

# ICR TREATMENT STUDY ANALYSIS

## Base Analysis and Data Review Comments

<b>Treatment Study ID</b>	1016
<b>Study Protocol</b>	Pilot-Scale GAC treatment study
<b>Plant ICR Number</b>	301
<b>PWS Name</b>	Miami
<b>City, State, Zip</b>	Miami, FL 33173

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

### Major comments:

(none)

### General Comments:

1. Very high GAC influent TOC concentrations: 12-15 mg/L. During Session 1, the GAC influent pH was 10.

### Outlier Data:

12 outliers were removed, 5 were HAA9 data.

**Cell:** A1

**Comment:** 1016-SAS.xls 2/16/00 18:43

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

**Cell:** C4

**Comment:** 1016-10-01 - Run 1 (CDBAA) 2/16/00 17:59  
Original value (CoefA0) = -0.1348 New value = -0.9009  
Poor type -1 or 1 curve fit. Data was refit by iterative curve fit procedure.

**Cell:** D4

**Comment:** 1016-10-01 - Run 1 (CDBAA) 2/16/00 17:59  
Original value (CoefAf) = 3.6995 New value = 4.9867  
Poor type -1 or 1 curve fit. Data was refit by iterative curve fit procedure.

**Cell:** E4

**Comment:** 1016-10-01 - Run 1 (CDBAA) 2/16/00 17:59  
Original value (CoefB) = 0.6902 New value = 41.7451  
Poor type -1 or 1 curve fit. Data was refit by iterative curve fit procedure.

**Cell:** F4

**Comment:** 1016-10-01 - Run 1 (CDBAA) 2/16/00 17:59  
Original value (CoefD) = 278923824161536 New value = 1.7098  
Poor type -1 or 1 curve fit. Data was refit by iterative curve fit procedure.

**Cell:** J4

**Comment:** 1016-10-01 - Run 1 (CDBAA) 2/16/00 17:59  
Original value (S) = 0 New value = 0  
Poor type -1 or 1 curve fit. Data was refit by iterative curve fit procedure.

**Cell:** C5

**Comment:** 1016-10-01 - Run 1 (CHBr3) 2/16/00 17:56  
Original value (CoefA0) = -0.1978 New value = -4.1154  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** D5

**Comment:** 1016-10-01 - Run 1 (CHBr3) 2/16/00 17:56  
Original value (CoefAf) = 3.4123 New value = 10.5246  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** E5

**Comment:** 1016-10-01 - Run 1 (CHBr3) 2/16/00 17:56  
Original value (CoefB) = 95.9697 New value = 18.6317  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** F5

**Comment:** 1016-10-01 - Run 1 (CHBr3) 2/16/00 17:56  
Original value (CoefD) = 954.5612 New value = 2.4943  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** J5

**Comment:** 1016-10-01 - Run 1 (CHBr3) 2/16/00 17:56  
Original value (S) = -0.1335 New value = -0.5999  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** C8

**Comment:** 1016-10-01 - Run 1 (DBAA) 2/16/00 17:58  
Original value (CoefA0) = -1.2336 New value = -1.9478  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** D8

**Comment:** 1016-10-01 - Run 1 (DBAA) 2/16/00 17:58  
Original value (CoefAf) = 3.9908 New value = 11.9394  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** E8

**Comment:** 1016-10-01 - Run 1 (DBAA) 2/16/00 17:58  
Original value (CoefB) = 0 New value = 28.1113  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** F8

**Comment:** 1016-10-01 - Run 1 (DBAA) 2/16/00 17:58  
Original value (CoefD) = 0.149 New value = 1.6481  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** J8

**Comment:** 1016-10-01 - Run 1 (DBAA) 2/16/00 17:58  
Original value (S) = 0 New value = -0.2557  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** C9

**Comment:** 1016-10-01 - Run 1 (DBCM) 2/16/00 17:54  
Original value (CoefA0) = 0 New value = -2.4122  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** D9

**Comment:** 1016-10-01 - Run 1 (DBCM) 2/16/00 17:54  
Original value (CoefAf) = 34 New value = 203.2012  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** E9

**Comment:** 1016-10-01 - Run 1 (DBCM) 2/16/00 17:54  
Original value (CoefB) = 10 New value = 208.8752  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** F9

**Comment:** 1016-10-01 - Run 1 (DBCM) 2/16/00 17:54  
Original value (CoefD) = 0.15 New value = 1.2689  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** J9

**Comment:** 1016-10-01 - Run 1 (DBCM) 2/16/00 17:54  
Original value (S) = 0 New value = -0.7044  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** C17

**Comment:** 1016-10-01 - Run 1 (TBAA) 2/16/00 18:00  
Original value (CoefA0) = 0 New value = -2.5793  
Fewer than 6 points above MRL. Data was fit to peak curve by iterative curve fit procedure.

