

Appendix 2. StreamVOC Model Input Parameter Files

2-1. Parameter File for Acetone with Source Synoptic Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
# Start (km) Stop (km) Depth (m) Width (m) Flow (m3/s) Conc. (ug/L)
1 0.0 0.0 0.30 5.5 0.354 0.557
2 0.0 0.096 0.30 5.5 0.037 1.79
3 0.096 0.096 0.53 7.3 0.0 0.00
4 0.096 0.400 0.53 7.3 0.023 0.00
5 0.400 0.400 0.76 7.9 0.0 0.00
6 0.400 0.540 0.76 7.9 0.093 0.00
7 0.540 0.540 0.34 22.8 0.0 0.00
8 0.540 1.09 0.34 22.8 -0.173 0.00
9 1.09 1.09 0.64 8.5 0.0 0.00
10 1.09 1.15 0.64 8.5 0.054 0.43
11 1.15 1.15 0.79 7.3 0.0 0.00
12 1.15 1.23 0.79 7.3 -0.059 0.00
13 1.23 1.23 0.37 3.6 0.0 0.00
14 1.23 1.647 0.37 3.6 -0.026 0.00
15 1.647 1.647 2.0 100.0 0.202 0.00
16 1.647 1.897 2.0 100.0 0.016 0.00
17 1.897 1.897 2.0 10.0 0.0 0.00
18 1.897 2.147 2.0 10.0 0.0 0.00
19 2.147 2.147 2.0 90.0 0.0 0.00
20 2.147 2.293 2.0 90.0 0.012 0.99
21 2.293 2.293 1.07 10.7 0.0 0.00
22 2.293 2.736 1.07 10.7 0.031 0.61
23 2.736 2.736 0.64 7.9 0.0 0.00
24 2.736 2.811 0.64 7.9 0.051 0.00
25 2.811 2.811 0.64 7.9 0.0 0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.69
VOC molecular weight in g/mole
58.08
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
73.42
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
7.034 5043
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.10;~Aberjona~River~Data;July-11-2001
Acetone~with~7-11-01~groundwater~flows
Groundwater~sources~included~acetone
Begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir# Location(km) length height silldepth(m) Tailstockdepth(m) Type
1 2.293 10 0.9 0.0 1.07 1
2 2.740 5 0.5 0.0 0.64 2
\river_model\Aberjona_Data\aberjona_gw_acetone02.dat

```

2-2. Parameter File for Benzene with Source Synoptic Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
#   Start(km)   Stop(km)   Depth(m)   Width(m)   Flow(m3/s)   Conc.(ug/L)
1   0.0         0.0       0.30      5.5       0.354      0.009
2   0.0         0.096    0.30      5.5       0.037      0.00
3   0.096      0.096    0.53      7.3       0.0        0.00
4   0.096      0.400    0.53      7.3       0.023      0.00
5   0.400      0.400    0.76      7.9       0.0        0.00
6   0.400      0.540    0.76      7.9       0.093      0.00
7   0.540      0.540    0.34      22.8      0.0        0.00
8   0.540      1.09     0.34      22.8      -0.173     0.00
9   1.09       1.09     0.64      8.5       0.0        0.00
10  1.09       1.15     0.64      8.5       0.054      0.00
11  1.15       1.15     0.79      7.3       0.0        0.00
12  1.15       1.23     0.79      7.3       -0.059     0.00
13  1.23       1.23     0.37      3.6       0.0        0.00
14  1.23       1.647    0.37      3.6       -0.026     0.00
15  1.647      1.647    2.0       100.0     0.202      0.05
16  1.647      1.897    2.0       100.0     0.016      0.00
17  1.897      1.897    2.0       10.0      0.0        0.00
18  1.897      2.147    2.0       10.0      0.0        0.00
19  2.147      2.147    2.0       90.0      0.0        0.00
20  2.147      2.293    2.0       90.0      0.012      0.00
21  2.293      2.293    1.07     10.7      0.0        0.00
22  2.293      2.736    1.07     10.7      0.031      0.00
23  2.736      2.736    0.64      7.9       0.0        0.00
24  2.736      2.811    0.64      7.9       0.051      0.00
25  2.811      2.811    0.64      7.9       0.0        0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.20
VOC molecular weight in g/mole
78.12
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
94.27
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
7.924 3918
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.0;~Aberjona~River~Data;August-20-2003
Benzene~with~7-11-01~groundwater~flows
Groundwater~sources~included
end of original input file, begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir#  Location(km)  length  height  silldepth(m)  Tailstockdepth(m)  Type
1      2.293         10     0.9    0.0          1.07                1
2      2.740         5      0.5    0.0          0.64                2
\river_model\Aberjona_Data\aberjona_gw_benzene02.dat

