | <14 | <14 | <14 | 15 | <14 | <14 | <14 | <14 | <14 |
| 2 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | 16 | 19 | 31 | 72 | <14 | <14 | 30 | <14 | <14 | <14 | <14 | <14 |
| 3 | <14 | <14 | <14 | <14 | <14 | <14 | 16 | <14 | 19 | 24 | <14 | <14 | <14 | 26 | 34 | 33 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 |
| 4 | <14 | <14 | <14 | <14 | <14 | 16 | | | 19 | <14 | 15 | <14 | 16 | <14 | 26 | <14 | | | <14 | <14 | <14 | <14 | <14 | <14 |
| Average | <14 | <14 | <14 | <14 | <14 | 4 | 5 | 6 | 13 | 6 | 4 | <14 | 13 | 16 | 28 | 26 | <14 | <14 | 11 | <14 | <14 | <14 | <14 | <14 |

NICKEL (ug/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <14 | 22 | 17 | <14 | <14 | <14 | <14 | 17 | <14 | <14 | <14 | <14 | 15 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 |
| 2 | <14 | 15 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | 29 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 |
| 3 | <14 | <14 | 21 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | 18 | <14 | <14 | <14 | <14 | <14 | <14 | <14 |
| 4 | <14 | <14 | | | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | | | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 |
| Average | <14 | 9 | 13 | <14 | <14 | <14 | <14 | 4 | <14 | <14 | <14 | <14 | 15 | <14 | <14 | <14 | 5 | <14 | <14 | <14 | <14 | <14 | <14 | <14 |

NICKEL (ug/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 20 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 |
| 2 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 |
| 3 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | 17 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 |
| 4 | | | <14 | <14 | <14 | <14 | <14 | <14 | | | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | | | <14 | <14 |
| Average | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 | <14 |

MERCURY (ug/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <0.27 | <0.27 | 0.50 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.40 | <0.27 | 0.27 | <0.27 | <0.27 | <0.27 | 0.32 | <0.27 | <0.27 | <0.27 | 0.33 | <0.27 | 0.32 | <0.27 | 0.48 | <0.27 |
| 2 | <0.27 | <0.27 | 0.36 | <0.27 | <0.27 | <0.27 | 0.52 | 0.32 | 0.37 | <0.27 | NA | NA | 0.57 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.46 | <0.27 |
| 3 | 0.53 | 0.38 | 0.48 | 0.38 | <0.27 | <0.27 | 0.53 | 0.40 | 0.38 | <0.27 | 0.44 | <0.27 | 0.55 | <0.27 | <0.27 | <0.27 | 0.39 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 |
| 4 | 0.32 | <0.27 | 0.38 | <0.27 | <0.27 | <0.27 | | | 0.41 | <0.27 | <0.27 | <0.27 | 0.58 | <0.27 | 0.36 | <0.27 | | | 0.47 | <0.27 | 0.70 | <0.27 | <0.27 | <0.27 |
| Average | 0.21 | <0.27 | 0.43 | 0.10 | <0.27 | <0.27 | 0.35 | 0.24 | 0.39 | <0.27 | 0.24 | <0.27 | 0.43 | <0.27 | 0.08 | <0.27 | 0.13 | <0.27 | 0.08 | <0.27 | 0.18 | <0.27 | 0.24 | <0.27 |

MERCURY (ug/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <0.27 | <0.27 | <0.27 | <0.27 | 0.42 | 0.38 | 0.66 | 0.43 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.64 | <0.27 | 0.77 | 0.51 |
| 2 | <0.27 | <0.27 | 0.37 | <0.27 | 0.30 | <0.27 | 0.48 | <0.27 | 0.51 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.37 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 |
| 3 | 0.89 | <0.27 | <0.27 | <0.27 | 0.48 | <0.27 | <0.27 | <0.27 | 0.57 | <0.27 | <0.27 | <0.27 | 0.30 | <0.27 | 0.37 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 |
| 4 | 0.39 | <0.27 | | | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.99 | <0.27 | | | 0.33 | <0.27 | <0.27 | <0.27 | 0.32 | 0.45 | <0.27 | <0.27 | <0.27 | <0.27 |
| Average | 0.32 | <0.27 | 0.12 | <0.27 | 0.30 | 0.10 | 0.29 | 0.11 | 0.27 | <0.27 | 0.25 | <0.27 | 0.10 | <0.27 | 0.18 | <0.27 | 0.09 | <0.27 | 0.08 | 0.11 | 0.16 | <0.27 | 0.19 | 0.13 |

MERCURY (ug/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.34 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 |
| 2 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.54 | 0.44 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.41 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 |
| 3 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.48 | <0.27 | <0.27 | <0.27 | 0.55 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.45 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 |
| 4 | | | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | | | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.42 | <0.27 | | | <0.27 | <0.27 |
| Average | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.26 | 0.11 | <0.27 | <0.27 | 0.14 | <0.27 | <0.27 | <0.27 | 0.19 | <0.27 | 0.11 | <0.27 | 0.11 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 |

MERCURY (ug/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <0.27 | <0.27 | 0.54 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.86 | <0.27 | <0.27 | <0.27 | 0.33 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.71 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 |
| 2 | <0.27 | <0.27 | <0.27 | <0.27 | 0.46 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.27 | <0.27 | <0.27 | <0.27 | <0.27 |
| 3 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.35 | <0.27 | 0.38 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 1.08 | <0.27 | 0.37 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 |
| 4 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | | | 0.46 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | | | <0.27 | <0.27 | <0.27 | <0.27 | 0.40 | <0.27 |
| Average | <0.27 | <0.27 | 0.14 | <0.27 | 0.12 | <0.27 | 0.12 | <0.27 | 0.43 | <0.27 | <0.27 | <0.27 | 0.08 | <0.27 | <0.27 | <0.27 | 0.36 | <0.27 | 0.27 | 0.07 | <0.27 | <0.27 | 0.10 | <0.27 |

MERCURY (ug/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.36 | <0.27 | <0.27 | <0.27 | 0.46 | <0.27 | 0.28 | <0.27 | 0.39 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 |
| 2 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.42 | <0.27 | 0.30 | <0.27 | <0.27 | <0.27 | 0.34 | <0.27 | 0.39 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 |
| 3 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.59 | <0.27 | 0.34 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.32 | <0.27 | <0.27 | <0.27 |
| 4 | <0.27 | <0.27 | | | <0.27 | <0.27 | <0.27 | <0.27 | 0.41 | <0.27 | 0.29 | <0.27 | | | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.47 | <0.27 | <0.27 | <0.27 |
| Average | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.36 | <0.27 | 0.32 | <0.27 | <0.27 | <0.27 | 0.20 | <0.27 | 0.17 | <0.27 | 0.10 | <0.27 | 0.20 | <0.27 | <0.27 | <0.27 |

MERCURY (ug/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.20 | 0.14 | 0.24 | <0.09 |
| 2 | .31 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.31 | 0.10 | <0.09 | <0.09 |
| 3 | .42 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.32 | <0.09 | 0.20 | <0.09 |
| 4 | | | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | | | <0.27 | <0.27 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | | | 0.09 | <0.09 |
| Average | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | <0.27 | 0.27 | <0.27 | <0.27 | <0.27 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 0.28 | <0.09 | 0.13 | <0.09 |

SILVER (ug/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 7.9 | <6.6 | <6.6 | <6.6 | 13.2 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 8.1 | <6.6 | |
| 2 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 8.3 | <6.6 | <6.6 | <6.6 | 9.5 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 10.1 | <6.6 | |
| 3 | <6.6 | 7.0 | <6.6 | <6.6 | <6.6 | <6.6 | 17.5 | <6.6 | <6.6 | <6.6 | 8.6 | <6.6 | 8.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | |
| 4 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | | | <6.6 | <6.6 | 10.0 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | | | <6.6 | <6.6 | 7.4 | <6.6 | <6.6 | <6.6 |
| Average | <6.6 | 1.8 | <6.6 | <6.6 | <6.6 | <6.6 | 8.6 | <6.6 | <6.6 | <6.6 | 9.0 | <6.6 | 2.2 | <6.6 | 3.3 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 1.9 | <6.6 | 4.6 | <6.6 |

SILVER (ug/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 27.2 | 10.8 | <6.6 | <6.6 | <6.6 |
| 2 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 |
| 3 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 6.7 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 13.1 | 8.8 | <6.6 | 9.0 | <6.6 |
| 4 | <6.6 | <6.6 | | | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 9.4 | <6.6 | | | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 11.1 | <6.6 | <6.6 |
| Average | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 1.7 | <6.6 | 2.4 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 10.1 | 4.9 | 2.8 | 2.3 | <6.6 |