**Cell:** D17

**Comment:** 1016-10-01 - Run 1 (TBAA) 2/16/00 18:00  
Original value (CoefAf) = 0 New value = 8.3895  
Fewer than 6 points above MRL. Data was fit to peak curve by iterative curve fit procedure.

**Cell:** E17

**Comment:** 1016-10-01 - Run 1 (TBAA) 2/16/00 18:00  
Original value (CoefB) = 0 New value = 21.0082  
Fewer than 6 points above MRL. Data was fit to peak curve by iterative curve fit procedure.

**Cell:** F17

**Comment:** 1016-10-01 - Run 1 (TBAA) 2/16/00 18:00  
Original value (CoefD) = 0 New value = 2.2328  
Fewer than 6 points above MRL. Data was fit to peak curve by iterative curve fit procedure.

**Cell:** J17

**Comment:** 1016-10-01 - Run 1 (TBAA) 2/16/00 18:00  
Original value (S) = 0 New value = -0.5205  
Fewer than 6 points above MRL. Data was fit to peak curve by iterative curve fit procedure.

**Cell:** C18

**Comment:** 1016-10-01 - Run 1 (TCAA) 2/16/00 17:57  
Original value (CoefA0) = -3.7738 New value = -1.5264  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** D18

**Comment:** 1016-10-01 - Run 1 (TCAA) 2/16/00 17:57  
Original value (CoefAf) = 38.9719 New value = 34.3468  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** E18

**Comment:** 1016-10-01 - Run 1 (TCAA) 2/16/00 17:57  
Original value (CoefB) = 12.4133 New value = 22.0668  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** F18

**Comment:** 1016-10-01 - Run 1 (TCAA) 2/16/00 17:57  
Original value (CoefD) = 0.2155 New value = 0.2662  
Poor peak curve fit. Data was refit to type 1 curve fit by iterative curve fit procedure.

