
Bioassays of the City of

**Tampa - Howard F. Curren**
**Advanced Wastewater Treatment Plant**

Tampa, Hillsborough County, Florida

NPDES #FL0020904

Sampled 10/7/02

July 2003

**Biology Section**
**Division of Resource Assessment & Management**

Comprehensive Quality Assurance Plan #870346G

Bioassays of the City of

# Tampa - Howard F. Curren
# Advanced Wastewater Treatment Plant

Tampa, Hillsborough County, Florida

NPDES #FL0020904

**Biology Section**
**Bureau of Laboratories**
**July 2003**

City of Tampa-Howard F. Curren AWTP, 2700 Maritime Blvd., Tampa, Hillsborough County, Florida, NPDES #FL0020904, tests performed on 8 to 12 October 2002.

## Introduction

This activated-sludge advanced wastewater treatment plant has a design flow of 96.0 MGD and an average daily flow of 56.3 MGD (February 2002– February 2003). Treatment at this facility consists of influent screening and grit removal, primary clarification, intermediate clarification, nitrification, final clarification, denitrification, disinfection using chlorine gas, and dechlorination using sulfur dioxide gas before discharge into the Class III marine waters of Hillsborough Bay. A mixing zone exists for pH that extends spatially 133 meters in all directions from the end of the discharge pipe (facility information provided by Joe Squitieri, FDEP, Tampa).

## Methods

Samples were collected by Cindy Hodgman and Eli Landrau following DEP-SOP-001/01 FS 2400 Wastewater Sampling. All DEP SOP's are available on the web at: http://www.floridadep.org/labs/qa/sops.htm

The toxicity tests discussed in this report were performed following internal DEP SOP's TA07_01 and TA07_02. All internal DEP SOP's are available on the web at: http://www.floridadep.org/labs/cgi-bin/sop/biosop.asp.

## Toxicity Test Results

*Ceriodaphnia dubia* 96-hr acute screen – Not Toxic
*Cyprinella leedsi* 96-hr acute screen – Not Toxic

See Table 1 for bioassay bench sheets.

## Chemistry Results

Total residual chlorine and total ammonia were not detected in the bioassay sample in the laboratory.

See Table 2 for chemicals detected in the analytical chemistry samples.
See Table 3 for a complete list of chemical analyses performed.

## Conclusion

The sample of effluent collected from this facility on October 7, 2002, did not show acute toxicity to either test species during the 96-hour bioassay tests.

**Table 1.** Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the City of Tampa-Howard F. Curren AWTP, 2700 Maritime Blvd., Tampa, Hillsborough County, Florida, NPDES# FL0020904, performed from 8 to 12 October 2002.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Facility: | **City of Tampa-Howard F. Curren AWTP** | **NPDES #:** | **FL0020904** | Facility Type: | **AWTP** | **Analysts:** | Jacquelyn Brynda |
| Location: | 2700 Maritime Blvd., Tampa | Contact/District: | Kovach/SW | | | | Joshua Ayres |
| County: | Hillsborough | Test type: | acute screen | | | | James Daniels |
| Sample Collection Date: | 10/7/2002 Time: 1055 | # tests: | 2 | Receiving Water: | Hillsborough Bay | | Marshall Faircloth |
| Test Beginning Date: | 10/8/2002 Time: 1345 | Chlorination Type: | dechlorinated | | Class III Marine | | |
| Test Ending Date: | 10/12/2002 Time: 1330 | FDEP SOP#: | TA07_01 | | **Page 1 of 2** | **Reviewer:** | Rob Buda |

Organism: ***Ceriodaphnia dubia*** Life stage: <24 hours [A]Feeding: YCT/Algae

0-48 hours (before renewal) Chamber size: 20mL

| | Sample/Diluent | SURVIVAL # Alive | | | pH | | | Temperature[B] | | | Dissolved Oxygen | | | Conductivity Uncorrected µmhos/cm | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Concentrations | Volume(mL) | 0 hr | 24 hr | 48 hr | 0 hour | 24 hour | 48 hour | 0 hour | 24 hour | 48 hour | 0 hour | 24 hour | 48 hour | 0 hour | 48 hour |
| Control A | 0/20 | 5 | 5 | 5 | 8.0 | - | 7.7 | 23.1 | - | 24.6 | 8.4 | - | 6.8 | 150 | 190 |
| Control B | 0/20 | 5 | 5 | 5 | - | - | 7.9 | - | - | 24.5 | - | - | 6.9 | - | 180 |
| Control C | 0/20 | 5 | 5 | 5 | - | - | 7.9 | - | - | 24.5 | - | - | 6.9 | - | 180 |
| Control D | 0/20 | 5 | 5 | 5 | - | - | 7.9 | - | - | 24.6 | - | - | 6.9 | - | 170 |
| 100% A | 20/0 | 5 | 5 | 5 | 7.6 | - | 8.2 | 24.1 | - | 24.8 | 8.3 | - | 6.8 | 1120 | 1295 |
| 100% B | 20/0 | 5 | 5 | 5 | - | - | 8.3 | - | - | 24.8 | - | - | 6.9 | - | 1240 |
| 100% C | 20/0 | 5 | 5 | 5 | - | - | 8.3 | - | - | 24.9 | - | - | 6.7 | - | 1240 |
| 100% D | 20/0 | 5 | 5 | 5 | - | - | 8.2 | - | - | 24.7 | - | - | 6.8 | - | 1250 |

| **LIMS** | |
|---|---|
| Job number: | TLH-2002-10-08-12 |
| sample number: | 626872 |

| **Data Transcription Verification** | |
|---|---|
| date: | 6/9/2003 |
| by: | Cathy Oaks |
| | Brad Richardson |

| **Total Residual CL2** | mg/L | Method |
|---|---|---|
| Field: | - | - |
| Lab: | <0.03 | Hach |

| **Ammonia** | Total (mg/L) | Unionized (mg/L) |
|---|---|---|
| Control water (water flea): | <0.017 | <0.017 |
| 100% Sample: | <0.017 | <0.017 |

