

150 Organic Wastewater Compounds in Drinking Water, Wastewater Effluent, and the Big Sioux River, 2001–2004

Table 21. Statistical summaries of analytical results and load results for organic wastewater compounds in water samples.

[Units are micrograms per liter unless otherwise noted. --, not detected or not applicable]

	Station identification number and name (site label)						
	433843096450500 Big Sioux River near Renner, SD (site US1, fig. 1)		433600096442400 Sioux Falls pump station intake from Big Sioux River at Sioux Falls, SD (site US2, fig. 1)				
Date of sample collection (month–day–year)	05–18–2004	05–31–2004	08–15–2001	09–09–2002	01–22–2003	03–19–2003	06–26–2003
Time of sample collection (24-hour)	1500	1800	1405	1200	1105	1130	0930
Human pharmaceutical compounds (HPCs)							
Number of compounds detected	0	0	0	1	1	1	1
Minimum detected concentration	--	--	--	.0060	.0081	.0092	.0084
Median detected concentration	--	--	--	.0060	.0081	.0092	.0084
Maximum detected concentration	--	--	--	.0060	.0081	.0092	.0084
Total detected concentration	--	--	--	.0060	.0081	.0092	.0084
Total load (pounds per day)	0	0	0	.0021	.0013	.025	.054
Human and veterinary antibiotic compounds (HVACs)							
Number of compounds detected	2	0	0	0	0	0	0
Minimum detected concentration	.026	--	--	--	--	--	--
Median detected concentration	.041	--	--	--	--	--	--
Maximum detected concentration	.055	--	--	--	--	--	--
Total detected concentration	.081	--	--	--	--	--	--
Total load (pounds per day)	.041	0	0	0	0	0	0
Major agricultural herbicides (MAHs)							
Number of compounds detected	1	2	1	1	0	2	2
Minimum detected concentration	.071	.35	.013	.024	--	.051	.10
Median detected concentration	.071	1.4	.013	.024	--	.086	.14
Maximum detected concentration	.071	2.5	.013	.024	--	.12	.17
Total detected concentration	.071	2.8	.013	.024	--	.17	.27
Total load (pounds per day)	.036	26	.037	.0084	--	.46	1.7
Household, industrial, and minor agricultural use compounds (HIACs)							
Number of compounds detected	3	0	1	0	0	1	1
Minimum detected concentration	.034	--	.13	--	--	.24	.074
Median detected concentration	.054	--	.13	--	--	.24	.074
Maximum detected concentration	.079	--	.13	--	--	.24	.074
Total detected concentration	.17	--	.13	--	--	.24	.074
Total load (pounds per day)	.084	0	.37	0	0	.65	.48
Polyaromatic hydrocarbons (PAHs)							
Number of compounds detected	0	0	0	0	0	0	0
Minimum detected concentration	--	--	--	--	--	--	--
Median detected concentration	--	--	--	--	--	--	--
Maximum detected concentration	--	--	--	--	--	--	--
Total detected concentration	--	--	--	--	--	--	--
Total load (pounds per day)	0	0	0	0	0	0	0

Table 21. Statistical summaries of analytical results and load results for organic wastewater compounds in water samples.—Continued

[Units are micrograms per liter unless otherwise noted. --, not detected or not applicable]