```

2-3. Parameter File for Methyl *tert*-Butyl Ether with Source Synoptic Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
#   Start(km)   Stop(km)   Depth(m)   Width(m)   Flow(m3/s)   Conc.(ug/L)
1     0.0        0.0        0.30       5.5        0.354        0.63
2     0.0        0.096     0.30       5.5        0.037        0.34
3     0.096     0.096     0.53       7.3        0.0          0.00
4     0.096     0.400     0.53       7.3        0.023        0.00
5     0.400     0.400     0.76       7.9        0.0          0.00
6     0.400     0.540     0.76       7.9        0.093        0.00
7     0.540     0.540     0.34       22.8       0.0          0.00
8     0.540     1.09      0.34       22.8       -0.173       0.00
9     1.09      1.09      0.64       8.5        0.0          0.00
10    1.09      1.15      0.64       8.5        0.054        0.00
11    1.15      1.15      0.79       7.3        0.0          0.00
12    1.15      1.23      0.79       7.3        -0.059       0.00
13    1.23      1.23      0.37       3.6        0.0          0.00
14    1.23      1.647     0.37       3.6        -0.026       0.00
15    1.647     1.647     2.0        100.0      0.202        4.12
16    1.647     1.897     2.0        100.0      0.016        0.00
17    1.897     1.897     2.0        10.0       0.0          0.00
18    1.897     2.147     2.0        10.0       0.0          0.00
19    2.147     2.147     2.0        90.0       0.0          0.00
20    2.147     2.293     2.0        90.0       0.012        0.00
21    2.293     2.293     1.07       10.7       0.0          0.00
22    2.293     2.736     1.07       10.7       0.031        1.36
23    2.736     2.736     0.64       7.9        0.0          0.00
24    2.736     2.811     0.64       7.9        0.051        0.00
25    2.811     2.811     0.64       7.9        0.0          0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.264
VOC molecular weight in g/mole
88.15
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
129.39999
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
0.184000E+02      0.766600E+04
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.0;~Aberjona~River~Data;July-11-2001
MTBE~with~7-11-01~groundwater~flows
Groundwater~sources~included
end of original input file, begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir#  Location(km)  length  height  silldepth(m)  Tailstockdepth(m)  Type
1      2.293        10      0.9     0.0           1.07                1
2      2.740         5      0.5     0.0           0.64                2
\river_model\Aberjona_Data\aberjona_gw_mtbe02.dat

```

2-4. Parameter File for Chloroform with Source Synoptic Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
#   Start(km)   Stop(km)   Depth(m)   Width(m)   Flow(m3/s)   Conc.(ug/L)
1     0.0       0.0       0.30      5.5       0.354      0.117
2     0.0       0.096    0.30      5.5       0.037      0.00
3     0.096    0.096    0.53      7.3       0.0        0.00
4     0.096    0.400    0.53      7.3       0.023      0.00
5     0.400    0.400    0.76      7.9       0.0        0.00
6     0.400    0.540    0.76      7.9       0.093      1.16
7     0.540    0.540    0.34      22.8      0.0        0.00
8     0.540    1.09     0.34      22.8     -0.173     0.00
9     1.09     1.09     0.64      8.5       0.0        0.00
10    1.09     1.15     0.64      8.5       0.054      0.00
11    1.15     1.15     0.79      7.3       0.0        0.00
12    1.15     1.23     0.79      7.3     -0.059     0.00
13    1.23     1.23     0.37      3.6       0.0        0.00
14    1.23     1.647    0.37      3.6     -0.026     0.00
15    1.647    1.647    2.0       100.0     0.202      0.00
16    1.647    1.897    2.0       100.0     0.016      0.00
17    1.897    1.897    2.0       10.0      0.0        0.00
18    1.897    2.147    2.0       10.0      0.0        0.00
19    2.147    2.147    2.0       90.0      0.0        0.00
20    2.147    2.293    2.0       90.0     0.012      0.00
21    2.293    2.293    1.07      10.7      0.0        0.00
22    2.293    2.736    1.07      10.7     0.031      0.00
23    2.736    2.736    0.64      7.9       0.0        0.00
24    2.736    2.811    0.64      7.9       0.051      0.38
25    2.811    2.811    0.64      7.9       0.0        0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.045
VOC molecular weight in g/mole
119.38
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
84.9325
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
9.824 4608
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.0;~Aberjona~River~Data;July-11-2001
Chloroform~with~7-11-01~groundwater~flows
Groundwater~sources~included~chloroform
end of original input file, begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir# Location(km) length height silldepth(m) Tailstockdepth(m) Type
1     2.293     10     0.9     0.0     1.07     1
2     2.740     5      0.5     0.0     0.64     2
\river_model\Aberjona_Data\aberjona_gw_chloroform02.dat

