

Appendix 6. Table Summarizing Survival Regression Models

Table 6.1. Survival regression models for selected constituents measured for in water samples collected at wells in the U.S. Geological Survey (USGS) aquifer water-quality monitoring network, Idaho National Laboratory and vicinity, Idaho. Detected values of constituent concentrations are represented as ‘interval-censored’ data by accounting for sampling variability.

[**Period of record:** is the most recent period after January 1, 1989 where continuous time series data are available. A time series is defined as continuous if the time span between consecutive samples never exceeds 3 years. α and β : are coefficients in the regression model, expressed as $\hat{C}(t) = \exp(\alpha + \beta t)$, where $\hat{C}(t)$ is the estimated constituent concentration at time t in days since January 1, 1970. The constituent concentration is in units of ‘milligrams per liter’ for 1,1,1-trichloroethane, chloride, chloroform, sodium, and sulfate; ‘milligrams per liter as nitrogen’ for nitrate; ‘micrograms per liter’ for chromium, carbon tetrachloride, and trichloroethylene; and ‘picocuries per liter’ for tritium and strontium-90. **Pseudo R^2 :** is the pseudo- R^2 computed using the McKelvey and Zavoina (1975) method. **p-value:** indicates the statistical significance of the regression. **Long-term trend:** is the percent increase in concentration per year estimated from the regression model. **Abbreviations:** <, less than; —, regression model could not be fit to measured data]

Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p-value	Long-term trend
				α	β			
ANP 6	Chloride	07-02-92 to 10-18-17	30	—	—	—	—	—
	Nitrate	07-02-92 to 10-18-17	31	—	—	—	—	—
	Sodium	07-02-92 to 10-18-17	30	—	—	—	—	—
	Strontium-90	07-02-92 to 10-18-11	23	—	—	—	—	—
	Sulfate	06-15-95 to 10-18-17	26	3.54	-4.21×10^{-6}	0.15	0.040	-0.2
	Tritium	07-02-92 to 10-18-17	30	—	—	—	—	—
ANP 9	1,1-Dichloroethylene	04-13-94 to 10-18-11	29	—	—	—	—	—
	1,1,1-Trichloroethane	04-13-94 to 10-18-11	29	—	—	—	—	—
	Carbon tetrachloride	04-13-94 to 10-18-11	29	—	—	—	—	—
	Cesium-137	04-13-94 to 10-18-11	29	—	—	—	—	—
	CFC-12	04-13-94 to 10-18-11	29	—	—	—	—	—
	Chloride	04-13-94 to 10-18-11	29	2.40	9.96×10^{-6}	0.15	0.032	0.4
	Chloroform	04-13-94 to 10-18-11	29	—	—	—	—	—
	Chromium	04-13-94 to 10-18-11	29	2.80	-1.40×10^{-4}	0.40	< 0.001	-5.1
	Nitrate	04-13-94 to 10-18-11	30	—	—	—	—	—
	Sodium	04-13-94 to 10-18-11	29	—	—	—	—	—
	Strontium-90	04-13-94 to 10-18-11	29	—	—	—	—	—
	Tetrachloroethylene	04-13-94 to 10-18-11	29	—	—	—	—	—
	Toluene	04-13-94 to 10-18-11	29	—	—	—	—	—
	Trichloroethylene	04-13-94 to 10-18-11	29	—	—	—	—	—
	Tritium	04-13-94 to 10-18-11	29	—	—	—	—	—
ARBOR TEST	Chloride	02-15-89 to 04-21-11	39	—	—	—	—	—
	Chromium	02-15-89 to 04-21-11	36	-0.85	1.18×10^{-4}	0.29	< 0.001	4.3
	Tritium	02-15-89 to 04-21-11	38	—	—	—	—	—
AREA 2	Chloride	07-16-92 to 10-15-18	30	2.90	-7.37×10^{-6}	0.32	< 0.001	-0.3
	Nitrate	09-20-90 to 10-15-18	31	-0.18	3.25×10^{-5}	0.53	< 0.001	1.2
	Sodium	07-16-92 to 10-15-18	30	—	—	—	—	—
	Strontium-90	09-20-90 to 10-03-11	25	—	—	—	—	—
	Sulfate	07-14-95 to 10-15-18	26	—	—	—	—	—
	Tritium	09-20-90 to 10-15-18	31	—	—	—	—	—
ATOMIC CITY WELL 1	Chloride	04-05-89 to 04-09-18	47	—	—	—	—	—
	Sodium	10-20-89 to 04-09-18	31	2.71	9.37×10^{-6}	0.38	< 0.001	0.3

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Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
ATOMIC CITY WELL 1 BADGING FACILITY	Tritium	04-05-89 to 04-09-18	46	—	—	—	—	—
	Chloride	04-28-89 to 04-11-18	39	—	—	—	—	—
	Nitrate	10-26-89 to 04-11-18	33	−0.27	-9.65×10^{-6}	0.27	0.001	−0.4
	Sodium	04-28-89 to 04-11-18	34	2.07	2.07×10^{-5}	0.27	0.001	0.8
	Strontium-90	07-05-94 to 04-11-18	28	—	—	—	—	—
	Sulfate	10-15-90 to 04-11-18	28	2.80	2.06×10^{-5}	0.36	< 0.001	0.8
CFA 1	Tritium	04-28-89 to 04-11-18	39	—	—	—	—	—
	Chloride	01-25-89 to 04-11-18	75	—	—	—	—	—
	Nitrate	10-26-89 to 04-11-18	31	1.69	-4.20×10^{-5}	0.61	< 0.001	−1.5
	Sodium	01-25-89 to 04-11-18	74	2.98	2.20×10^{-5}	0.08	0.016	0.8
	Strontium-90	03-23-89 to 04-11-18	46	—	—	—	—	—
	Sulfate	10-15-90 to 04-11-18	50	—	—	—	—	—
CFA 2	Tritium	01-25-89 to 04-11-18	73	11.37	-1.87×10^{-4}	0.95	< 0.001	−6.8
	Chloride	01-25-89 to 10-10-17	67	4.11	5.29×10^{-5}	0.64	< 0.001	1.9
	Nitrate	10-26-89 to 10-10-17	25	0.90	2.91×10^{-5}	0.56	< 0.001	1.1
	Sodium	01-25-89 to 10-10-17	66	2.30	8.26×10^{-5}	0.72	< 0.001	3.0
	Strontium-90	03-23-89 to 10-10-17	41	—	—	—	—	—
	Sulfate	10-15-90 to 10-10-17	43	3.54	2.39×10^{-5}	0.36	< 0.001	0.9
CFA LF 2-10	Tritium	01-25-89 to 10-10-17	67	11.08	-1.72×10^{-4}	0.98	< 0.001	−6.3
	Cesium-137	11-10-94 to 04-23-18	41	—	—	—	—	—
	Chloride	10-20-93 to 04-23-18	40	—	—	—	—	—
	Chromium	11-10-94 to 04-23-18	38	2.92	-3.92×10^{-5}	0.33	< 0.001	−1.4
	Nitrate	10-20-93 to 04-23-18	41	0.84	-3.66×10^{-5}	0.37	< 0.001	−1.3
	Sodium	11-10-94 to 04-23-18	39	2.31	1.53×10^{-5}	0.28	< 0.001	0.6
CPP 1	Strontium-90	10-20-93 to 04-23-18	39	—	—	—	—	—
	Tritium	10-20-93 to 04-23-18	43	10.67	-2.21×10^{-4}	0.78	< 0.001	−8.1
	1,1-Dichloroethylene	06-06-91 to 04-19-18	38	—	—	—	—	—
	1,1,1-Trichloroethane	06-06-91 to 04-19-18	38	—	—	—	—	—
	Carbon tetrachloride	06-06-91 to 04-19-18	38	—	—	—	—	—
	Cesium-137	06-06-91 to 04-19-18	37	—	—	—	—	—
	CFC-12	06-06-91 to 04-19-18	37	—	—	—	—	—
	Chloride	04-26-89 to 04-19-18	56	3.21	-4.12×10^{-5}	0.64	< 0.001	−1.5
	Chloroform	06-06-91 to 04-19-18	38	—	—	—	—	—
	Chromium	04-26-89 to 04-19-18	52	—	—	—	—	—
	Fluoride	10-31-90 to 04-19-18	41	—	—	—	—	—
	Nitrate	11-06-89 to 04-19-18	43	0.25	-2.47×10^{-5}	0.33	< 0.001	−0.9
	Plutonium-238	06-06-91 to 04-09-15	34	—	—	—	—	—
	Sodium	04-26-89 to 04-19-18	56	2.06	4.38×10^{-6}	0.08	0.034	0.2