	Station identification number and name (site label)						
	433843096450500 Big Sioux River near Renner, SD (site US1, fig. 1)			433600096442400 Sioux Falls pump station intake from Big Sioux River at Sioux Falls, SD (site US2, fig. 1)			
Sterol compounds (SCs)							
Number of compounds detected	1	1	2	2	0	0	1
Minimum detected concentration	1.8	1.1	1.6	.70	--	--	2.8
Median detected concentration	1.8	1.1	1.6	.77	--	--	2.8
Maximum detected concentration	1.8	1.1	1.7	.84	--	--	2.8
Total detected concentration	1.8	1.1	3.3	1.5	--	--	2.8
Total load (pounds per day)	.91	10	9.4	.54	0	0	18
All organic wastewater compounds (OWCs)							
Number of compounds detected	7	3	4	4	1	4	5
Minimum detected concentration	.026	.35	.013	.0060	.0081	.0092	.0084
Median detected concentration	.055	1.1	.87	.36	.0081	.086	.10
Maximum detected concentration	1.8	2.5	1.7	.84	.0081	.24	2.8
Total detected concentration	2.1	4.0	3.4	1.6	.0081	.42	3.2
Total load (pounds per day)	1.1	36	9.8	.55	.0013	1.1	20
Major agricultural herbicides (MAHs) that are suspected endocrine-disrupting compounds (EDCs)							
Number of compounds detected	0	0	0	1	0	1	1
Minimum detected concentration	--	--	--	.024	--	.051	.17
Median detected concentration	--	--	--	.024	--	.051	.17
Maximum detected concentration	--	--	--	.024	--	.051	.17
Total detected concentration	--	--	--	.024	--	.051	.17
Total load (pounds per day)	0	0	0	.0084	0	.14	1.1
Household, industrial, and minor agricultural use compounds (HIACs) that are suspected endocrine-disrupting compounds (EDCs)							
Number of compounds detected	0	1	0	0	0	0	0
Minimum detected concentration	--	2.5	--	--	--	--	--
Median detected concentration	--	2.5	--	--	--	--	--
Maximum detected concentration	--	2.5	--	--	--	--	--
Total detected concentration	--	2.5	--	--	--	--	--
Total load (pounds per day)	0	23	0	0	0	0	0
Polyaromatic hydrocarbons (PAHs) that are suspected endocrine-disrupting compounds (EDCs)							
Number of compounds detected	0	0	0	0	0	0	0
Minimum detected concentration	--	--	--	--	--	--	--
Median detected concentration	--	--	--	--	--	--	--
Maximum detected concentration	--	--	--	--	--	--	--
Total detected concentration	--	--	--	--	--	--	--
Total load (pounds per day)	0	0	0	0	0	0	0
All suspected endocrine-disrupting compounds (EDCs)							
Number of compounds detected	0	1	0	1	0	1	1
Minimum detected concentration	--	2.5	--	.024	--	.051	.17
Median detected concentration	--	2.5	--	.024	--	.051	.17
Maximum detected concentration	--	2.5	--	.024	--	.051	.17
Total detected concentration	--	2.5	--	.024	--	.051	.17
Total load (pounds per day)	0	23	0	.0084	0	.14	1.1

152 Organic Wastewater Compounds in Drinking Water, Wastewater Effluent, and the Big Sioux River, 2001–2004

Table 21. Statistical summaries of analytical results and load results for organic wastewater compounds in water samples.—Continued

[Units are micrograms per liter unless otherwise noted. --, not detected or not applicable]

Station identification number and name (site label)					
433419096434200					
Sioux Falls water treatment plant finished drinking water at Sioux Falls, SD					
(site FDW, fig. 1)					
Date of sample collection (month–day–year)	08–15–2001	09–09–2002	01–22–2003	03–19–2003	06–27–2003
Time of sample collection (24-hour)	1100	1440	1330	1445	0915
Human pharmaceutical compounds (HPCs)					
Number of compounds detected	0	0	0	0	0
Minimum detected concentration	--	--	--	--	--
Median detected concentration	--	--	--	--	--
Maximum detected concentration	--	--	--	--	--
Total detected concentration	--	--	--	--	--
Total load (pounds per day)	0	0	0	0	0
Human and veterinary antibiotic compounds (HVACs)					
Number of compounds detected	0	0	0	0	0
Minimum detected concentration	--	--	--	--	--
Median detected concentration	--	--	--	--	--
Maximum detected concentration	--	--	--	--	--
Total detected concentration	--	--	--	--	--
Total load (pounds per day)	0	0	0	0	0
Major agricultural herbicides (MAHs)					
Number of compounds detected	1	0	0	0	0
Minimum detected concentration	.0040	--	--	--	--
Median detected concentration	.0040	--	--	--	--
Maximum detected concentration	.0040	--	--	--	--
Total detected concentration	.0040	--	--	--	--
Total load (pounds per day)	--	0	0	0	0
Household, industrial, and minor agricultural use compounds (HIACs)					
Number of compounds detected	0	0	0	0	0
Minimum detected concentration	--	--	--	--	--
Median detected concentration	--	--	--	--	--
Maximum detected concentration	--	--	--	--	--
Total detected concentration	--	--	--	--	--
Total load (pounds per day)	0	0	0	0	0
Polyaromatic hydrocarbons (PAHs)					
Number of compounds detected	0	0	0	0	0
Minimum detected concentration	--	--	--	--	--
Median detected concentration	--	--	--	--	--
Maximum detected concentration	--	--	--	--	--
Total detected concentration	--	--	--	--	--
Total load (pounds per day)	0	0	0	0	0