**Cell:** J18

**Comment:** 1016-10-01 - Run 1 (TCAA) 2/16/00 17:57

Original value (S) = -0.4349 New value = 0

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

**Cell:** C22

**Comment:** 1016-10-01 - Run 1 (TSUVA) 2/16/00 17:52

Original value (CoefA0) = -0.6337 New value = 1.8907

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

**Cell:** D22

**Comment:** 1016-10-01 - Run 1 (TSUVA) 2/16/00 17:52

Original value (CoefAf) = 2.8942 New value = 0.8375

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

**Cell:** E22

**Comment:** 1016-10-01 - Run 1 (TSUVA) 2/16/00 17:52

Original value (CoefB) = 0.2114 New value = 19.746

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

**Cell:** F22

**Comment:** 1016-10-01 - Run 1 (TSUVA) 2/16/00 17:52

Original value (CoefD) = 119749784437790 New value = 0.2924

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

**Cell:** J22

**Comment:** 1016-10-01 - Run 1 (TSUVA) 2/16/00 17:52

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:** C27

**Comment:** 1016-10-02 - Run 3 (CHBr3) 2/16/00 18:15

Original value (CoefA0) = 0.7597 New value = 1.888

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

**Cell:** D27

**Comment:** 1016-10-02 - Run 3 (CHBr3) 2/16/00 18:15

Original value (CoefAf) = 24 New value = 187.4569

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

**Cell:** E27

**Comment:** 1016-10-02 - Run 3 (CHBr3) 2/16/00 18:15

Original value (CoefB) = 13.7368 New value = 212.3226

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

**Cell:** F27

**Comment:** 1016-10-02 - Run 3 (CHBr3) 2/16/00 18:15

Original value (CoefD) = 0.1982 New value = 1.0141

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

**Cell:** J27

**Comment:** 1016-10-02 - Run 3 (CHBr3) 2/16/00 18:15

Original value (S) = -0.1423 New value = -1.5519

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

**Cell:** C30

**Comment:** 1016-10-02 - Run 3 (DBAA) 2/16/00 18:17

Original value (CoefA0) = 0 New value = -1.9624

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

**Cell:** D30

**Comment:** 1016-10-02 - Run 3 (DBAA) 2/16/00 18:17

Original value (CoefAf) = 8.6 New value = 518.9422

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

**Cell:** E30

**Comment:** 1016-10-02 - Run 3 (DBAA) 2/16/00 18:17

Original value (CoefB) = 10 New value = 556.4756

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

**Cell:** F30

**Comment:** 1016-10-02 - Run 3 (DBAA) 2/16/00 18:17

Original value (CoefD) = 0.15 New value = 0.8025

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

**Cell:** J30

**Comment:** 1016-10-02 - Run 3 (DBAA) 2/16/00 18:17

Original value (S) = 0 New value = -0.0814

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

**Cell:** C31

**Comment:** 1016-10-02 - Run 3 (DBCM) 2/16/00 18:11

Original value (CoefA0) = -1.464 New value = -0.0432

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

**Cell:** D31

**Comment:** 1016-10-02 - Run 3 (DBCM) 2/16/00 18:11

Original value (CoefAf) = 18.6236 New value = 35.8372

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

**Cell:** E31

**Comment:** 1016-10-02 - Run 3 (DBCM) 2/16/00 18:11

Original value (CoefB) = 0 New value = 1302.9554

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

**Cell:** F31

**Comment:** 1016-10-02 - Run 3 (DBCM) 2/16/00 18:11

Original value (CoefD) = 0.1491 New value = 2.9244

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

**Cell:** J31

**Comment:** 1016-10-02 - Run 3 (DBCM) 2/16/00 18:11

Original value (S) = 0 New value = -0.3329

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

**Cell:** C43

**Comment:** 1016-10-02 - Run 3 (TOX) 2/16/00 18:19  
Original value (CoefA0) = -405 New value = -394.3895  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** D43

**Comment:** 1016-10-02 - Run 3 (TOX) 2/16/00 18:19  
Original value (CoefAf) = 1215 New value = 1374.2839  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** E43

**Comment:** 1016-10-02 - Run 3 (TOX) 2/16/00 18:19  
Original value (CoefB) = 1.9413 New value = 2.3571  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** F43

**Comment:** 1016-10-02 - Run 3 (TOX) 2/16/00 18:19  
Original value (CoefD) = 0.1326 New value = 0.1166  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** J43

**Comment:** 1016-10-02 - Run 3 (TOX) 2/16/00 18:19  
Original value (S) = 0 New value = -12.3583  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** C44

**Comment:** 1016-10-02 - Run 3 (TSUVA) 2/16/00 18:09  
Original value (CoefA0) = -0.0127 New value = -0.0941  
Poor type -1 or 1 curve fit. Data was refit by iterative curve fit procedure.

**Cell:** D44

**Comment:** 1016-10-02 - Run 3 (TSUVA) 2/16/00 18:09  
Original value (CoefAf) = 1.4871 New value = 1.7641  
Poor type -1 or 1 curve fit. Data was refit by iterative curve fit procedure.

**Cell:** E44

**Comment:** 1016-10-02 - Run 3 (TSUVA) 2/16/00 18:09  
Original value (CoefB) = 0.8212 New value = 17.5602  
Poor type -1 or 1 curve fit. Data was refit by iterative curve fit procedure.

**Cell:** F44

**Comment:** 1016-10-02 - Run 3 (TSUVA) 2/16/00 18:09  
Original value (CoefD) = 699156324447629 New value = 1.5628  
Poor type -1 or 1 curve fit. Data was refit by iterative curve fit procedure.

**Cell:** J44

**Comment:** 1016-10-02 - Run 3 (TSUVA) 2/16/00 18:09  
Original value (S) = 0 New value = 0  
Poor type -1 or 1 curve fit. Data was refit by iterative curve fit procedure.