```

2-5. Parameter File for 1,1-Dichloroethane with Source Synoptic Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
#   Start(km)   Stop(km)   Depth(m)   Width(m)   Flow(m3/s)   Conc.(ug/L)
1     0.0       0.0       0.30      5.5       0.354      0.038
2     0.0       0.096     0.30      5.5       0.037      0.48
3     0.096     0.096     0.53      7.3       0.0        0.00
4     0.096     0.400     0.53      7.3       0.023      0.00
5     0.400     0.400     0.76      7.9       0.0        0.00
6     0.400     0.540     0.76      7.9       0.093      0.00
7     0.540     0.540     0.34      22.8      0.0        0.00
8     0.540     1.09      0.34      22.8      -0.173     0.00
9     1.09      1.09      0.64      8.5       0.0        0.00
10    1.09      1.15      0.64      8.5       0.054      0.12
11    1.15      1.15      0.79      7.3       0.0        0.00
12    1.15      1.23      0.79      7.3       -0.059     0.00
13    1.23      1.23      0.37      3.6       0.0        0.00
14    1.23      1.647     0.37      3.6       -0.026     0.00
15    1.647     1.647     2.0       100.0     0.202      0.00
16    1.647     1.897     2.0       100.0     0.016      0.00
17    1.897     1.897     2.0       10.0      0.0        0.00
18    1.897     2.147     2.0       10.0      0.0        0.00
19    2.147     2.147     2.0       90.0      0.0        0.00
20    2.147     2.293     2.0       90.0      0.012      0.00
21    2.293     2.293     1.07      10.7      0.0        0.00
22    2.293     2.736     1.07      10.7      0.031      0.00
23    2.736     2.736     0.64      7.9       0.0        0.00
24    2.736     2.811     0.64      7.9       0.051      0.00
25    2.811     2.811     0.64      7.9       0.0        0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.000
VOC molecular weight in g/mole
98.96
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
88.849
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
8.644      4131
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.0;~Aberjona~River~Data;July-11-2001
1,1-Dichloroethane~with~7-11-01~groundwater~flows
Groundwater~sources~included~11dichloroethane
end of original input file, begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir#   Location(km)   length   height   silldepth(m)   Tailstockdepth(m)   Type
1       2.293          10       0.9      0.0            1.07                 1
2       2.740          5        0.5      0.0            0.64                 2
\river_model\Aberjona_Data\aberjona_gw_dcethane02.dat

```

2-6. Parameter File for *cis*-1,2-Dichloroethene with Source Synoptic Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
#   Start(km)   Stop(km)   Depth(m)   Width(m)   Flow(m3/s)   Conc.(ug/L)
1     0.0       0.0       0.30      5.5       0.354      0.302
2     0.0       0.096     0.30      5.5       0.037      0.23
3     0.096     0.096     0.53      7.3       0.0        0.00
4     0.096     0.400     0.53      7.3       0.023      0.00
5     0.400     0.400     0.76      7.9       0.0        0.00
6     0.400     0.540     0.76      7.9       0.093      0.00
7     0.540     0.540     0.34      22.8      0.0        0.00
8     0.540     1.09      0.34      22.8      -0.173     0.00
9     1.09      1.09      0.64      8.5       0.0        0.00
10    1.09      1.15      0.64      8.5       0.054      0.12
11    1.15      1.15      0.79      7.3       0.0        0.00
12    1.15      1.23      0.79      7.3       -0.059     0.00
13    1.23      1.23      0.37      3.6       0.0        0.00
14    1.23      1.647     0.37      3.6       -0.026     0.00
15    1.647     1.647     2.0       100.0     0.202      0.032
16    1.647     1.897     2.0       100.0     0.016      0.00
17    1.897     1.897     2.0       10.0      0.0        0.00
18    1.897     2.147     2.0       10.0      0.0        0.00
19    2.147     2.147     2.0       90.0      0.0        0.00
20    2.147     2.293     2.0       90.0      0.012      0.00
21    2.293     2.293     1.07      10.7      0.0        0.00
22    2.293     2.736     1.07      10.7      0.031      0.33
23    2.736     2.736     0.64      7.9       0.0        0.00
24    2.736     2.811     0.64      7.9       0.051      0.00
25    2.811     2.811     0.64      7.9       0.0        0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.000
VOC molecular weight in g/mole
96.94
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
78.087
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
8.484 4196
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.0;~Aberjona~River~Data;July-11-2001
DCE~with~7-11-01~groundwater~flows
Groundwater~sources~included~dichloroethene
end of original input file, begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir#  Location(km)  length  height  silldepth(m)  Tailstockdepth(m)  Type
1      2.293         10     0.9     0.0           1.07                1
2      2.740         5      0.5     0.0           0.64                2
\river_model\Aberjona_Data\aberjona_gw_dce02.dat