Table 21. Statistical summaries of analytical results and load results for organic wastewater compounds in water samples.—Continued

[Units are micrograms per liter unless otherwise noted. --, not detected or not applicable]

Station identification number and name (site label)					
433419096434200					
Sioux Falls water treatment plant finished drinking water at Sioux Falls, SD					
(site FDW, fig. 1)					
Sterol compounds (SCs)					
Number of compounds detected	0	0	0	0	0
Minimum detected concentration	--	--	--	--	--
Median detected concentration	--	--	--	--	--
Maximum detected concentration	--	--	--	--	--
Total detected concentration	--	--	--	--	--
Total load (pounds per day)	0	0	0	0	0
All organic wastewater compounds (OWCs)					
Number of compounds detected	1	0	0	0	0
Minimum detected concentration	.0040	--	--	--	--
Median detected concentration	.0040	--	--	--	--
Maximum detected concentration	.0040	--	--	--	--
Total detected concentration	.0040	--	--	--	--
Total load (pounds per day)	--	0	0	0	0
Major agricultural herbicides (MAHs) that are suspected endocrine-disrupting compounds (EDCs)					
Number of compounds detected	0	0	0	0	0
Minimum detected concentration	--	--	--	--	--
Median detected concentration	--	--	--	--	--
Maximum detected concentration	--	--	--	--	--
Total detected concentration	--	--	--	--	--
Total load (pounds per day)	0	0	0	0	0
Household, industrial, and minor agricultural use compounds (HIACs) that are suspected endocrine-disrupting compounds (EDCs)					
Number of compounds detected	0	0	0	0	0
Minimum detected concentration	--	--	--	--	--
Median detected concentration	--	--	--	--	--
Maximum detected concentration	--	--	--	--	--
Total detected concentration	--	--	--	--	--
Total load (pounds per day)	0	0	0	0	0
Polyaromatic hydrocarbons (PAHs) that are suspected endocrine-disrupting compounds (EDCs)					
Number of compounds detected	0	0	0	0	0
Minimum detected concentration	--	--	--	--	--
Median detected concentration	--	--	--	--	--
Maximum detected concentration	--	--	--	--	--
Total detected concentration	--	--	--	--	--
Total load (pounds per day)	0	0	0	0	0
All suspected endocrine-disrupting compounds (EDCs)					
Number of compounds detected	0	0	0	0	0
Minimum detected concentration	--	--	--	--	--
Median detected concentration	--	--	--	--	--
Maximum detected concentration	--	--	--	--	--
Total detected concentration	--	--	--	--	--
Total load (pounds per day)	0	0	0	0	0

154 Organic Wastewater Compounds in Drinking Water, Wastewater Effluent, and the Big Sioux River, 2001–2004

Table 21. Statistical summaries of analytical results and load results for organic wastewater compounds in water samples.—Continued

[Units are micrograms per liter unless otherwise noted. --, not detected or not applicable]

