

# ICR TREATMENT STUDY ANALYSIS

## Base Analysis and Data Review Comments

<b>Treatment Study ID</b>	1056
<b>Study Protocol</b>	GAC RSSCT treatment study
<b>Plant ICR Number</b>	318
<b>PWS Name</b>	St Petersburg
<b>City, State, Zip</b>	St Petersburg, FL 33713

These are general comments that do not need to be responded to directly.

### Major comments:

(none)

### General Comments:

1. Treatment study influent sampled after washwater return, which may have contained low levels of formed DBPs.

*Response: True. However the formed levels of DBPs in the GAC influent and effluents upon SDS-chlorination were probably substantially higher than those levels. The removal of these DBPs by the GAC should not be significant. The removal of TOC should not be affected by these low levels.*

2. In-line filtration using a 0.2 µm pore size filter was performed; the *Treatment Studies Manual* recommended the use of a 1.0 µm pore size filter. GAC influent sample was taken after in-line filtration.

*Response: A 0.2-µm in-line filter was incorporated for all RSSCT studies to minimize headloss formation and to render sample collection reasonable. High and frequent headloss formation were experienced in a previous study, even though the carbon fines were minimized with the rinsing process. No head-loss problems were experienced following this change.*

### **Outlier Data:**

No outliers were removed.

**Cell:** A1

**Comment:** 1056-SAS.xls 2/22/00 12:51

All curve fits reviewed and approved. See below for log of refit datasets.

**Cell:** C7

**Comment:** 1056-10-01 - Run 1 (CI2-D) 2/22/00 11:38

Original value (CoefA0) = 0.8521 New value = -0.1908

Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** D7

**Comment:** 1056-10-01 - Run 1 (CI2-D) 2/22/00 11:38

Original value (CoefAf) = 2.21 New value = 0.9318

Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** E7

**Comment:** 1056-10-01 - Run 1 (CI2-D) 2/22/00 11:38

Original value (CoefB) = 10 New value = 24.3425

Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** F7

**Comment:** 1056-10-01 - Run 1 (CI2-D) 2/22/00 11:38

Original value (CoefD) = 0.15 New value = 0.1414

Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** J7

**Comment:** 1056-10-01 - Run 1 (CI2-D) 2/22/00 11:38

Original value (S) = -0.0089 New value = 0

Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** C9

**Comment:** 1056-10-01 - Run 1 (DBCM) 2/22/00 11:36

Original value (CoefA0) = 0.0896 New value = -1.5556

Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** D9

**Comment:** 1056-10-01 - Run 1 (DBCM) 2/22/00 11:37

Original value (CoefAf) = 3.4138 New value = 16.9322

Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** E9

**Comment:** 1056-10-01 - Run 1 (DBCM) 2/22/00 11:37

Original value (CoefB) = 25.7565 New value = 25.0893

Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** F9

**Comment:** 1056-10-01 - Run 1 (DBCM) 2/22/00 11:37

Original value (CoefD) = 0.1734 New value = 0.1089

Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** J9

**Comment:** 1056-10-01 - Run 1 (DBCM) 2/22/00 11:37

Original value (S) = -0.0234 New value = -0.042

Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** C29

**Comment:** 1056-10-02 - Run 3 (CI2-D) 2/22/00 11:45

Original value (CoefA0) = 0.86 New value = 0.1742

Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: D29**

**Comment:** 1056-10-02 - Run 3 (CI2-D) 2/22/00 11:45  
Original value (CoefAf) = 1.72 New value = 1.0539  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: E29**

**Comment:** 1056-10-02 - Run 3 (CI2-D) 2/22/00 11:45  
Original value (CoefB) = 10 New value = 20.0006  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: F29**

**Comment:** 1056-10-02 - Run 3 (CI2-D) 2/22/00 11:45  
Original value (CoefD) = 0.15 New value = 0.0366  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: J29**

**Comment:** 1056-10-02 - Run 3 (CI2-D) 2/22/00 11:45  
Original value (S) = -0.0085 New value = 0  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: C30**

**Comment:** 1056-10-02 - Run 3 (DBAA) 2/22/00 11:46  
Original value (CoefA0) = 0 New value = 0  
Fewer than 6 points above MRL. Peak curve/step function combination applied.

**Cell: D30**

**Comment:** 1056-10-02 - Run 3 (DBAA) 2/22/00 11:46  
Original value (CoefAf) = 0 New value = 1.05  
Fewer than 6 points above MRL. Peak curve/step function combination applied.

**Cell: E30**

**Comment:** 1056-10-02 - Run 3 (DBAA) 2/22/00 11:46  
Original value (CoefB) = 0 New value = 0  
Fewer than 6 points above MRL. Peak curve/step function combination applied.

**Cell: F30**

**Comment:** 1056-10-02 - Run 3 (DBAA) 2/22/00 11:46  
Original value (CoefD) = 0 New value = 0  
Fewer than 6 points above MRL. Peak curve/step function combination applied.

**Cell: J30**

**Comment:** 1056-10-02 - Run 3 (DBAA) 2/22/00 11:46  
Original value (S) = 0 New value = -0.1745  
Fewer than 6 points above MRL. Peak curve/step function combination applied.

**Cell: C31**

**Comment:** 1056-10-02 - Run 3 (DBCM) 2/22/00 11:43  
Original value (CoefA0) = 0.2005 New value = -0.2824  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell: D31**

**Comment:** 1056-10-02 - Run 3 (DBCM) 2/22/00 11:43  
Original value (CoefAf) = 3.7906 New value = 5.5378  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell: E31**

**Comment:** 1056-10-02 - Run 3 (DBCM) 2/22/00 11:43  
Original value (CoefB) = 12.8571 New value = 93.0282  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell: F31**

**Comment:** 1056-10-02 - Run 3 (DBCM) 2/22/00 11:43

Original value (CoefD) = 0.0894 New value = 0.1885  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** J31

**Comment:** 1056-10-02 - Run 3 (DBCM) 2/22/00 11:43  
Original value (S) = -0.0216 New value = -0.0699  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** C48

**Comment:** 1056-10-03 - Run 5 (CDBAA) 2/22/00 11:59  
Original value (CoefA0) = 0 New value = -0.4592  
Fewer than 6 points above MRL. Data was fit to peak curve by iterative curve fit procedure.

**Cell:** D48

**Comment:** 1056-10-03 - Run 5 (CDBAA) 2/22/00 11:59  
Original value (CoefAf) = 0 New value = 3.0365  
Fewer than 6 points above MRL. Data was fit to peak curve by iterative curve fit procedure.

**Cell:** E48

**Comment:** 1056-10-03 - Run 5 (CDBAA) 2/22/00 11:59  
Original value (CoefB) = 0 New value = 24.7532  
Fewer than 6 points above MRL. Data was fit to peak curve by iterative curve fit procedure.

**Cell:** F48

**Comment:** 1056-10-03 - Run 5 (CDBAA) 2/22/00 11:59  
Original value (CoefD) = 0 New value = 0.2341  
Fewer than 6 points above MRL. Data was fit to peak curve by iterative curve fit procedure.