```

2-7. Parameter File for Trichloroethene with Source Synoptic Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
#   Start(km)   Stop(km)   Depth(m)   Width(m)   Flow(m3/s)   Conc.(ug/L)
1   0.0          0.0        0.30       5.5        0.354       0.174
2   0.0          0.096     0.30       5.5        0.037       0.21
3   0.096       0.096     0.53       7.3        0.0         0.00
4   0.096       0.400     0.53       7.3        0.023       0.00
5   0.400       0.400     0.76       7.9        0.0         0.00
6   0.400       0.540     0.76       7.9        0.093       0.39
7   0.540       0.540     0.34       22.8       0.0         0.00
8   0.540       1.09      0.34       22.8       -0.173      0.00
9   1.09        1.09      0.64       8.5        0.0         0.00
10  1.09         1.15      0.64       8.5        0.054       1.09
11  1.15         1.15      0.79       7.3        0.0         0.00
12  1.15         1.23      0.79       7.3        -0.059      0.00
13  1.23         1.23      0.37       3.6        0.0         0.00
14  1.23         1.647     0.37       3.6        -0.026      0.00
15  1.647        1.647     2.0        100.0      0.202       0.035
16  1.647        1.897     2.0        100.0      0.016       0.00
17  1.897        1.897     2.0        10.0       0.0         0.00
18  1.897        2.147     2.0        10.0       0.0         0.00
19  2.147        2.147     2.0        90.0       0.0         0.00
20  2.147        2.293     2.0        90.0       0.012       0.00
21  2.293        2.293     1.07       10.7       0.0         0.00
22  2.293        2.736     1.07       10.7       0.031       0.00
23  2.736        2.736     0.64       7.9        0.0         0.00
24  2.736        2.811     0.64       7.9        0.051       0.00
25  2.811        2.811     0.64       7.9        0.0         0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.014
VOC molecular weight in g/mole
131.29
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
94.27
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
7.854 3702
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.0;~Aberjona~River~Data;July-11-2001
TCE~with~7-11-01~groundwater~flows
Groundwater~sources~included
end of original input file, begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir#  Location(km)  length  height  silldepth(m)  Tailstockdepth(m)  Type
1      2.293         10      0.9     0.0           1.07                1
2      2.740         5        0.5     0.0           0.64                2
\river_model\Aberjona_Data\aberjona_gw_tce02.dat

```

2-8. Parameter File for Perchloroethene with Source Synoptic Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
#   Start(km)   Stop(km)   Depth(m)   Width(m)   Flow(m3/s)   Conc.(ug/L)
1     0.0       0.0       0.30      5.5       0.354      0.039
2     0.0       0.096    0.30      5.5       0.037      0.00
3     0.096    0.096    0.53      7.3       0.0        0.00
4     0.096    0.400    0.53      7.3       0.023      0.00
5     0.400    0.400    0.76      7.9       0.0        0.00
6     0.400    0.540    0.76      7.9       0.093      0.82
7     0.540    0.540    0.34      22.8      0.0        0.00
8     0.540    1.09     0.34      22.8     -0.173     0.00
9     1.09     1.09     0.64      8.5       0.0        0.00
10    1.09     1.15     0.64      8.5       0.054      0.00
11    1.15     1.15     0.79      7.3       0.0        0.00
12    1.15     1.23     0.79      7.3     -0.059     0.00
13    1.23     1.23     0.37      3.6       0.0        0.00
14    1.23     1.647    0.37      3.6     -0.026     0.00
15    1.647    1.647    2.0      100.0     0.202      0.00
16    1.647    1.897    2.0      100.0     0.016      0.00
17    1.897    1.897    2.0      10.0      0.0        0.00
18    1.897    2.147    2.0      10.0      0.0        0.00
19    2.147    2.147    2.0      90.0      0.0        0.00
20    2.147    2.293    2.0      90.0     0.012      0.00
21    2.293    2.293    1.07     10.7      0.0        0.00
22    2.293    2.736    1.07     10.7     0.031      0.00
23    2.736    2.736    0.64      7.9       0.0        0.00
24    2.736    2.811    0.64      7.9       0.051      0.00
25    2.811    2.811    0.64      7.9       0.0        0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.073
VOC molecular weight in g/mole
165.83
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
115.28
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
12.484 4931
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.0;~Aberjona~River~Data;July-11-2001
PCE~with~7-11-01~groundwater~flows
Groundwater~sources~included
end of original input file, begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir#  Location(km)  length  height  silldepth(m)  Tailstockdepth(m)  Type
1      2.293        10      0.9     0.0          1.07                1
2      2.740         5      0.5     0.0          0.64                2
\river_model\Aberjona_Data\aberjona_gw_pce02.dat