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Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
CPP 1	Strontium-90	04-26-89 to 04-19-18	53	—	—	—	—	—
	Sulfate	10-31-90 to 04-19-18	41	3.35	-1.60×10^{-5}	0.45	< 0.001	−0.6
	Tetrachloroethylene	06-06-91 to 04-19-18	38	—	—	—	—	—
	Toluene	06-06-91 to 04-19-18	38	—	—	—	—	—
	Trichloroethylene	06-06-91 to 04-19-18	38	—	—	—	—	—
	Tritium	04-26-89 to 04-19-18	57	—	—	—	—	—
CPP 2	Chloride	01-31-89 to 10-04-18	52	3.20	-4.89×10^{-5}	0.68	< 0.001	−1.8
	Chromium	01-31-89 to 10-04-18	48	—	—	—	—	—
	Nitrate	10-31-90 to 10-04-18	31	0.37	-4.21×10^{-5}	0.60	< 0.001	−1.5
	Sodium	01-31-89 to 10-04-18	51	—	—	—	—	—
	Strontium-90	01-31-89 to 10-04-18	52	—	—	—	—	—
	Tritium	01-31-89 to 10-04-18	52	—	—	—	—	—
CPP 4	Chloride	04-26-89 to 10-18-16	45	3.28	-5.02×10^{-5}	0.65	< 0.001	−1.8
	Chromium	04-26-89 to 10-18-16	40	—	—	—	—	—
	Nitrate	11-06-89 to 10-18-16	27	0.43	-5.19×10^{-5}	0.73	< 0.001	−1.9
	Sodium	04-26-89 to 10-18-16	43	—	—	—	—	—
	Strontium-90	04-26-89 to 10-18-16	48	—	—	—	—	—
	Tritium	04-26-89 to 10-18-16	48	—	—	—	—	—
EBR 1	1,1-Dichloroethylene	06-19-91 to 04-20-11	19	—	—	—	—	—
	1,1,1-Trichloroethane	06-19-91 to 04-20-11	19	—	—	—	—	—
	Carbon tetrachloride	06-19-91 to 04-20-11	19	—	—	—	—	—
	Cesium-137	06-19-91 to 04-20-11	28	—	—	—	—	—
	CFC-12	06-19-91 to 04-20-11	19	—	—	—	—	—
	Chloride	04-28-89 to 04-20-11	40	—	—	—	—	—
	Chloroform	06-19-91 to 04-20-11	19	—	—	—	—	—
	Chromium	06-19-91 to 04-20-11	28	—	—	—	—	—
	Nitrate	10-26-89 to 04-20-11	32	—	—	—	—	—
	Sodium	04-28-89 to 04-20-11	33	—	—	—	—	—
	Tetrachloroethylene	06-19-91 to 04-20-11	19	—	—	—	—	—
	Toluene	06-19-91 to 04-20-11	19	—	—	—	—	—
	Trichloroethylene	06-19-91 to 04-20-11	19	—	—	—	—	—
	Tritium	04-28-89 to 04-20-11	41	—	—	—	—	—
HIGHWAY 3	1,1-Dichloroethylene	10-08-91 to 10-16-18	31	—	—	—	—	—
	1,1,1-Trichloroethane	10-08-91 to 10-16-18	31	—	—	—	—	—
	Carbon tetrachloride	10-08-91 to 10-16-18	31	—	—	—	—	—
	Cesium-137	10-11-94 to 10-19-15	32	—	—	—	—	—
	CFC-12	10-08-91 to 10-16-18	31	—	—	—	—	—
	Chloride	04-05-89 to 10-16-18	45	—	—	—	—	—

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Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
HIGHWAY 3	Chloroform	10-08-91 to 10-16-18	31	—	—	—	—	—
	Chromium	10-11-94 to 10-16-18	35	—	—	—	—	—
	Nitrate	10-20-89 to 10-16-18	41	−1.33	3.28×10^{-5}	0.42	< 0.001	1.2
	Sodium	10-20-89 to 10-16-18	40	—	—	—	—	—
	Tetrachloroethylene	10-08-91 to 10-16-18	31	—	—	—	—	—
	Toluene	10-08-91 to 10-16-18	31	—	—	—	—	—
	Trichloroethylene	10-08-91 to 10-16-18	31	—	—	—	—	—
	Tritium	04-05-89 to 10-16-18	45	—	—	—	—	—
MTR TEST	Chloride	03-27-89 to 04-02-18	51	2.80	-3.20×10^{-5}	0.42	< 0.001	−1.2
	Chromium	03-27-89 to 04-02-18	50	2.06	-4.08×10^{-5}	0.10	0.031	−1.5
	Nitrate	10-02-89 to 04-02-18	34	0.40	-2.73×10^{-5}	0.59	< 0.001	−1.0
	Sodium	03-27-89 to 04-02-18	50	3.86	-9.93×10^{-5}	0.40	< 0.001	−3.6
	Sulfate	10-26-95 to 04-02-18	36	5.97	-1.82×10^{-4}	0.46	< 0.001	−6.6
	Tritium	03-27-89 to 04-02-18	51	—	—	—	—	—
NO NAME 1	1,1-Dichloroethylene	05-22-91 to 04-11-18	37	—	—	—	—	—
	1,1,1-Trichloroethane	05-22-91 to 04-11-18	37	—	—	—	—	—
	Carbon tetrachloride	05-22-91 to 04-11-18	37	—	—	—	—	—
	Cesium-137	05-22-91 to 04-11-18	38	—	—	—	—	—
	CFC-12	05-22-91 to 04-11-18	37	—	—	—	—	—
	Chloride	05-22-91 to 04-11-18	39	—	—	—	—	—
	Chloroform	05-22-91 to 04-11-18	37	—	—	—	—	—
	Chromium	05-22-91 to 04-11-18	37	2.66	-5.01×10^{-5}	0.69	< 0.001	−1.8
	Nitrate	05-22-91 to 04-11-18	40	—	—	—	—	—
	Sodium	05-22-91 to 04-11-18	39	—	—	—	—	—
	Strontium-90	05-22-91 to 04-11-18	39	—	—	—	—	—
	Tetrachloroethylene	05-22-91 to 04-11-18	37	—	—	—	—	—
	Toluene	05-22-91 to 04-11-18	37	—	—	—	—	—
	Trichloroethylene	05-22-91 to 04-11-18	37	—	—	—	—	—
	Tritium	05-22-91 to 04-11-18	41	—	—	—	—	—
NPR TEST	1,1-Dichloroethylene	06-20-91 to 10-03-11	19	—	—	—	—	—
	1,1,1-Trichloroethane	06-20-91 to 10-03-11	19	—	—	—	—	—
	Carbon tetrachloride	06-20-91 to 10-03-11	19	—	—	—	—	—
	Cesium-137	06-20-91 to 10-15-15	33	—	—	—	—	—
	CFC-12	06-20-91 to 10-03-11	19	—	—	—	—	—
	Chloride	06-20-91 to 10-11-18	39	3.01	-4.25×10^{-5}	0.41	< 0.001	−1.6
	Chloroform	06-20-91 to 10-03-11	19	—	—	—	—	—
	Chromium	06-20-91 to 10-11-18	37	—	—	—	—	—
	Nitrate	06-20-91 to 10-11-18	39	—	—	—	—	—

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Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
NPR TEST	Sodium	06-20-91 to 10-11-18	39	2.14	-1.12×10^{-5}	0.33	< 0.001	−0.4
	Tetrachloroethylene	06-20-91 to 10-03-11	19	—	—	—	—	—
	Toluene	06-20-91 to 10-03-11	19	—	—	—	—	—
	Trichloroethylene	06-20-91 to 10-03-11	19	—	—	—	—	—
	Tritium	06-20-91 to 10-11-18	40	—	—	—	—	—
P AND W 2	Cesium-137	05-22-91 to 04-14-15	34	—	—	—	—	—
	Chloride	04-18-89 to 04-02-18	48	2.68	-4.91×10^{-5}	0.11	0.021	−1.8
	Chromium	05-22-91 to 04-02-18	37	1.73	-9.19×10^{-5}	0.30	0.011	−3.4
	Nitrate	05-22-91 to 04-02-18	37	−1.21	2.91×10^{-5}	0.14	0.020	1.1
	Sodium	05-22-91 to 04-02-18	37	—	—	—	—	—
	Tritium	04-18-89 to 04-02-18	49	—	—	—	—	—
PSTF TEST	1,1-Dichloroethylene	09-27-90 to 10-18-11	29	—	—	—	—	—
	1,1,1-Trichloroethane	09-27-90 to 10-18-11	29	—	—	—	—	—
	Carbon tetrachloride	09-27-90 to 10-18-11	29	—	—	—	—	—
	Cesium-137	09-27-90 to 10-18-11	28	—	—	—	—	—
	CFC-12	09-27-90 to 10-18-11	29	—	—	—	—	—
	Chloride	07-13-89 to 10-18-11	31	1.38	4.36×10^{-5}	0.14	0.031	1.6
	Chloroform	09-27-90 to 10-18-11	29	—	—	—	—	—
	Chromium	09-27-90 to 10-18-11	29	—	—	—	—	—
	Nitrate	09-27-90 to 10-18-11	32	—	—	—	—	—
	Sodium	07-06-92 to 10-18-11	30	—	—	—	—	—
	Strontium-90	09-27-90 to 10-18-11	31	—	—	—	—	—
	Tetrachloroethylene	09-27-90 to 10-18-11	29	—	—	—	—	—
	Toluene	09-27-90 to 10-18-11	29	—	—	—	—	—
	Trichloroethylene	09-27-90 to 10-18-11	29	—	—	—	—	—
	Tritium	09-27-90 to 10-18-11	31	—	—	—	—	—
RIFLE RANGE	Cesium-137	04-10-02 to 10-17-18	19	—	—	—	—	—
	Chloride	04-10-02 to 10-17-18	21	—	—	—	—	—
	Chromium	04-10-02 to 10-17-18	21	4.07	-1.22×10^{-4}	0.47	< 0.001	−4.4
	Sodium	04-10-02 to 10-17-18	19	1.47	7.42×10^{-5}	0.40	0.002	2.7
	Strontium-90	04-10-02 to 10-17-18	20	—	—	—	—	—
	Sulfate	04-10-02 to 10-17-18	21	—	—	—	—	—
	Tritium	04-10-02 to 10-17-18	21	9.66	-1.97×10^{-4}	0.87	< 0.001	−7.2
RWMC M11S	Cesium-137	03-22-00 to 10-22-15	19	—	—	—	—	—
	Chloride	03-22-00 to 10-11-18	23	3.71	-5.77×10^{-5}	0.17	0.036	−2.1
	Chromium	03-22-00 to 10-11-18	23	—	—	—	—	—
	Nitrate	03-22-00 to 10-11-18	23	—	—	—	—	—
	Sodium	03-22-00 to 10-11-18	23	—	—	—	—	—