**Cell:** J48

**Comment:** 1056-10-03 - Run 5 (CDBAA) 2/22/00 11:59  
Original value (S) = 0 New value = -0.0738  
Fewer than 6 points above MRL. Data was fit to peak curve by iterative curve fit procedure.

**Cell:** C51

**Comment:** 1056-10-03 - Run 5 (CI2-D) 2/22/00 11:57  
Original value (CoefA0) = 0 New value = 0.4417  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** D51

**Comment:** 1056-10-03 - Run 5 (CI2-D) 2/22/00 11:57  
Original value (CoefAf) = 1.8 New value = 0.6075  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** E51

**Comment:** 1056-10-03 - Run 5 (CI2-D) 2/22/00 11:57  
Original value (CoefB) = 10 New value = 19.9821  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** F51

**Comment:** 1056-10-03 - Run 5 (CI2-D) 2/22/00 11:57  
Original value (CoefD) = 0.15 New value = 0.0542  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** J51

**Comment:** 1056-10-03 - Run 5 (CI2-D) 2/22/00 11:57  
Original value (S) = 0 New value = 0  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** C53

**Comment:** 1056-10-03 - Run 5 (DBCM) 2/22/00 11:57  
Original value (CoefA0) = 0.0581 New value = -0.9608  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell: D53**

**Comment:** 1056-10-03 - Run 5 (DBCM) 2/22/00 11:57  
Original value (CoefAf) = 3.9843 New value = 8.9944  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell: E53**

**Comment:** 1056-10-03 - Run 5 (DBCM) 2/22/00 11:57  
Original value (CoefB) = 22.5934 New value = 20.607  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell: F53**

**Comment:** 1056-10-03 - Run 5 (DBCM) 2/22/00 11:57  
Original value (CoefD) = 0.1463 New value = 0.1306  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell: J53**

**Comment:** 1056-10-03 - Run 5 (DBCM) 2/22/00 11:57  
Original value (S) = -0.0192 New value = -0.0392  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell: C73**

**Comment:** 1056-10-04 - Run 7 (CI2-D) 2/22/00 12:03  
Original value (CoefA0) = 0.9411 New value = -0.5395  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: D73**

**Comment:** 1056-10-04 - Run 7 (CI2-D) 2/22/00 12:03  
Original value (CoefAf) = 1.6574 New value = 6.1048  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: E73**

**Comment:** 1056-10-04 - Run 7 (CI2-D) 2/22/00 12:03  
Original value (CoefB) = 2641626455.21613 New value = 22.1978  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: F73**

**Comment:** 1056-10-04 - Run 7 (CI2-D) 2/22/00 12:03  
Original value (CoefD) = 0.2727 New value = 0.0293  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: J73**

**Comment:** 1056-10-04 - Run 7 (CI2-D) 2/22/00 12:03  
Original value (S) = 0 New value = 0  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: C74**

**Comment:** 1056-10-04 - Run 7 (DBAA) 2/22/00 12:04  
Original value (CoefA0) = 0 New value = 0  
Fewer than 6 points above MRL. Peak curve/step function combination applied.

**Cell: D74**

**Comment:** 1056-10-04 - Run 7 (DBAA) 2/22/00 12:04  
Original value (CoefAf) = 0 New value = 1  
Fewer than 6 points above MRL. Peak curve/step function combination applied.

**Cell: E74**

**Comment:** 1056-10-04 - Run 7 (DBAA) 2/22/00 12:04  
Original value (CoefB) = 0 New value = 0  
Fewer than 6 points above MRL. Peak curve/step function combination applied.

**Cell: F74**

**Comment:** 1056-10-04 - Run 7 (DBAA) 2/22/00 12:04

Original value (CoefD) = 0 New value = 0

Fewer than 6 points above MRL. Peak curve/step function combination applied.

**Cell:** J74

**Comment:** 1056-10-04 - Run 7 (DBAA) 2/22/00 12:04

Original value (S) = 0 New value = -0.1099

Fewer than 6 points above MRL. Peak curve/step function combination applied.

**Cell:** C75

**Comment:** 1056-10-04 - Run 7 (DBCM) 2/22/00 12:02

Original value (CoefA0) = 0.1026 New value = -0.7001

Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** D75

**Comment:** 1056-10-04 - Run 7 (DBCM) 2/22/00 12:02

Original value (CoefAf) = 2.7821 New value = 5.5338

Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** E75

**Comment:** 1056-10-04 - Run 7 (DBCM) 2/22/00 12:02

Original value (CoefB) = 60.5905 New value = 35.1424

Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** F75

**Comment:** 1056-10-04 - Run 7 (DBCM) 2/22/00 12:02

Original value (CoefD) = 0.1496 New value = 0.1221

Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** J75

**Comment:** 1056-10-04 - Run 7 (DBCM) 2/22/00 12:02

Original value (S) = -0.025 New value = -0.0542

Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** C95

**Comment:** 1056-20-01 - Run 2 (CI2-D) 2/22/00 11:41

Original value (CoefA0) = 0.8693 New value = 0.0722

Peak curve fit with S = 0. Refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** D95

**Comment:** 1056-20-01 - Run 2 (CI2-D) 2/22/00 11:41

Original value (CoefAf) = 0 New value = 1.0579

Peak curve fit with S = 0. Refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** E95

**Comment:** 1056-20-01 - Run 2 (CI2-D) 2/22/00 11:41

Original value (CoefB) = 10 New value = 19.9965

Peak curve fit with S = 0. Refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** F95

**Comment:** 1056-20-01 - Run 2 (CI2-D) 2/22/00 11:41

Original value (CoefD) = 0.129 New value = 0.0332

Peak curve fit with S = 0. Refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** J95

**Comment:** 1056-20-01 - Run 2 (CI2-D) 2/22/00 11:41

Original value (S) = 0 New value = 0

Peak curve fit with S = 0. Refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** C97

**Comment:** 1056-20-01 - Run 2 (DBCM) 2/22/00 11:40

Original value (CoefA0) = 0.0917 New value = -0.4648

Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** D97

**Comment:** 1056-20-01 - Run 2 (DBCM) 2/22/00 11:40  
Original value (CoefAf) = 2.7292 New value = 5.6285  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** E97

**Comment:** 1056-20-01 - Run 2 (DBCM) 2/22/00 11:40  
Original value (CoefB) = 44.623 New value = 34.481  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** F97

**Comment:** 1056-20-01 - Run 2 (DBCM) 2/22/00 11:40  
Original value (CoefD) = 0.0885 New value = 0.0757  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** J97

**Comment:** 1056-20-01 - Run 2 (DBCM) 2/22/00 11:40  
Original value (S) = -0.0149 New value = -0.0265  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** C115

**Comment:** 1056-20-02 - Run 4 (CHBr3) 2/22/00 11:53  
Original value (CoefA0) = 0 New value = -0.2068  
Fewer than 6 points above MRL. Data was fit to peak curve by iterative curve fit procedure.