SILVER (ug/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <6.6 | <6.6 | <6.6 | <6.6 | 9.9 | <6.6 | <6.6 | <6.6 | 8.3 | <6.6 | <6.6 | 7.9 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 27.2 | <6.6 | <6.6 | <6.6 | <6.6 |
| 2 | <6.6 | <6.6 | <6.6 | <6.6 | 16.0 | 7.6 | <6.6 | <6.6 | 6.6 | <6.6 | <6.6 | 8.8 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 9.0 | <6.6 | <6.6 | <6.6 |
| 3 | <6.6 | <6.6 | <6.6 | <6.6 | 11.9 | <6.6 | <6.6 | <6.6 | 14.2 | <6.6 | <6.6 | 11.2 | <6.6 | <6.6 | 10.9 | <6.6 | <6.6 | <6.6 | <6.6 | 13.1 | <6.6 | <6.6 | <6.6 | <6.6 |
| 4 | | | <6.6 | <6.6 | <6.6 | 14.2 | <6.6 | <6.6 | | | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 6.7 | <6.6 | <6.6 | <6.6 | <6.6 | | | <6.6 | <6.6 |
| Average | <6.6 | <6.6 | <6.6 | <6.6 | 9.5 | 5.5 | <6.6 | <6.6 | 9.7 | <6.6 | <6.6 | 7.0 | <6.6 | <6.6 | 2.7 | 1.7 | <6.6 | <6.6 | <6.6 | 10.1 | 3.0 | <6.6 | <6.6 | <6.6 |

SILVER (ug/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 27.2 | <6.6 | <6.6 | 9.8 | <6.6 |
| 2 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 |
| 3 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 12.3 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 13.1 | <6.6 | <6.6 | 6.7 | <6.6 |
| 4 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | | | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 7.8 | <6.6 | <6.6 | | | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 |
| Average | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 5.0 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 10.1 | <6.6 | <6.6 | 4.1 | <6.6 |

SILVER (ug/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 1.0 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 12.1 | <6.6 | 7.4 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 7.0 | <6.6 | <6.6 | <6.6 |
| 2 | <6.6 | <6.6 | <6.6 | 9.1 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 15.7 | <6.6 | 8.1 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 20.9 | <6.6 | <6.6 | <6.6 |
| 3 | <6.6 | <6.6 | <6.6 | 11.0 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 11.5 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 |
| 4 | <6.6 | <6.6 | | | 13.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | | | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 |
| Average | <6.6 | <6.6 | <6.6 | 6.7 | 3.4 | 2.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 9.3 | <6.6 | 6.8 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 7.0 | <6.6 | <6.6 | <6.6 |

SILVER (ug/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 18.2 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 |
| 2 | <6.6 | <6.6 | 9.3 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 11.1 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 9.8 | <6.6 | |
| 3 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 8.8 | <6.6 | <6.6 | <6.6 | 7.5 | 19.7 | <6.6 | <6.6 | 8.7 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 9.4 | <6.6 |
| 4 | | | | | <6.6 | <6.6 | 7.5 | <6.6 | | | <6.6 | | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | | | 11.6 | <6.6 |
| Average | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 9.5 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | <6.6 | 7.7 | <6.6 |

ZINC (ug/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 89 | 38 | 131 | 81 | 238 | 170 | 126 | 21 | 148 | 40 | 186 | 89 | 183 | 171 | 164 | 96 | 115 | 57 | 128 | 40 | 105 | 18 | 148 | 52 |
| 2 | 99 | 34 | 147 | 54 | 185 | 169 | 131 | 13 | 159 | 45 | 226 | 93 | 225 | 187 | 167 | 45 | 143 | 48 | 119 | 26 | 144 | 28 | 159 | 43 |
| 3 | 71 | 36 | 135 | 30 | 258 | 151 | 117 | 17 | 196 | 50 | 218 | 93 | 188 | 70 | 139 | 51 | 663 | 152 | 115 | 27 | 98 | 23 | 169 | 59 |
| 4 | 115 | 34 | 161 | 37 | 323 | 154 | | | 129 | 43 | 194 | 91 | 176 | 70 | 118 | 40 | | | 276 | 21 | 193 | 25 | 120 | 31 |
| Average | 94 | 36 | 144 | 51 | 251 | 161 | 125 | 17 | 158 | 45 | 206 | 92 | 193 | 125 | 147 | 58 | 307 | 86 | 160 | 29 | 135 | 24 | 149 | 46 |

ZINC (ug/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 116 | 45 | 134 | 29 | 117 | 4 | 124 | 241 | 148 | 15 | 127 | 52 | 128 | 32 | 135 | 40 | 179 | 38 | 126 | 154 | 158 | 33 | 196 | 44 |
| 2 | 174 | 36 | 147 | 43 | 168 | 40 | 132 | 33 | 132 | 27 | 131 | 63 | 127 | 31 | 124 | 35 | 327 | 27 | 157 | 75 | 155 | 33 | 148 | 40 |
| 3 | 129 | 44 | 146 | 60 | 148 | 57 | 130 | 31 | 160 | 20 | 148 | 54 | 132 | 30 | 184 | 29 | 169 | 29 | 186 | 61 | 184 | 108 | 163 | 42 |
| 4 | 185 | 32 | | | 144 | 50 | 132 | 33 | 138 | 104 | 173 | 60 | | | 175 | 30 | 207 | 31 | 180 | 56 | 141 | 46 | 143 | 60 |
| Average | 151 | 39 | 142 | 44 | 144 | 38 | 130 | 85 | 145 | 42 | 145 | 57 | 129 | 31 | 155 | 34 | 221 | 31 | 162 | 87 | 160 | 55 | 163 | 47 |

ZINC (ug/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 140 | 29 | 107 | 32 | 154 | 40 | 112 | 31 | 140 | 41 | 159 | 40 | 182 | 29 | 176 | 70 | 307 | 35 | 162 | 33 | 118 | 46 | 132 | 25 |
| 2 | 153 | 44 | 182 | 38 | 146 | 36 | 119 | 34 | 122 | 26 | 181 | 34 | 142 | 37 | 185 | 62 | 182 | 48 | 184 | 36 | 160 | 43 | 139 | 257 |
| 3 | 122 | 31 | 147 | 30 | 124 | 33 | 118 | 36 | 143 | 34 | 165 | 45 | 147 | 36 | 169 | 47 | 146 | 54 | 148 | 38 | 147 | 68 | 125 | 56 |
| 4 | | | 139 | 38 | 161 | 33 | 124 | 26 | | | 174 | 77 | 163 | 52 | 143 | 42 | 151 | 34 | 140 | 34 | | | 108 | 42 |
| Average | 138 | 35 | 144 | 35 | 146 | 36 | 118 | 32 | 135 | 34 | 170 | 49 | 159 | 39 | 168 | 55 | 197 | 43 | 159 | 35 | 142 | 52 | 126 | 95 |

ZINC (ug/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 126 | 32 | 182 | 62 | 142 | 37 | 136 | 35 | 182 | 39 | 144 | 24 | 226 | 135 | 166 | 25 | 140 | 27 | 115 | 22 | 152 | 26 | 165 | 42 |
| 2 | 181 | 33 | 190 | 69 | 179 | 33 | 110 | 26 | 179 | 33 | 126 | 23 | 261 | 150 | 154 | 21 | 169 | 25 | 270 | 23 | 141 | 27 | 175 | 31 |
| 3 | 152 | 50 | 151 | 67 | 148 | 30 | 116 | 27 | 148 | 39 | 155 | 23 | 249 | 151 | 158 | 27 | 130 | 20 | 137 | 29 | 134 | 34 | 171 | 33 |
| 4 | 150 | 43 | 175 | 69 | 147 | 58 | | | 154 | 31 | 170 | 28 | 222 | 127 | 144 | 23 | | | 129 | 29 | 117 | 33 | 171 | 35 |
| Average | 152 | 40 | 175 | 67 | 154 | 40 | 121 | 29 | 166 | 36 | 149 | 25 | 240 | 141 | 156 | 24 | 146 | 24 | 163 | 26 | 136 | 30 | 171 | 35 |