```


2-9. Parameter File for Acetone with Modified Best-Fit Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
#   Start(km)   Stop(km)   Depth(m)   Width(m)   Flow(m3/s)   Conc.(ug/L)
1     0.0       0.0       0.30      5.5       0.354      0.557
2     0.0       0.096    0.30      5.5       0.037      0.00
3     0.096    0.096    0.53      7.3       0.0        0.00
4     0.096    0.400    0.53      7.3       0.023      0.00
5     0.400    0.400    0.76      7.9       0.0        0.00
6     0.400    0.540    0.76      7.9       0.093      0.00
7     0.540    0.540    0.34      22.8      0.0        0.00
8     0.540    1.09     0.34      22.8     -0.173     0.00
9     1.09     1.09     0.64      8.5       0.0        0.00
10    1.09     1.15     0.64      8.5       0.054      0.00
11    1.15     1.15     0.79      7.3       0.0        0.00
12    1.15     1.23     0.79      7.3     -0.059     0.00
13    1.23     1.23     0.37      3.6       0.0        0.00
14    1.23     1.647    0.37      3.6     -0.026     0.00
15    1.647    1.647    2.0      100.0     0.202      0.00
16    1.647    1.897    2.0      100.0     0.016      0.00
17    1.897    1.897    2.0      10.0      0.0        0.00
18    1.897    2.147    2.0      10.0      0.0        0.00
19    2.147    2.147    2.0      90.0      0.0        0.00
20    2.147    2.293    2.0      90.0     0.012      0.00
21    2.293    2.293    1.07     10.7      0.0        0.00
22    2.293    2.736    1.07     10.7     0.031      0.00
23    2.736    2.736    0.64      7.9       0.0        0.00
24    2.736    2.811    0.64      7.9       0.051      0.00
25    2.811    2.811    0.64      7.9       0.0        0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.69
VOC molecular weight in g/mole
58.08
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
73.42
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
7.034 5043
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.0;~Aberjona~River~Data;July-11-2001
Acetone~with~7-11-01~groundwater~flows
Groundwater~sources~included~acetone
end of original input file, begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir#  Location(km)  length  height  silldepth(m)  Tailstockdepth(m)  Type
1      2.293        10      0.9     0.0          1.07                1
2      2.740         5      0.5     0.0          0.64                2
\river_model\Aberjona_Data\aberjona_gw_acetone03.dat

```

2-10. Parameter File for Benzene with Modified Best-Fit Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
#   Start(km)   Stop(km)   Depth(m)   Width(m)   Flow(m3/s)   Conc.(ug/L)
1    0.0         0.0       0.30      5.5        0.354       0.009
2    0.0         0.096     0.30      5.5        0.037       0.012
3    0.096      0.096     0.53      7.3        0.0         0.00
4    0.096      0.400     0.53      7.3        0.023       0.0084
5    0.400      0.400     0.76      7.9        0.0         0.00
6    0.400      0.540     0.76      7.9        0.093       0.013
7    0.540      0.540     0.34      22.8       0.0         0.00
8    0.540      1.09      0.34      22.8       -0.173      0.00
9    1.09       1.09      0.64      8.5        0.0         0.00
10   1.09       1.15      0.64      8.5        0.054       0.0046
11   1.15       1.15      0.79      7.3        0.0         0.00
12   1.15       1.23      0.79      7.3        -0.059      0.00
13   1.23       1.23      0.37      3.6        0.0         0.00
14   1.23       1.647    0.37      3.6        -0.026      0.00
15   1.647     1.647    2.00     100.0      0.202       0.054
16   1.647     1.897    2.00     100.0      0.016       0.00
17   1.897     1.897    2.0       10.0       0.0         0.00
18   1.897     2.147    2.0       10.0       0.0         0.00
19   2.147     2.147    2.0       90.0       0.0         0.00
20   2.147     2.293    2.0       90.0       0.012       0.00
21   2.293     2.293    1.07     10.7       0.0         0.00
22   2.293     2.736    1.07     10.7       0.031       0.030
23   2.736     2.736    0.64      7.9        0.0         0.00
24   2.736     2.811    0.64      7.9        0.051       0.038
25   2.811     2.811    0.64      7.9        0.0         0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.20
VOC molecular weight in g/mole
78.12
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
94.27
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
7.924 3918
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.0;~Aberjona~River~Data;August-20-2003
Benzene~with~7-11-01~groundwater~flows
Benzene~sources~optimized~with~no~flow~under~weir
end of original input file, begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir#  Location(km)  length  height  silldepth(m)  Tailstockdepth(m)  Type
1      2.293         10      0.9     0.0           1.07                1
2      2.740         5       0.5     0.0           0.64                2
\river_model\Aberjona_Data\aberjona_gw_benzene03.dat