	Station identification number and name (site label)			
	433408096432000 Big Sioux River diversion channel at North Drive, at Sioux Falls, SD (site US3, fig. 1)		06482020 Big Sioux River at North Cliff Avenue, at Sioux Falls, SD (site US4, fig. 1)	
Date of sample collection (month–day–year)	05–18–2004	05–31–2004	05–17–2004	05–30–2004
Time of sample collection (24-hour)	1130	1145	1000	1530
Pharmaceuticals (HPCs)				
Number of compounds detected	1	2	2	0
Minimum detected concentration	0.0070	0.0032	0.030	--
Median detected concentration	.0070	.015	.17	--
Maximum detected concentration	.0070	.028	.31	--
Total detected concentration	.0070	.031	.34	--
Total load (pounds per day)	.0024	.33	.40	0
Human and veterinary antibiotic compounds (HVACs)				
Number of compounds detected	1	0	0	0
Minimum detected concentration	.0180	--	--	--
Median detected concentration	.0180	--	--	--
Maximum detected concentration	.0180	--	--	--
Total detected concentration	.0180	--	--	--
Total load (pounds per day)	.0062	0	0	0
Major agricultural herbicides (MAHs)				
Number of compounds detected	1	2	2	2
Minimum detected concentration	.080	.510	.13	.95
Median detected concentration	.080	1.6	.22	1.58
Maximum detected concentration	.080	2.7	.30	2.2
Total detected concentration	.080	3.2	.43	3.2
Total load (pounds per day)	.027	34	.51	87
Household, industrial, and minor agricultural use compounds (HIACs)				
Number of compounds detected	6	1	12	1
Minimum detected concentration	.049	.25	.029	.12
Median detected concentration	.14	.25	.11	.12
Maximum detected concentration	.83	.25	.91	.12
Total detected concentration	1.6	.25	3.2	.12
Total load (pounds per day)	.55	2.7	3.8	3.3
Polyaromatic hydrocarbons (PAHs)				
Number of compounds detected	1	1	4	9
Minimum detected concentration	.019	.024	.047	.052
Median detected concentration	.019	.024	.050	.13
Maximum detected concentration	.019	.024	.054	.22
Total detected concentration	.019	.024	.20	1.3
Total load (pounds per day)	.0065	.26	.24	35

Table 21. Statistical summaries of analytical results and load results for organic wastewater compounds in water samples.—Continued

[Units are micrograms per liter unless otherwise noted. --, not detected or not applicable]

	Station identification number and name (site label)			
	433408096432000 Big Sioux River diversion channel at North Drive, at Sioux Falls, SD (site US3, fig. 1)		06482020 Big Sioux River at North Cliff Avenue, at Sioux Falls, SD (site US4, fig. 1)	
Sterol compounds (SCs)				
Number of compounds detected	1	1	1	1
Minimum detected concentration	1.2	1.2	1.3	1.2
Median detected concentration	1.2	1.2	1.3	1.2
Maximum detected concentration	1.2	1.2	1.3	1.2
Total detected concentration	1.2	1.2	1.3	1.2
Total load (pounds per day)	.41	13	1.5	33
All organic wastewater compounds (OWCs)				
Number of compounds detected	11	7	21	13
Minimum detected concentration	.0070	.0032	.029	.052
Median detected concentration	.074	.25	.088	.15
Maximum detected concentration	1.2	2.7	1.3	2.2
Total detected concentration	2.9	4.7	5.4	5.7
Total load (pounds per day)	1.0	51	6.5	160
Major agricultural herbicides (MAHs) that are suspected endocrine-disrupting compounds (EDCs)				
Number of compounds detected	0	1	1	1
Minimum detected concentration	--	2.7	.30	2.2
Median detected concentration	--	2.7	.30	2.2
Maximum detected concentration	--	2.7	.30	2.2
Total detected concentration	--	2.7	.30	2.2
Total load (pounds per day)	0	29	.36	61
Household, industrial, and minor agricultural use compounds (HIACs) that are suspected endocrine-disrupting compounds (EDCs)				
Number of compounds detected	3	0	3	1
Minimum detected concentration	.20	--	.19	.12
Median detected concentration	.40	--	.39	.12
Maximum detected concentration	.83	--	.88	.12
Total detected concentration	1.4	--	1.46	.12
Total load (pounds per day)	.49	0	1.7	3.3
Polyaromatic hydrocarbons (PAHs) that are suspected endocrine-disrupting compounds (EDCs)				
Number of compounds detected	1	1	2	4
Minimum detected concentration	.019	.024	.047	.052
Median detected concentration	.019	.024	.051	.14
Maximum detected concentration	.019	.024	.054	.22
Total detected concentration	.019	.024	.10	.55
Total load (pounds per day)	.0065	.26	.12	15
All suspected endocrine-disrupting compounds (EDCs)				
Number of compounds detected	4	2	6	6
Minimum detected concentration	.019	.024	.047	.052
Median detected concentration	.30	1.4	.25	.14
Maximum detected concentration	.83	2.7	.88	2.2
Total detected concentration	1.4	2.7	1.86	2.9
Total load (pounds per day)	.50	29	2.2	80