Organism: ***Ceriodaphnia dubia*** Conductivity Uncorrected µmhos/cm

48-96 hours (after renewal)

| | Sample/Diluent | SURVIVAL # Alive | | | pH | | | Temperature[B] | | | Dissolved Oxygen | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Concentrations | Volume(mL) | 48 hr | 72 hr | 96 hr | 48 hour | 72 hour | 96 hour | 48 hour | 72 hour | 96 hour | 48 hour | 72 hour | 96 hour | 48 hour | 96 hour |
| Control A | 0/20 | 5 | 5 | 5 | 8.3 | - | 8.0 | 24.7 | - | 24.0 | 7.2 | - | 7.0 | 210 | 195 |
| Control B | 0/20 | 5 | 5 | 5 | - | - | 8.0 | - | - | 23.9 | - | - | 7.2 | - | 205 |
| Control C | 0/20 | 5 | 5 | 5 | - | - | 8.0 | - | - | 24.1 | - | - | 7.2 | - | 205 |
| Control D | 0/20 | 5 | 5 | 5 | - | - | 8.0 | - | - | 24.1 | - | - | 7.2 | - | 200 |
| 100% A | 20/0 | 5 | 5 | 5 | 7.7 | - | 8.4 | 24.8 | - | 23.6 | 7.3 | - | 7.3 | 1120 | 1425 |
| 100% B | 20/0 | 5 | 5 | 5 | - | - | 8.4 | - | - | 24.2 | - | - | 7.2 | - | 1435 |
| 100 % C | 20/0 | 5 | 5 | 5 | - | - | 8.4 | - | - | 24.3 | - | - | 7.1 | - | 1385 |
| 100% D | 20/0 | 5 | 5 | 5 | - | - | 8.4 | - | - | 23.9 | - | - | 7.3 | - | 1390 |

| **Alk & Hardness** | Alkalinity (mg/L) | Hardness (mg/L) |
|---|---|---|
| Control water (water flea): | 72 | 75 |
| 100% Sample: | 140 | 220 |

Light Intensity during the test was 50-100 foot candles. Photoperiod during the test was 16 hours of light : 8 hours of dark.

[A] Organisms fed prior to testing and before renewal.

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

Continued

**Table 1.** Concluded Data recorded during the 96-hour acute screening bioassays of a sample of effluent from the City of Tampa-Howard F. Curren AWTP, 2700 Maritime Blvd., Tampa, Hillsborough County, Florida, NPDES# FL0020904, performed from 8 to 12 October 2002.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Facility: | **City of Tampa-Howard F. Curren AWTP** | **NPDES #:** | **FL0020904** | Facility Type: | **AWTP** | **Analysts:** | Jacquelyn Brynda |
| Location: | 2700 Maritime Blvd., Tampa | Contact/District: | Kovach/SW | | | | Joshua Ayres |
| County: | Hillsborough | Test type: | acute screen | | | | James Daniels |
| Sample Collection Date: | 10/7/2002 Time: 1055 | # tests: | 2 | Receiving Water: | Hillsborough Bay | | Marshall Faircloth |
| Test Beginning Date: | 10/8/2002 Time: 1345 | Chlorination Type: | dechlorinated | | Class III Marine | | |
| Test Ending Date: | 10/12/2002 Time: 1330 | FDEP SOP#: | TA07_02 | | **Page 2 of 2** | **Reviewer:** | Rob Buda |

Organism: ***Cyprinella leedsi*** Life stage: 12 days [A]Feeding: artemia

0-48 hours (before renewal) Chamber size: 1L

| | Sample/Diluent | SURVIVAL # Alive | | | pH | | | Temperature[B] | | | Dissolved Oxygen | | | Conductivity Uncorrected µmhos/cm | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Concentrations | Volume(mL) | 0 hr | 24 hr | 48 hr | 0 hour | 24 hour | 48 hour | 0 hour | 24 hour | 48 hour | 0 hour | 24 hour | 48 hour | 0 hour | 48 hour |
| Control A | 0/500 | 5 | 5 | 5 | 7.9 | 8.3 | 8.3 | 24.7 | 24.7 | 23.2 | 8.1 | 7.4 | 8.0 | 250 | 260 |
| Control B | 0/500 | 5 | 5 | 5 | 7.9 | 8.3 | 8.3 | 24.7 | 24.3 | 23.1 | 8.0 | 7.4 | 7.6 | 250 | 260 |
| Control C | 0/500 | 5 | 5 | 5 | 7.9 | 8.3 | 8.4 | 24.7 | 24.3 | 22.9 | 8.0 | 7.7 | 7.7 | 260 | 270 |
| Control D | 0/500 | 5 | 5 | 5 | 7.9 | 8.3 | 8.4 | 24.7 | 24.3 | 23.0 | 7.9 | 7.7 | 7.3 | 265 | 270 |
| 100% A | 500/0 | 5 | 5 | 5 | 7.5 | 8.1 | 8.2 | 24.6 | 24.4 | 23.0 | 8.0 | 7.8 | 7.6 | 1080 | 1100 |
| 100% B | 500/0 | 5 | 5 | 5 | 7.5 | 8.1 | 8.2 | 24.4 | 24.3 | 23.0 | 8.0 | 7.7 | 7.4 | 1145 | 1140 |
| 100% C | 500/0 | 5 | 5 | 5 | 7.5 | 8.1 | 8.3 | 24.4 | 24.4 | 23.1 | 8.1 | 7.7 | 7.4 | 1140 | 1150 |
| 100% D | 500/0 | 5 | 5 | 5 | 7.5 | 8.1 | 8.3 | 24.4 | 24.5 | 23.1 | 8.0 | 7.6 | 7.4 | 1160 | 1160 |