```

2-11. Parameter File for Methyl *tert*-Butyl Ether with Modified Best-Fit Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
#   Start(km)   Stop(km)   Depth(m)   Width(m)   Flow(m3/s)   Conc.(ug/L)
1     0.0       0.0       0.30      5.5       0.354      0.63
2     0.0       0.096     0.30      5.5       0.037      0.92
3     0.096    0.096     0.53      7.3       0.0        0.00
4     0.096    0.400     0.53      7.3       0.023      0.078
5     0.400    0.400     0.76      7.9       0.0        0.00
6     0.400    0.540     0.76      7.9       0.093      0.47
7     0.540    0.540     0.34     22.8      0.0        0.00
8     0.540    1.09      0.34     22.8     -0.173     0.00
9     1.09     1.09      0.64      8.5       0.0        0.00
10    1.09     1.15      0.64      8.5       0.054      0.71
11    1.15     1.15      0.79      7.3       0.0        0.00
12    1.15     1.23      0.79      7.3     -0.059     0.00
13    1.23     1.23      0.37      3.6       0.0        0.00
14    1.23     1.647     0.37      3.6     -0.026     0.00
15    1.647    1.647     2.0     100.0     0.202      3.23
16    1.647    1.897     2.0     100.0     0.016      0.00
17    1.897    1.897     2.0     10.0      0.0        0.00
18    1.897    2.147     2.0     10.0      0.0        0.00
19    2.147    2.147     2.0     90.0      0.0        0.00
20    2.147    2.293     2.0     90.0     0.012     13.4
21    2.293    2.293     1.07     10.7      0.0        0.00
22    2.293    2.736     1.07     10.7     0.031     16.7
23    2.736    2.736     0.64      7.9       0.0        0.00
24    2.736    2.811     0.64      7.9     0.051     0.73
25    2.811    2.811     0.64      7.9       0.0        0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.264
VOC molecular weight in g/mole
88.15
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
129.39999
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
0.184000E+02      0.766600E+04
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.0;~Aberjona~River~Data;July-11-2001
MTBE~with~7-11-01~groundwater~flows
MTBE~sources~optimized~with~no~flow~under~weir
end of original input file, begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir#   Location(km)   length   height   silldepth(m)   Tailstockdepth(m)   Type
1       2.293         10      0.9     0.0           1.07                1
2       2.740         5       0.5     0.0           0.64                2
\river_model\Aberjona_Data\aberjona_gw_mtbe03.dat

```

2-12. Parameter File for Chloroform with Modified Best-Fit Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
#   Start(km)   Stop(km)   Depth(m)   Width(m)   Flow(m3/s)   Conc.(ug/L)
1     0.0        0.0        0.30       5.5        0.354       0.117
2     0.0        0.096     0.30       5.5        0.037       0.19
3     0.096     0.096     0.53       7.3        0.0         0.00
4     0.096     0.400     0.53       7.3        0.023       0.20
5     0.400     0.400     0.76       7.9        0.0         0.00
6     0.400     0.540     0.76       7.9        0.093       0.19
7     0.540     0.540     0.34       22.8       0.0         0.00
8     0.540     1.09      0.34       22.8       -0.173      0.00
9     1.09      1.09      0.64       8.5        0.0         0.00
10    1.09      1.15      0.64       8.5        0.054       0.26
11    1.15      1.15      0.79       7.3        0.0         0.00
12    1.15      1.23      0.79       7.3        -0.059      0.00
13    1.23      1.23      0.37       3.6        0.0         0.00
14    1.23      1.647     0.37       3.6        -0.026      0.00
15    1.647     1.647     2.00      100.0      0.202       0.16
16    1.647     1.897     2.00      100.0      0.016       0.00
17    1.897     1.897     2.0        10.0       0.0         0.00
18    1.897     2.147     2.0        10.0       0.0         0.00
19    2.147     2.147     2.0        90.0       0.0         0.00
20    2.147     2.293     2.0        90.0       0.012       2.82
21    2.293     2.293     1.07      10.7       0.0         0.00
22    2.293     2.736     1.07      10.7       0.031       0.56
23    2.736     2.736     0.64       7.9        0.0         0.00
24    2.736     2.811     0.64       7.9        0.051       0.00
25    2.811     2.811     0.64       7.9        0.0         0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.045
VOC molecular weight in g/mole
119.38
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
84.9325
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
9.824 4608
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.0;~Aberjona~River~Data;July-11-2001
Chloroform~with~7-11-01~groundwater~flows
Chloroform~sources~optimized~with~no~flow~under~weir
end of original input file, begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir#  Location(km)  length  height  silldepth(m)  Tailstockdepth(m)  Type
1      2.293         10      0.9     0.0           1.07                1
2      2.740         5       0.5     0.0           0.64                2
\river_model\Aberjona_Data\aberjona_gw_chloroform03.dat