**Cell:** D115

**Comment:** 1056-20-02 - Run 4 (CHBr3) 2/22/00 11:53  
Original value (CoefAf) = 0 New value = 1.9947  
Fewer than 6 points above MRL. Data was fit to peak curve by iterative curve fit procedure.

**Cell:** E115

**Comment:** 1056-20-02 - Run 4 (CHBr3) 2/22/00 11:53  
Original value (CoefB) = 0 New value = 206.8045  
Fewer than 6 points above MRL. Data was fit to peak curve by iterative curve fit procedure.

**Cell:** F115

**Comment:** 1056-20-02 - Run 4 (CHBr3) 2/22/00 11:53  
Original value (CoefD) = 0 New value = 0.1305  
Fewer than 6 points above MRL. Data was fit to peak curve by iterative curve fit procedure.

**Cell:** J115

**Comment:** 1056-20-02 - Run 4 (CHBr3) 2/22/00 11:53  
Original value (S) = 0 New value = -0.0461  
Fewer than 6 points above MRL. Data was fit to peak curve by iterative curve fit procedure.

**Cell:** C117

**Comment:** 1056-20-02 - Run 4 (Cl2-D) 2/22/00 11:51  
Original value (CoefA0) = 0.155 New value = -0.0679  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** D117

**Comment:** 1056-20-02 - Run 4 (Cl2-D) 2/22/00 11:51  
Original value (CoefAf) = 1.1725 New value = 0.9726  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** E117

**Comment:** 1056-20-02 - Run 4 (Cl2-D) 2/22/00 11:51  
Original value (CoefB) = 11.9229 New value = 20.0102  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** F117

**Comment:** 1056-20-02 - Run 4 (Cl2-D) 2/22/00 11:51



Original value (CoefD) = 0.0656 New value = 0.0307  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** J117

**Comment:** 1056-20-02 - Run 4 (CI2-D) 2/22/00 11:51  
Original value (S) = -0.0054 New value = 0  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** C118

**Comment:** 1056-20-02 - Run 4 (DBAA) 2/22/00 11:55  
Original value (CoefA0) = 0 New value = 0  
Fewer than 6 points above MRL. Peak curve/step function combination applied.

**Cell:** D118

**Comment:** 1056-20-02 - Run 4 (DBAA) 2/22/00 11:55  
Original value (CoefAf) = 0 New value = 1.15  
Fewer than 6 points above MRL. Peak curve/step function combination applied.

**Cell:** E118

**Comment:** 1056-20-02 - Run 4 (DBAA) 2/22/00 11:55  
Original value (CoefB) = 0 New value = 0  
Fewer than 6 points above MRL. Peak curve/step function combination applied.

**Cell:** F118

**Comment:** 1056-20-02 - Run 4 (DBAA) 2/22/00 11:55  
Original value (CoefD) = 0 New value = 0  
Fewer than 6 points above MRL. Peak curve/step function combination applied.

**Cell:** J118

**Comment:** 1056-20-02 - Run 4 (DBAA) 2/22/00 11:55  
Original value (S) = 0 New value = -0.0175  
Fewer than 6 points above MRL. Peak curve/step function combination applied.

**Cell:** C119

**Comment:** 1056-20-02 - Run 4 (DBCM) 2/22/00 11:47  
Original value (CoefA0) = 0.1328 New value = -0.3742  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** D119

**Comment:** 1056-20-02 - Run 4 (DBCM) 2/22/00 11:47  
Original value (CoefAf) = 3.9802 New value = 5.7572  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** E119

**Comment:** 1056-20-02 - Run 4 (DBCM) 2/22/00 11:47  
Original value (CoefB) = 28.9432 New value = 176.7813  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** F119

**Comment:** 1056-20-02 - Run 4 (DBCM) 2/22/00 11:48  
Original value (CoefD) = 0.0664 New value = 0.1274  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** J119

**Comment:** 1056-20-02 - Run 4 (DBCM) 2/22/00 11:48  
Original value (S) = -0.0177 New value = -0.0344  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** C139

**Comment:** 1056-20-03 - Run 6 (CI2-D) 2/22/00 12:01  
Original value (CoefA0) = 0.0177 New value = -0.1759  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: D139**

**Comment:** 1056-20-03 - Run 6 (CI2-D) 2/22/00 12:01  
Original value (CoefAf) = 1.5794 New value = 1.2064  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: E139**

**Comment:** 1056-20-03 - Run 6 (CI2-D) 2/22/00 12:01  
Original value (CoefB) = 10 New value = 20.0061  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: F139**

**Comment:** 1056-20-03 - Run 6 (CI2-D) 2/22/00 12:01  
Original value (CoefD) = 0.115 New value = 0.0364  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: J139**

**Comment:** 1056-20-03 - Run 6 (CI2-D) 2/22/00 12:01  
Original value (S) = -0.0021 New value = 0  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: C161**

**Comment:** 1056-20-04 - Run 8 (CI2-D) 2/22/00 12:05  
Original value (CoefA0) = 0.1412 New value = -0.1267  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: D161**

**Comment:** 1056-20-04 - Run 8 (CI2-D) 2/22/00 12:05  
Original value (CoefAf) = 1.3314 New value = 1.2061  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: E161**

**Comment:** 1056-20-04 - Run 8 (CI2-D) 2/22/00 12:05  
Original value (CoefB) = 13.8871 New value = 20.0195  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: F161**

**Comment:** 1056-20-04 - Run 8 (CI2-D) 2/22/00 12:05  
Original value (CoefD) = 0.0641 New value = 0.0287  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: J161**

**Comment:** 1056-20-04 - Run 8 (CI2-D) 2/22/00 12:05  
Original value (S) = -0.0058 New value = 0  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell: C170**

**Comment:** 1056-20-04 - Run 8 (MCAA) 2/22/00 11:27  
Original value (CoefA0) = 0 New value = 2.6333  
Fewer than 6 points above MRL. Step function applied.

**Cell: D170**

**Comment:** 1056-20-04 - Run 8 (MCAA) 2/22/00 11:27  
Original value (CoefAf) = 0 New value = 0  
Fewer than 6 points above MRL. Step function applied.

**Cell: E170**

**Comment:** 1056-20-04 - Run 8 (MCAA) 2/22/00 11:27  
Original value (CoefB) = 0 New value = 0  
Fewer than 6 points above MRL. Step function applied.

**Cell: F170**

**Comment:** 1056-20-04 - Run 8 (MCAA) 2/22/00 11:27

Original value (CoefD) = 0 New value = 0  
Fewer than 6 points above MRL. Step function applied.

**Cell:** J170

**Comment:** 1056-20-04 - Run 8 (MCAA) 2/22/00 11:27  
Original value (S) = 0 New value = 0  
Fewer than 6 points above MRL. Step function applied.

**Cell:** K170

**Comment:** 1056-20-04 - Run 8 (MCAA) 2/22/00 11:27  
Original value (t0) = 0 New value = 133.3492  
Fewer than 6 points above MRL. Step function applied.