ZINC (ug/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 145 | 28 | 142 | 34 | 124 | 36 | 166 | 29 | 157 | 41 | 188 | 66 | 133 | 25 | 152 | 29 | 111 | 20 | 153 | 26 | 163 | 30 | 142 | 29 |
| 2 | 124 | 30 | 129 | 36 | 123 | 34 | 141 | 29 | 133 | 39 | 157 | 27 | 141 | 28 | 277 | 30 | 135 | 25 | 142 | 22 | 160 | 24 | 113 | 25 |
| 3 | 122 | 31 | 138 | 35 | 109 | 33 | 225 | 57 | 160 | 46 | 154 | 39 | 143 | 24 | 269 | 29 | 158 | 37 | 132 | 23 | 124 | 25 | 102 | 21 |
| 4 | 121 | 31 | | | 135 | 28 | 142 | 46 | 155 | 42 | 124 | 41 | | | 204 | 27 | 147 | 35 | 121 | 20 | 134 | 24 | 135 | 21 |
| Average | 128 | 30 | 136 | 35 | 123 | 33 | 169 | 40 | 151 | 42 | 156 | 43 | 139 | 26 | 226 | 29 | 138 | 29 | 137 | 23 | 145 | 26 | 123 | 24 |

ZINC (ug/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 140 | 26 | 122 | 29 | 138 | 28 | 134 | 31 | 144 | 28 | 139 | 29 | 172 | 25 | 125 | 18 | 98 | 30 | 110 | 29 | 178 | 32 | 119 | 21 |
| 2 | 152 | 31 | 158 | 40 | 131 | 25 | 140 | 26 | 144 | 21 | 127 | 21 | 189 | 28 | 130 | 24 | 164 | 81 | 126 | 31 | 122 | 25 | 116 | 23 |
| 3 | 149 | 33 | 120 | 28 | 148 | 30 | 146 | 29 | 126 | 25 | 161 | 28 | 180 | 27 | 139 | 19 | 154 | 24 | 123 | 41 | 128 | 14 | 121 | 23 |
| 4 | | | 140 | 42 | 138 | 26 | 149 | 26 | | | 112 | 23 | 113 | 22 | 142 | 30 | 116 | 18 | 182 | 33 | | | 117 | 16 |
| Average | 147 | 30 | 135 | 35 | 139 | 27 | 142 | 28 | 138 | 25 | 135 | 25 | 164 | 26 | 134 | 23 | 133 | 38 | 135 | 34 | 143 | 24 | 118 | 21 |

AMMONIA (mg/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 29.3 | 28.2 | 29.9 | 29.7 | 30.5 | 29.1 | | | 28.5 | 28.3 | 28.5 | 27.1 | 27.9 | 27.4 | 26.0 | 24.5 | | | 22.6 | 20.8 | 24.4 | 24.0 | 24.7 | 24.3 |
| 2 | 30.2 | 29.0 | 27.5 | 26.6 | 30.3 | 30.2 | 31.5 | 30.3 | 30.0 | 31.1 | 27.1 | 26.0 | 26.6 | 29.2 | 30.9 | 27.0 | 23.5 | 20.9 | 23.3 | 22.8 | 24.4 | 24.7 | 25.3 | 25.3 |
| 3 | 28.0 | 27.6 | 27.8 | 26.3 | 28.8 | 29.4 | 30.5 | 29.7 | 26.7 | 27.1 | 31.5 | 30.3 | 23.6 | 22.9 | 23.5 | 24.8 | 22.8 | 22.9 | 24.5 | 22.0 | 24.8 | 23.8 | 24.7 | 26.2 |
| 4 | 18.3 | 19.1 | 30.4 | 29.4 | 31.1 | 29.6 | 30.5 | 30.0 | 27.5 | 27.6 | 27.2 | 26.9 | 30.6 | 30.4 | 24.4 | 24.6 | 22.4 | 22.2 | 26.0 | 26.8 | 25.1 | 25.0 | 25.3 | 24.7 |
| Average | 26.5 | 26.0 | 28.9 | 28.0 | 30.2 | 29.6 | 30.8 | 30.0 | 28.2 | 28.5 | 28.6 | 27.6 | 27.2 | 27.5 | 26.2 | 25.2 | 22.9 | 22.0 | 24.1 | 23.1 | 24.7 | 24.4 | 25.0 | 25.1 |

AMMONIA (mg/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 25.4 | 25.6 | 20.5 | 20.8 | 24.3 | 25.9 | NA | NA | 28.2 | 27.0 | 28.3 | 28.1 | 25.9 | 25.4 | 26.9 | 25.3 | 21.3 | 22.6 | 18.7 | 19.1 | 28.1 | 29.2 | 27.3 | 27.4 |
| 2 | 23.5 | 22.7 | 19.7 | 21.5 | 25.4 | 24.6 | 24.1 | 24.1 | 26.0 | 25.4 | 27.5 | 27.2 | 27.5 | 27.9 | 22.9 | 20.2 | 22.6 | 21.3 | 23.0 | 21.1 | 23.3 | 24.4 | 27.4 | 25.7 |
| 3 | 22.5 | 22.1 | 17.5 | 17.5 | 23.1 | 26.2 | 26.7 | 27.1 | 27.6 | 27.5 | 28.0 | 28.3 | 26.2 | 26.1 | 27.2 | 27.1 | 24.0 | 23.8 | 26.7 | 26.6 | 26.6 | 24.5 | 25.9 | 25.8 |
| 4 | 25.6 | 25.2 | | | 23.9 | 24.8 | 27.9 | 28.1 | 26.8 | 26.8 | 23.7 | 22.4 | | | 26.9 | 26.1 | 20.6 | 22.4 | 24.3 | 24.6 | 25.8 | 25.6 | 28.1 | 25.0 |
| Average | 24.3 | 23.9 | 19.2 | 19.9 | 24.2 | 25.4 | 19.7 | 19.8 | 27.2 | 26.7 | 26.9 | 26.5 | 26.5 | 26.5 | 26.0 | 24.7 | 22.1 | 22.5 | 23.2 | 22.9 | 26.0 | 25.9 | 27.2 | 26.0 |

AMMONIA (mg/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 25.4 | 24.1 | 25.0 | 24.4 | 27.5 | 25.1 | 24.5 | 23.8 | 26.3 | 25.0 | 30.5 | 28.7 | 31.5 | 30.7 | 26.7 | 23.1 | 15.1 | 34.0 | 27.1 | 27.7 | 28.5 | 27.8 | 31.4 | 31.0 |
| 2 | 32.2 | 27.2 | 27.3 | 26.7 | 24.1 | 25.5 | 28.3 | 28.0 | 26.5 | 26.3 | 27.3 | 25.4 | 26.4 | 26.1 | 27.9 | 27.1 | 26.2 | 24.9 | 28.2 | 27.7 | 30.4 | 30.4 | 28.4 | 28.5 |
| 3 | 27.7 | 28.4 | 24.4 | 20.3 | 28.6 | 28.7 | 27.8 | 27.9 | 30.1 | 27.8 | 30.7 | 27.8 | 26.2 | 27.6 | 29.7 | 27.9 | 27.8 | 28.9 | 26.1 | 26.6 | 29.3 | 29.1 | 26.4 | 26.4 |
| 4 | | | 30.9 | 28.4 | 26.5 | 25.9 | 28.7 | 27.3 | | | 28.8 | 26.3 | 28.8 | 26.3 | 25.8 | 25.3 | 27.8 | 20.5 | 25.3 | 24.5 | | | 29.4 | 26.7 |
| Average | 28.4 | 26.6 | 26.9 | 24.9 | 26.7 | 26.3 | 27.3 | 26.8 | 27.6 | 26.4 | 29.3 | 27.1 | 28.2 | 27.7 | 27.5 | 25.9 | 24.2 | 27.1 | 26.7 | 26.6 | 29.4 | 29.1 | 28.9 | 28.2 |

AMMONIA (mg/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 27.0 | 27.2 | 28.4 | 28.2 | 26.3 | 25.9 | 27.5 | 28.6 | 26.9 | 27.2 | 28.2 | 28.6 | 28.0 | 27.9 | 28.9 | 28.3 | 27.5 | 28.1 | 26.9 | 26.3 | 27.3 | 26.3 | 28.3 | 28.8 |
| 2 | 28.1 | 26.9 | 29.3 | 29.1 | 28.0 | 27.6 | 27.7 | 28.6 | 29.0 | 29.4 | 29.7 | 28.0 | 29.0 | 27.4 | 27.0 | 26.5 | 27.0 | 28.1 | 26.7 | 27.4 | 26.0 | 26.9 | 29.1 | 29.4 |
| 3 | 26.1 | 25.6 | 27.2 | 25.8 | 26.9 | 29.4 | 28.0 | 27.9 | 30.1 | 29.1 | 28.4 | 28.1 | 28.5 | 28.8 | 25.9 | 25.0 | 27.0 | 26.3 | 27.2 | 27.0 | 25.4 | 27.0 | 28.7 | 28.8 |
| 4 | 28.1 | 28.0 | 27.7 | 27.4 | 28.9 | 30.4 | | | 28.2 | 27.7 | 29.6 | 26.3 | 28.5 | 26.6 | 27.5 | 27.9 | | | 29.1 | 28.0 | 28.0 | 26.9 | 29.9 | 29.7 |
| Average | 27.3 | 26.9 | 28.2 | 27.6 | 27.5 | 28.3 | 27.3 | 28.4 | 28.6 | 28.4 | 29.0 | 27.8 | 28.5 | 27.7 | 27.3 | 26.9 | 24.2 | 27.5 | 27.5 | 27.2 | 26.7 | 26.8 | 29.0 | 29.2 |