**Cell:** C93

**Comment:** 1016-20-01 - Run 2 (CHBr3) 2/16/00 18:03  
Original value (CoefA0) = 1.0238 New value = -3.2493  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** D93

**Comment:** 1016-20-01 - Run 2 (CHBr3) 2/16/00 18:03  
Original value (CoefAf) = 26 New value = 1224.7456  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** E93

**Comment:** 1016-20-01 - Run 2 (CHBr3) 2/16/00 18:03  
Original value (CoefB) = 14.6869 New value = 1300.5154  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** F93

**Comment:** 1016-20-01 - Run 2 (CHBr3) 2/16/00 18:03  
Original value (CoefD) = 0.1962 New value = 1.1435  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** J93

**Comment:** 1016-20-01 - Run 2 (CHBr3) 2/16/00 18:03  
Original value (S) = -0.1414 New value = -1.5801  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** C96

**Comment:** 1016-20-01 - Run 2 (DBAA) 2/16/00 18:08  
Original value (CoefA0) = -4.65 New value = -1.5355  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** D96

**Comment:** 1016-20-01 - Run 2 (DBAA) 2/16/00 18:08  
Original value (CoefAf) = 13.95 New value = 9.5166  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** E96

**Comment:** 1016-20-01 - Run 2 (DBAA) 2/16/00 18:08  
Original value (CoefB) = 0.7144 New value = 40.6312  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** F96

**Comment:** 1016-20-01 - Run 2 (DBAA) 2/16/00 18:08  
Original value (CoefD) = 0.0825 New value = 1.5617  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** J96

**Comment:** 1016-20-01 - Run 2 (DBAA) 2/16/00 18:08  
Original value (S) = 0 New value = -0.1057  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** C97

**Comment:** 1016-20-01 - Run 2 (DBCM) 2/16/00 18:01



Original value (CoefA0) = -17 New value = -15.2912  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** D97

**Comment:** 1016-20-01 - Run 2 (DBCM) 2/16/00 18:01  
Original value (CoefAf) = 43.3424 New value = 54.1303  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** E97

**Comment:** 1016-20-01 - Run 2 (DBCM) 2/16/00 18:01  
Original value (CoefB) = 0.8803 New value = 2.5792  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** F97

**Comment:** 1016-20-01 - Run 2 (DBCM) 2/16/00 18:01  
Original value (CoefD) = 0.2154 New value = 0.2813  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** J97

**Comment:** 1016-20-01 - Run 2 (DBCM) 2/16/00 18:01  
Original value (S) = -0.2717 New value = -0.5046  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** C115

**Comment:** 1016-20-02 - Run 4 (CHBr3) 2/16/00 18:22  
Original value (CoefA0) = 0.279 New value = 1.3538  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** D115

**Comment:** 1016-20-02 - Run 4 (CHBr3) 2/16/00 18:22  
Original value (CoefAf) = 12.9518 New value = 17.7985  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** E115

**Comment:** 1016-20-02 - Run 4 (CHBr3) 2/16/00 18:22  
Original value (CoefB) = 8.746 New value = 205.1293  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** F115

**Comment:** 1016-20-02 - Run 4 (CHBr3) 2/16/00 18:22  
Original value (CoefD) = 0.1725 New value = 0.7596  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** J115

**Comment:** 1016-20-02 - Run 4 (CHBr3) 2/16/00 18:22  
Original value (S) = -0.0921 New value = -0.6331  
Poor peak curve fit. Data was refit by iterative curve fit procedure.