Organism: ***Cyprinella leedsi*** Conductivity Uncorrected µmhos/cm

48-96 hours (after renewal)

| | Sample/Diluent | SURVIVAL # Alive | | | pH | | | Temperature[B] | | | Dissolved Oxygen | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Concentrations | Volume(mL) | 48 hr | 72 hr | 96 hr | 48 hour | 72 hour | 96 hour | 48 hour | 72 hour | 96 hour | 48 hour | 72 hour | 96 hour | 48 hour | 96 hour |
| Control A | 0/500 | 5 | 5 | 5 | 8.0 | 8.2 | 8.4 | 23.5 | 23.8 | 24.2 | 7.4 | 7.9 | 7.9 | 300 | 270 |
| Control B | 0/500 | 5 | 5 | 5 | 8.0 | 8.2 | 8.4 | 23.7 | 23.5 | 24.2 | 7.5 | 7.8 | 7.9 | 280 | 275 |
| Control C | 0/500 | 5 | 5 | 5 | 8.1 | 8.2 | 8.4 | 23.5 | 23.5 | 24.4 | 7.4 | 7.5 | 7.8 | 270 | 275 |
| Control D | 0/500 | 5 | 5 | 5 | 8.1 | 8.2 | 8.4 | 23.6 | 23.4 | 24.3 | 7.5 | 7.4 | 7.9 | 270 | 270 |
| 100% A | 500/0 | 5 | 5 | 5 | 7.6 | 8.0 | 8.2 | 23.7 | 23.5 | 23.9 | 7.5 | 7.3 | 7.1 | 1000 | 1190 |
| 100% B | 500/0 | 5 | 5 | 5 | 7.6 | 8.0 | 8.2 | 23.8 | 23.6 | 24.6 | 7.5 | 7.3 | 7.0 | 1100 | 1230 |
| 100 % C | 500/0 | 5 | 5 | 5 | 7.6 | 8.0 | 8.2 | 23.6 | 23.5 | 24.0 | 7.4 | 7.1 | 7.0 | 1105 | 1220 |
| 100% D | 500/0 | 5 | 5 | 5 | 7.6 | 8.0 | 8.2 | 23.7 | 23.7 | 24.4 | 7.5 | 7.1 | 6.9 | 1130 | 1215 |

[A] Organisms fed prior to testing and before renewal.

[B] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 22.5-27.0°C.
Incubator #3 temperature range for the test period was 25.0-25.5°C.

| **LIMS** | |
|---|---|
| Job number: | TLH-2002-10-08-12 |
| sample number: | 626872 |

| **Data Transcription Verification** | |
|---|---|
| date: | 6/9/2003 |
| by: | Cathy Oaks |
| | Brad Richardson |

| **Total Residual CL2** | mg/L | Method |
|---|---|---|
| Field: | - | - |
| Lab: | <0.03 | Hach |

| **Ammonia** | Total (mg/L) | Unionized (mg/L) |
|---|---|---|
| Control water (fish): | <0.017 | <0.017 |
| 100% Sample: | <0.017 | <0.017 |

| **Alk & Hardness** | Alkalinity (mg/L) | Hardness (mg/L) |
|---|---|---|
| Control water (fish): | 137 | 135 |
| 100% Sample: | 140 | 220 |

Light Intensity during the test was 50-100 footcandles.
Photoperiod during the test was 16 hours of light : 8 hours of dark.

**Table 2. Results of chemical analyses on the effluent from City of Tampa-Howard F. Curren AWTP sampled on October 7, 2002.**

| | | | |
|---|---|---|---|
| **Metals** | | | |
| Aluminum | 44 | ug/L | A |
| Arsenic | 4.1 | ug/L | I |
| Calcium | 72.4 | mg/L | A |
| Copper | 2.1 | ug/L | I |
| Iron | 74 | ug/L | A |
| Lead | 0.13 | ug/L | I |
| Magnesium | 9 | mg/L | A |
| Nickel | 4.8 | ug/L | I |
| Silver | 0.062 | ug/L | I |
| Zinc | 10 | ug/L | A |
| **Pesticides and Herbicides** | | | |
| Atrazine | 0.06 | ug/L | I |
| **Nutrients** | | | |
| Ammonia-N | 0.081 | mg N/L | |
| Nitrates and Nitrites | 0.61 | mg N/L | |
| Total Kjeldahl Nitrogen | 1.5 | mg N/L | |
| Ortho-Phosphates | 2.2 | mg P/L | |
| Total Phosphorous | 2.4 | mg P/L | |

**Base, Neutral, & Acid Extractable Organics**

None detected

[A] The reported value is an average of two or more values.
[I] The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