Table 21. Statistical summaries of analytical results and load results for organic wastewater compounds in water samples.—Continued

[Units are micrograms per liter unless otherwise noted. --, not detected or not applicable]

Station identification number and name (site label)						
433531096394200						
Sioux Falls wastewater treatment plant effluent						
(site WWE, fig. 1)						
Date of sample collection (month–day–year)	09–10–2002	01–24–2003	03–21–2003	06–26–2003	05–18–2004	05–30–2004
Time of sample collection (24-hour)	1400	930	1045	1135	1020	2020
Pharmaceuticals (HPCs)						
Number of compounds detected	2	3	4	2	0	2
Minimum detected concentration	.011	.027	.022	.014	--	.056
Median detected concentration	.016	.054	.043	.025	--	.057
Maximum detected concentration	.021	.081	.048	.035	--	.059
Total detected concentration	.031	.16	.16	.050	--	.11
Total load (pounds per day)	.0047	.017	.018	.0083	0	.029
Human and veterinary antibiotic compounds (HVACs)						
Number of compounds detected	1	6	1	3	6	5
Minimum detected concentration	.050	.39	.090	.050	.070	.016
Median detected concentration	.050	1.0	.090	.15	.27	.072
Maximum detected concentration	.050	17	.090	.20	1.1	.55
Total detected concentration	.050	24	.090	.40	2.2	.82
Total load (pounds per day)	.0075	2.6	.010	.067	.29	.21
Major agricultural herbicides (MAHs)						
Number of compounds detected	1	0	1	3	0	1
Minimum detected concentration	.030	--	.062	.072	--	.26
Median detected concentration	.030	--	.062	.083	--	.26
Maximum detected concentration	.030	--	.062	.10	--	.26
Total detected concentration	.030	--	.062	.26	--	.26
Total load (pounds per day)	.0045	0	.0070	.043	0	.066
Household, industrial, and minor agricultural use compounds (HIACs)						
Number of compounds detected	11	12	14	10	15	18
Minimum detected concentration	.014	.12	.017	.079	.080	.074
Median detected concentration	.27	.66	.29	.31	.25	.32
Maximum detected concentration	1.8	6.2	6.2	2.1	2.1	2.9
Total detected concentration	5.5	17	12	6.0	8.7	10
Total load (pounds per day)	.82	1.8	1.4	1.0	1.1	2.6
Polyaromatic hydrocarbons (PAHs)						
Number of compounds detected	0	0	0	0	0	0
Minimum detected concentration	--	--	--	--	--	--
Median detected concentration	--	--	--	--	--	--
Maximum detected concentration	--	--	--	--	--	--
Total detected concentration	--	--	--	--	--	--
Total load (pounds per day)	0	0	0	0	0	0

Table 21. Statistical summaries of analytical results and load results for organic wastewater compounds in water samples.—Continued

[Units are micrograms per liter unless otherwise noted. --, not detected or not applicable]