**Cell:** C118

**Comment:** 1016-20-02 - Run 4 (DBAA) 2/16/00 18:22  
Original value (CoefA0) = 0 New value = -1.3287

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

**Cell:** D118

**Comment:** 1016-20-02 - Run 4 (DBAA) 2/16/00 18:22

Original value (CoefAf) = 9.4 New value = 20.037

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

**Cell:** E118

**Comment:** 1016-20-02 - Run 4 (DBAA) 2/16/00 18:22

Original value (CoefB) = 10 New value = 28.3388

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

**Cell:** F118

**Comment:** 1016-20-02 - Run 4 (DBAA) 2/16/00 18:22

Original value (CoefD) = 0.15 New value = 0.2775

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

**Cell:** J118

**Comment:** 1016-20-02 - Run 4 (DBAA) 2/16/00 18:22

Original value (S) = 0 New value = -0.108

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

**Cell:** C119

**Comment:** 1016-20-02 - Run 4 (DBCM) 2/16/00 18:20

Original value (CoefA0) = 0 New value = -1.5048

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

**Cell:** D119

**Comment:** 1016-20-02 - Run 4 (DBCM) 2/16/00 18:20

Original value (CoefAf) = 41 New value = 79.1284

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

**Cell:** E119

**Comment:** 1016-20-02 - Run 4 (DBCM) 2/16/00 18:20

Original value (CoefB) = 10 New value = 105.7922

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

**Cell:** F119

**Comment:** 1016-20-02 - Run 4 (DBCM) 2/16/00 18:20

Original value (CoefD) = 0.15 New value = 0.3706

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

**Cell:** J119

**Comment:** 1016-20-02 - Run 4 (DBCM) 2/16/00 18:20

Original value (S) = 0 New value = -0.4123

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

## ICR Information

ID / ICR#: PWISD # FL 4130871 / 301  
 ICR Contact: Mr. Raymond Diaz  
 Phone No.: (305) 275-3176  
 Period: 11/3/97 - 12/9/97 (36 days)

## Design Information

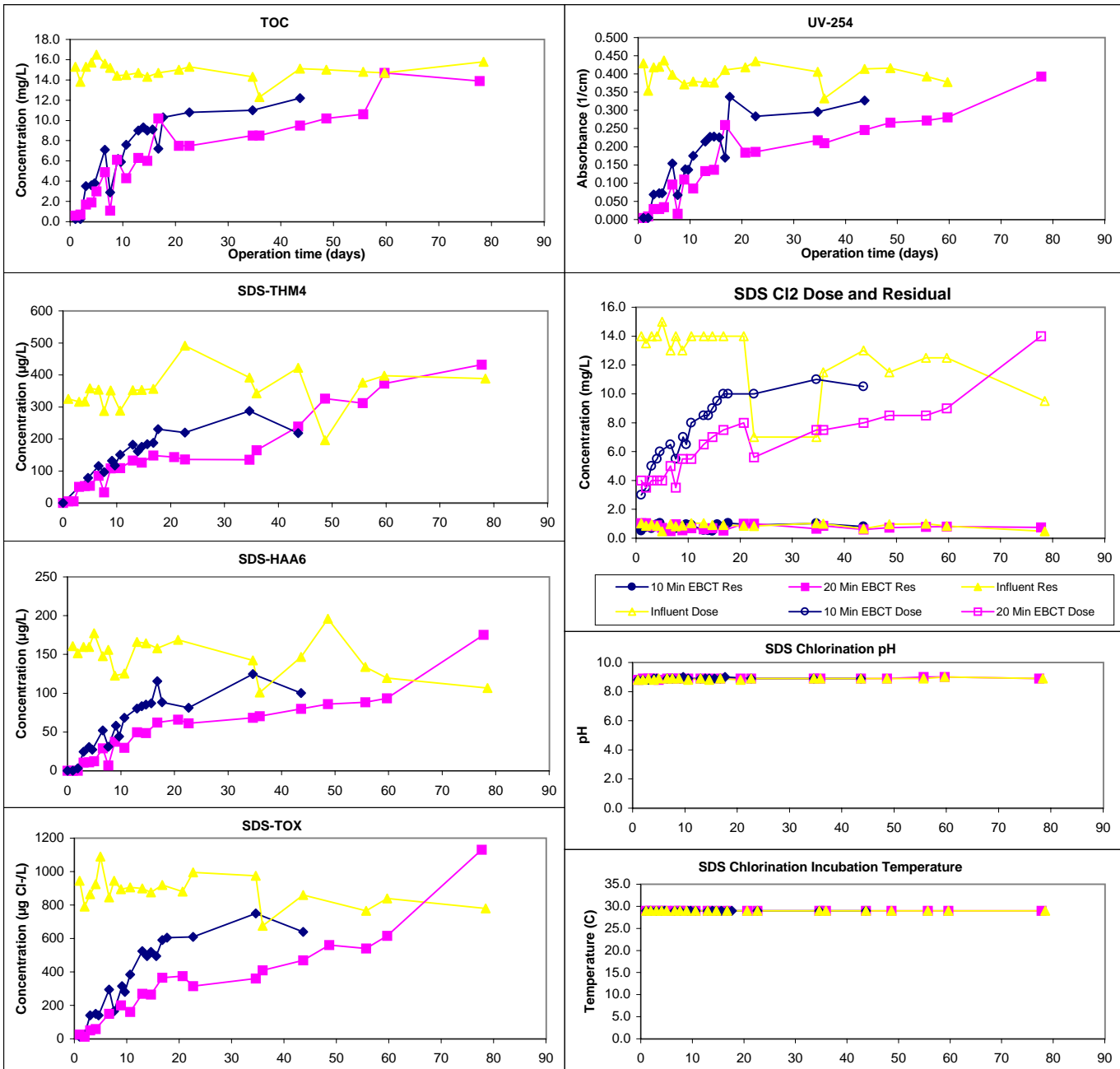
Design TOC: 15 mg/L  
 Col Diameter: 76.2 mm