AMMONIA (mg/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 30.2 | 28.8 | 29.9 | 32.5 | 26.6 | 26.0 | 30.3 | 28.7 | 29.1 | 29.1 | 28.8 | 28.0 | 29.4 | 25.2 | 30.5 | 29.7 | 28.2 | 27.9 | 29.8 | 29.1 | 28.1 | 26.9 | 28.3 | 27.7 |
| 2 | 24.4 | 23.0 | 24.2 | 24.4 | 23.5 | 24.4 | 27.6 | 27.9 | 29.9 | 29.4 | 29.8 | 29.4 | 30.0 | 29.7 | 28.6 | 29.1 | 28.4 | 27.6 | 28.6 | 28.6 | 28.4 | 27.4 | 26.3 | 26.9 |
| 3 | 27.7 | 27.2 | 27.0 | 26.7 | 26.9 | 26.6 | 30.1 | 30.0 | 29.2 | 29.7 | 29.1 | 28.6 | 29.4 | 28.3 | 28.4 | 28.1 | 30.0 | 29.4 | 27.7 | 27.6 | 28.9 | 31.2 | 29.7 | 28.3 |
| 4 | 28.5 | 26.9 | | | 27.2 | 27.2 | 31.4 | 31.5 | 27.5 | 27.4 | 28.3 | 28.0 | | | 27.9 | 25.8 | 28.8 | 28.3 | 29.3 | 28.1 | 30.5 | 29.7 | 27.6 | 26.9 |
| Average | 27.7 | 26.5 | 27.0 | 27.9 | 26.1 | 26.1 | 29.9 | 29.5 | 28.9 | 28.9 | 29.0 | 28.5 | 29.6 | 27.7 | 28.9 | 28.2 | 28.9 | 28.3 | 28.9 | 28.4 | 29.0 | 28.8 | 28.0 | 27.4 |

AMMONIA (mg/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 28.0 | 27.6 | 30.1 | 29.8 | 30.6 | 29 | 27.9 | 28.3 | 29.4 | 300.8 | 27.2 | 26.0 | 28 | 26.3 | 29.3 | 29.0 | 26.3 | 26 | 28.0 | 26.6 | 28.6 | 29.1 | 25.8 | 25.2 |
| 2 | 30.8 | 29.8 | 26.5 | 25.2 | 30.4 | 30.5 | 28.6 | 28.0 | 31.6 | 31.4 | 27.2 | 26.3 | 27.4 | 25.5 | 28.6 | 27.2 | 26.3 | 27.4 | 27.2 | 26.3 | 27.2 | 26.9 | 26.6 | 26.3 |
| 3 | 31.2 | 30.7 | 27.7 | 26 | 28.3 | 27.3 | 31.9 | 30.2 | 28.3 | 27.7 | 27.7 | 25.8 | 28.8 | 28.3 | 29.7 | 29.4 | 26.3 | 26.9 | 27.4 | 26.9 | 27.2 | 27.4 | 26.9 | 26.3 |
| 4 | | | 28.8 | 27.4 | 28.3 | 29.1 | 30.0 | 29.7 | | | 27.7 | 27.4 | 27.4 | 27.2 | 27.6 | 28.0 | 27.7 | 27.2 | 30.0 | 29.4 | | | 28.0 | 27.2 |
| Average | 30.3 | 29.4 | 28.3 | 27.1 | 29.4 | 29.0 | 29.6 | 29.1 | 29.8 | 30.0 | 27.5 | 26.4 | 27.9 | 26.8 | 28.8 | 28.4 | 26.7 | 26.9 | 28.2 | 27.3 | 27.7 | 27.8 | 26.8 | 26.3 |

CYANIDE (mg/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 0.002 | 0.002 | 0.003 | 0.006 | 0.003 | 0.005 | 0.002 | <0.002 | 0.004 | 0.090 | 0.004 | 0.005 | 0.002 | 0.006 | 0.003 | 0.002 | 0.006 | 0.015 | 0.003 | 0.008 | 0.003 | 0.007 | 0.008 | 0.005 |
| 2 | <0.002 | 0.003 | 0.003 | 0.003 | 0.002 | 0.003 | 0.003 | 0.003 | <0.002 | 0.003 | 0.005 | 0.015 | 0.003 | 0.034 | 0.003 | 0.003 | 0.003 | 0.002 | 0.004 | 0.018 | 0.002 | 0.007 | 0.008 | 0.007 |
| 3 | 0.002 | 0.007 | 0.003 | 0.005 | 0.003 | 0.003 | 0.004 | 0.003 | 0.004 | 0.003 | 0.004 | 0.007 | 0.002 | 0.006 | 0.003 | 0.005 | 0.004 | 0.004 | 0.005 | 0.013 | 0.006 | 0.007 | 0.004 | 0.005 |
| 4 | 0.002 | 0.003 | 0.003 | 0.005 | 0.004 | 0.005 | | | 0.003 | 0.005 | 0.003 | 0.006 | 0.004 | 0.008 | 0.004 | 0.008 | | | 0.005 | 0.008 | 0.007 | 0.007 | 0.005 | 0.005 |
| Average | 0.002 | 0.004 | 0.003 | 0.005 | 0.003 | 0.004 | 0.003 | 0.002 | 0.003 | 0.025 | 0.004 | 0.008 | 0.003 | 0.013 | 0.003 | 0.004 | 0.004 | 0.007 | 0.004 | 0.012 | 0.005 | 0.007 | 0.006 | 0.005 |

CYANIDE (mg/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 0.003 | 0.004 | 0.002 | <0.002 | 0.003 | 0.004 | 0.008 | 0.009 | 0.004 | 0.004 | 0.004 | 0.012 | 0.003 | 0.007 | 0.007 | 0.008 | 0.003 | 0.003 | 0.004 | 0.010 | 0.004 | 0.004 | 0.004 | 0.004 |
| 2 | 0.003 | 0.005 | 0.003 | 0.003 | 0.004 | 0.004 | 0.002 | 0.003 | 0.005 | 0.005 | 0.004 | 0.007 | 0.004 | 0.004 | 0.009 | 0.006 | 0.003 | 0.002 | 0.004 | 0.003 | 0.009 | 0.006 | 0.005 | 0.005 |
| 3 | 0.005 | 0.003 | 0.002 | 0.003 | 0.007 | 0.013 | 0.002 | <0.002 | 0.004 | 0.005 | 0.004 | 0.003 | 0.004 | 0.004 | 0.004 | 0.009 | 0.026 | 0.018 | 0.010 | 0.008 | 0.004 | 0.003 | 0.005 | 0.005 |
| 4 | 0.004 | 0.004 | | | 0.008 | 0.009 | 0.003 | 0.002 | 0.005 | 0.008 | 0.006 | 0.004 | | | 0.005 | 0.004 | 0.006 | 0.009 | 0.004 | 0.004 | 0.003 | 0.003 | 0.004 | 0.006 |
| Average | 0.004 | 0.004 | 0.002 | 0.002 | 0.006 | 0.007 | 0.004 | 0.004 | 0.005 | 0.005 | 0.005 | 0.006 | 0.004 | 0.005 | 0.006 | 0.007 | 0.010 | 0.008 | 0.006 | 0.006 | 0.005 | 0.004 | 0.005 | 0.005 |