## ICR Information

ID / ICR#: FL6521715 / 318  
 ICR Contact: Alfredo J. Crafa  
 Phone No.: (813) 893-7261  
 Period: 4/7/98 - 4/24/98 (17 B-S days)

## Design Information

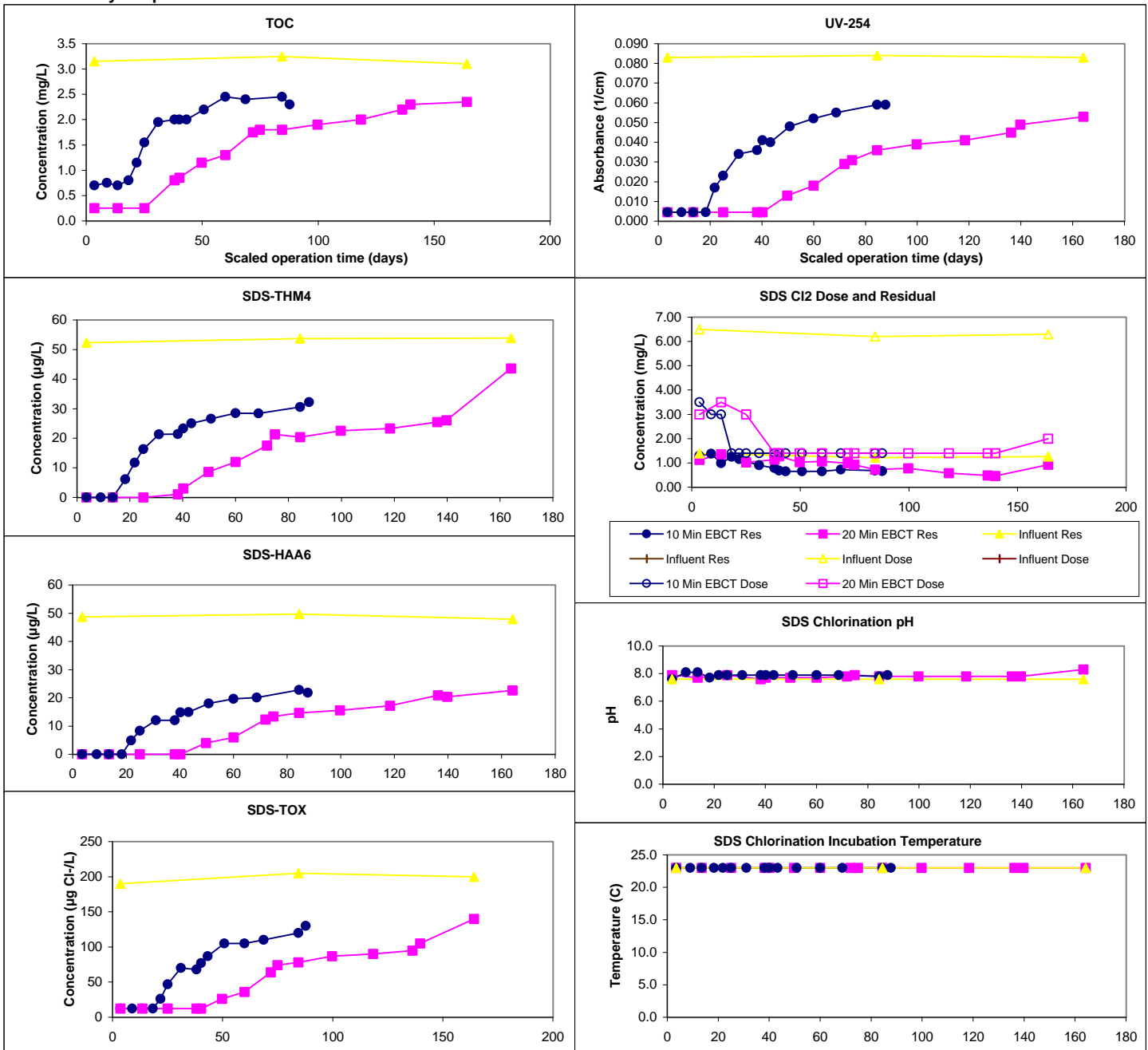
Design TOC: 3.2 mg/L  
 Col Diameter: 8.0 mm  
 Min Reynolds#: 0.55  
 Full-Scale Temp: 23.8 C

Full-Scale GAC Size: 12x40 Bituminous coal  
 Bench-Scale GAC Size: 100x200  
 Scaling Factor: 9.36  
 Meas Dry Bed Density: 0.50 g/cm3