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Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
RWMC M11S	Tritium	03-22-00 to 10-11-18	23	—	—	—	—	—
RWMC M12S	Cesium-137	03-22-00 to 10-21-15	19	—	—	—	—	—
	Chloride	03-22-00 to 10-11-18	22	—	—	—	—	—
	Chromium	03-22-00 to 10-11-18	22	3.35	-4.96×10^{-5}	0.43	< 0.001	-1.8
	Nitrate	03-22-00 to 10-11-18	22	—	—	—	—	—
	Sodium	03-22-00 to 10-11-18	22	—	—	—	—	—
	Tritium	03-22-00 to 10-11-18	22	8.97	-1.38×10^{-4}	0.84	< 0.001	-5.1
RWMC M13S	Cesium-137	03-22-00 to 10-20-15	20	—	—	—	—	—
	Chloride	03-22-00 to 10-11-18	23	—	—	—	—	—
	Chromium	03-22-00 to 10-11-18	23	—	—	—	—	—
	Nitrate	03-22-00 to 10-11-18	23	—	—	—	—	—
	Sodium	03-22-00 to 10-11-18	23	2.29	9.62×10^{-6}	0.26	0.009	0.4
	Tritium	03-22-00 to 10-11-18	23	—	—	—	—	—
RWMC M14S	Cesium-137	03-22-00 to 10-20-15	20	—	—	—	—	—
	Chloride	03-22-00 to 10-11-18	24	2.54	1.50×10^{-5}	0.37	< 0.001	0.5
	Chromium	03-22-00 to 10-11-18	24	3.24	-4.38×10^{-5}	0.54	< 0.001	-1.6
	Nitrate	03-22-00 to 10-11-18	23	—	—	—	—	—
	Sodium	03-22-00 to 10-11-18	24	—	—	—	—	—
	Tritium	03-22-00 to 10-11-18	24	8.82	-1.26×10^{-4}	0.97	< 0.001	-4.6
RWMC M3S	Chloride	11-12-93 to 10-23-18	29	2.19	3.18×10^{-5}	0.85	< 0.001	1.2
	Nitrate	02-26-93 to 10-23-18	30	-0.27	4.82×10^{-6}	0.12	0.050	0.2
	Strontium-90	02-26-93 to 10-23-18	30	—	—	—	—	—
	Tritium	02-26-93 to 10-23-18	30	8.45	-1.10×10^{-4}	1.00	< 0.001	-4.0
RWMC M7S	Chloride	11-09-93 to 10-22-18	30	2.09	3.45×10^{-5}	0.88	< 0.001	1.3
	Nitrate	03-04-93 to 10-22-18	31	-0.64	2.28×10^{-5}	0.61	< 0.001	0.8
	Strontium-90	03-04-93 to 10-22-18	31	—	—	—	—	—
	Tritium	03-04-93 to 10-22-18	31	—	—	—	—	—
RWMC PROD	1,1-Dichloroethylene	01-18-89 to 12-12-18	357	—	—	—	—	—
	1,1,1-Trichloroethane	01-18-89 to 12-12-18	357	-0.57	-1.51×10^{-5}	0.04	< 0.001	-0.6
	Carbon tetrachloride	01-18-89 to 12-12-18	357	—	—	—	—	—
	Cesium-137	01-18-89 to 10-15-18	49	—	—	—	—	—
	CFC-12	01-18-89 to 12-12-18	357	—	—	—	—	—
	Chloride	01-18-89 to 10-15-18	76	2.19	6.15×10^{-5}	0.78	< 0.001	2.2
	Chloroform	01-18-89 to 12-12-18	357	-2.88	2.29×10^{-4}	0.82	< 0.001	8.4
	Nitrate	03-23-89 to 10-15-18	33	—	—	—	—	—
	Plutonium-238	01-18-89 to 10-15-18	49	—	—	—	—	—
	Sodium	03-23-89 to 10-15-18	32	1.95	1.70×10^{-5}	0.64	< 0.001	0.6
	Strontium-90	01-18-89 to 10-15-18	75	—	—	—	—	—

Table 6.1. Survival regression models for selected constituents measured for in water samples collected at wells in the U.S. Geological Survey (USGS) aquifer water-quality monitoring network, Idaho National Laboratory and vicinity, Idaho. Detected values of constituent concentrations are represented as ‘interval-censored’ data by accounting for sampling variability.—Continued

Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
RWMC PROD	Sulfate	03-23-89 to 10-15-18	28	3.17	1.18×10^{-5}	0.38	< 0.001	0.4
	Tetrachloroethylene	01-18-89 to 12-12-18	357	−2.58	9.87×10^{-5}	0.80	< 0.001	3.6
	Toluene	01-18-89 to 12-12-18	357	—	—	—	—	—
	Trichloroethylene	01-18-89 to 12-12-18	357	−0.97	1.47×10^{-4}	0.75	< 0.001	5.4
	Tritium	01-18-89 to 10-15-18	76	8.15	-9.24×10^{-5}	0.91	< 0.001	−3.4
SITE 14	Cesium-137	06-13-91 to 10-13-15	31	—	—	—	—	—
	Chloride	04-18-89 to 10-10-18	48	2.07	1.09×10^{-5}	0.32	< 0.001	0.4
	Chromium	10-11-90 to 10-10-18	44	—	—	—	—	—
	Nitrate	06-13-91 to 10-10-18	37	−0.71	1.40×10^{-5}	0.18	0.007	0.5
	Sodium	10-12-89 to 10-10-18	43	—	—	—	—	—
SITE 17	Tritium	04-18-89 to 10-10-18	51	—	—	—	—	—
	Chloride	06-18-91 to 03-26-18	33	2.62	-2.14×10^{-5}	0.29	< 0.001	−0.8
	Nitrate	06-18-91 to 03-26-18	33	0.28	-2.50×10^{-5}	0.53	< 0.001	−0.9
	Sodium	06-18-91 to 03-26-18	33	—	—	—	—	—
	Strontium-90	06-18-91 to 04-26-11	23	—	—	—	—	—
SITE 19	Sulfate	06-18-91 to 03-26-18	26	2.86	1.12×10^{-5}	0.28	0.004	0.4
	Tritium	06-18-91 to 03-26-18	34	—	—	—	—	—
	Chloride	04-12-89 to 10-16-18	42	2.67	-2.14×10^{-5}	0.34	< 0.001	−0.8
	Chromium	04-12-89 to 10-16-18	40	—	—	—	—	—
	Sodium	04-12-89 to 10-16-18	36	2.07	7.57×10^{-6}	0.13	0.025	0.3
SITE 4	Sulfate	07-16-96 to 10-16-18	27	—	—	—	—	—
	Tritium	04-12-89 to 10-16-18	47	—	—	—	—	—
	Chloride	04-18-91 to 04-11-18	37	3.16	-5.60×10^{-5}	0.30	< 0.001	−2.0
	Chromium	04-18-91 to 04-11-18	36	—	—	—	—	—
	Sodium	10-10-91 to 04-11-18	28	2.26	-1.26×10^{-5}	0.13	0.046	−0.5
SITE 9	Sulfate	10-11-95 to 04-11-18	23	—	—	—	—	—
	Tritium	04-18-91 to 04-11-18	36	—	—	—	—	—
	Chloride	04-05-89 to 03-27-18	42	2.36	2.52×10^{-5}	0.54	< 0.001	0.9
	Nitrate	10-27-89 to 03-27-18	36	−1.11	5.68×10^{-5}	0.21	0.004	2.1
	Sodium	10-27-89 to 03-27-18	36	2.39	1.29×10^{-5}	0.54	< 0.001	0.5
SPERT 1	Strontium-90	10-23-90 to 03-27-18	37	—	—	—	—	—
	Sulfate	10-23-90 to 03-27-18	30	2.95	1.84×10^{-5}	0.75	< 0.001	0.7
	Tritium	04-05-89 to 03-27-18	47	—	—	—	—	—
	Chloride	04-28-89 to 04-11-18	38	2.18	1.01×10^{-4}	0.63	< 0.001	3.7
	Nitrate	10-26-89 to 04-11-18	34	−0.61	6.06×10^{-5}	0.60	< 0.001	2.2
TRA 1	Sodium	04-28-89 to 04-11-18	34	1.39	1.22×10^{-4}	0.72	< 0.001	4.5
	Tritium	04-28-89 to 04-11-18	39	—	—	—	—	—
	Chloride	04-27-89 to 11-06-13	30	2.52	-1.51×10^{-5}	0.25	0.004	−0.6

Table 6.1. Survival regression models for selected constituents measured for in water samples collected at wells in the U.S. Geological Survey (USGS) aquifer water-quality monitoring network, Idaho National Laboratory and vicinity, Idaho. Detected values of constituent concentrations are represented as ‘interval-censored’ data by accounting for sampling variability.—Continued

Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
TRA 1	Chromium	04-27-89 to 11-06-13	28	—	—	—	—	—
	Sodium	04-27-89 to 11-06-13	26	2.05	9.96×10^{-6}	0.34	0.001	0.4
	Sulfate	07-18-96 to 11-06-13	18	2.71	2.60×10^{-5}	0.47	< 0.001	1.0
	Tritium	04-27-89 to 11-06-13	30	—	—	—	—	—
TRA 3	Chloride	04-27-89 to 10-16-18	36	2.50	-1.44×10^{-5}	0.23	0.002	−0.5
	Chromium	04-27-89 to 10-16-18	34	—	—	—	—	—
	Sodium	04-27-89 to 10-16-18	31	—	—	—	—	—
	Sulfate	07-18-96 to 10-16-18	24	—	—	—	—	—
TRA 4	Tritium	04-27-89 to 10-16-18	36	—	—	—	—	—
	Chloride	11-13-89 to 04-04-17	38	2.49	-1.29×10^{-5}	0.18	0.006	−0.5
	Chromium	10-11-90 to 04-04-17	36	0.77	3.83×10^{-5}	0.19	0.008	1.4
	Sodium	11-13-89 to 04-04-17	32	1.92	1.32×10^{-5}	0.40	< 0.001	0.5
TRA DISP	Sulfate	07-30-96 to 04-04-17	24	2.79	1.56×10^{-5}	0.45	< 0.001	0.6
	Tritium	11-13-89 to 04-04-17	38	—	—	—	—	—
	Cesium-137	02-01-89 to 10-16-18	55	—	—	—	—	—
	Chloride	02-01-89 to 10-16-18	56	—	—	—	—	—
USGS 1	Chromium	02-01-89 to 10-16-18	51	—	—	—	—	—
	Nitrate	11-13-89 to 10-16-18	31	0.34	-2.23×10^{-5}	0.52	< 0.001	−0.8
	Sodium	04-27-89 to 10-16-18	32	—	—	—	—	—
	Strontium-90	02-01-89 to 10-16-18	44	—	—	—	—	—
USGS 100	Sulfate	10-11-90 to 10-16-18	27	4.04	-3.98×10^{-5}	0.69	< 0.001	−1.5
	Tritium	02-01-89 to 10-16-18	60	10.34	-1.67×10^{-4}	0.64	< 0.001	−6.1
	Cesium-137	05-30-91 to 10-01-15	31	—	—	—	—	—
	Chloride	05-30-91 to 10-18-18	38	2.45	8.92×10^{-6}	0.23	0.002	0.3
USGS 101	Chromium	05-30-91 to 10-18-18	35	—	—	—	—	—
	Nitrate	05-30-91 to 10-18-18	38	−0.37	3.20×10^{-5}	0.40	< 0.001	1.2
	Sodium	05-30-91 to 10-18-18	38	2.62	7.51×10^{-6}	0.25	< 0.001	0.3
	Tritium	05-30-91 to 10-18-18	39	—	—	—	—	—
USGS 100	Chloride	04-19-89 to 04-03-18	53	—	—	—	—	—
	Chromium	04-19-89 to 04-03-18	49	—	—	—	—	—
	Sodium	10-13-89 to 04-03-18	33	2.70	9.55×10^{-6}	0.26	0.002	0.3
	Sulfate	09-28-90 to 04-03-18	28	—	—	—	—	—
USGS 101	Tritium	04-19-89 to 04-03-18	53	—	—	—	—	—
	Cesium-137	05-15-91 to 10-15-15	33	—	—	—	—	—
	Chloride	04-19-89 to 10-18-18	46	—	—	—	—	—
	Chromium	04-19-89 to 10-18-18	44	—	—	—	—	—
USGS 101	Nitrate	05-15-91 to 10-18-18	38	−0.75	6.08×10^{-5}	0.93	< 0.001	2.2
	Sodium	10-13-89 to 10-18-18	41	2.53	1.04×10^{-5}	0.14	0.012	0.4

Table 6.1. Survival regression models for selected constituents measured for in water samples collected at wells in the U.S. Geological Survey (USGS) aquifer water-quality monitoring network, Idaho National Laboratory and vicinity, Idaho. Detected values of constituent concentrations are represented as ‘interval-censored’ data by accounting for sampling variability.—Continued

Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 101	Tritium	04-19-89 to 10-18-18	48	—	—	—	—	—
USGS 102	1,1-Dichloroethylene	01-18-96 to 05-08-17	22	—	—	—	—	—
	1,1,1-Trichloroethane	01-18-96 to 05-08-17	22	—	—	—	—	—
	Carbon tetrachloride	01-18-96 to 05-08-17	22	—	—	—	—	—
	Chloride	06-08-90 to 03-27-18	97	3.52	-8.53×10^{-6}	0.11	< 0.001	-0.3
	Nitrate	08-01-90 to 03-27-18	65	0.26	3.25×10^{-5}	0.19	< 0.001	1.2
	Sodium	03-10-94 to 03-27-18	42	2.46	2.01×10^{-5}	0.24	< 0.001	0.7
	Strontium-90	06-13-95 to 12-04-17	33	—	—	—	—	—
	Sulfate	06-08-90 to 03-27-18	97	—	—	—	—	—
	Tetrachloroethylene	01-18-96 to 05-08-17	22	—	—	—	—	—
	Toluene	01-18-96 to 05-08-17	22	—	—	—	—	—
	Trichloroethylene	01-18-96 to 05-08-17	22	—	—	—	—	—
	Tritium	06-08-90 to 03-27-18	77	—	—	—	—	—
	Chloride	04-14-89 to 04-18-05	56	—	—	—	—	—
	Sodium	10-16-89 to 04-18-05	28	—	—	—	—	—
USGS 103	Tritium	04-14-89 to 04-18-05	55	—	—	—	—	—
	Chloride	04-14-89 to 10-16-18	77	2.35	1.69×10^{-5}	0.28	< 0.001	0.6
	Nitrate	10-16-89 to 10-16-18	35	-0.55	2.47×10^{-5}	0.80	< 0.001	0.9
	Sodium	10-16-89 to 10-16-18	34	2.06	7.99×10^{-6}	0.37	< 0.001	0.3
USGS 104	Tritium	04-14-89 to 10-16-18	77	8.23	-9.81×10^{-5}	0.91	< 0.001	-3.6
	Chloride	04-21-89 to 10-16-07	36	3.05	-4.21×10^{-5}	0.41	< 0.001	-1.5
	Sodium	10-25-89 to 10-16-07	29	2.70	-1.16×10^{-5}	0.17	0.020	-0.4
	Tritium	04-21-89 to 10-16-07	37	—	—	—	—	—
USGS 105	Chloride	04-14-89 to 10-17-18	56	—	—	—	—	—
	Sodium	10-18-89 to 10-17-18	33	1.91	1.24×10^{-5}	0.44	< 0.001	0.5
	Tritium	04-14-89 to 10-17-18	56	8.99	-1.74×10^{-4}	0.99	< 0.001	-6.3
USGS 106	1,1-Dichloroethylene	10-05-94 to 03-27-18	27	—	—	—	—	—
	1,1,1-Trichloroethane	10-05-94 to 03-27-18	27	—	—	—	—	—
	Carbon tetrachloride	10-05-94 to 03-27-18	27	—	—	—	—	—
	Cesium-137	03-29-94 to 03-27-18	35	—	—	—	—	—
	CFC-12	10-05-94 to 03-27-18	27	—	—	—	—	—
	Chloride	04-11-89 to 03-27-18	46	2.93	1.16×10^{-5}	0.27	< 0.001	0.4
	Chloroform	10-05-94 to 03-27-18	27	—	—	—	—	—
	Chromium	03-29-94 to 03-27-18	34	—	—	—	—	—
	Nitrate	09-29-89 to 03-27-18	41	—	—	—	—	—
	Sodium	10-22-90 to 03-27-18	38	2.67	1.80×10^{-5}	0.71	< 0.001	0.7
	Tetrachloroethylene	10-05-94 to 03-27-18	27	—	—	—	—	—
	Toluene	10-05-94 to 03-27-18	27	—	—	—	—	—