**Table 3.** **Chemical Analyses performed on the effluent from City of Tampa-Howard F. Curren AWTP, sampled on October 7, 2002.**

| Date Sampled | Field ID | Analysis Group | Component | Result | Units | Remark | MDL | PQL |
|---|---|---|---|---|---|---|---|---|
| 10/7/2002 10:55 | 27854 | BNA-Water | 1,2,4,5-Tetrachlorobenzene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 1,2,4-Trichlorobenzene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 1,2-Dichlorobenzene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 1,3,5-Trinitrobenzene | 3.9 | ug/L | U | 3.9 | 16 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 1,3-Dichlorobenzene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 1,3-Dinitrobenzene | 1.9 | ug/L | U | 1.9 | 7.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 1,4-Dichlorobenzene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 1,4-Naphthoquinone | 19 | ug/L | U | 19 | 78 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 1-Naphthylamine | 9.7 | ug/L | U | 9.7 | 39 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2,3,4,6-Tetrachlorophenol | 1.9 | ug/L | U | 1.9 | 7.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2,4,5-Trichlorophenol | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2,4,6-Trichlorophenol | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2,4-Dichlorophenol | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2,4-Dimethylphenol | 49 | ug/L | U | 49 | 190 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2,4-Dinitrophenol | 15 | ug/L | U | 15 | 58 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2,4-Dinitrotoluene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2,6-Dichlorophenol | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2,6-Dinitrotoluene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2-Acetylaminofluorene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2-Chloronaphthalene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2-Chlorophenol | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2-Methyl-4,6-dinitrophenol | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2-Methylnaphthalene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2-Naphthylamine | 9.7 | ug/L | U | 9.7 | 39 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2-Nitroaniline | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2-Nitrophenol | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 2-Picoline | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 3,3'-Dichlorobenzidine | 39 | ug/L | U | 39 | 160 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 3,3'-Dimethylbenzidine | 19 | ug/L | U | 19 | 78 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 3-Methylcholanthrene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 3-Nitroaniline | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 4,4'-DDD | 1.5 | ug/L | U | 1.5 | 5.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 4,4'-DDE | 1.5 | ug/L | U | 1.5 | 5.8 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 10/7/2002 10:55 | 27854 | BNA-Water | 4,4'-DDT | 1.5 | ug/L | U | 1.5 | 5.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 4-Aminobiphenyl | 3.9 | ug/L | U | 3.9 | 16 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 4-Bromophenyl phenyl ether | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 4-Chloro-3-methylphenol | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 4-Chloroaniline | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 4-Chlorophenyl phenyl ether | 1.9 | ug/L | U | 1.9 | 7.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 4-Nitroaniline | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 4-Nitrophenol | 15 | ug/L | U | 15 | 58 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 5-Nitro-o-toluidine | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | 7,12-Dimethylbenz(a)anthracene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Acenaphthene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Acenaphthylene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Acetophenone | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Aldrin | 1.5 | ug/L | U | 1.5 | 5.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Aniline | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Anthracene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Azobenzene/1,2-Diphenylhydrazine | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Benzidine | 97 | ug/L | U | 97 | 390 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Benzo(a)anthracene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Benzo(a)pyrene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Benzo(b)fluoranthene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Benzo(g,h,i)perylene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Benzo(k)fluoranthene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Benzyl alcohol | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Bis(2-chloroethoxy)methane | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Bis(2-chloroethyl)ether | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Bis(2-chloroisopropyl)ether | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Bis(2-ethylhexyl)phthalate | 15 | ug/L | U | 15 | 58 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Butyl benzyl phthalate | 4.9 | ug/L | U | 4.9 | 19 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Chrysene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Di-n-butyl phthalate | 4.9 | ug/L | U | 4.9 | 19 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Di-n-octyl phthalate | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Dibenzo(a,h)anthracene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Dibenzofuran | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Dieldrin | 1.5 | ug/L | U | 1.5 | 5.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Diethyl phthalate | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Dimethyl phthalate | 49 | ug/L | U | 49 | 190 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 10/7/2002 10:55 | 27854 | BNA-Water | Dimethylaminoazobenzene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Dinoseb | 3.9 | ug/L | U | 3.9 | 16 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Diphenylamine | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Endosulfan I | 3.9 | ug/L | U | 3.9 | 16 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Endosulfan II | 3.9 | ug/L | U | 3.9 | 16 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Endosulfan sulfate | 1.5 | ug/L | U | 1.5 | 5.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Endrin | 1.5 | ug/L | U | 1.5 | 5.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Endrin aldehyde | 3.9 | ug/L | U | 3.9 | 16 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Ethyl methanesulfonate | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Fluoranthene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Fluorene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Heptachlor | 1.5 | ug/L | U | 1.5 | 5.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Heptachlor epoxide | 1.5 | ug/L | U | 1.5 | 5.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Hexachlorobenzene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Hexachlorobutadiene | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Hexachlorocyclopentadiene | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Hexachloroethane | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Hexachloropropene | 1.9 | ug/L | U | 1.9 | 7.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Indeno(1,2,3-cd)pyrene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Isophorone | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Isosafrole | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Methapyrilene | 3.9 | ug/L | U | 3.9 | 16 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Methyl methanesulfonate | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | N-Nitrosodi-n-butylamine | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | N-Nitrosodi-n-propylamine | 1.9 | ug/L | U | 1.9 | 7.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | N-Nitrosodiethylamine | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | N-Nitrosodimethylamine | 1.9 | ug/L | U | 1.9 | 7.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | N-Nitrosodiphenylamine | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:55 | 27854 | BNA-Water | N-Nitrosomethylethylamine | 1.9 | ug/L | U | 1.9 | 7.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | N-Nitrosomorpholine | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | N-Nitrosopiperidine | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | N-Nitrosopyrrolidine | 1.9 | ug/L | U | 1.9 | 7.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Naphthalene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Nitrobenzene | 1.9 | ug/L | U | 1.9 | 7.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Nitroquinoline-1-oxide | 19 | ug/L | U | 19 | 78 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Pentachlorobenzene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Pentachloroethane | 49 | ug/L | U | 49 | 190 |