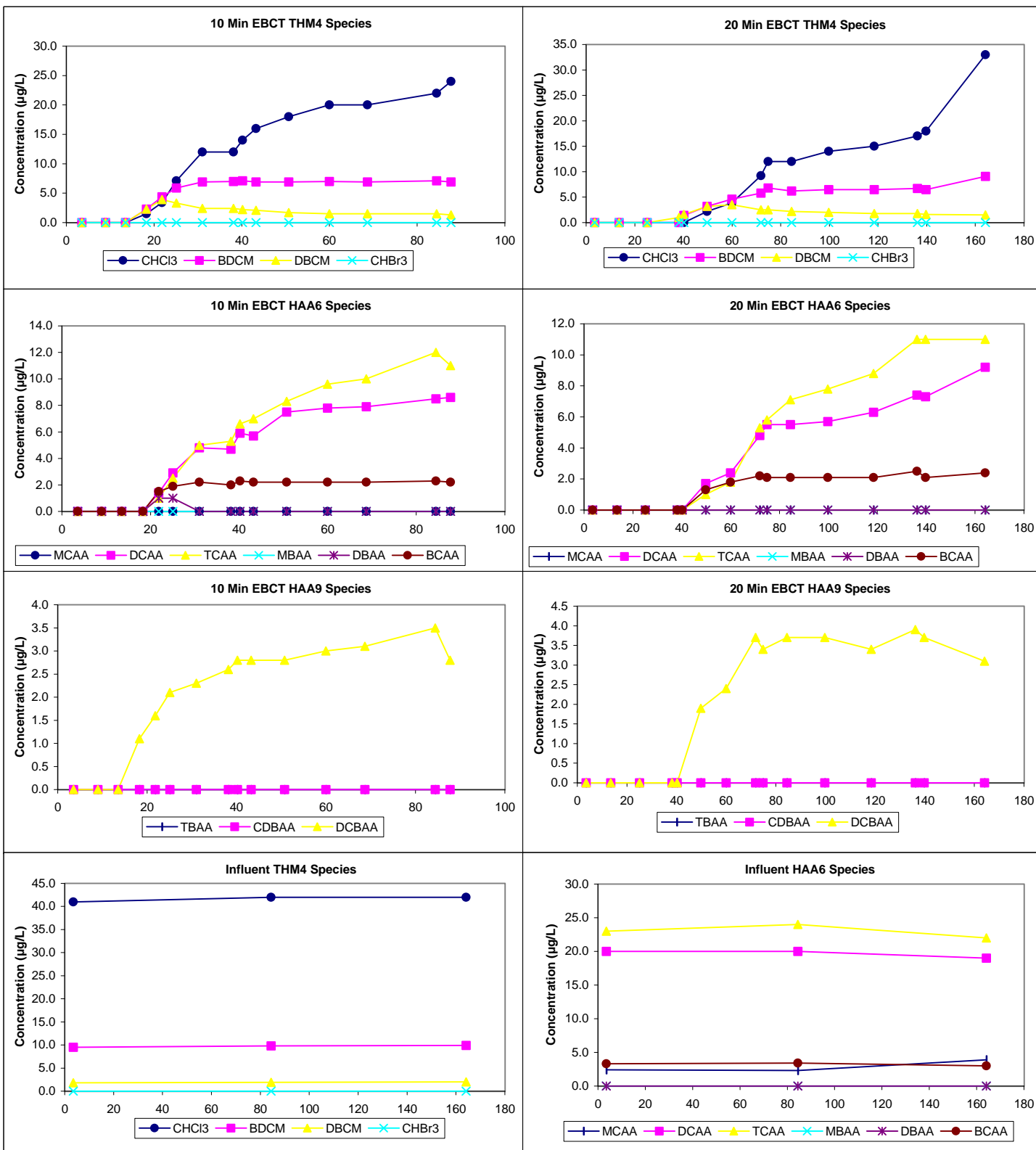
## Water Quality Summary

Influent	Influent				Influent				Res (0)	Mean	SD	Count	Min/Max
	Mean	SD/RD	Count	Min/Max	Mean	SD/RD	Count	Min/Max					
TOC	3.2	0.1	3	3.1 - 3.3									
pH	7.9	0.1	3	7.8 - 7.9					Temp	23.0	0.0	33	23.0 - 23.0
UV254	0.083	0.001	3	0.083 - 0.084					pH	7.8	0.2	33	7.6 - 8.3
SUVA	2.63	0.05	3	2.58 - 2.68					Time	23.8	0.6	33	22.0 - 24.0
Bromide	28	1	2	27 - 28					Comments:				
SDS-TOX	198	8	3	190 - 205									
SDS-THM4	53	1	3	52 - 54									
SDS-HAA6	49	1	3	48 - 50									
Effluent	10 Min EBCT (9 B-S days)				20 Min EBCT (17 B-S days)				Chart Legend:	<div><div><div></div><div>10 Min EBCT</div></div><div><div></div><div>20 Min EBCT</div></div><div><div></div><div>Influent</div></div><div><div></div><div>Influent</div></div></div>			
Effluent pH	8.1	0.1	15	8.0 - 8.2	8.1	0.1	15	8.0 - 8.3					
Effluent Temp	23.0	0.0	15	23.0 - 23.0	23.0	0.0	15	23.0 - 23.0					

## Water Quality Graphs



## Water Quality Graphs (Continued)



## ICR Information

ID / ICR#: FL6521715 / 318  
 ICR Contact: Alfredo J. Crafa  
 Phone No.: (813) 893-7261  
 Period: 7/21/98 - 8/12/98 (22 B-S days)

## Design Information

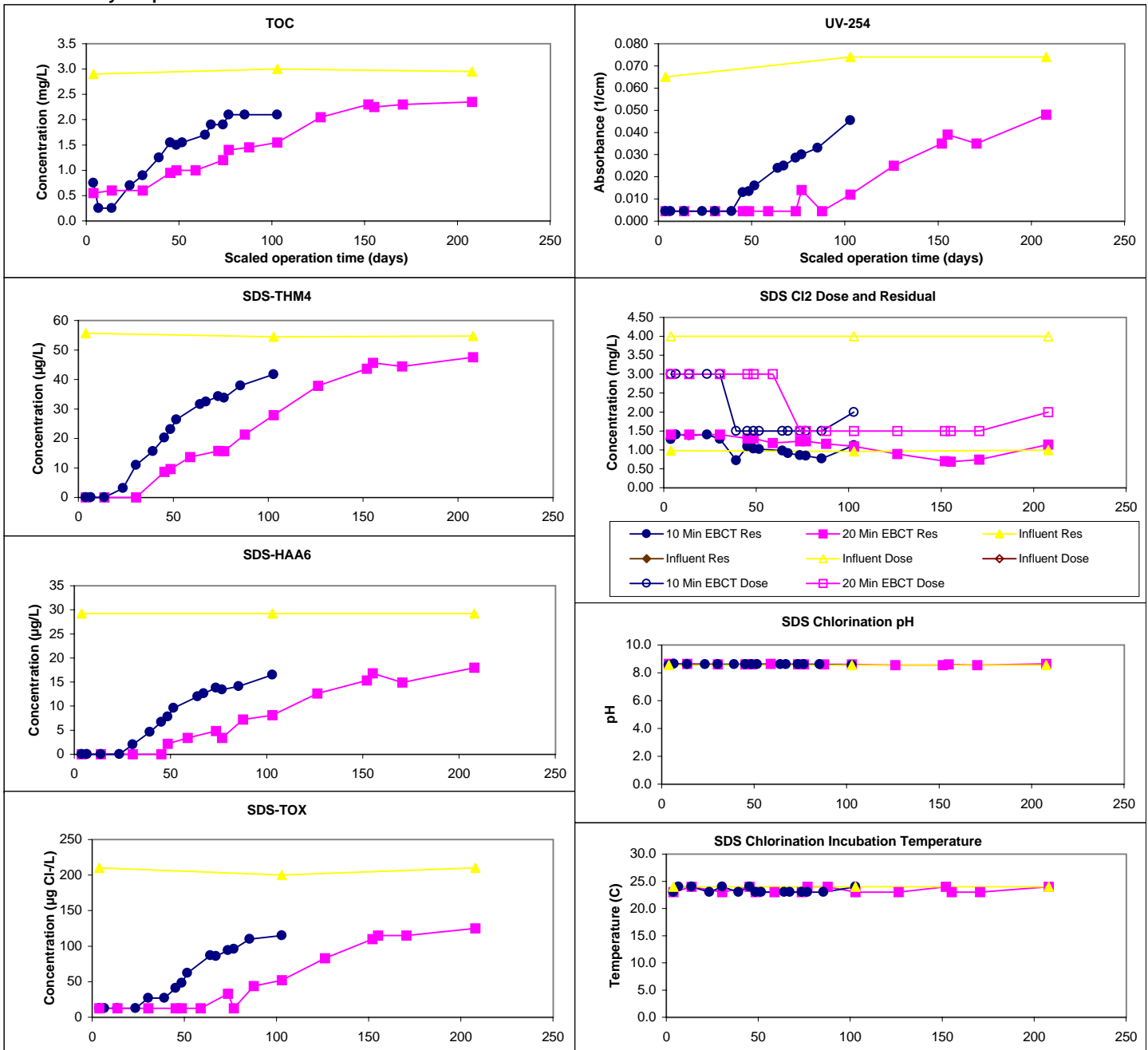
Design TOC: 2.8 mg/L  
 Col Diameter: 8.0 mm  
 Min Reynolds#: 0.56  
 Full-Scale Temp: 24.8 C