CYANIDE (mg/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 0.004 | 0.009 | 0.004 | 0.006 | 0.005 | 0.005 | 0.003 | 0.003 | 0.004 | 0.003 | 0.003 | 0.004 | 0.003 | 0.007 | 0.004 | 0.004 | <0.002 | <0.002 | 0.013 | 0.014 | 0.003 | 0.010 | 0.003 | 0.004 |
| 2 | 0.003 | 0.007 | 0.005 | 0.007 | 0.008 | 0.011 | 0.003 | 0.003 | 0.003 | 0.003 | 0.004 | 0.004 | 0.003 | <0.002 | 0.004 | 0.004 | 0.004 | 0.004 | 0.005 | 0.004 | 0.004 | 0.006 | 0.005 | 0.004 |
| 3 | 0.003 | 0.007 | 0.004 | 0.005 | 0.002 | 0.003 | 0.003 | 0.005 | 0.003 | 0.004 | 0.006 | 0.007 | 0.004 | 0.004 | <0.002 | 0.005 | 0.004 | 0.001 | 0.004 | 0.004 | 0.003 | 0.005 | 0.006 | 0.007 |
| 4 | | | 0.005 | 0.007 | 0.003 | 0.002 | 0.007 | 0.005 | | | 0.019 | 0.017 | 0.005 | 0.003 | <0.002 | <0.002 | 0.008 | 0.006 | 0.003 | 0.003 | | | 0.004 | 0.003 |
| Average | 0.003 | 0.008 | 0.005 | 0.006 | 0.005 | 0.005 | 0.004 | 0.004 | 0.003 | 0.003 | 0.008 | 0.008 | 0.004 | 0.003 | 0.002 | 0.003 | 0.004 | 0.003 | 0.006 | 0.006 | 0.003 | 0.007 | 0.005 | 0.005 |

CYANIDE (mg/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 0.006 | 0.005 | 0.004 | 0.003 | 0.005 | 0.005 | 0.005 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.005 | 0.006 | 0.004 | 0.004 | 0.004 | 0.003 | 0.013 | 0.014 | 0.004 | 0.003 | 0.002 | 0.003 |
| 2 | 0.004 | 0.004 | 0.007 | 0.006 | 0.004 | 0.003 | 0.004 | 0.003 | 0.005 | 0.004 | 0.004 | 0.004 | 0.002 | 0.003 | 0.003 | 0.003 | 0.005 | 0.003 | 0.005 | 0.004 | 0.004 | 0.004 | 0.003 | 0.003 |
| 3 | 0.003 | 0.003 | 0.003 | 0.013 | 0.005 | 0.004 | 0.004 | 0.003 | 0.003 | 0.005 | 0.003 | 0.006 | 0.003 | 0.003 | 0.004 | 0.003 | 0.003 | 0.003 | 0.004 | 0.004 | 0.004 | 0.003 | 0.007 | 0.006 |
| 4 | 0.004 | 0.003 | 0.004 | 0.003 | 0.005 | 0.005 | | | 0.003 | 0.002 | 0.004 | 0.006 | 0.039 | 0.003 | 0.002 | 0.003 | | | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 |
| Average | 0.004 | 0.004 | 0.005 | 0.006 | 0.005 | 0.004 | 0.004 | 0.003 | 0.004 | 0.004 | 0.004 | 0.005 | 0.012 | 0.004 | 0.003 | 0.003 | 0.004 | 0.003 | 0.006 | 0.006 | 0.004 | 0.003 | 0.004 | 0.005 |

CYANIDE (mg/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 0.005 | 0.005 | 0.006 | 0.006 | 0.006 | 0.005 | 0.003 | 0.004 | 0.002 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.002 | 0.003 | <0.002 | 0.002 | < 0.002 | 0.003 | 0.003 | 0.004 | 0.003 |
| 2 | 0.004 | 0.004 | 0.004 | 0.003 | 0.003 | 0.004 | 0.004 | 0.004 | 0.002 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.005 | 0.005 | 0.003 | 0.003 | <0.002 | <0.002 | 0.003 | 0.003 | 0.004 | 0.003 |
| 3 | 0.003 | 0.003 | 0.006 | 0.006 | 0.004 | 0.004 | 0.002 | 0.003 | 0.007 | 0.009 | 0.003 | 0.003 | 0.003 | 0.003 | <0.002 | <0.002 | <0.002 | 0.002 | 0.003 | 0.003 | 0.003 | 0.003 | <0.002 | <0.002 |
| 4 | 0.003 | 0.003 | | | 0.004 | 0.003 | 0.002 | 0.003 | 0.002 | 0.003 | 0.004 | 0.003 | | | <0.002 | <0.002 | <0.002 | 0.002 | <0.002 | <0.002 | 0.003 | 0.003 | <0.002 | <0.002 |
| Average | 0.004 | 0.004 | 0.005 | 0.005 | 0.004 | 0.004 | 0.003 | 0.004 | 0.003 | 0.005 | 0.003 | 0.003 | 0.003 | 0.003 | 0.002 | 0.003 | 0.003 | 0.002 | 0.001 | 0.003 | 0.003 | 0.003 | 0.002 | 0.002 |

CYANIDE (mg/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 0.003 | 0.002 | 0.010 | 0.009 | | | 0.003 | 0.003 | 0.005 | 0.005 | 0.004 | 0.003 | 0.003 | 0.002 | 0.002 | 0.003 | 0.003 | 0.003 | 0.002 | 0.002 | 0.003 | 0.003 | 0.003 | 0.003 |
| 2 | 0.004 | 0.003 | 0.007 | 0.006 | 0.004 | 0.006 | 0.002 | 0.003 | 0.006 | 0.007 | 0.002 | 0.002 | 0.003 | 0.003 | 0.003 | 0.002 | 0.005 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.002 |
| 3 | 0.006 | 0.010 | 0.004 | 0.004 | 0.003 | 0.004 | 0.003 | 0.003 | 0.005 | 0.004 | 0.003 | <0.002 | 0.004 | 0.005 | <0.002 | 0.002 | 0.004 | 0.004 | 0.002 | 0.002 | 0.003 | 0.003 | 0.002 | 0.002 |
| 4 | | | 0.004 | 0.009 | 0.003 | 0.004 | 0.003 | 0.003 | | | 0.003 | 0.003 | 0.003 | 0.002 | 0.003 | 0.003 | 0.004 | 0.003 | 0.003 | 0.003 | | | 0.002 | <0.002 |
| Average | 0.004 | 0.005 | 0.006 | 0.007 | 0.003 | 0.005 | 0.003 | 0.003 | 0.005 | 0.005 | 0.003 | 0.002 | 0.003 | 0.003 | 0.002 | 0.003 | 0.004 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.002 |

EFFLUENT RADIATION (pCi/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 2.2 | 23.8 | 0.9 | 25.4 | 1.3 | 28.9 | 1.2 | 28.2 | 0.2 | 31.2 | 0.9 | 23.9 | 2.6 | 32.1 | 0.7 | 33.9 | 2.9 | 33.2 | 6.7 | 25.3 | 2.2 | 27.9 | 2.9 | 30.0 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Average | 2.2 | 23.8 | 0.9 | 25.4 | 1.3 | 28.9 | 1.2 | 28.2 | 0.2 | 31.2 | 0.9 | 23.9 | 2.6 | 32.1 | 0.7 | 33.9 | 2.9 | 33.2 | 6.7 | 25.3 | 2.2 | 27.9 | 2.9 | 30.0 |

EFFLUENT RADIATION (pCi/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 2.3 | 33.1 | 1.4 | 23.4 | 1.5 | 21.5 | 2.8 | 19.2 | 3.3 | 48.0 | 4.8 | 28.6 | 2.8 | 32.5 | 3.8 | 21.0 | 0.3 | 33.7 | 1.5 | 16.7 | 1.4 | 26.0 | 1.4 | 27.0 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Average | 2.3 | 33.1 | 1.4 | 23.4 | 1.5 | 21.5 | 2.8 | 19.2 | 3.3 | 48.0 | 4.8 | 28.6 | 2.8 | 32.5 | 3.8 | 21.0 | 0.3 | 33.7 | 1.5 | 16.7 | 1.4 | 26.0 | 1.4 | 27.0 |

EFFLUENT RADIATION (pCi/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta |
| 1 | | | 1.4 | 26.1 | 2.8 | 18.7 | 4.2 | 28.9 | | | 1.7 | 29.2 | 0.7 | 21.7 | 0.7 | 21.7 | | | 2.0 | 43.4 | | | 4.3 | 31.8 |
| 2 | 1.5 | 30.1 | | | | | | | -0.2 | 41.5 | | | | | | | 0.3 | 36.7 | | | 1.0 | 34.0 | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Average | 1.5 | 30.1 | 1.4 | 26.1 | 2.8 | 18.7 | 4.2 | 28.9 | -0.2 | 41.5 | 1.7 | 29.2 | 0.7 | 21.7 | 0.7 | 21.7 | 0.3 | 36.7 | 2.0 | 43.4 | 1.0 | 34.0 | 4.3 | 31.8 |