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Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 107	Trichloroethylene	10-05-94 to 03-27-18	27	—	—	—	—	—
	Tritium	04-11-89 to 03-27-18	51	—	—	—	—	—
USGS 108	Cesium-137	09-05-89 to 04-29-08	26	—	—	—	—	—
	Chloride	04-21-89 to 04-29-08	39	—	—	—	—	—
	Chromium	09-05-89 to 04-29-08	26	—	—	—	—	—
	Nitrate	09-05-89 to 04-29-08	26	—	—	—	—	—
	Sodium	09-05-89 to 04-29-08	30	—	—	—	—	—
	Tritium	04-21-89 to 04-29-08	39	—	—	—	—	—
	Cesium-137	03-31-94 to 04-14-15	33	—	—	—	—	—
USGS 109	Chloride	04-21-89 to 04-23-18	50	2.86	-1.65×10^{-5}	0.18	0.002	-0.6
	Chromium	03-31-94 to 04-23-18	37	—	—	—	—	—
	Nitrate	03-31-94 to 04-23-18	37	-0.80	2.54×10^{-5}	0.45	< 0.001	0.9
	Sodium	04-21-89 to 04-23-18	44	1.95	3.90×10^{-5}	0.10	0.036	1.4
	Tritium	04-21-89 to 04-23-18	49	—	—	—	—	—
	Cesium-137	09-13-89 to 04-15-15	44	—	—	—	—	—
	Chloride	05-01-89 to 04-09-18	55	2.89	-4.25×10^{-5}	0.61	< 0.001	-1.6
USGS 11	Chromium	09-13-89 to 04-09-18	44	—	—	—	—	—
	Nitrate	09-13-89 to 04-09-18	44	—	—	—	—	—
	Sodium	05-01-89 to 04-09-18	45	—	—	—	—	—
	Tritium	05-01-89 to 04-09-18	57	—	—	—	—	—
	Cesium-137	10-25-95 to 10-15-15	29	—	—	—	—	—
	Chloride	10-25-95 to 10-18-18	32	3.02	-5.56×10^{-6}	0.12	0.047	-0.2
	Chromium	10-25-95 to 10-18-18	32	4.28	-2.72×10^{-4}	0.60	< 0.001	-9.9
USGS 110A	Nitrate	10-25-95 to 10-18-18	32	—	—	—	—	—
	Sodium	10-25-95 to 10-18-18	32	—	—	—	—	—
	Tritium	10-25-95 to 10-18-18	32	—	—	—	—	—
	Chloride	01-05-89 to 04-17-18	55	—	—	—	—	—
	Nitrate	10-04-89 to 04-17-18	32	1.34	-3.31×10^{-5}	0.54	< 0.001	-1.2
	Sodium	04-06-89 to 04-17-18	32	—	—	—	—	—
	Strontium-90	01-05-89 to 04-17-18	54	—	—	—	—	—
USGS 111	Sulfate	01-15-91 to 04-17-18	27	3.51	-1.08×10^{-5}	0.23	0.007	-0.4
	Tritium	01-05-89 to 04-17-18	54	11.91	-2.70×10^{-4}	0.90	< 0.001	-9.9
	Chloride	03-30-89 to 10-01-18	74	7.11	-2.40×10^{-4}	0.75	< 0.001	-8.8
	Nitrate	10-17-89 to 10-01-18	35	2.43	-1.38×10^{-4}	0.92	< 0.001	-5.0
	Sodium	10-17-89 to 10-01-18	35	5.68	-1.80×10^{-4}	0.81	< 0.001	-6.6
	Strontium-90	03-30-89 to 10-01-18	73	4.77	-1.68×10^{-4}	0.81	< 0.001	-6.1
	Sulfate	10-23-90 to 10-01-18	30	3.62	-1.59×10^{-5}	0.34	< 0.001	-0.6
USGS 112	Tritium	03-30-89 to 10-01-18	75	13.39	-4.13×10^{-4}	0.99	< 0.001	-15.1

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Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 113	Cesium-137	04-20-94 to 04-17-18	24	—	—	—	—	—
	Chloride	03-31-89 to 04-17-18	71	7.11	-2.05×10^{-4}	0.62	< 0.001	−7.5
	Nitrate	10-06-89 to 04-17-18	32	—	—	—	—	—
	Sodium	10-03-90 to 04-17-18	31	6.25	-1.91×10^{-4}	0.84	< 0.001	−7.0
	Strontium-90	03-31-89 to 04-17-18	69	3.71	-1.14×10^{-4}	0.92	< 0.001	−4.2
	Sulfate	10-03-90 to 04-17-18	29	3.89	-3.67×10^{-5}	0.73	< 0.001	−1.3
	Tritium	03-31-89 to 04-17-18	71	12.81	-3.56×10^{-4}	0.93	< 0.001	−13.0
USGS 114	Chloride	03-31-89 to 10-01-18	74	4.20	1.81×10^{-5}	0.14	< 0.001	0.7
	Nitrate	10-05-89 to 10-01-18	35	1.68	-3.96×10^{-5}	0.80	< 0.001	−1.4
	Sodium	10-05-89 to 10-01-18	36	—	—	—	—	—
	Strontium-90	03-31-89 to 10-01-18	73	—	—	—	—	—
	Sulfate	01-15-91 to 10-01-18	29	—	—	—	—	—
	Tritium	03-31-89 to 10-01-18	73	11.68	-1.80×10^{-4}	0.99	< 0.001	−6.6
USGS 115	Chloride	04-06-89 to 10-01-18	72	—	—	—	—	—
	Nitrate	10-17-89 to 10-01-18	33	—	—	—	—	—
	Sodium	10-17-89 to 10-01-18	33	—	—	—	—	—
	Strontium-90	04-06-89 to 10-01-18	72	—	—	—	—	—
	Sulfate	10-23-90 to 10-01-18	29	2.98	1.15×10^{-5}	0.19	0.014	0.4
	Tritium	04-06-89 to 10-01-18	72	10.58	-2.31×10^{-4}	0.85	< 0.001	−8.4
USGS 116	Chloride	04-06-89 to 04-17-18	70	4.20	2.62×10^{-5}	0.06	0.039	1.0
	Nitrate	10-05-89 to 04-17-18	32	—	—	—	—	—
	Sodium	10-05-89 to 04-17-18	32	—	—	—	—	—
	Strontium-90	04-06-89 to 04-17-18	70	—	—	—	—	—
	Sulfate	01-15-91 to 04-17-18	28	3.73	-1.85×10^{-5}	0.69	< 0.001	−0.7
	Tritium	04-06-89 to 04-17-18	70	10.75	-2.20×10^{-4}	0.78	< 0.001	−8.0
USGS 117	1,1-Dichloroethylene	01-12-89 to 10-16-18	59	—	—	—	—	—
	1,1,1-Trichloroethane	01-12-89 to 10-16-18	58	—	—	—	—	—
	Carbon tetrachloride	01-12-89 to 10-16-18	59	—	—	—	—	—
	Cesium-137	01-12-89 to 10-19-15	47	—	—	—	—	—
	CFC-12	01-12-89 to 10-16-18	59	—	—	—	—	—
	Chloride	01-12-89 to 10-16-18	76	2.82	-1.99×10^{-5}	0.11	0.002	−0.7
	Chloroform	01-12-89 to 10-16-18	59	—	—	—	—	—
	Nitrate	04-03-89 to 10-16-18	33	−0.30	-7.80×10^{-6}	0.20	0.006	−0.3
	Plutonium-238	01-12-89 to 10-19-15	47	—	—	—	—	—
	Sodium	04-03-89 to 10-16-18	33	2.23	8.43×10^{-6}	0.22	0.004	0.3
	Strontium-90	01-12-89 to 10-19-15	70	—	—	—	—	—
	Sulfate	04-03-89 to 10-16-18	27	—	—	—	—	—
	Tetrachloroethylene	01-12-89 to 10-16-18	59	—	—	—	—	—

Table 6.1. Survival regression models for selected constituents measured for in water samples collected at wells in the U.S. Geological Survey (USGS) aquifer water-quality monitoring network, Idaho National Laboratory and vicinity, Idaho. Detected values of constituent concentrations are represented as ‘interval-censored’ data by accounting for sampling variability.—Continued

Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 117	Toluene	01-12-89 to 10-16-18	59	—	—	—	—	—
	Trichloroethylene	01-12-89 to 10-16-18	59	—	—	—	—	—
	Tritium	01-12-89 to 10-16-18	74	—	—	—	—	—
USGS 119	1,1-Dichloroethylene	01-12-89 to 04-23-18	49	—	—	—	—	—
	1,1,1-Trichloroethane	01-12-89 to 04-23-18	49	—	—	—	—	—
	Carbon tetrachloride	01-12-89 to 04-23-18	49	—	—	—	—	—
	Cesium-137	01-12-89 to 04-14-15	52	—	—	—	—	—
	CFC-12	01-12-89 to 04-23-18	49	—	—	—	—	—
	Chloride	01-12-89 to 04-23-18	76	—	—	—	—	—
	Chloroform	01-12-89 to 04-23-18	49	—	—	—	—	—
	Nitrate	04-03-89 to 04-23-18	37	—	—	—	—	—
	Plutonium-238	01-12-89 to 04-14-15	51	—	—	—	—	—
	Sodium	04-03-89 to 04-23-18	36	2.29	7.84×10^{-6}	0.23	0.002	0.3
	Strontium-90	01-12-89 to 04-14-15	75	—	—	—	—	—
	Sulfate	10-25-95 to 04-23-18	27	2.99	4.39×10^{-5}	0.61	< 0.001	1.6
	Tetrachloroethylene	01-12-89 to 04-23-18	49	—	—	—	—	—
	Toluene	01-12-89 to 04-23-18	49	—	—	—	—	—
USGS 12	Trichloroethylene	01-12-89 to 04-23-18	49	—	—	—	—	—
	Tritium	01-12-89 to 04-23-18	79	—	—	—	—	—
	1,1-Dichloroethylene	06-15-90 to 03-26-18	52	—	—	—	—	—
	1,1,1-Trichloroethane	06-15-90 to 03-26-18	52	—	—	—	—	—
	Carbon tetrachloride	06-15-90 to 03-26-18	52	—	—	—	—	—
	Cesium-137	03-11-94 to 04-15-15	32	—	—	—	—	—
	CFC-12	06-15-90 to 03-26-18	44	—	—	—	—	—
	Chloride	06-15-90 to 03-26-18	90	—	—	—	—	—
	Chloroform	06-15-90 to 03-26-18	44	—	—	—	—	—
	Chromium	03-11-94 to 03-26-18	44	—	—	—	—	—
	Nitrate	08-06-90 to 03-26-18	62	0.28	3.02×10^{-5}	0.09	0.015	1.1
	Sodium	03-11-94 to 03-26-18	43	2.33	3.34×10^{-5}	0.28	< 0.001	1.2
	Sulfate	06-15-90 to 03-26-18	90	—	—	—	—	—
	Tetrachloroethylene	06-15-90 to 03-26-18	52	—	—	—	—	—
	Toluene	06-15-90 to 03-26-18	52	—	—	—	—	—
	Trichloroethylene	06-15-90 to 03-26-18	52	—	—	—	—	—
USGS 120	Tritium	06-15-90 to 03-26-18	72	—	—	—	—	—
	1,1-Dichloroethylene	01-12-89 to 10-09-18	103	—	—	—	—	—
	1,1,1-Trichloroethane	01-12-89 to 10-09-18	103	—	—	—	—	—
	Carbon tetrachloride	01-12-89 to 10-09-18	103	−1.24	1.28×10^{-4}	0.20	< 0.001	4.7
	Cesium-137	01-12-89 to 10-09-18	76	—	—	—	—	—

