

Summary of selected water-quality data from surface-water samples collected from February 1995 through December 2007 as a part of the *Equus* Beds Ground-Water Recharge Project.

[mg/L, milligrams per liter; DWA, Drinking Water Advisory; SDWR, Secondary Drinking Water Regulation; MCL, Maximum Contaminant Level; µg/L, micrograms per liter; cols/100 mL, colonies per 100 milliliter; MCLG, Maximum Contaminant Level Goal]

Little Arkansas River at Highway 50 near Halstead, KS

Site Number: 07143672

Compound or Fecal Indicator Bacteria	Water-Quality Criteria	Number of Samples	Minimum	Maximum	Mean	Median	Percentage of Samples Detected	Percentage of Samples Exceeding Criteria	Percentage of Replicate Samples Exceeding Criteria
Sodium, dissolved (mg/L)	20 mg/L (DWA) ¹	206	3.38	498	83.6	77.6	100	81.1	77.8
Sulfate, dissolved (mg/L)	250 mg/L (SDWR) ¹	206	5	312	39.6	40.1	96.6	0.485	0
Chloride, dissolved (mg/L)	250 mg/L (SDWR) ¹	207	5	932	157	144	99.5	24.2	14.8
Nitrite plus nitrate as nitrogen, dissolved (mg/L)	10 mg/L (MCL) ¹	173	<0.020	5.44	0.707 ²	0.5	82.7	0	0
Arsenic, dissolved (µg/L)	10 µg/L (MCL) ¹	102	1	14.1	5.57	5.15	97.1	8.82	10
Iron, dissolved (µg/L)	300 µg/L (SDWR) ¹	206	<5.00	864	24.9 ²	6.24	54.4	0.971	3.7
Manganese, dissolved (µg/L)	50 µg/L (SDWR) ¹	205	<1.00	1,140	172 ²	74.7	84.9	56.1	66.7
Total coliform bacteria (cols/100 mL)	0 cols/100 mL (MCLG) ¹	167	1	2,000,000	20,200	1,400	95.2	95.2	92.3
Fecal coliform bacteria ³ (cols/100 mL)	200 cols/100mL (MCLG) ⁴	187	10	3,000,000	20,600	775	97.9	80.7	90
	2,358 cols/100mL (MCLG) ⁴	69	4	6,670	846	176	98.6	13	0
<i>Escherichia coli</i> bacteria ⁵ (cols/100 mL)	262 cols/100mL (MCLG) ⁶	17	92	41,000	4,040	425	100	64.7	NA
	2,358 cols/100mL (MCLG) ⁶	4	36	2,200	788	459	100	0	NA
Atrazine herbicide	3 µg/L as an annual average ¹ (MCL)	157	0.028	46.2	5.7	3.11	99.4	52.2	35.7
Triazine herbicide screen, dissolved (µg/L as Atrazine)	3 µg/L as an annual average ¹ (MCL)	790	<0.050	46.4	2.67 ²	1.08	90.6	25.6	33.3
Alachlor (µg/L)	2 µg/L (MCL) ¹	156	<0.002	28	0.567 ²	0.05	61.5	5.77	7.14

¹ U.S. Environmental Protection Agency (2006)

² Value is estimated by using a log-probability regression to predict the values of data below the detection limit

³ For fecal coliform bacteria, the primary contact recreation surface-water criteria of 200 cols/100mL was used from April 1 - October 31 (when most water-contact recreation occurs); from November 1 - March 31, the criteria of 2,358 cols/100mL was used.

⁴ Kansas Department of Health and Environment (2001)

⁵ For *Escherichia coli* bacteria, the primary contact recreation surface-water quality criteria of 262 cols/100mL was used from Apr 1 - Oct 31 for Class B (public access) stream segments; from November 1 - March 31, the criteria of 2,358 cols/100mL was used.

⁶ Kansas Department of Health and Environment (2004)

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Little Arkansas River at Sedgwick, KS

Site Number: 07144100

Compound or Fecal Indicator Bacteria	Water-Quality Criteria	Number of Samples	Minimum	Maximum	Mean	Median	Percentage of Samples Detected	Percentage of Samples Exceeding Criteria	Percentage of Replicate Samples Exceeding Criteria
Sodium, dissolved (mg/L)	20 mg/L (DWA) ¹	180	1.5	132	49.4	47.4	100	71.7	72
Sulfate, dissolved (mg/L)	250 mg/L (SDWR) ¹	180	5	211	38.3	38.8	96.7	0	0
Chloride, dissolved (mg/L)	250 mg/L (SDWR) ¹	184	5	305	77.9	65.5	98.4	1.09	0
Nitrite plus nitrate as nitrogen, dissolved (mg/L)	10 mg/L (MCL) ¹	172	0.01	9.42	1.2	1.08	100	0	0
Arsenic, dissolved (µg/L)	10 µg/L (MCL) ¹	103	1	14.1	5.59	4.97	99	10.7	23.1
Iron, dissolved (µg/L)	300 µg/L (SDWR) ¹	180	<5.00	621	33.2 ²	12.7	66.1	2.78	0
Manganese, dissolved (µg/L)	50 µg/L (SDWR) ¹	180	<1.00	740	99.1 ²	33.3	76.7	43.3	48
Total coliform bacteria (cols/100 mL)	0 cols/100 mL (MCLG) ¹	163	<1.00	9,000,000	64,900 ²	1,700	90.8	90.8	77.3
Fecal coliform bacteria ³ (cols/100 mL)	200 cols/100mL (MCLG) ⁴	203	16	4,000,000	25,400	860	98	75.9	62.5
	2,358 cols/100mL (MCLG) ⁴	71	<1.00	20,500	1,760	180	93	18.3	12.5
<i>Escherichia coli</i> bacteria ⁵ (cols/100 mL)	262 cols/100mL (MCLG) ⁶	39	32	23,000	1,780	144	100	41	0
	2,358 cols/100mL (MCLG) ⁶	6	21	1,150	490	345	100	0	0
Atrazine herbicide	3 µg/L as an annual average ¹ (MCL)	370	0.04	48	6.1	3.47	99.7	56.2	52
Triazine herbicide screen, dissolved (µg/L as Atrazine)	3 µg/L as an annual average ¹ (MCL)	2,655	0.09	41	4.01	2.05	97.9	38.7	43.3
Alachlor (µg/L)	2 µg/L (MCL) ¹	389	<0.002	12.7	0.503 ²	0.15	70.2	4.63	0

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