EFFLUENT RADIATION (pCi/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta |
| 1 | 3.1 | 29.6 | | | 2.5 | 32.9 | | | 2.8 | 36.4 | 1.8 | 28.1 | 3.3 | 33.7 | | | 1.3 | 36.2 | | | 0.7 | 25.2 | 1.7 | 29.2 |
| 2 | | | 1.9 | 35.8 | | | 2.0 | 30.4 | | | | | | | 2.5 | 34.6 | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | 1.8 | 31.9 | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Average | 3.1 | 29.6 | 1.9 | 35.8 | 2.5 | 32.9 | 2.0 | 30.4 | 2.8 | 36.4 | 1.8 | 28.1 | 3.3 | 33.7 | 2.5 | 34.6 | 1.3 | 36.2 | 1.8 | 31.9 | 0.7 | 25.2 | 1.7 | 29.2 |

EFFLUENT RADIATION (pCi/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta |
| 1 | 0.3 | 28.0 | 2.1 | 37.0 | 2.6 | 30.7 | 1.6 | 26.3 | | | 0.8 | 31.2 | | | 0.6 | 31.1 | 1.0 | 37.4 | | | 1.4 | 29.9 | 2.9 | 29.2 |
| 2 | | | | | | | | | 1.7 | 37.2 | | | 0.9 | 33.4 | | | | | 1.8 | 35.3 | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Average | 0.3 | 28.0 | 2.1 | 37.0 | 2.6 | 30.7 | 1.6 | 26.3 | 1.7 | 37.2 | 0.8 | 31.2 | 0.9 | 33.4 | 0.6 | 31.1 | 1.0 | 37.4 | 1.8 | 35.3 | 1.4 | 29.9 | 2.9 | 29.2 |

EFFLUENT RADIATION (pCi/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta | alpha | beta |
| 1 | 2.7 | 28.5 | 1.5 | 37.1 | 1.6 | 33.4 | 1.9 | 32.5 | 1.9 | 13.3 | 1.2 | 35.7 | 0.7 | 21.5 | | | 0.1 | 27.9 | 1.5 | 14.9 | 1.3 | 25.5 | 0.8 | 14.9 |
| 2 | | | | | | | | | | | | | | | 1.8 | 12.2 | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Average | 2.7 | 28.5 | 1.5 | 37.1 | 1.6 | 33.4 | 1.9 | 32.5 | 1.9 | 13.3 | 1.2 | 35.7 | 0.7 | 21.5 | 1.8 | 12.2 | 0.1 | 27.9 | 1.5 | 14.9 | 1.3 | 25.5 | 0.8 | 14.9 |

ALDRIN AND DIELDRIN (ng/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

ALDRIN AND DIELDRIN (ng/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | | | nd | nd | nd | nd | nd | nd | | | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

ALDRIN AND DIELDRIN (ng/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | | | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

ALDRIN AND DIELDRIN (ng/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

ALDRIN AND DIELDRIN (ng/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | NA | nd | nd | nd | nd | nd | nd | nd |
| 2 | NA | NA | nd | nd | NA | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

ALDRIN AND DIELDRIN (ng/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | | | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

ENDRIN (ng/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

ENDRIN (ng/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | | | nd | nd | nd | nd | nd | nd | | | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

ENDRIN (ng/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | | | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

ENDRIN (ng/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

ENDRIN (ng/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | NA | nd | nd | nd | nd | nd | nd | nd |
| 2 | NA | NA | nd | nd | NA | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

ENDRIN (ng/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | | | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

HCH-HEXACHLOROCYCLOHEXANES (ng/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 71 | 67 | 51 | 47 | 59 | 61 | 50 | 30 | nd | nd | 60 | 28 | 65 | 39 | 62 | 36 | 57 | 48 | 50 | 39 | 55 | 33 | 57 | 36 |
| 2 | 68 | 78 | 72 | 50 | 51 | 50 | 44 | 36 | nd | nd | 76 | 25 | 80 | 40 | 63 | 58 | 64 | 44 | 53 | 35 | 54 | 30 | 47 | 27 |
| 3 | 85 | 50 | 76 | 63 | 70 | 62 | 47 | 27 | 60 | 24 | 83 | 31 | 73 | 35 | 59 | 32 | 160 | 120 | 69 | 33 | 50 | 43 | 71 | 43 |
| 4 | 52 | 41 | 97 | 85 | 41 | 59 | | | 47 | 13 | 75 | 33 | 70 | 34 | 65 | 40 | | | 47 | 31 | 64 | 40 | 41 | 29 |
| Average | 69 | 59 | 74 | 61 | 55 | 58 | 47 | 31 | 27 | 9 | 74 | 29 | 72 | 37 | 62 | 42 | 94 | 71 | 55 | 35 | 56 | 37 | 54 | 34 |

HCH-HEXACHLOROCYCLOHEXANES (ng/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 45 | 30 | 37 | 26 | 37 | 29 | 46 | 24 | 24 | 34 | 28 | 32 | 46 | 48 | 66 | 33 | 44 | 26 | 68 | 27 | 43 | 24 | 32 | 27 |
| 2 | 61 | 37 | 45 | 29 | 39 | 33 | 28 | 21 | 32 | 27 | 53 | 32 | 45 | 34 | 55 | 31 | 42 | 31 | 53 | 35 | 49 | 27 | 32 | 21 |
| 3 | 54 | 39 | 29 | 25 | 49 | 27 | 30 | 26 | 39 | 42 | 37 | 36 | 42 | 37 | 56 | 30 | 42 | 25 | 57 | 25 | 43 | 29 | 30 | 21 |
| 4 | 47 | 32 | | | 46 | 25 | 42 | 30 | 36 | 32 | | | | | 54 | 34 | 45 | 28 | 50 | 25 | 31 | 21 | 34 | 26 |
| Average | 52 | 35 | 37 | 27 | 43 | 29 | 37 | 25 | 33 | 34 | 39 | 33 | 44 | 40 | 58 | 32 | 43 | 28 | 57 | 28 | 42 | 25 | 32 | 24 |

HCH-HEXACHLOROCYCLOHEXANES (ng/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 32 | 23 | 28 | 16 | 22 | 15 | 70 | 37 | 15 | 11 | 38 | 32 | 41 | 25 | 42 | 26 | 41 | 30 | 68 | 36 | 44 | 27 | 34 | 18 |
| 2 | 26 | 23 | 26 | 22 | 20 | 15 | 25 | 18 | 15 | 13 | 63 | 36 | 38 | 29 | 50 | 35 | 50 | 33 | 44 | 27 | 47 | 25 | 57 | 60 |
| 3 | 29 | 20 | 33 | 21 | 15 | 14 | 24 | 17 | 31 | 22 | 34 | 25 | 38 | 26 | 43 | 24 | 45 | 29 | 40 | 30 | 36 | 24 | 39 | 20 |
| 4 | | | 39 | 17 | 22 | 12 | 21 | 18 | | | 43 | 31 | 39 | 33 | 57 | 26 | 96 | 39 | 48 | 26 | | | 31 | 13 |
| Average | 29 | 22 | 32 | 19 | 20 | 14 | 35 | 23 | 20 | 15 | 45 | 31 | 39 | 28 | 48 | 28 | 58 | 33 | 50 | 30 | 42 | 25 | 40 | 28 |

HCH-HEXACHLOROCYCLOHEXANES (ng/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 46 | 17 | 27 | 19 | 16 | 14 | 31 | 11 | 44 | 26 | 57 | 27 | 41 | 30 | 36 | 19 | 37 | 23 | 56 | 26 | 24 | 17 | 73 | 29 |
| 2 | 41 | 25 | 30 | 18 | 25 | 19 | 15 | 11 | 32 | 34 | 42 | 22 | 29 | 17 | 37 | 19 | 34 | 17 | 31 | 20 | 46 | 27 | 62 | nd |
| 3 | 42 | 22 | 32 | 17 | 33 | 19 | 31 | 13 | 48 | 28 | 41 | 23 | 23 | 19 | 52 | 25 | 25 | 15 | 37 | 24 | 60 | 25 | 60 | 20 |
| 4 | 24 | 18 | 50 | 20 | 24 | 16 | | | 46 | 26 | 42 | 25 | 22 | 15 | 46 | 26 | | | 34 | 24 | 36 | 35 | 53 | 21 |
| Average | 38 | 21 | 35 | 19 | 25 | 17 | 26 | 12 | 43 | 29 | 46 | 24 | 29 | 20 | 43 | 22 | 32 | 18 | 40 | 24 | 42 | 26 | 62 | 18 |