Table 6.1. Survival regression models for selected constituents measured for in water samples collected at wells in the U.S. Geological Survey (USGS) aquifer water-quality monitoring network, Idaho National Laboratory and vicinity, Idaho. Detected values of constituent concentrations are represented as ‘interval-censored’ data by accounting for sampling variability.—Continued

Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 120	CFC-12	01-12-89 to 10-09-18	103	—	—	—	—	—
	Chloride	01-12-89 to 10-09-18	76	3.60	-5.12×10^{-5}	0.58	< 0.001	−1.9
	Chloroform	01-12-89 to 10-09-18	103	−5.20	2.63×10^{-4}	0.21	< 0.001	9.6
	Chromium	04-04-89 to 10-09-18	38	—	—	—	—	—
	Nitrate	04-04-89 to 10-09-18	41	—	—	—	—	—
	Plutonium-238	01-12-89 to 10-09-18	74	—	—	—	—	—
	Sodium	04-04-89 to 10-09-18	41	3.93	-5.89×10^{-5}	0.24	< 0.001	−2.2
	Strontium-90	01-12-89 to 10-09-18	75	—	—	—	—	—
	Sulfate	04-04-89 to 10-09-18	27	3.95	-2.64×10^{-5}	0.16	0.028	−1.0
	Tetrachloroethylene	01-12-89 to 10-09-18	103	—	—	—	—	—
	Toluene	01-12-89 to 10-09-18	103	—	—	—	—	—
	Trichloroethylene	01-12-89 to 10-09-18	103	−3.51	1.80×10^{-4}	0.13	< 0.001	6.6
	Tritium	01-12-89 to 10-09-18	76	—	—	—	—	—
	Tritium	01-12-89 to 10-09-18	76	—	—	—	—	—
USGS 121	Chloride	03-25-91 to 04-04-18	46	2.88	-3.10×10^{-5}	0.33	< 0.001	−1.1
	Nitrate	10-15-91 to 04-04-18	34	—	—	—	—	—
	Sodium	10-15-91 to 04-04-18	33	—	—	—	—	—
	Strontium-90	03-25-91 to 04-04-18	46	—	—	—	—	—
	Sulfate	04-15-92 to 04-04-18	31	3.18	-5.33×10^{-6}	0.23	0.004	−0.2
	Tritium	03-25-91 to 04-04-18	46	—	—	—	—	—
USGS 123	Chloride	03-25-91 to 10-02-18	42	7.00	-2.41×10^{-4}	0.77	< 0.001	−8.8
	Nitrate	10-15-91 to 10-02-18	31	3.19	-1.98×10^{-4}	0.67	< 0.001	−7.2
	Sodium	10-15-91 to 10-02-18	31	5.94	-2.22×10^{-4}	0.77	< 0.001	−8.1
	Strontium-90	03-25-91 to 10-02-18	43	9.20	-5.90×10^{-4}	0.86	< 0.001	−21.5
	Sulfate	10-30-95 to 10-02-18	26	3.91	-5.14×10^{-5}	0.76	< 0.001	−1.9
	Tritium	03-25-91 to 10-02-18	43	12.87	-3.15×10^{-4}	0.97	< 0.001	−11.5
USGS 124	Chloride	04-21-94 to 04-09-18	41	2.41	2.24×10^{-5}	0.31	< 0.001	0.8
	Nitrate	04-21-94 to 04-09-18	31	−0.39	1.20×10^{-5}	0.28	0.001	0.4
	Sodium	04-21-94 to 04-09-18	31	—	—	—	—	—
	Tritium	04-21-94 to 04-09-18	41	—	—	—	—	—
USGS 125	Cesium-137	04-27-95 to 10-21-15	33	—	—	—	—	—
	Chloride	04-27-95 to 10-09-18	38	2.78	-1.91×10^{-5}	0.34	< 0.001	−0.7
	Chromium	04-27-95 to 10-09-18	36	2.39	-7.39×10^{-5}	0.31	0.001	−2.7
	Nitrate	04-27-95 to 10-09-18	36	−0.70	1.19×10^{-5}	0.35	< 0.001	0.4
	Sodium	04-27-95 to 10-09-18	36	2.55	-6.73×10^{-6}	0.19	0.005	−0.2
	Tritium	04-27-95 to 10-09-18	38	—	—	—	—	—
USGS 126B	Chloride	11-08-00 to 10-10-18	23	1.95	1.06×10^{-5}	0.35	0.002	0.4
	Chromium	11-08-00 to 10-10-18	23	1.61	-7.03×10^{-5}	0.36	0.017	−2.6
	Nitrate	11-08-00 to 10-10-18	21	—	—	—	—	—

Table 6.1. Survival regression models for selected constituents measured for in water samples collected at wells in the U.S. Geological Survey (USGS) aquifer water-quality monitoring network, Idaho National Laboratory and vicinity, Idaho. Detected values of constituent concentrations are represented as ‘interval-censored’ data by accounting for sampling variability.—Continued

Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 126B	Sodium	11-08-00 to 10-10-18	23	1.96	1.49×10^{-5}	0.28	0.006	0.5
	Tritium	11-08-00 to 10-10-18	24	—	—	—	—	—
USGS 127	Cesium-137	09-27-00 to 04-03-18	26	—	—	—	—	—
	Chloride	09-27-00 to 04-03-18	26	2.52	1.46×10^{-5}	0.39	< 0.001	0.5
	Chromium	09-27-00 to 04-03-18	26	2.77	-3.32×10^{-5}	0.39	< 0.001	-1.2
	Nitrate	09-27-00 to 04-03-18	26	-0.76	1.43×10^{-5}	0.47	< 0.001	0.5
	Sodium	09-27-00 to 04-03-18	26	1.92	1.50×10^{-5}	0.45	< 0.001	0.5
	Strontium-90	09-27-00 to 04-03-18	25	—	—	—	—	—
	Tritium	09-27-00 to 04-03-18	26	—	—	—	—	—
	Chloride	10-31-01 to 10-16-18	19	4.86	-1.41×10^{-4}	0.59	< 0.001	-5.2
USGS 128	Nitrate	10-31-01 to 10-16-18	19	1.24	-7.47×10^{-5}	0.60	< 0.001	-2.7
	Strontium-90	10-31-01 to 10-16-18	19	3.88	-1.60×10^{-4}	0.76	< 0.001	-5.8
	Tritium	10-31-01 to 10-16-18	19	10.90	-2.35×10^{-4}	0.99	< 0.001	-8.6
	Chloride	10-31-01 to 10-16-18	19	10.90	-2.35×10^{-4}	0.99	< 0.001	-8.6
USGS 14 MV-61	Cesium-137	05-01-89 to 10-21-15	45	—	—	—	—	—
	Chloride	04-01-89 to 10-09-18	55	—	—	—	—	—
	Tritium	05-01-89 to 10-09-18	57	—	—	—	—	—
USGS 15	Chloride	06-06-90 to 10-24-11	44	—	—	—	—	—
	Nitrate	08-06-90 to 10-24-11	44	-1.32	1.16×10^{-4}	0.15	0.007	4.2
	Sodium	03-11-94 to 10-24-11	22	—	—	—	—	—
	Strontium-90	04-12-91 to 10-24-11	23	—	—	—	—	—
	Sulfate	06-06-90 to 10-24-11	44	—	—	—	—	—
	Tritium	06-06-90 to 10-24-11	33	—	—	—	—	—
	Chloride	06-06-90 to 10-24-11	33	—	—	—	—	—
USGS 17	Cesium-137	03-20-90 to 04-15-15	33	—	—	—	—	—
	Chloride	12-14-89 to 04-09-18	56	—	—	—	—	—
	Chromium	06-06-91 to 04-09-18	35	—	—	—	—	—
	Nitrate	03-20-90 to 04-09-18	56	—	—	—	—	—
	Sodium	06-06-91 to 04-09-18	35	—	—	—	—	—
	Tritium	12-14-89 to 04-09-18	45	—	—	—	—	—
USGS 18	Chloride	07-02-92 to 04-12-18	31	2.04	2.58×10^{-5}	0.60	< 0.001	0.9
	Nitrate	10-12-90 to 04-12-18	32	—	—	—	—	—
	Sodium	07-02-92 to 04-12-18	31	2.34	1.42×10^{-5}	0.67	< 0.001	0.5
	Strontium-90	10-12-90 to 04-13-11	24	—	—	—	—	—
	Sulfate	07-07-95 to 04-12-18	28	3.04	1.53×10^{-5}	0.74	< 0.001	0.6
	Tritium	10-12-90 to 04-12-18	32	—	—	—	—	—
USGS 19	Cesium-137	05-21-91 to 04-14-15	33	—	—	—	—	—
	Chloride	04-03-89 to 04-02-18	48	—	—	—	—	—
	Chromium	05-21-91 to 04-02-18	36	2.25	-1.00×10^{-4}	0.36	0.003	-3.7
	Nitrate	05-21-91 to 04-02-18	39	—	—	—	—	—