```

2-13. Parameter File for 1,1-Dichloroethane with Modified Best-Fit Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
#   Start(km)   Stop(km)   Depth(m)   Width(m)   Flow(m3/s)   Conc.(ug/L)
1     0.0        0.0        0.30       5.5        0.354       0.038
2     0.0        0.096     0.30       5.5        0.037       0.0033
3     0.096     0.096     0.53       7.3        0.0         0.00
4     0.096     0.400     0.53       7.3        0.023       0.26
5     0.400     0.400     0.76       7.9        0.0         0.00
6     0.400     0.540     0.76       7.9        0.093       0.047
7     0.540     0.540     0.34       22.8       0.0         0.00
8     0.540     1.09      0.34       22.8       -0.173      0.00
9     1.09      1.09      0.64       8.5        0.0         0.00
10    1.09      1.15      0.64       8.5        0.054       0.55
11    1.15      1.15      0.79       7.3        0.0         0.00
12    1.15      1.23      0.79       7.3        -0.059      0.00
13    1.23      1.23      0.37       3.6        0.0         0.00
14    1.23      1.647     0.37       3.6        -0.026      0.00
15    1.647     1.647     2.00      100.0       0.202       0.13
16    1.647     1.897     2.00      100.0       0.016       0.00
17    1.897     1.897     2.0        10.0       0.0         0.00
18    1.897     2.147     2.0        10.0       0.0         0.00
19    2.147     2.147     2.0        90.0       0.0         0.00
20    2.147     2.293     2.0        90.0       0.012       1.15
21    2.293     2.293     1.07      10.7       0.0         0.00
22    2.293     2.736     1.07      10.7       0.031       0.36
23    2.736     2.736     0.64       7.9        0.0         0.00
24    2.736     2.811     0.64       7.9        0.051       0.00
25    2.811     2.811     0.64       7.9        0.0         0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.000
VOC molecular weight in g/mole
98.96
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
88.849
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
8.644      4131
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.0;~Aberjona~River~Data;July-11-2001
1,1-Dichloroethane~with~7-11-01~groundwater~flows
1,1-Dichloroethane~sources~optimized~with~no~flow~under~weir
end of original input file, begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir#   Location(km)   length   height   silldepth(m)   Tailstockdepth(m)   Type
1       2.293          10      0.9      0.0            1.07                1
2       2.740          5       0.5      0.0            0.64                2
\river_model\Aberjona_Data\aberjona_gw_dcethane03.dat

```

2-14. Parameter File for *cis*-1,2-Dichloroethene with Modified Best-Fit Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
#   Start(km)   Stop(km)   Depth(m)   Width(m)   Flow(m3/s)   Conc.(ug/L)
1     0.0        0.0        0.30       5.5        0.354       0.302
2     0.0        0.096     0.30       5.5        0.037       0.00
3     0.096     0.096     0.53       7.3        0.0         0.00
4     0.096     0.400     0.53       7.3        0.023       0.00
5     0.400     0.400     0.76       7.9        0.0         0.00
6     0.400     0.540     0.76       7.9        0.093       0.54
7     0.540     0.540     0.34       22.8       0.0         0.00
8     0.540     1.09      0.34       22.8       -0.173      0.00
9     1.09      1.09      0.64       8.5        0.0         0.00
10    1.09      1.15      0.64       8.5        0.054       0.68
11    1.15      1.15      0.79       7.3        0.0         0.00
12    1.15      1.23      0.79       7.3        -0.059      0.00
13    1.23      1.23      0.37       3.6        0.0         0.00
14    1.23      1.647     0.37       3.6        -0.026      0.00
15    1.647     1.647     2.00      100.0      0.202       0.33
16    1.647     1.897     2.00      100.0      0.016       0.00
17    1.897     1.897     2.0        10.0       0.0         0.00
18    1.897     2.147     2.0        10.0       0.0         0.00
19    2.147     2.147     2.0        90.0       0.0         0.00
20    2.147     2.293     2.0        90.0       0.012       3.59
21    2.293     2.293     1.07      10.7       0.0         0.00
22    2.293     2.736     1.07      10.7       0.031       1.04
23    2.736     2.736     0.64       7.9        0.0         0.00
24    2.736     2.811     0.64       7.9        0.051       0.00
25    2.811     2.811     0.64       7.9        0.0         0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.000
VOC molecular weight in g/mole
96.94
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
78.087
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
8.484 4196
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.0;~Aberjona~River~Data;July-11-2001
DCE~with~7-11-01~groundwater~flows
DCE~sources~optimized~with~no~flow~under~weir
end of original input file, begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir#  Location(km)  length  height  silldepth(m)  Tailstockdepth(m)  Type
1      2.293         10     0.9     0.0           1.07                1
2      2.740         5      0.5     0.0           0.64                2
\river_model\Aberjona_Data\aberjona_gw_dce03.dat