Full-Scale GAC Size: 12x40 Bituminous coal  
 Bench-Scale GAC Size: 100x200  
 Scaling Factor: 9.36  
 Meas Dry Bed Density: 0.50 g/cm3

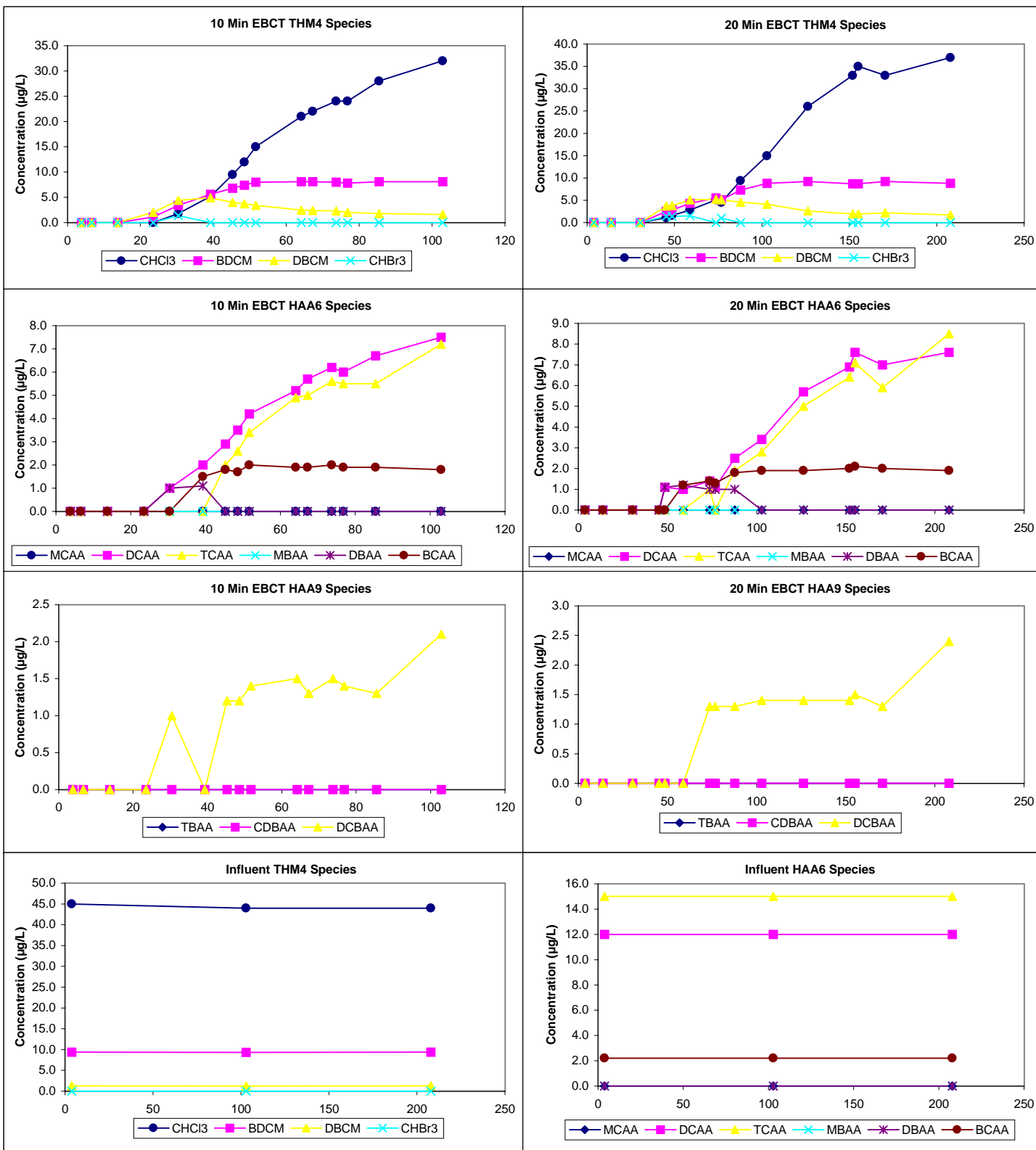
## Water Quality Summary

Influent	Influent				Influent	SD/RD	Count	Min/Max	Cumulative SDS Conditions			
	Mean	SD/RD	Count	Min/Max					Res (0)	Mean	SD	Count
TOC	3.0	0.0	3	2.9 - 3.0					1.09	0.23		33
pH	8.3	0.0	3	8.3 - 8.3					Temp	23.4	0.5	33
UV254	0.071	0.005	3	0.065 - 0.074					pH	8.6	0.0	33
SUVA	2.41	0.14	3	2.24 - 2.51					Time	24.2	0.3	33
Bromide	25	1	2	24 - 25					Comments:			
SDS-TOX	207	6	3	200 - 210								
SDS-THM4	55	1	3	55 - 56					Chart Legend:			
SDS-HAA6	29	0	3	29 - 29								
Effluent	10 Min EBCT (11 B-S days)				20 Min EBCT (22 B-S days)				10 Min EBCT 20 Min EBCT Influent Influent			
Effluent pH	8.3	0.1	15	8.1 - 8.3	8.3	0.1	15	8.2 - 8.4				
Effluent Temp	23.0	0.0	15	23.0 - 23.0	23.0	0.0	15	23.0 - 23.0				

## Water Quality Graphs



## Water Quality Graphs (Continued)



## ICR Information

ID / ICR#: FL6521715 / 318  
 ICR Contact: Alfredo J. Crafa  
 Phone No.: (813) 893-7261  
 Period: 10/7/98 - 10/22/98 (15 B-S days)