HCH-HEXACHLOROCYCLOHEXANES (ng/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 51 | 22 | 37 | 17 | 26 | 14 | 51 | 13 | 38 | 21 | NA | 28 | 30 | 15 | 38 | 21 | NA | 18 | 35 | 18 | 50 | 15 | 58 | 19 |
| 2 | 0 | 0 | 32 | 14 | NA | 15 | 55 | 19 | 47 | 14 | 20 | 14 | 24 | 16 | 40 | 14 | 59 | 19 | 42 | 13 | 21 | 15 | 38 | 18 |
| 3 | 42 | 17 | 36 | 0 | 34 | 12 | 43 | 12 | 47 | 17 | 38 | 18 | 28 | 38 | 44 | 16 | 54 | 15 | 49 | 20 | 38 | 21 | 0 | 0 |
| 4 | 30 | 0 | | | 18 | 11 | 49 | 15 | 43 | 21 | 54 | 27 | | | 61 | 26 | 49 | 19 | 46 | 13 | 70 | 11 | 68 | 24 |
| Average | 31 | 10 | 35 | 10 | 26 | 13 | 50 | 15 | 44 | 18 | 37 | 22 | 27 | 23 | 46 | 19 | 41 | 18 | 43 | 16 | 45 | 16 | 41 | 15 |

HCH-HEXACHLOROCYCLOHEXANES (ng/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 39 | 18 | 35 | 17 | 26 | 21 | 31 | 13 | nd | nd | 36 | nd | 23 | nd | 45 | 16 | 16 | nd | 26 | nd | 14 | nd | nd | nd |
| 2 | 47 | 14 | 40 | nd | 19 | 15 | 24 | nd | nd | nd | 36 | nd | 32 | nd | nd | nd | 20 | nd | 48 | 22 | 13 | 13 | nd | nd |
| 3 | 45 | 17 | 33 | 15 | 40 | nd | 31 | 19 | 14 | 14 | 36 | 18 | 28 | nd | 50 | 12 | 27 | 20 | 99 | 24 | 10 | nd | nd | nd |
| 4 | | | 38 | 16 | 45 | 15 | 29 | 14 | | | 30 | nd | 33 | nd | 18 | 16 | 28 | 12 | 11 | nd | | | nd | nd |
| Average | 44 | 16 | 37 | 12 | 33 | 13 | 29 | 12 | 7 | 5 | 35 | 5 | 29 | nd | 28 | 11 | 23 | 8 | 46 | 12 | 12 | 4 | nd | nd |

CHLORDANE & RELATED COMPOUNDS (ng/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | 50 | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | 100 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | 25 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | 13 | nd | nd | nd | nd | nd | nd | nd | nd | nd |

CHLORDANE & RELATED COMPOUNDS (ng/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | | | nd | nd | nd | nd | nd | nd | | | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

CHLORDANE & RELATED COMPOUNDS (ng/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | | | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

CHLORDANE & RELATED COMPOUNDS (ng/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | 77 | 210 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | 19 | 53 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

CHLORDANE & RELATED COMPOUNDS (ng/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | NA | nd | nd | nd | nd | nd | NA | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | NA | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

CHLORDANE & RELATED COMPOUNDS (ng/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | | | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | 215 | nd | | | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | 54 | nd | nd | nd | nd | nd |

PCBs-POLYCHLORINATED BIPHENYLS (ng/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

PCBs-POLYCHLORINATED BIPHENYLS (ng/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | | | nd | nd | nd | nd | nd | nd | | | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

PCBs-POLYCHLORINATED BIPHENYLS (ng/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | | | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

PCBs-POLYCHLORINATED BIPHENYLS (ng/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

PCBs-POLYCHLORINATED BIPHENYLS (ng/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | NA | nd | nd | nd | nd | nd | NA | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | NA | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

PCBs-POLYCHLORINATED BIPHENYLS (ng/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | | | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

DDT AND DERIVATIVES (ng/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

DDT AND DERIVATIVES (ng/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | | | nd | nd | nd | nd | nd | nd | | | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

DDT AND DERIVATIVES (ng/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | 52 | nd | nd | nd | nd | nd | nd | nd |
| 4 | | | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | 13 | nd | nd | nd | nd | nd | nd | nd |

DDT AND DERIVATIVES (ng/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | 92 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | 45 | 50 | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd |
| Average | nd | 23 | 11 | 13 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

DDT AND DERIVATIVES (ng/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | NA | nd | nd | nd | nd | nd | NA | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | NA | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

DDT AND DERIVATIVES (ng/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 50 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | 37 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | | | nd | nd | 46 | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd |
| Average | 29 | nd | nd | nd | 12 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

TOXAPHENE (ng/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | nd | nd | nd | nd | | | nd | nd | | | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

TOXAPHENE (ng/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | | | nd | nd | nd | nd | nd | nd | | | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

TOXAPHENE (ng/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | | | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

TOXAPHENE (ng/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

TOXAPHENE (ng/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | NA | nd | nd | nd | nd | nd | NA | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | NA | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

TOXAPHENE (ng/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | | | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

CHLORINATED PHENOLIC COMPOUNDS (ug/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | nd | nd | nd | nd | | | nd | nd | NA | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

CHLORINATED PHENOLIC COMPOUNDS (ug/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

CHLORINATED PHENOLIC COMPOUNDS (ug/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | | | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

CHLORINATED PHENOLIC COMPOUNDS (ug/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

CHLORINATED PHENOLIC COMPOUNDS (ug/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | nd | nd | | | nd | nd | | | nd | | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

CHLORINATED PHENOLIC COMPOUNDS (ug/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf |
| 1 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 2 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 3 | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| 4 | | | nd | nd | nd | nd | nd | nd | | | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | | | nd | nd |
| Average | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |

NON-CHLORINATED PHENOLIC COMPOUNDS (ug/L) 1997

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 21.0 | 14.5 | 16.3 | 16.8 | 9.4 | 12.5 | 14.5 | nd | 14.2 | 11.4 | 17.1 | 16.1 | 12.7 | 10.1 | 20.9 | 8.6 | 14.4 | 12.8 | 12.1 | 15.4 | 23.1 | 17.0 | 16.3 | 14.4 |
| 2 | 12.3 | 5.9 | 19.9 | 14.4 | 18.2 | 16.5 | 6.1 | 3.8 | 13.8 | 12.4 | 19.1 | 16.0 | 12.1 | 11.6 | 22.0 | 20.9 | nd | 18.9 | 16.7 | 15.9 | 13.5 | 13.6 | 16.2 | 16.7 |
| 3 | 13.1 | 10.3 | 3.0 | 6.6 | 8.4 | 6.7 | 21.6 | 15.2 | 21.6 | 15.4 | 14.5 | 12.8 | 12.0 | 9.3 | 12.5 | 12.3 | 18.2 | 17.8 | 12.8 | 11.9 | 23.6 | 18.4 | 12.0 | 12.4 |
| 4 | 8.8 | 7.4 | 12.0 | 13.2 | 6.5 | 6.1 | | | 17.9 | 15.9 | NA | 9.0 | 14.2 | 15.3 | 20.2 | 21.4 | | | 12.8 | 13.4 | 16.4 | 14.4 | 16.2 | 15.2 |
| Average | 13.8 | 9.5 | 12.8 | 12.8 | 10.6 | 10.5 | 14.1 | 6.3 | 16.9 | 13.8 | 16.9 | 13.5 | 12.8 | 11.6 | 18.9 | 15.8 | 10.9 | 16.5 | 13.6 | 14.2 | 19.2 | 15.9 | 15.2 | 14.7 |