Full-Scale GAC Size: 8x30 US Std Mesh  
 Full-Scale particle dia.: 1.480 mm  
 Meas Dry Bed Density: 500.0 kg/m3

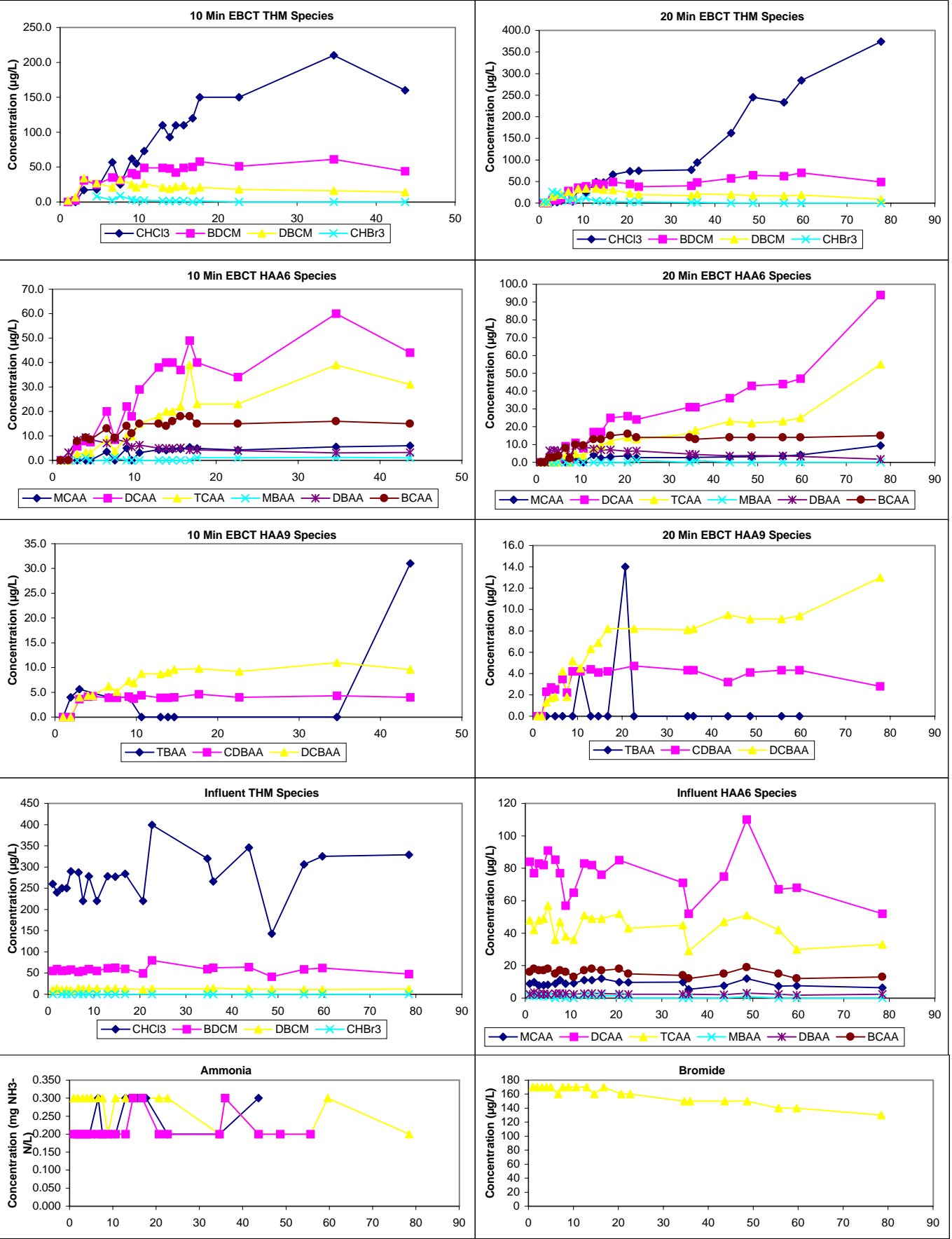
## Water Quality Summary

Influent														
Influent	Mean	SD	Count	Min/Max						Mean	SD	Count	Min/Max	
TOC	14.9	0.8	21	12.3 - 16.5						Res (0)	0.82	0.18	54	0.47 - 1.04
pH	10.1	0.6	21	8.6 - 10.8						Temp	29.0	0.0	54	29.0 - 29.0
UV254	0.398	0.028	19	0.333 - 0.437						pH	8.9	0.0	54	8.8 - 9.0
SUVA	2.69	0.10	19	2.6 - 2.8						Time	9.0	0.0	54	9.0 - 9.0
Bromide	160	12	21	130 - 170						Comments:				
SDS-TOX	884	91	20	675 - 1090										
SDS-THM4	351	61	19	196 - 492										
SDS-HAA6	148	24	20	101 - 196										
Ammonia	0.27	0.05	21	0.20 - 0.30										
Effluent	10 Min EBCT (44 days)				20 Min EBCT (78 days)				Chart Legend:					
Effluent pH	10.2	0.3	19	9.8 - 10.7	10.0	0.5	21	8.6 - 10.4	◆ 10 Min EBCT					
Effluent Temp	24.1	2.5	19	18.2 - 27.0	23.4	2.7	21	17.1 - 26.9	■ 20 Min EBCT					
									▲ Influent					

## Water Quality Parameter Graphs



Water Quality Parameter Graphs (Continued)



## ICR Information

ID / ICR#: PWISD # FL 4130871 / 301  