## Design Information

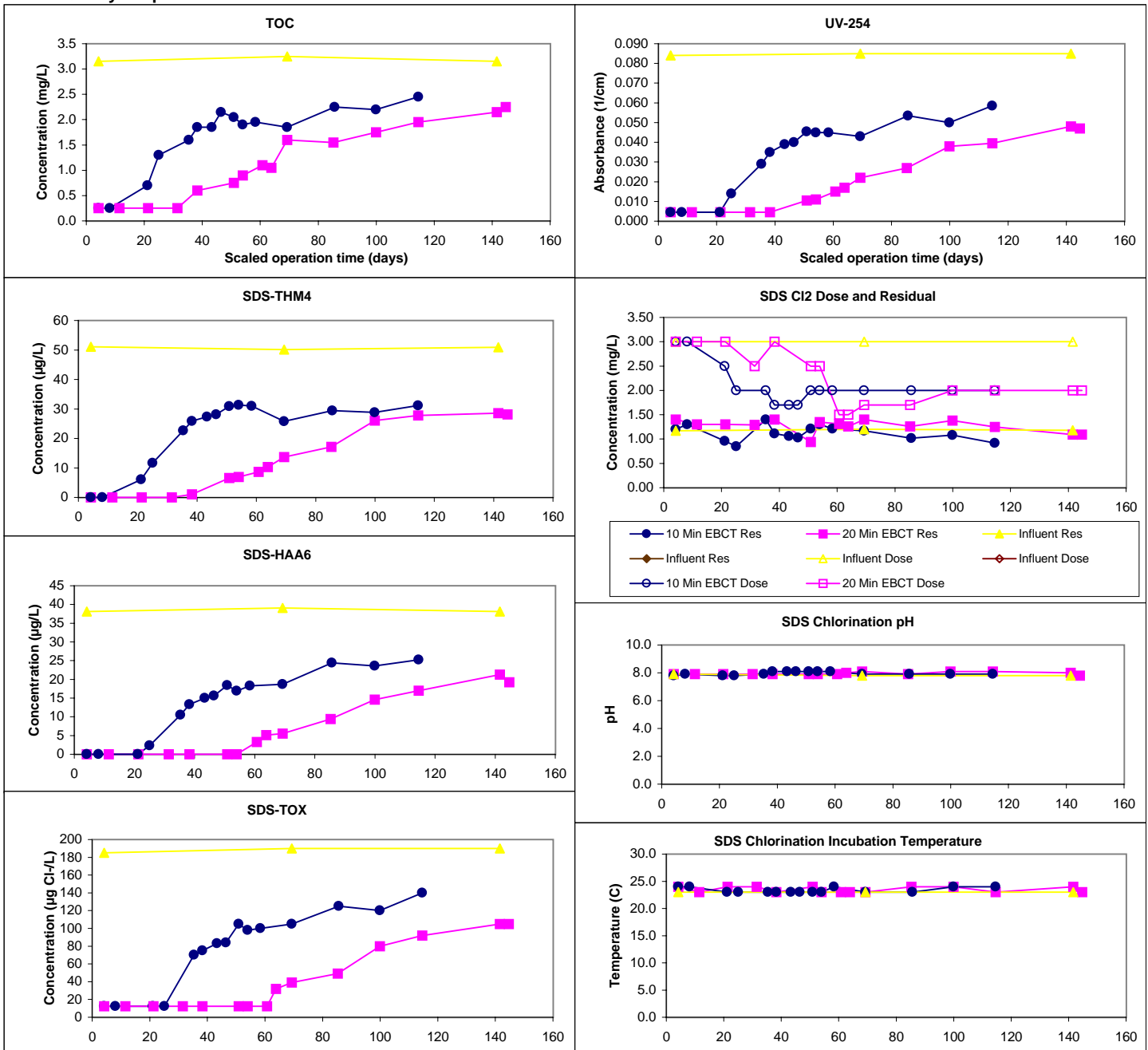
Design TOC: 3.8 mg/L  
 Col Diameter: 8.0 mm  
 Min Reynolds#: 0.57  
 Full-Scale Temp: 25.6 C

Full-Scale GAC Size: 12x40 Bituminous coal  
 Bench-Scale GAC Size: 100x200  
 Scaling Factor: 9.36  
 Meas Dry Bed Density: 0.55 g/cm3

## Water Quality Summary

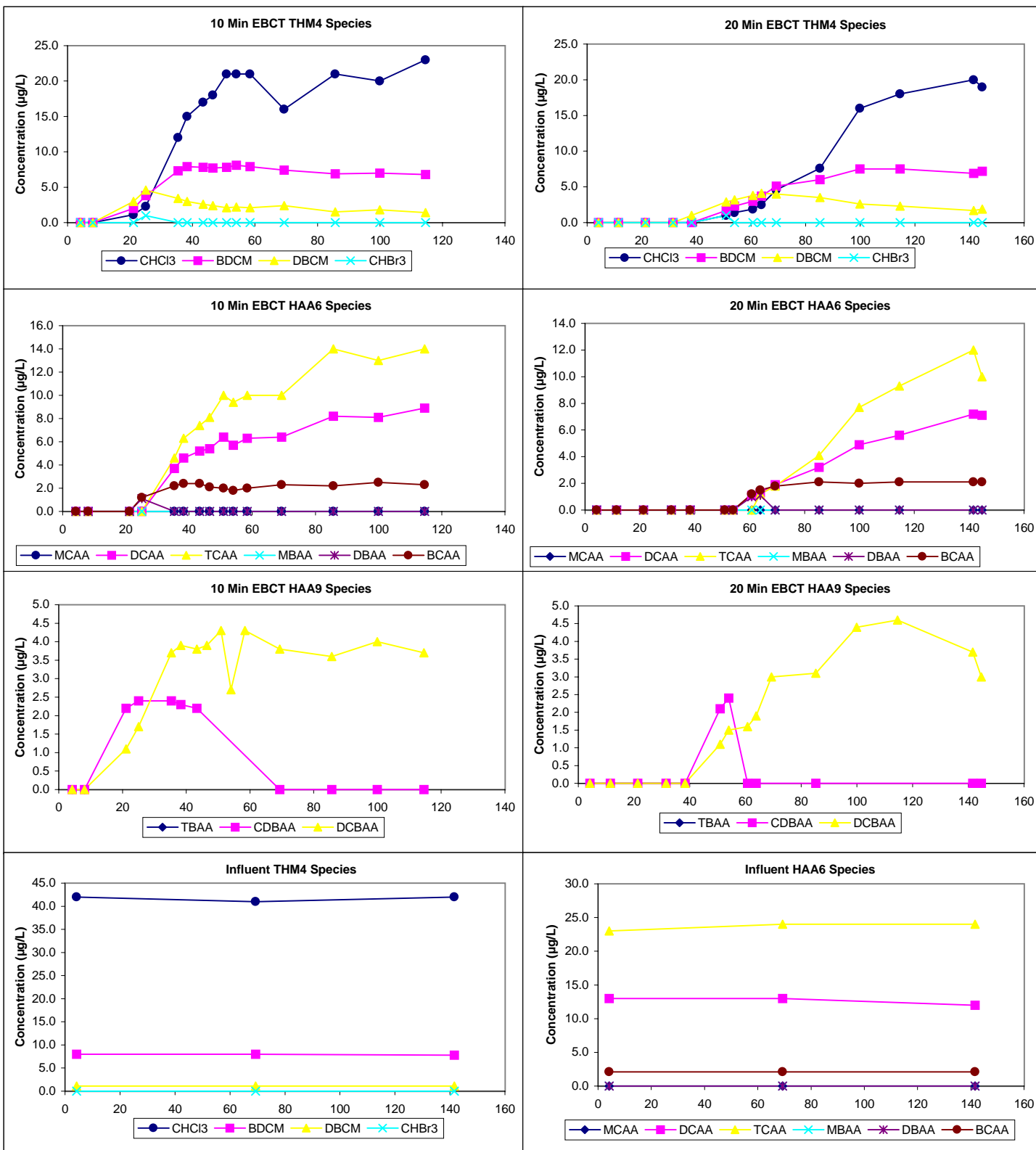
Influent	Influent				Influent				Res (0)	Mean	SD	Count	Min/Max
	Mean	SD/RD	Count	Min/Max	Mean	SD/RD	Count	Min/Max					
TOC	3.2	0.1	3	3.2 - 3.3									
pH	8.1	0.2	3	8.0 - 8.3									
UV254	0.085	0.001	3	0.084 - 0.085									
SUVA	2.66	0.04	3	2.62 - 2.70									
Bromide	35	0	2	35 - 35									
SDS-TOX	188	3	3	185 - 190									
SDS-THM4	51	1	3	50 - 51									
SDS-HAA6	38	1	3	38 - 39									
Effluent	10 Min EBCT (12 B-S days)				20 Min EBCT (15 B-S days)				Chart Legend:				
Effluent pH	8.3	0.1	15	8.2 - 8.5	8.3	0.1	15	8.1 - 8.4					
Effluent Temp	23.2	0.4	15	23.0 - 24.0	23.2	0.4	15	23.0 - 24.0					