Station identification number and name (site label)						
433531096394200						
Sioux Falls wastewater treatment plant effluent						
(site WWE, fig. 1)						
Sterol compounds (SCs)						
Number of compounds detected	3	2	2	3	3	2
Minimum detected concentration	1.0	1.6	1.2	.87	2.6	1.5
Median detected concentration	1.7	2.6	1.6	1.8	3.9	2.2
Maximum detected concentration	2.2	3.5	1.9	2.8	5.4	2.9
Total detected concentration	4.9	5.1	3.1	5.5	12	4.4
Total load (pounds per day)	.74	.55	.35	.91	1.5	1.1
All organic wastewater compounds (OWCs)						
Number of compounds detected	18	23	22	21	24	29
Minimum detected concentration	.011	.027	.017	.014	.070	.016
Median detected concentration	.26	.86	.20	.21	.39	.19
Maximum detected concentration	2.2	17.0	6.2	2.8	5.4	2.9
Total detected concentration	10	46	16	12	23	16
Total load (pounds per day)	1.6	4.9	1.8	2.0	3.0	4.0
Major agricultural herbicides (MAHs) that are suspected endocrine-disrupting compounds (EDCs)						
Number of compounds detected	0	0	1	1	0	1
Minimum detected concentration	--	--	.062	.083	--	.26
Median detected concentration	--	--	.062	.083	--	.26
Maximum detected concentration	--	--	.062	.083	--	.26
Total detected concentration	--	--	.062	.083	--	.26
Total load (pounds per day)	0	0	.0070	.014	0	.066
Household, industrial, and minor agricultural use compounds (HIACs) that are suspected endocrine-disrupting compounds (EDCs)						
Number of compounds detected	5	5	5	4	5	8
Minimum detected concentration	.014	.18	.17	.21	.20	.14
Median detected concentration	.16	1.3	.84	1.0	.40	.37
Maximum detected concentration	1.4	6.2	6.2	2.1	2.1	1.7
Total detected concentration	2.3	9.5	9.1	4.4	4.8	4.6
Total load (pounds per day)	.34	1.0	1.0	.73	.63	1.2
Polyaromatic hydrocarbons (PAHs) that are suspected endocrine-disrupting compounds (EDCs)						
Number of compounds detected	0	0	0	0	0	0
Minimum detected concentration	--	--	--	--	--	--
Median detected concentration	--	--	--	--	--	--
Maximum detected concentration	--	--	--	--	--	--
Total detected concentration	--	--	--	--	--	--
Total load (pounds per day)	0	0	0	0	0	0
All suspected endocrine-disrupting compounds (EDCs)						
Number of compounds detected	5	5	6	5	5	9
Minimum detected concentration	.014	.18	.062	.083	.20	.14
Median detected concentration	.16	1.3	.51	.94	.40	.32
Maximum detected concentration	1.4	6.2	6.2	2.1	2.1	1.7
Total detected concentration	2.3	9.5	9.2	4.4	4.8	4.9
Total load (pounds per day)	.34	1.02	1.0	.74	.63	1.2

Table 21. Statistical summaries of analytical results and load results for organic wastewater compounds in water samples.—Continued

[Units are micrograms per liter unless otherwise noted. --, not detected or not applicable]

	Station identification number and name (site label)		
	433559096390700 Big Sioux River downstream from Sioux Falls wastewater discharge (site DS1, fig. 1)		
Date of sample collection (month–day–year)	09–10–2002	05–17–2004	05–30–2004
Time of sample collection (24-hour)	1030	1100	1630
Pharmaceuticals (HPCs)			
Number of compounds detected	2	2	0
Minimum detected concentration	.011	.017	--
Median detected concentration	.022	.093	--
Maximum detected concentration	.034	.17	--
Total detected concentration	.045	.19	--
Total load (pounds per day)	.018	.29	0
Human and veterinary antibiotic compounds (HVACs)			
Number of compounds detected	0	3	0
Minimum detected concentration	--	.020	--
Median detected concentration	--	.047	--
Maximum detected concentration	--	.088	--
Total detected concentration	--	.16	--
Total load (pounds per day)	0	.24	0
Major agricultural herbicides (MAHs)			
Number of compounds detected	2	3	2
Minimum detected concentration	.018	.11	.78
Median detected concentration	.019	.13	1.5
Maximum detected concentration	.020	.27	2.2
Total detected concentration	.038	.51	3.0
Total load (pounds per day)	.016	.80	85
Household, industrial, and minor agricultural use compounds (HIACs)			
Number of compounds detected	7	17	2
Minimum detected concentration	.051	.020	.089
Median detected concentration	.082	.13	.10
Maximum detected concentration	.14	1.2	.11
Total detected concentration	.64	3.9	.20
Total load (pounds per day)	.26	6.0	5.7
Polyaromatic hydrocarbons (PAHs)			
Number of compounds detected	0	4	6
Minimum detected concentration	--	.037	.053
Median detected concentration	--	.056	.098
Maximum detected concentration	--	.067	.16
Total detected concentration	--	.22	.61
Total load (pounds per day)	0	.34	17

Table 21. Statistical summaries of analytical results and load results for organic wastewater compounds in water samples.—Continued

[Units are micrograms per liter unless otherwise noted. --, not detected or not applicable]