```

2-15. Parameter File for Trichloroethene with Modified Best-Fit Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
#   Start(km)   Stop(km)   Depth(m)   Width(m)   Flow(m3/s)   Conc.(ug/L)
1   0.0         0.0       0.30      5.5       0.354      0.174
2   0.0         0.096    0.30      5.5       0.037      0.25
3   0.096      0.096    0.53      7.3       0.0        0.00
4   0.096      0.400    0.53      7.3       0.023      0.14
5   0.400      0.400    0.76      7.9       0.0        0.00
6   0.400      0.540    0.76      7.9       0.093      0.26
7   0.540      0.540    0.34      22.8      0.0        0.00
8   0.540      1.09     0.34      22.8      -0.173     0.00
9   1.09       1.09     0.64      8.5       0.0        0.00
10  1.09       1.15     0.64      8.5       0.054      1.65
11  1.15       1.15     0.79      7.3       0.0        0.00
12  1.15       1.23     0.79      7.3       -0.059     0.00
13  1.23       1.23     0.37      3.6       0.0        0.00
14  1.23       1.647    0.37      3.6       -0.026     0.00
15  1.647      1.647    2.0       100.0     0.202      0.34
16  1.647      1.897    2.0       100.0     0.016      0.00
17  1.897      1.897    2.0       10.0      0.0        0.00
18  1.897      2.147    2.0       10.0      0.0        0.00
19  2.147      2.147    2.0       90.0      0.0        0.00
20  2.147      2.293    2.0       90.0      0.012      6.45
21  2.293      2.293    1.07      10.7      0.0        0.00
22  2.293      2.736    1.07      10.7      0.031      0.65
23  2.736      2.736    0.64      7.9       0.0        0.00
24  2.736      2.811    0.64      7.9       0.051      0.19
25  2.811      2.811    0.64      7.9       0.0        0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.014
VOC molecular weight in g/mole
131.29
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
94.27
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
7.854 3702
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.0;~Aberjona~River~Data;July-11-2001
TCE~with~7-11-01~groundwater~flows
TCE~sources~optimized~with~no~flow~under~weir
end of original input file, begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir# Location(km) length height silldepth(m) Tailstockdepth(m) Type
1      2.293      10      0.9      0.0      1.07      1
2      2.740       5      0.5      0.0      0.64      2
\river_model\Aberjona_Data\aberjona_gw_tce03.dat

```

2-16. Parameter File for Perchloroethene with Modified Best-Fit Inputs

Flux Method (0 = Net, 1 = Component): Weir Flow (0=Off, 1=On): Units (0=cubic meters per second, 1=cubic feet per minute)

```

1      0      0
Total Length of River (km)
2.811
Number of reaches
13
Number of distributed source regions
11
River profile/source data (# of points = # of reaches + # of distributed sources + 1)
#   Start(km)   Stop(km)   Depth(m)   Width(m)   Flow(m3/s)   Conc.(ug/L)
1     0.0       0.0       0.30      5.5       0.354      0.039
2     0.0       0.096    0.30      5.5       0.037      0.14
3     0.096    0.096    0.53      7.3       0.0        0.00
4     0.096    0.400    0.53      7.3       0.023      1.08
5     0.400    0.400    0.76      7.9       0.0        0.00
6     0.400    0.540    0.76      7.9       0.093      0.21
7     0.540    0.540    0.34      22.8      0.0        0.00
8     0.540    1.09     0.34      22.8     -0.173     0.00
9     1.09     1.09     0.64      8.5       0.0        0.00
10    1.09     1.15     0.64      8.5       0.054      0.64
11    1.15     1.15     0.79      7.3       0.0        0.00
12    1.15     1.23     0.79      7.3     -0.059     0.00
13    1.23     1.23     0.37      3.6       0.0        0.00
14    1.23     1.647    0.37      3.6     -0.026     0.00
15    1.647    1.647    2.00     100.0     0.202     0.091
16    1.647    1.897    2.00     100.0     0.016     0.00
17    1.897    1.897    2.0       10.0      0.0        0.00
18    1.897    2.147    2.0       10.0      0.0        0.00
19    2.147    2.147    2.0       90.0      0.0        0.00
20    2.147    2.293    2.0       90.0     0.012     8.78
21    2.293    2.293    1.07     10.7      0.0        0.00
22    2.293    2.736    1.07     10.7     0.031     1.53
23    2.736    2.736    0.64      7.9       0.0        0.00
24    2.736    2.811    0.64      7.9       0.051     0.11
25    2.811    2.811    0.64      7.9       0.0        0.00
River temperatures (C)
22.00
Air temperature (C)
20.0
Mean wind speed (m/s)
4.0
Relative Humidity
0.80
Barometric pressure (atm)
0.983
Atmospheric VOC concentration (ppbv)
0.073
VOC molecular weight in g/mole
165.83
Index for molar volume data entry (1 for m.v., 2 for density)
1
Molar volume in ml/mol at boiling point for Wilke Chang
115.28
Solubility parameterization (1 for exp(A-B/T), 2 for Wanninkhof, 3 for direct entry)
1
Coefficients to give solubility in mol/m3-atm (2 for exp(A-B/T), 5 for Wanninkhof)
12.484 4931
First order VOC biochemical degradation rate (1/s)
0.0
Tolerance for Runge-Kutta DEQ integrator
0.1000E-09
Title for run and two lines of comments, comments not used
StreamVOC~Version~2.0;~Aberjona~River~Data;July-11-2001
PCE~with~7-11-01~groundwater~flows
PCE~sources~optimized~with~no~flow~under~weir
end of original input file, begin waterfall/weir parameterization information
Number of weirs/waterfalls
2
Type: 1 = Ogee weir;2 = sharp-crested weir;3 = gated sill
Weir#   Location(km)   length   height   silldepth(m)   Tailstockdepth(m)   Type
1       2.293         10      0.9     0.0            1.07                1
2       2.740         5       0.5     0.0            0.64                2
\river_model\Aberjona_Data\aberjona_gw_pce03.dat

```