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|---|---|---|---|---|---|---|---|---|
| 10/7/2002 10:55 | 27854 | BNA-Water | Pentachloronitrobenzene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Pentachlorophenol | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Phenacetin | 3.9 | ug/L | U | 3.9 | 12 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Phenanthrene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Phenol | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Pyrene | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Pyridine | 3.9 | ug/L | U | 3.9 | 16 |
| 10/7/2002 10:55 | 27854 | BNA-Water | Safrole | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | BNA-Water | alpha-BHC | 1.5 | ug/L | U | 1.5 | 5.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | beta-BHC | 1.5 | ug/L | U | 1.5 | 5.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | delta-BHC | 1.5 | ug/L | U | 1.5 | 5.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | gamma-BHC | 1.5 | ug/L | U | 1.5 | 5.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | m,p-Cresols | 1.9 | ug/L | U | 1.9 | 7.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | o-Cresol | 1.9 | ug/L | U | 1.9 | 7.8 |
| 10/7/2002 10:55 | 27854 | BNA-Water | o-Toluidine | 0.97 | ug/L | U | 0.97 | 3.9 |
| 10/7/2002 10:55 | 27854 | GC-Water | Alachlor | 0.58 | ug/L | U | 0.58 | 2.32 |
| 10/7/2002 10:55 | 27854 | GC-Water | Ametryn | 0.048 | ug/L | U | 0.048 | 0.192 |
| 10/7/2002 10:55 | 27854 | GC-Water | Atrazine | 0.06 | ug/L | I | 0.048 | 0.192 |
| 10/7/2002 10:55 | 27854 | GC-Water | Azinphos Methyl | 0.048 | ug/L | U | 0.048 | 0.192 |
| 10/7/2002 10:55 | 27854 | GC-Water | Bromacil | 0.19 | ug/L | U | 0.19 | 0.76 |
| 10/7/2002 10:55 | 27854 | GC-Water | Butylate | 0.19 | ug/L | U | 0.19 | 0.76 |
| 10/7/2002 10:55 | 27854 | GC-Water | Chlorpyrifos Ethyl | 0.048 | ug/L | U | 0.048 | 0.192 |
| 10/7/2002 10:55 | 27854 | GC-Water | Chlorpyrifos Methyl | 0.096 | ug/L | U | 0.096 | 0.384 |
| 10/7/2002 10:55 | 27854 | GC-Water | Diazinon | 0.048 | ug/L | U | 0.048 | 0.192 |
| 10/7/2002 10:55 | 27854 | GC-Water | Ethion | 0.048 | ug/L | U | 0.048 | 0.192 |
| 10/7/2002 10:55 | 27854 | GC-Water | Ethoprop | 0.096 | ug/L | U | 0.096 | 0.384 |
| 10/7/2002 10:55 | 27854 | GC-Water | Fenamiphos | 0.19 | ug/L | U | 0.19 | 0.76 |
| 10/7/2002 10:55 | 27854 | GC-Water | Fonofos | 0.096 | ug/L | U | 0.096 | 0.384 |
| 10/7/2002 10:55 | 27854 | GC-Water | Hexazinone | 0.096 | ug/L | U | 0.096 | 0.384 |
| 10/7/2002 10:55 | 27854 | GC-Water | Malathion | 0.14 | ug/L | U | 0.14 | 0.56 |
| 10/7/2002 10:55 | 27854 | GC-Water | Metalaxyl | 0.24 | ug/L | U | 0.24 | 0.96 |
| 10/7/2002 10:55 | 27854 | GC-Water | Metolachlor | 0.48 | ug/L | U | 0.48 | 1.92 |
| 10/7/2002 10:55 | 27854 | GC-Water | Metribuzin | 0.096 | ug/L | U | 0.096 | 0.384 |
| 10/7/2002 10:55 | 27854 | GC-Water | Mevinphos | 0.19 | ug/L | U | 0.19 | 0.76 |
| 10/7/2002 10:55 | 27854 | GC-Water | Naled | 0.77 | ug/L | U | 0.77 | 3.08 |
| 10/7/2002 10:55 | 27854 | GC-Water | Norflurazon | 0.096 | ug/L | U | 0.096 | 0.384 |
| 10/7/2002 10:55 | 27854 | GC-Water | Parathion Ethyl | 0.14 | ug/L | U | 0.14 | 0.56 |