Station identification number and name (site label)			
433559096390700			
Big Sioux River downstream from Sioux Falls wastewater discharge (site DS1, fig. 1)			
Sterol compounds (SCs)			
Number of compounds detected	3	2	1
Minimum detected concentration	.26	3.0	.82
Median detected concentration	1.1	3.4	.82
Maximum detected concentration	1.2	3.7	.82
Total detected concentration	2.6	6.7	.82
Total load (pounds per day)	1.0	10	23
All organic wastewater compounds (OWCs)			
Number of compounds detected	14	31	11
Minimum detected concentration	.011	.017	.053
Median detected concentration	.076	.11	.11
Maximum detected concentration	1.2	3.7	2.2
Total detected concentration	3.3	12	4.6
Total load (pounds per day)	1.3	18	132
Major agricultural herbicides (MAHs) that are suspected endocrine-disrupting compounds (EDCs)			
Number of compounds detected	1	1	1
Minimum detected concentration	.018	.27	2.2
Median detected concentration	.018	.27	2.2
Maximum detected concentration	.018	.27	2.2
Total detected concentration	.018	.27	2.2
Total load (pounds per day)	.0074	.42	63
Household, industrial, and minor agricultural use compounds (HIACs) that are suspected endocrine-disrupting compounds (EDCs)			
Number of compounds detected	1	6	1
Minimum detected concentration	.14	.065	.11
Median detected concentration	.14	.26	.11
Maximum detected concentration	.14	1.2	.11
Total detected concentration	.14	2.2	.11
Total load (pounds per day)	.057	3.5	3.1
Polyaromatic hydrocarbons (PAHs) that are suspected endocrine-disrupting compounds (EDCs)			
Number of compounds detected	0	2	2
Minimum detected concentration	--	.052	.086
Median detected concentration	--	.060	.103
Maximum detected concentration	--	.067	.120
Total detected concentration	--	.12	.21
Total load (pounds per day)	0	.19	5.9
All suspected endocrine-disrupting compounds (EDCs)			
Number of compounds detected	2	9	4
Minimum detected concentration	.018	.052	.086
Median detected concentration	.079	.24	.12
Maximum detected concentration	.14	1.2	2.2
Total detected concentration	.16	2.6	2.5
Total load (pounds per day)	.065	4.1	72

160 Organic Wastewater Compounds in Drinking Water, Wastewater Effluent, and the Big Sioux River, 2001–2004

Table 21. Statistical summaries of analytical results and load results for organic wastewater compounds in water samples.—Continued

[Units are micrograms per liter unless otherwise noted. --, not detected or not applicable]

Station identification number and name (site label)							
433541096355800							
Big Sioux River at Brandon, SD							
(site DS2, fig. 1)							
Date of sample collection (month–day–year)	08–16–2001	09–11–2002	01–23–2003	03–20–2003	06–25–2003	05–17–2004	05–31–2004
Time of sample collection (24-hour)	0930	1030	1125	1315	1630	1730	1230
Pharmaceuticals (HPCs)							
Number of compounds detected	1	3	3	1	2	2	1
Minimum detected concentration	.0008	.025	.021	.025	.018	.022	.0049
Median detected concentration	.0008	.034	.024	.025	.046	.085	.0049
Maximum detected concentration	.0008	.10	.040	.025	.075	.15	.0049
Total detected concentration	.0008	.16	.085	.025	.093	.17	.0049
Total load (pounds per day)	.0027	.064	.017	.10	.47	.23	.16
Human and veterinary antibiotic compounds (HVACs)							
Number of compounds detected	0	0	6	0	0	2	0
Minimum detected concentration	--	--	.030	--	--	.061	--
Median detected concentration	--	--	.29	--	--	.079	--
Maximum detected concentration	--	--	2.5	--	--	.096	--
Total detected concentration	--	--	3.8	--	--	.16	--
Total load (pounds per day)	0	0	.75	0	0	.21	0
Major agricultural herbicides (MAHs)							
Number of compounds detected	0	0	0	2	3	3	2
Minimum detected concentration	--	--	--	.052	.34	.12	.50
Median detected concentration	--	--	--	.053	.40	.16	1.3
Maximum detected concentration	--	--	--	.054	.41	.28	2.0
Total detected concentration	--	--	--	.11	1.2	.56	2.5
Total load (pounds per day)	0	0	0	.44	5.8	.75	81
Household, industrial, and minor agricultural use compounds (HIACs)							
Number of compounds detected	2	7	10	6	7	13	1
Minimum detected concentration	.048	.068	.076	.015	.089	.030	.095
Median detected concentration	.13	.092	.32	.097	.38	.12	.095
Maximum detected concentration	.22	.18	3.0	2.9	.87	.40	.095
Total detected concentration	.27	.70	6.6	3.5	3.0	1.9	.095
Total load (pounds per day)	.90	.28	1.3	15	15	2.5	3.1
Polyaromatic hydrocarbons (PAHs)							
Number of compounds detected	0	0	0	5	0	2	4
Minimum detected concentration	--	--	--	.063	--	.036	.045
Median detected concentration	--	--	--	.12	--	.038	.064
Maximum detected concentration	--	--	--	.17	--	.040	.084
Total detected concentration	--	--	--	.56	--	.076	.26
Total load (pounds per day)	0	0	0	2.4	0	.10	8