 ICR Contact: Mr. Raymond Diaz  
 Phone No.: (305) 275-3176  
 Period: 2/6/98 - 3/6/98 (28 days)

## Design Information

Design TOC: 15 mg/L  
 Col Diameter: 76.2 mm

Full-Scale GAC Size: 8x30 US Std Mesh  
 Full-Scale particle dia.: 1.480 mm  
 Meas Dry Bed Density: 500.0 kg/m3

## Water Quality Summary

Influent	Mean	SD	Count	Min/Max
TOC	11.8	1.8	19	6.2 - 13.9
pH	8.2	0.4	19	8.0 - 9.6
UV254	0.208	0.044	19	0.089 - 0.271
SUVA	1.75	0.16	19	1.4 - 2.0
Bromide	143	6	19	130 - 150
SDS-TOX	993	209	19	430 - 1220
SDS-THM4	424	64	17	221 - 498
SDS-HAA6	157	24	19	82 - 189
Ammonia	0.30	0.14	19	0.17 - 0.70

## Cumulative SDS Conditions

	Mean	SD	Count	Min/Max
Res (0)	0.83	0.18	54	0.51 - 1.05
Temp	29.0	0.0	54	29.0 - 29.0
pH	8.9	0.1	54	8.7 - 9.1
Time	9.0	0.0	54	9.0 - 9.0

## Comments:

## Chart Legend:

—◆— 10 Min EBCT  
 —■— 20 Min EBCT  
 —▲— Influent

Effluent	10 Min EBCT	(39 days)	20 Min EBCT	(47 days)
Effluent pH	7.8	0.2	19	7.5 - 8.3
Effluent Temp	22.9	2.6	19	18.0 - 26.2
	22.6	2.8	19	17.4 - 26.9

## Water Quality Parameter Graphs



Water Quality Parameter Graphs (Continued)