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|---|---|---|---|---|---|---|---|---|
| 10/7/2002 10:55 | 27854 | GC-Water | Parathion Methyl | 0.096 | ug/L | U | 0.096 | 0.384 |
| 10/7/2002 10:55 | 27854 | GC-Water | Phorate | 0.048 | ug/L | U | 0.048 | 0.192 |
| 10/7/2002 10:55 | 27854 | GC-Water | Prometryn | 0.14 | ug/L | U | 0.14 | 0.56 |
| 10/7/2002 10:55 | 27854 | GC-Water | Simazine | 0.048 | ug/L | U | 0.048 | 0.192 |
| 10/7/2002 10:55 | 27854 | Metals-Water | Aluminum | 44 | ug/L | A | 10 | 40 |
| 10/7/2002 10:55 | 27854 | Metals-Water | Arsenic | 4.1 | ug/L | I | 3 | 12 |
| 10/7/2002 10:55 | 27854 | Metals-Water | Cadmium | 0.025 | ug/L | U | 0.025 | 0.1 |
| 10/7/2002 10:55 | 27854 | Metals-Water | Calcium | 72.4 | mg/L | A | 0.04 | 0.12 |
| 10/7/2002 10:55 | 27854 | Metals-Water | Chromium | 2 | ug/L | U | 2 | 8 |
| 10/7/2002 10:55 | 27854 | Metals-Water | Copper | 2.1 | ug/L | I | 0.75 | 3 |
| 10/7/2002 10:55 | 27854 | Metals-Water | Iron | 74 | ug/L | A | 7 | 28 |
| 10/7/2002 10:55 | 27854 | Metals-Water | Lead | 0.13 | ug/L | I | 0.1 | 0.4 |
| 10/7/2002 10:55 | 27854 | Metals-Water | Magnesium | 9 | mg/L | A | 0.01 | 0.04 |
| 10/7/2002 10:55 | 27854 | Metals-Water | Nickel | 4.8 | ug/L | I | 2 | 8 |
| 10/7/2002 10:55 | 27854 | Metals-Water | Selenium | 1 | ug/L | U | 1 | 4 |
| 10/7/2002 10:55 | 27854 | Metals-Water | Silver | 0.062 | ug/L | I | 0.02 | 0.08 |
| 10/7/2002 10:55 | 27854 | Metals-Water | Zinc | 10 | ug/L | A | 2 | 8 |
| 10/7/2002 10:55 | 27854 | Nutrients-Liquid | Ammonia-N | 0.081 | mg N/L | | 0.01 | 0.02 |
| 10/7/2002 10:55 | 27854 | Nutrients-Liquid | NO2NO3-N | 0.61 | mg N/L | | 0.004 | 0.01 |
| 10/7/2002 10:55 | 27854 | Nutrients-Liquid | N_KJEL_TOT | 1.5 | mg N/L | | 0.06 | 0.2 |
| 10/7/2002 10:55 | 27854 | Nutrients-Liquid | O-Phosphate-P | 2.2 | mg P/L | | 0.08 | 0.2 |
| 10/7/2002 10:55 | 27854 | Nutrients-Liquid | Total-P | 2.4 | mg P/L | | 0.06 | 0.16 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 1,2,4,5-Tetrachlorobenzene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 1,2,4-Trichlorobenzene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 1,2-Dichlorobenzene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 1,3,5-Trinitrobenzene | 3.8 | ug/L | U | 3.8 | 15 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 1,3-Dichlorobenzene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 1,3-Dinitrobenzene | 1.9 | ug/L | U | 1.9 | 7.7 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 1,4-Dichlorobenzene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 1,4-Naphthoquinone | 19 | ug/L | U | 19 | 77 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 1-Naphthylamine | 9.6 | ug/L | U | 9.6 | 38 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2,3,4,6-Tetrachlorophenol | 1.9 | ug/L | U | 1.9 | 7.7 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2,4,5-Trichlorophenol | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2,4,6-Trichlorophenol | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2,4-Dichlorophenol | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2,4-Dimethylphenol | 48 | ug/L | U | 48 | 190 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2,4-Dinitrophenol | 14 | ug/L | U | 14 | 58 |

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|---|---|---|---|---|---|---|---|---|
| 10/7/2002 10:50 | 27855 | BNA-Water | 2,4-Dinitrotoluene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2,6-Dichlorophenol | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2,6-Dinitrotoluene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2-Acetylaminofluorene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2-Chloronaphthalene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2-Chlorophenol | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2-Methyl-4,6-dinitrophenol | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2-Methylnaphthalene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2-Naphthylamine | 9.6 | ug/L | U | 9.6 | 38 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2-Nitroaniline | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2-Nitrophenol | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 2-Picoline | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 3,3'-Dichlorobenzidine | 38 | ug/L | U | 38 | 150 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 3,3'-Dimethylbenzidine | 19 | ug/L | U | 19 | 77 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 3-Methylcholanthrene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 3-Nitroaniline | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 4,4'-DDD | 1.4 | ug/L | U | 1.4 | 5.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 4,4'-DDE | 1.4 | ug/L | U | 1.4 | 5.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 4,4'-DDT | 1.4 | ug/L | U | 1.4 | 5.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 4-Aminobiphenyl | 3.8 | ug/L | U | 3.8 | 15 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 4-Bromophenyl phenyl ether | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 4-Chloro-3-methylphenol | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 4-Chloroaniline | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 4-Chlorophenyl phenyl ether | 1.9 | ug/L | U | 1.9 | 7.7 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 4-Nitroaniline | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 4-Nitrophenol | 14 | ug/L | U | 14 | 58 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 5-Nitro-o-toluidine | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | 7,12-Dimethylbenz(a)anthracene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Acenaphthene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Acenaphthylene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Acetophenone | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Aldrin | 1.4 | ug/L | U | 1.4 | 5.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Aniline | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Anthracene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Azobenzene/1,2-Diphenylhydrazine | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Benzidine | 96 | ug/L | U | 96 | 380 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Benzo(a)anthracene | 0.96 | ug/L | U | 0.96 | 3.8 |