NON-CHLORINATED PHENOLIC COMPOUNDS (ug/L) 1998

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 13.3 | 15.9 | 9.1 | 10.9 | 14.9 | 14.6 | 11.7 | 12.3 | 15.9 | 18.0 | 19.0 | 13.1 | 15.0 | 16.5 | 11.1 | 7.6 | 10.5 | 9.4 | 11.0 | 9.2 | 12.0 | 9.2 | 15.1 | 12.5 |
| 2 | 15.7 | 17.4 | 7.1 | 5.6 | 16.9 | 14.5 | 15.7 | 14.9 | 14.0 | 15.6 | 15.0 | 15.9 | 14.9 | 13.1 | 5.2 | 3.4 | 5.8 | 9.1 | 13.8 | 9.4 | 13.4 | 10.1 | 12 | 11.8 |
| 3 | 27.1 | 21.3 | 11.3 | 13.3 | 18.9 | 17.8 | 14.1 | 16.8 | 11.9 | 13.1 | 18.7 | 19.9 | 14.3 | 12.8 | 12.2 | 8.8 | 16.4 | 12.6 | 10.1 | 8.8 | 16.2 | 12.8 | 15.9 | 10.2 |
| 4 | 25.2 | 22.4 | | | 14.3 | 10.2 | 26.9 | 25.0 | 17.4 | 16.5 | 16.6 | 17.2 | | | 13.0 | 12.3 | 12.6 | 11.5 | 11.9 | 10.1 | 11.5 | 7.8 | 12.3 | 8.7 |
| Average | 20.3 | 19.3 | 9.2 | 9.9 | 16.3 | 14.3 | 17.1 | 17.3 | 14.8 | 15.8 | 17.3 | 16.5 | 14.7 | 14.1 | 10.4 | 8.0 | 11.3 | 10.7 | 11.7 | 9.4 | 13.3 | 10.0 | 13.8 | 10.8 |

NON-CHLORINATED PHENOLIC COMPOUNDS (ug/L) 1999

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 15.1 | 11.1 | 14.8 | 11.9 | 15.5 | 11.6 | 17.1 | 11.8 | 12.7 | 8.0 | 19.9 | 10.6 | 24.3 | 15.6 | 21.5 | 8.1 | 16.1 | 11.3 | 13.8 | 12.0 | 18.2 | 10.8 | 13.2 | 9.9 |
| 2 | 15.6 | 10.8 | 23.6 | 13.4 | 13.9 | 9.6 | 15.6 | 11.4 | 14.6 | 7.8 | 21.6 | 13.1 | 16.9 | 10.8 | 22.7 | 14.5 | 19.2 | 15.3 | 17.9 | 15.7 | 15.9 | 12.3 | 21.3 | 17.0 |
| 3 | 15.9 | 11.0 | 18.9 | 13.8 | 13.5 | 8.3 | 19.5 | 12.4 | 6.5 | 10.9 | 18.0 | 11.1 | 21.8 | 13.8 | 17.0 | 14.9 | 16.4 | 14.3 | 16.6 | 8.9 | 19.4 | 12.0 | 16.1 | 11.7 |
| 4 | | | 16.7 | 8.6 | 24.4 | 14.2 | 15.5 | 12.0 | | | 15.8 | 8.7 | 18.6 | 14.5 | 15.5 | 12.3 | 16.1 | 14.5 | 15.5 | 8.5 | | | 18.6 | 11.1 |
| Average | 15.5 | 11.0 | 18.5 | 11.9 | 16.8 | 10.9 | 16.9 | 11.9 | 11.3 | 8.9 | 18.8 | 10.9 | 20.4 | 13.7 | 19.2 | 12.5 | 17.0 | 13.9 | 16.0 | 11.3 | 17.8 | 11.7 | 17.3 | 12.4 |

NON-CHLORINATED PHENOLIC COMPOUNDS (ug/L) 2000

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 13.8 | 9.0 | 20.7 | 12.6 | 13.1 | 10.4 | 13.8 | 8.2 | 12.9 | 11.3 | 7.7 | 6.3 | 24.3 | 20.3 | 22.9 | 16.1 | 15.2 | 10.3 | 15.6 | 10.9 | 21.5 | 14.4 | 11.0 | 8.5 |
| 2 | 26.6 | 16.9 | 18.5 | 14.1 | 11.9 | 10.0 | 13.9 | 7.8 | 12.9 | 10.0 | 8.8 | 6.7 | 21.4 | 18.9 | 16.5 | 10.8 | 13.6 | 10.3 | 16.6 | 10.6 | * | 7.7 | 13.8 | 11.5 |
| 3 | 18.9 | 14.9 | 15.9 | 9.9 | 10.4 | 9.1 | 15.3 | 12.1 | 17.2 | 15.4 | 24.3 | 11.6 | 20.2 | 18.0 | 18.2 | 11.2 | 21.4 | 15.4 | 16.2 | 11.9 | 18.7 | 14.4 | 20.3 | 14.6 |
| 4 | 19.1 | 12.0 | 13.9 | 9.1 | 16.8 | 10.5 | | | 6.9 | 7.7 | 16.9 | 13.4 | 21.5 | 12.7 | 12.1 | 9.5 | | | 15.2 | 11.1 | 11.6 | 8.6 | 19.6 | 14 |
| Average | 19.6 | 13.2 | 17.3 | 11.4 | 13.1 | 10.0 | 14.3 | 9.4 | 12.5 | 11.1 | 14.4 | 9.5 | 21.6 | 17.5 | 17.4 | 11.9 | 16.7 | 12.0 | 15.9 | 11.1 | 17.3 | 11.3 | 16.2 | 12.2 |

NON-CHLORINATED PHENOLIC COMPOUNDS (ug/L) 2001

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 17.3 | 13.7 | 22.9 | 23.0 | 12.1 | 7.0 | 21.6 | 24.3 | 17.9 | 18.4 | 25.8 | 15.5 | 19.1 | 10.5 | 16.4 | 11.5 | 14.8 | 6.3 | 13.3 | 8.5 | 15.2 | 12.4 | 19.1 | 8.4 |
| 2 | 11.5 | 8.5 | 11.6 | 6.6 | 11.3 | 8.0 | 22.0 | 12.4 | 14.7 | 9.8 | 17.9 | 12.0 | 15.2 | 5.0 | 18.9 | 8.9 | 15.8 | 8.5 | 10.4 | 10.3 | 16.6 | 11.6 | 13.6 | 9.8 |
| 3 | 13.9 | 9.5 | 15.4 | 15.1 | 15.1 | 13.7 | | 13.7 | 19.1 | 13.1 | 12.7 | 7.4 | 15.5 | 10.1 | 14.8 | 9.9 | 16.1 | 6.6 | 12.9 | 6.1 | 25.1 | 10.3 | 12.2 | 7.8 |
| 4 | 19.5 | 16.1 | | | 21.3 | 7.8 | | | | 8.8 | 16.7 | 7.9 | | | 14.5 | 9.7 | 17.5 | 9.2 | 12.8 | 10.0 | 23.1 | 13.6 | 19.8 | 12.5 |
| Average | 15.6 | 12.0 | 16.6 | 14.9 | 15.0 | 9.1 | 21.8 | 16.8 | 17.2 | 12.5 | 18.3 | 10.7 | 16.6 | 8.5 | 16.2 | 10.0 | 16.1 | 7.7 | 12.4 | 8.7 | 20.0 | 12.0 | 16.2 | 9.6 |

NON-CHLORINATED PHENOLIC COMPOUNDS (ug/L) 2002

| | JAN | | FEB | | MAR | | APR | | MAY | | JUN | | JUL | | AUG | | SEP | | OCT | | NOV | | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff | Inf | Eff |
| 1 | 22.5 | 15.1 | 19.3 | 19.9 | 20.1 | 19.5 | 22.6 | 17.1 | 16.6 | 14.6 | 17.8 | 11.2 | 15.9 | 7.4 | 14.4 | 8.8 | 14.7 | 9.3 | 13.9 | 9.7 | 15.7 | 8.2 | 17 | 9.1 |
| 2 | 19 | 14.1 | 14.8 | 13.2 | 14.9 | 13.2 | 15 | 13.1 | 12.7 | 11.9 | 13.2 | 7 | 11.3 | 9.4 | 13.4 | 7.7 | 12.6 | 7.8 | 16.1 | 8 | 12.3 | 7.1 | 9.9 | 9.4 |
| 3 | 15.9 | 15.3 | 14.2 | 12.3 | 14.7 | 17.1 | 17.3 | 15.7 | 13.9 | 11.1 | 13.1 | 15.7 | 13.3 | 9.8 | 11.8 | 9 | 11.4 | 6.5 | 13.8 | 9.8 | 9.2 | 7.4 | 9.4 | 7.5 |
| 4 | | | 19.6 | 20.2 | 6.3 | 0 | 11.9 | 12.9 | | | 18 | 10.3 | 10.3 | 7.9 | 8.9 | 8.2 | 13.7 | 8.1 | 10.3 | 6.8 | | | 18 | 15.3 |
| Average | 19.1 | 14.8 | 17 | 16.4 | 14 | 12.5 | 16.7 | 14.7 | 14.4 | 12.5 | 15.5 | 11.1 | 12.7 | 8.6 | 12.1 | 8.4 | 13.1 | 7.9 | 13.5 | 8.6 | 12.4 | 7.6 | 13.6 | 10.3 |