## Water Quality Graphs





## Water Quality Graphs (Continued)



## ICR Information

ID / ICR#: FL6521715 / 318  
 ICR Contact: Alfredo J. Crafa  
 Phone No.: (813) 893-7261  
 Period: 12/2/98 - 12/20/98 (18 B-S days)

## Design Information

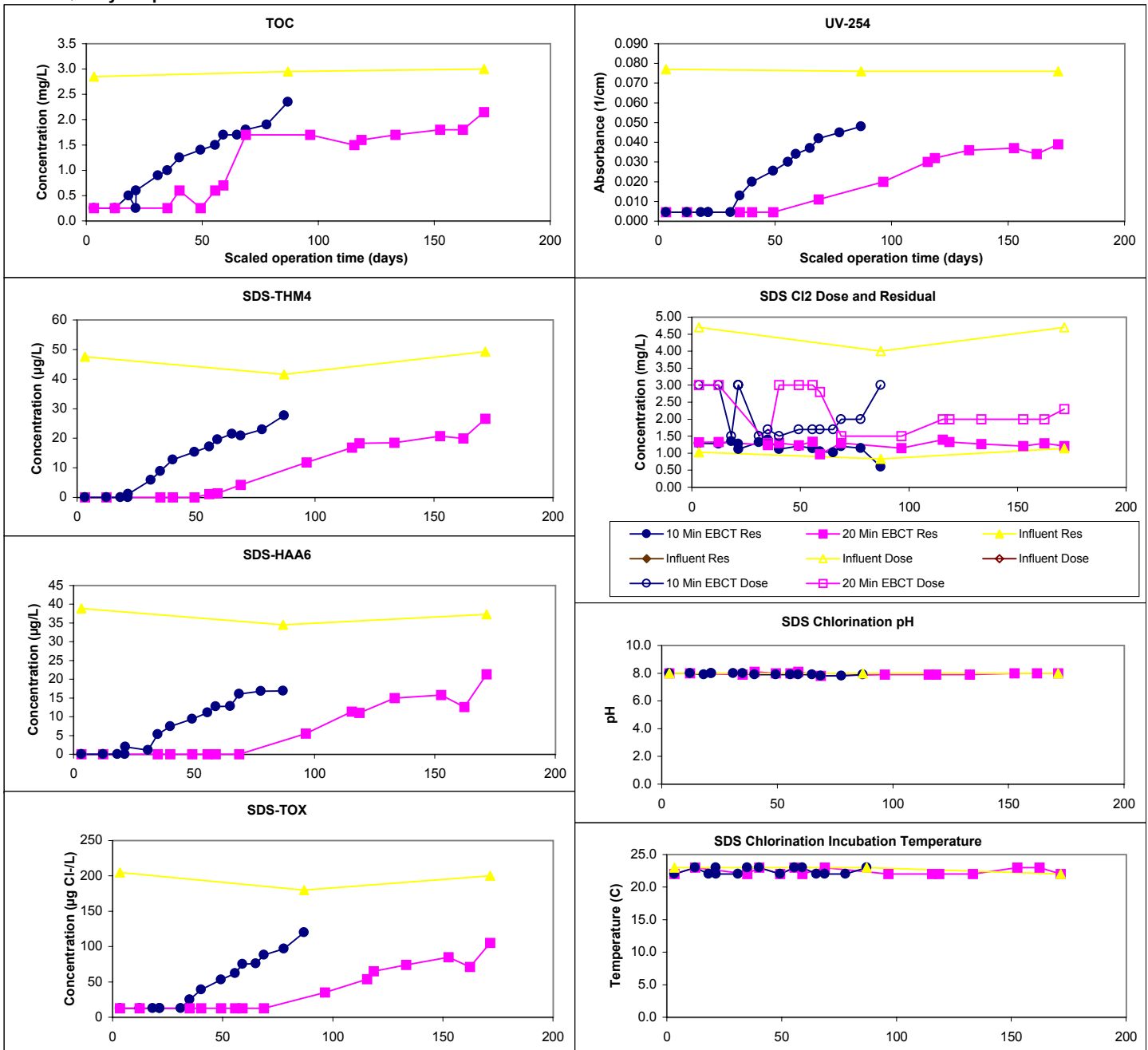
Design TOC: 3.5 mg/L  
 Col Diameter: 8.0 mm  
 Min Reynolds#: 0.56  
 Full-Scale Temp: 24.9 C

Full-Scale GAC Size: 12x40 Bituminous coal  
 Bench-Scale GAC Size: 100x200  
 Scaling Factor: 9.36  
 Meas Dry Bed Density: 0.55 g/cm3

## Water Quality Summary

Influent	Influent				Influent	Influent				Cumulative SDS Conditions				
	Mean	SD/RD	Count	Min/Max		Mean	SD/RD	Count	Min/Max	Res (0)	Mean	SD	Count	Min/Max
TOC	2.9	0.1	3	2.9 - 3.0							1.19	0.17	33	0.60 - 1.40
pH	8.4	0.1	3	8.3 - 8.5						Temp	22.5	0.5	33	22.0 - 23.0
UV254	0.076	0.001	3	0.076 - 0.077						pH	8.0	0.1	33	7.8 - 8.1
SUVA	2.60	0.09	3	2.53 - 2.70						Time	24.0	0.0	33	23.9 - 24.0
Bromide	31	1	2	30 - 31						Comments:				
SDS-TOX	195	13	3	180 - 205										
SDS-THM4	46	4	3	42 - 49						Chart Legend:				
SDS-HAA6	37	2	3	35 - 39										
Effluent	10 Min EBCT (9 B-S days)				20 Min EBCT (18 B-S days)					10 Min EBCT 20 Min EBCT Influent Influent				
Effluent pH	8.3	0.1	15	8.2 - 8.4	8.3	0.1	15	8.2 - 8.4						
Effluent Temp	22.5	0.5	15	22.0 - 23.0	22.4	0.5	15	22.0 - 23.0						

## Water Quality Graphs



## Water Quality Graphs (Continued)