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|---|---|---|---|---|---|---|---|---|
| 10/7/2002 10:50 | 27855 | BNA-Water | Benzo(a)pyrene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Benzo(b)fluoranthene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Benzo(g,h,i)perylene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Benzo(k)fluoranthene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Benzyl alcohol | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Bis(2-chloroethoxy)methane | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Bis(2-chloroethyl)ether | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Bis(2-chloroisopropyl)ether | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Bis(2-ethylhexyl)phthalate | 14 | ug/L | U | 14 | 58 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Butyl benzyl phthalate | 4.8 | ug/L | U | 4.8 | 19 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Chrysene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Di-n-butyl phthalate | 4.8 | ug/L | U | 4.8 | 19 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Di-n-octyl phthalate | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Dibenzo(a,h)anthracene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Dibenzofuran | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Dieldrin | 1.4 | ug/L | U | 1.4 | 5.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Diethyl phthalate | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Dimethyl phthalate | 48 | ug/L | U | 48 | 190 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Dimethylaminoazobenzene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Dinoseb | 3.8 | ug/L | U | 3.8 | 15 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Diphenylamine | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Endosulfan I | 3.8 | ug/L | U | 3.8 | 15 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Endosulfan II | 3.8 | ug/L | U | 3.8 | 15 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Endosulfan sulfate | 1.4 | ug/L | U | 1.4 | 5.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Endrin | 1.4 | ug/L | U | 1.4 | 5.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Endrin aldehyde | 3.8 | ug/L | U | 3.8 | 15 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Ethyl methanesulfonate | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Fluoranthene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Fluorene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Heptachlor | 1.4 | ug/L | U | 1.4 | 5.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Heptachlor epoxide | 1.4 | ug/L | U | 1.4 | 5.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Hexachlorobenzene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Hexachlorobutadiene | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Hexachlorocyclopentadiene | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Hexachloroethane | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Hexachloropropene | 1.9 | ug/L | U | 1.9 | 7.7 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Indeno(1,2,3-cd)pyrene | 0.96 | ug/L | U | 0.96 | 3.8 |