Table 21. Statistical summaries of analytical results and load results for organic wastewater compounds in water samples.—Continued

[Units are micrograms per liter unless otherwise noted. --, not detected or not applicable]

Station identification number and name (site label)							
433541096355800							
Big Sioux River at Brandon, SD							
(site DS2, fig. 1)							
Sterol compounds (SCs)							
Number of compounds detected	2	2	2	1	1	2	0
Minimum detected concentration	2.1	.57	.89	2.2	1.8	2.3	--
Median detected concentration	2.2	.60	1.4	2.2	1.8	2.4	--
Maximum detected concentration	2.3	.64	2.0	2.2	1.8	2.4	--
Total detected concentration	4.4	1.2	2.9	2.2	1.8	4.7	--
Total load (pounds per day)	15	.48	.57	9.2	9.1	6.3	0
All organic wastewater compounds (OWCs)							
Number of compounds detected	5	12	21	15	13	24	8
Minimum detected concentration	.0008	.025	.021	.015	.018	.022	.0049
Median detected concentration	.22	.093	.27	.096	.38	.12	.076
Maximum detected concentration	2.3	.64	3.0	2.9	1.8	2.4	2.0
Total detected concentration	4.7	2.1	13	6.4	6.0	7.5	2.9
Total load (pounds per day)	16	.82	2.7	27	30	10	93
Major agricultural herbicides (MAHs) that are suspected endocrine-disrupting compounds (EDCs)							
Number of compounds detected	0	0	0	1	1	1	1
Minimum detected concentration	--	--	--	.054	.41	.28	2.0
Median detected concentration	--	--	--	.054	.41	.28	2.0
Maximum detected concentration	--	--	--	.054	.41	.28	2.0
Total detected concentration	--	--	--	.054	.41	.28	2.0
Total load (pounds per day)	0	0	0	.23	2.1	.38	65
Household, industrial, and minor agricultural use compounds (HIACs) that are suspected endocrine-disrupting compounds (EDCs)							
Number of compounds detected	1	1	4	2	1	2	0
Minimum detected concentration	.048	.11	.13	.096	.089	.06	--
Median detected concentration	.048	.11	.69	1.5	.089	.15	--
Maximum detected concentration	.048	.11	3.0	2.9	.089	.23	--
Total detected concentration	.048	.11	4.5	3.0	.089	.29	--
Total load (pounds per day)	.16	.044	.90	13	.45	.39	0
Polyaromatic hydrocarbons (PAHs) that are suspected endocrine-disrupting compounds (EDCs)							
Number of compounds detected	0	0	0	4	0	1	1
Minimum detected concentration	--	--	--	.063	--	.040	.045
Median detected concentration	--	--	--	.094	--	.040	.045
Maximum detected concentration	--	--	--	.14	--	.040	.045
Total detected concentration	--	--	--	.39	--	.040	.045
Total load (pounds per day)	0	0	0	1.6	0	.054	1.5
All suspected endocrine-disrupting compounds (EDCs)							
Number of compounds detected	1	1	4	7	2	4	2
Minimum detected concentration	.048	.11	.13	.054	.089	.040	.045
Median detected concentration	.048	.11	.69	.096	.25	.15	1.0
Maximum detected concentration	.048	.11	3.0	2.9	.41	.28	2.0
Total detected concentration	.048	.11	4.5	3.4	.50	.61	2.0
Total load (pounds per day)	.16	.044	.90	14	2.5	.82	67