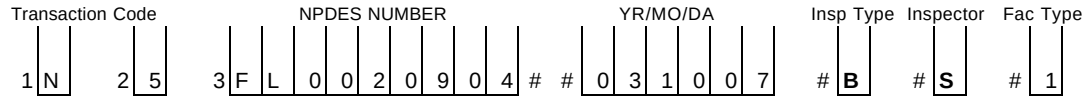
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 10/7/2002 10:50 | 27855 | BNA-Water | Isophorone | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Isosafrole | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Methapyrilene | 3.8 | ug/L | U | 3.8 | 15 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Methyl methanesulfonate | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | N-Nitrosodi-n-butylamine | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | N-Nitrosodi-n-propylamine | 1.9 | ug/L | U | 1.9 | 7.7 |
| 10/7/2002 10:50 | 27855 | BNA-Water | N-Nitrosodiethylamine | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | N-Nitrosodimethylamine | 1.9 | ug/L | U | 1.9 | 7.7 |
| 10/7/2002 10:50 | 27855 | BNA-Water | N-Nitrosodiphenylamine | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:50 | 27855 | BNA-Water | N-Nitrosomethylethylamine | 1.9 | ug/L | U | 1.9 | 7.7 |
| 10/7/2002 10:50 | 27855 | BNA-Water | N-Nitrosomorpholine | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | N-Nitrosopiperidine | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | N-Nitrosopyrrolidine | 1.9 | ug/L | U | 1.9 | 7.7 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Naphthalene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Nitrobenzene | 1.9 | ug/L | U | 1.9 | 7.7 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Nitroquinoline-1-oxide | 19 | ug/L | U | 19 | 77 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Pentachlorobenzene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Pentachloroethane | 48 | ug/L | U | 48 | 190 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Pentachloronitrobenzene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Pentachlorophenol | 2.9 | ug/L | U | 2.9 | 12 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Phenacetin | 3.8 | ug/L | U | 3.8 | 12 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Phenanthrene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Phenol | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Pyrene | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Pyridine | 3.8 | ug/L | U | 3.8 | 15 |
| 10/7/2002 10:50 | 27855 | BNA-Water | Safrole | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | alpha-BHC | 1.4 | ug/L | U | 1.4 | 5.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | beta-BHC | 1.4 | ug/L | U | 1.4 | 5.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | delta-BHC | 1.4 | ug/L | U | 1.4 | 5.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | gamma-BHC | 1.4 | ug/L | U | 1.4 | 5.8 |
| 10/7/2002 10:50 | 27855 | BNA-Water | m,p-Cresols | 1.9 | ug/L | U | 1.9 | 7.7 |
| 10/7/2002 10:50 | 27855 | BNA-Water | o-Cresol | 1.9 | ug/L | U | 1.9 | 7.7 |
| 10/7/2002 10:50 | 27855 | BNA-Water | o-Toluidine | 0.96 | ug/L | U | 0.96 | 3.8 |
| 10/7/2002 10:50 | 27855 | GC-Water | Alachlor | 0.57 | ug/L | U | 0.57 | 2.28 |
| 10/7/2002 10:50 | 27855 | GC-Water | Ametryn | 0.048 | ug/L | U | 0.048 | 0.192 |
| 10/7/2002 10:50 | 27855 | GC-Water | Atrazine | 0.048 | ug/L | U | 0.048 | 0.192 |
| 10/7/2002 10:50 | 27855 | GC-Water | Azinphos Methyl | 0.048 | ug/L | U | 0.048 | 0.192 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 10/7/2002 10:50 | 27855 | GC-Water | Bromacil | 0.19 | ug/L | U | 0.19 | 0.76 |
| 10/7/2002 10:50 | 27855 | GC-Water | Butylate | 0.19 | ug/L | U | 0.19 | 0.76 |
| 10/7/2002 10:50 | 27855 | GC-Water | Chlorpyrifos Ethyl | 0.048 | ug/L | U | 0.048 | 0.192 |
| 10/7/2002 10:50 | 27855 | GC-Water | Chlorpyrifos Methyl | 0.095 | ug/L | U | 0.095 | 0.38 |
| 10/7/2002 10:50 | 27855 | GC-Water | Diazinon | 0.048 | ug/L | U | 0.048 | 0.192 |
| 10/7/2002 10:50 | 27855 | GC-Water | Ethion | 0.048 | ug/L | U | 0.048 | 0.192 |
| 10/7/2002 10:50 | 27855 | GC-Water | Ethoprop | 0.095 | ug/L | U | 0.095 | 0.38 |
| 10/7/2002 10:50 | 27855 | GC-Water | Fenamiphos | 0.19 | ug/L | U | 0.19 | 0.76 |
| 10/7/2002 10:50 | 27855 | GC-Water | Fonofos | 0.095 | ug/L | U | 0.095 | 0.38 |
| 10/7/2002 10:50 | 27855 | GC-Water | Hexazinone | 0.095 | ug/L | U | 0.095 | 0.38 |
| 10/7/2002 10:50 | 27855 | GC-Water | Malathion | 0.14 | ug/L | U | 0.14 | 0.56 |
| 10/7/2002 10:50 | 27855 | GC-Water | Metalaxyl | 0.24 | ug/L | U | 0.24 | 0.96 |
| 10/7/2002 10:50 | 27855 | GC-Water | Metolachlor | 0.48 | ug/L | U | 0.48 | 1.92 |
| 10/7/2002 10:50 | 27855 | GC-Water | Metribuzin | 0.095 | ug/L | U | 0.095 | 0.38 |
| 10/7/2002 10:50 | 27855 | GC-Water | Mevinphos | 0.19 | ug/L | U | 0.19 | 0.76 |
| 10/7/2002 10:50 | 27855 | GC-Water | Naled | 0.76 | ug/L | U | 0.76 | 3.04 |
| 10/7/2002 10:50 | 27855 | GC-Water | Norflurazon | 0.095 | ug/L | U | 0.095 | 0.38 |
| 10/7/2002 10:50 | 27855 | GC-Water | Parathion Ethyl | 0.14 | ug/L | U | 0.14 | 0.56 |
| 10/7/2002 10:50 | 27855 | GC-Water | Parathion Methyl | 0.095 | ug/L | U | 0.095 | 0.38 |
| 10/7/2002 10:50 | 27855 | GC-Water | Phorate | 0.048 | ug/L | U | 0.048 | 0.192 |
| 10/7/2002 10:50 | 27855 | GC-Water | Prometryn | 0.14 | ug/L | U | 0.14 | 0.56 |
| 10/7/2002 10:50 | 27855 | GC-Water | Simazine | 0.048 | ug/L | U | 0.048 | 0.192 |
| 10/7/2002 10:50 | 27855 | Metals-Water | Aluminum | 24 | ug/L | I | 10 | 40 |
| 10/7/2002 10:50 | 27855 | Metals-Water | Arsenic | 3 | ug/L | U | 3 | 12 |
| 10/7/2002 10:50 | 27855 | Metals-Water | Cadmium | 0.025 | ug/L | U | 0.025 | 0.1 |
| 10/7/2002 10:50 | 27855 | Metals-Water | Calcium | 0.04 | mg/L | U | 0.04 | 0.12 |
| 10/7/2002 10:50 | 27855 | Metals-Water | Chromium | 2 | ug/L | U | 2 | 8 |
| 10/7/2002 10:50 | 27855 | Metals-Water | Copper | 0.75 | ug/L | U | 0.75 | 3 |
| 10/7/2002 10:50 | 27855 | Metals-Water | Iron | 7 | ug/L | U | 7 | 28 |
| 10/7/2002 10:50 | 27855 | Metals-Water | Lead | 0.1 | ug/L | U | 0.1 | 0.4 |
| 10/7/2002 10:50 | 27855 | Metals-Water | Magnesium | 0.01 | mg/L | U | 0.01 | 0.04 |
| 10/7/2002 10:50 | 27855 | Metals-Water | Nickel | 2 | ug/L | U | 2 | 8 |
| 10/7/2002 10:50 | 27855 | Metals-Water | Selenium | 1 | ug/L | U | 1 | 4 |
| 10/7/2002 10:50 | 27855 | Metals-Water | Silver | 0.02 | ug/L | U | 0.02 | 0.08 |
| 10/7/2002 10:50 | 27855 | Metals-Water | Zinc | 2.6 | ug/L | I | 2 | 8 |
| 10/7/2002 10:50 | 27855 | Nutrients-Liquid | Ammonia-N | 0.01 | mg N/L | U | 0.01 | 0.02 |
| 10/7/2002 10:50 | 27855 | Nutrients-Liquid | NO2NO3-N | 0.004 | mg N/L | U | 0.004 | 0.01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 10/7/2002 10:50 | 27855 | Nutrients-Liquid | N_KJEL_TOT | 0.06 | mg N/L | U | 0.06 | 0.2 |
| 10/7/2002 10:50 | 27855 | Nutrients-Liquid | O-Phosphate-P | 0.004 | mg P/L | U | 0.004 | 0.01 |
| 10/7/2002 10:50 | 27855 | Nutrients-Liquid | Total-P | 0.015 | mg P/L | U | 0.015 | 0.04 |

**The Bioassay of City of Tampa-Howard F. Curren AWTP effluent sampled on October 7, 2002, NPDES #FL0020904.**

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)




Remarks

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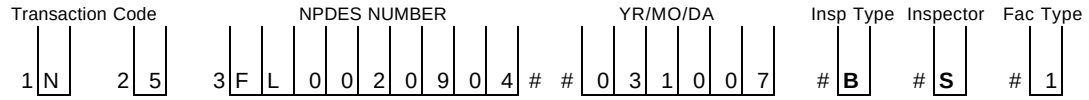
**The Priority Pollutants Analysis for Bioassay of City of Tampa-Howard F. Curren AWTP effluent sampled on October 7, 2002, NPDES #FL0020904.**

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)




Remarks

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