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Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 19	Sodium	05-21-91 to 04-02-18	39	2.66	-2.26×10^{-5}	0.61	< 0.001	−0.8
	Tritium	04-03-89 to 04-02-18	49	—	—	—	—	—
USGS 2	Chloride	05-28-91 to 04-12-18	31	—	—	—	—	—
	Nitrate	05-28-91 to 04-12-18	31	−0.30	5.61×10^{-5}	0.84	< 0.001	2.0
	Sodium	05-28-91 to 04-12-18	31	2.71	8.97×10^{-6}	0.35	< 0.001	0.3
	Strontium-90	05-28-91 to 04-21-11	24	—	—	—	—	—
	Sulfate	05-28-91 to 04-12-18	28	2.35	2.72×10^{-5}	0.72	< 0.001	1.0
	Tritium	05-28-91 to 04-12-18	33	—	—	—	—	—
	Chloride	04-01-89 to 04-17-18	50	2.78	4.93×10^{-5}	0.74	< 0.001	1.8
USGS 20	Nitrate	10-30-89 to 04-17-18	34	−0.50	5.59×10^{-5}	0.47	< 0.001	2.0
	Sodium	10-30-89 to 04-17-18	34	1.90	2.21×10^{-5}	0.68	< 0.001	0.8
	Strontium-90	04-01-89 to 04-17-18	50	—	—	—	—	—
	Sulfate	10-25-90 to 04-17-18	28	2.85	1.30×10^{-5}	0.20	0.011	0.5
	Tritium	04-01-89 to 04-17-18	51	10.49	-1.61×10^{-4}	0.98	< 0.001	−5.9
	Chloride	04-05-89 to 04-25-11	32	—	—	—	—	—
	Sodium	10-27-89 to 04-25-11	26	—	—	—	—	—
USGS 22	Tritium	04-05-89 to 04-25-11	32	—	—	—	—	—
	Cesium-137	05-21-91 to 10-19-15	33	—	—	—	—	—
	Chloride	05-21-91 to 10-09-18	39	2.42	-9.55×10^{-6}	0.11	0.033	−0.3
USGS 23	Chromium	05-21-91 to 10-09-18	36	1.94	-6.14×10^{-5}	0.18	0.030	−2.2
	Nitrate	05-21-91 to 10-09-18	39	—	—	—	—	—
	Sodium	05-21-91 to 10-09-18	39	1.99	2.32×10^{-5}	0.58	< 0.001	0.8
	Tritium	05-21-91 to 10-09-18	40	—	—	—	—	—
	1,1-Dichloroethylene	05-23-91 to 04-10-18	36	—	—	—	—	—
	1,1,1-Trichloroethane	05-23-91 to 04-10-18	36	—	—	—	—	—
	Carbon tetrachloride	05-23-91 to 04-10-18	36	—	—	—	—	—
USGS 26	Cesium-137	05-23-91 to 04-10-18	36	—	—	—	—	—
	CFC-12	05-23-91 to 04-10-18	36	—	—	—	—	—
	Chloride	05-23-91 to 04-10-18	38	2.40	1.91×10^{-5}	0.31	< 0.001	0.7
	Chloroform	05-23-91 to 04-10-18	36	—	—	—	—	—
	Chromium	05-23-91 to 04-10-18	37	2.47	-1.25×10^{-4}	0.31	< 0.001	−4.6
	Nitrate	05-23-91 to 04-10-18	38	—	—	—	—	—
	Sodium	05-23-91 to 04-10-18	38	—	—	—	—	—
	Strontium-90	05-23-91 to 04-10-18	38	—	—	—	—	—
	Tetrachloroethylene	05-23-91 to 04-10-18	36	—	—	—	—	—
	Toluene	05-23-91 to 04-10-18	36	—	—	—	—	—
	Trichloroethylene	05-23-91 to 04-10-18	36	—	—	—	—	—
	Tritium	05-23-91 to 04-10-18	39	—	—	—	—	—

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Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 27	Cesium-137	05-23-91 to 04-14-15	33	—	—	—	—	—
	Chloride	03-24-89 to 04-02-18	47	4.43	-3.41×10^{-5}	0.88	< 0.001	−1.2
	Chromium	05-23-91 to 04-02-18	36	—	—	—	—	—
	Nitrate	05-23-91 to 04-02-18	38	0.84	6.53×10^{-6}	0.23	0.002	0.2
	Sodium	05-23-91 to 04-02-18	38	—	—	—	—	—
	Tritium	03-24-89 to 04-02-18	48	—	—	—	—	—
USGS 29	Chloride	06-12-91 to 10-11-18	33	3.53	-2.16×10^{-5}	0.16	0.015	−0.8
	Nitrate	06-12-91 to 10-11-18	33	0.40	3.68×10^{-5}	0.38	< 0.001	1.3
	Sodium	06-12-91 to 10-11-18	33	—	—	—	—	—
	Strontium-90	06-12-91 to 10-24-11	22	—	—	—	—	—
	Sulfate	06-12-91 to 10-11-18	28	—	—	—	—	—
	Tritium	06-12-91 to 10-11-18	34	—	—	—	—	—
USGS 31	Chloride	06-12-91 to 04-10-18	33	2.59	5.41×10^{-5}	0.92	< 0.001	2.0
	Nitrate	06-12-91 to 04-10-18	33	−0.52	3.96×10^{-5}	0.94	< 0.001	1.4
	Sodium	06-12-91 to 04-10-18	33	2.64	1.15×10^{-5}	0.41	< 0.001	0.4
	Strontium-90	06-12-91 to 04-20-11	23	—	—	—	—	—
	Sulfate	06-12-91 to 04-10-18	28	3.03	3.04×10^{-5}	0.91	< 0.001	1.1
	Tritium	06-12-91 to 04-10-18	35	—	—	—	—	—
USGS 32	Chloride	06-12-91 to 04-10-18	33	—	—	—	—	—
	Nitrate	06-12-91 to 04-10-18	33	—	—	—	—	—
	Sodium	06-12-91 to 04-10-18	33	—	—	—	—	—
	Strontium-90	06-12-91 to 04-20-11	25	—	—	—	—	—
	Sulfate	06-12-91 to 04-10-18	28	—	—	—	—	—
	Tritium	06-12-91 to 04-10-18	35	—	—	—	—	—
USGS 34	1,1-Dichloroethylene	10-02-90 to 04-16-18	37	—	—	—	—	—
	1,1,1-Trichloroethane	10-02-90 to 04-16-18	37	0.44	-2.05×10^{-4}	0.90	< 0.001	−7.5
	Carbon tetrachloride	10-02-90 to 04-16-18	37	—	—	—	—	—
	Cesium-137	10-02-90 to 04-16-18	38	—	—	—	—	—
	CFC-12	10-02-90 to 04-16-18	36	—	—	—	—	—
	Chloride	03-31-89 to 04-16-18	47	3.30	-5.65×10^{-5}	0.43	< 0.001	−2.1
	Chloroform	10-02-90 to 04-16-18	37	—	—	—	—	—
	Chromium	10-02-90 to 04-16-18	37	1.95	7.76×10^{-5}	0.26	< 0.001	2.8
	Fluoride	10-02-90 to 04-16-18	36	−1.28	-2.29×10^{-5}	0.25	0.001	−0.8
	Nitrate	10-31-89 to 04-16-18	41	—	—	—	—	—
	Plutonium-238	10-02-90 to 04-06-15	35	—	—	—	—	—
	Sodium	10-31-89 to 04-16-18	41	2.48	-1.81×10^{-5}	0.16	0.009	−0.7
	Strontium-90	03-31-89 to 04-16-18	46	2.13	-1.08×10^{-4}	0.68	0.021	−4.0
	Sulfate	10-02-90 to 04-16-18	37	2.53	8.01×10^{-5}	0.65	< 0.001	2.9

Table 6.1. Survival regression models for selected constituents measured for in water samples collected at wells in the U.S. Geological Survey (USGS) aquifer water-quality monitoring network, Idaho National Laboratory and vicinity, Idaho. Detected values of constituent concentrations are represented as ‘interval-censored’ data by accounting for sampling variability.—Continued

Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 34	Tetrachloroethylene	10-02-90 to 04-16-18	37	—	—	—	—	—
	Toluene	10-02-90 to 04-16-18	37	—	—	—	—	—
	Trichloroethylene	10-02-90 to 04-16-18	37	—	—	—	—	—
	Tritium	03-31-89 to 04-16-18	48	9.71	-1.74×10^{-4}	0.60	< 0.001	-6.3
USGS 35	Chloride	03-31-89 to 10-03-18	49	3.33	-6.20×10^{-5}	0.29	< 0.001	-2.3
	Nitrate	10-31-89 to 10-03-18	34	0.49	-3.54×10^{-5}	0.20	0.005	-1.3
	Sodium	10-31-89 to 10-03-18	34	2.56	-2.52×10^{-5}	0.17	0.011	-0.9
	Strontium-90	03-31-89 to 10-03-18	48	—	—	—	—	—
	Sulfate	10-25-90 to 10-03-18	28	2.82	6.33×10^{-5}	0.59	< 0.001	2.3
	Tritium	03-31-89 to 10-03-18	49	10.22	-1.95×10^{-4}	0.71	< 0.001	-7.1
	Chloride	03-31-89 to 04-16-18	67	5.58	-1.89×10^{-4}	0.64	< 0.001	-6.9
USGS 36	Nitrate	10-31-89 to 04-16-18	33	1.80	-1.16×10^{-4}	0.80	< 0.001	-4.2
	Sodium	10-31-89 to 04-16-18	32	4.04	-1.12×10^{-4}	0.79	< 0.001	-4.1
	Strontium-90	03-31-89 to 04-16-18	68	4.43	-2.02×10^{-4}	0.92	< 0.001	-7.4
	Sulfate	10-25-90 to 04-16-18	28	2.67	6.59×10^{-5}	0.71	< 0.001	2.4
	Tritium	03-31-89 to 04-16-18	68	11.77	-3.14×10^{-4}	0.91	< 0.001	-11.5
	Cesium-137	09-29-89 to 10-03-18	32	—	—	—	—	—
	Chloride	03-31-89 to 10-03-18	54	6.37	-2.11×10^{-4}	0.70	< 0.001	-7.7
USGS 37	Nitrate	09-29-89 to 10-03-18	33	2.38	-1.44×10^{-4}	0.88	< 0.001	-5.2
	Plutonium-238	09-29-89 to 10-03-18	32	—	—	—	—	—
	Sodium	10-17-90 to 10-03-18	32	5.25	-1.64×10^{-4}	0.84	< 0.001	-6.0
	Strontium-90	03-31-89 to 10-03-18	53	3.49	-1.24×10^{-4}	0.63	< 0.001	-4.5
	Sulfate	10-17-90 to 10-03-18	27	2.93	4.57×10^{-5}	0.73	< 0.001	1.7
	Tritium	03-31-89 to 10-03-18	54	12.88	-3.62×10^{-4}	0.99	< 0.001	-13.2
	Chloride	03-31-89 to 04-16-18	48	7.58	-2.98×10^{-4}	0.79	< 0.001	-10.9
USGS 38	1,1-Dichloroethylene	10-05-90 to 04-16-18	37	—	—	—	—	—
	1,1,1-Trichloroethane	10-05-90 to 04-16-18	37	0.78	-2.23×10^{-4}	0.92	< 0.001	-8.2
	Carbon tetrachloride	10-05-90 to 04-16-18	37	—	—	—	—	—
	Cesium-137	10-05-90 to 04-16-18	38	—	—	—	—	—
	CFC-12	10-05-90 to 04-16-18	36	—	—	—	—	—
	Chloroform	10-05-90 to 04-16-18	37	—	—	—	—	—
	Chromium	10-05-90 to 04-16-18	37	0.68	1.37×10^{-4}	0.69	< 0.001	5.0
	Fluoride	10-05-90 to 04-16-18	37	—	—	—	—	—
	Nitrate	10-31-89 to 04-16-18	41	—	—	—	—	—
	Plutonium-238	10-05-90 to 04-06-15	35	—	—	—	—	—
	Sodium	10-31-89 to 04-16-18	42	6.22	-2.32×10^{-4}	0.79	< 0.001	-8.5
	Strontium-90	03-31-89 to 04-16-18	52	4.74	-1.83×10^{-4}	0.74	< 0.001	-6.7
	Sulfate	10-05-90 to 04-16-18	37	3.10	2.97×10^{-5}	0.38	< 0.001	1.1

Table 6.1. Survival regression models for selected constituents measured for in water samples collected at wells in the U.S. Geological Survey (USGS) aquifer water-quality monitoring network, Idaho National Laboratory and vicinity, Idaho. Detected values of constituent concentrations are represented as ‘interval-censored’ data by accounting for sampling variability.—Continued

Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 38	Tetrachloroethylene	10-05-90 to 04-16-18	37	—	—	—	—	—
	Toluene	10-05-90 to 04-16-18	37	—	—	—	—	—
	Trichloroethylene	10-05-90 to 04-16-18	37	—	—	—	—	—
	Tritium	03-31-89 to 04-16-18	53	13.46	-4.20×10^{-4}	0.99	< 0.001	−15.4
USGS 39	Chloride	03-31-89 to 10-21-13	62	—	—	—	—	—
	Nitrate	10-31-89 to 10-21-13	26	—	—	—	—	—
	Sodium	10-31-89 to 10-21-13	26	1.90	1.78×10^{-5}	0.24	0.008	0.6
	Strontium-90	03-31-89 to 10-21-13	63	—	—	—	—	—
	Sulfate	10-25-90 to 10-21-13	21	2.77	6.92×10^{-5}	0.47	< 0.001	2.5
USGS 4	Tritium	03-31-89 to 10-21-13	63	9.96	-1.88×10^{-4}	0.37	< 0.001	−6.9
	Cesium-137	06-04-91 to 10-19-11	30	—	—	—	—	—
	Chloride	06-04-91 to 10-19-11	32	4.14	-5.26×10^{-5}	0.69	< 0.001	−1.9
	Chromium	06-04-91 to 10-19-11	30	2.76	-3.20×10^{-5}	0.19	0.014	−1.2
	Nitrate	06-04-91 to 10-19-11	32	—	—	—	—	—
	Sodium	06-04-91 to 10-19-11	32	—	—	—	—	—
USGS 41	Tritium	06-04-91 to 10-19-11	33	—	—	—	—	—
	Chloride	04-07-89 to 10-04-18	48	3.59	-5.10×10^{-5}	0.67	< 0.001	−1.9
	Nitrate	11-02-89 to 10-04-18	31	—	—	—	—	—
	Sodium	11-02-89 to 10-04-18	31	—	—	—	—	—
	Strontium-90	04-07-89 to 10-04-18	47	3.77	-1.13×10^{-4}	0.87	< 0.001	−4.1
	Sulfate	10-19-95 to 10-04-18	25	3.36	-1.35×10^{-5}	0.49	< 0.001	−0.5
USGS 42	Tritium	04-07-89 to 10-04-18	48	9.57	-1.80×10^{-4}	0.58	< 0.001	−6.6
	Chloride	04-07-89 to 04-19-18	48	3.53	-4.57×10^{-5}	0.46	< 0.001	−1.7
	Nitrate	11-02-89 to 04-19-18	33	—	—	—	—	—
	Sodium	11-02-89 to 04-19-18	33	—	—	—	—	—
	Strontium-90	04-07-89 to 04-19-18	48	2.92	-5.27×10^{-5}	0.13	0.017	−1.9
	Sulfate	10-19-95 to 04-19-18	26	3.33	-1.22×10^{-5}	0.48	< 0.001	−0.4
USGS 43	Tritium	04-07-89 to 04-19-18	48	9.25	-1.62×10^{-4}	0.34	< 0.001	−5.9
	Cesium-137	12-22-89 to 10-02-18	45	—	—	—	—	—
	Chloride	04-20-89 to 10-02-18	47	3.59	-3.48×10^{-5}	0.57	< 0.001	−1.3
	Nitrate	12-22-89 to 10-02-18	32	—	—	—	—	—
	Plutonium-238	12-22-89 to 10-02-18	31	—	—	—	—	—
	Sodium	04-20-89 to 10-02-18	33	—	—	—	—	—
USGS 44	Strontium-90	04-20-89 to 10-02-18	47	—	—	—	—	—
	Sulfate	11-13-95 to 10-02-18	26	3.29	-1.03×10^{-5}	0.42	< 0.001	−0.4
	Tritium	04-20-89 to 10-02-18	48	10.46	-2.00×10^{-4}	0.76	< 0.001	−7.3
	Cesium-137	04-07-89 to 04-18-18	56	—	—	—	—	—
	Chloride	04-07-89 to 04-18-18	58	3.52	-7.51×10^{-5}	0.68	< 0.001	−2.7

Table 6.1. Survival regression models for selected constituents measured for in water samples collected at wells in the U.S. Geological Survey (USGS) aquifer water-quality monitoring network, Idaho National Laboratory and vicinity, Idaho. Detected values of constituent concentrations are represented as ‘interval-censored’ data by accounting for sampling variability.—Continued

Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 44	Nitrate	11-02-89 to 04-18-18	34	0.54	-5.40×10^{-5}	0.79	< 0.001	-2.0
	Sodium	11-02-89 to 04-18-18	34	2.19	-7.72×10^{-6}	0.18	0.010	-0.3
	Strontium-90	04-07-89 to 04-18-18	56	2.12	-9.31×10^{-5}	0.47	0.017	-3.4
	Sulfate	10-26-90 to 04-18-18	28	3.23	-8.87×10^{-6}	0.33	< 0.001	-0.3
	Tritium	04-07-89 to 04-18-18	57	—	—	—	—	—
USGS 45	Chloride	04-07-89 to 10-02-18	56	—	—	—	—	—
	Nitrate	11-02-89 to 10-02-18	32	—	—	—	—	—
	Sodium	11-02-89 to 10-02-18	32	2.11	1.40×10^{-5}	0.13	0.032	0.5
	Strontium-90	04-07-89 to 10-02-18	50	—	—	—	—	—
	Sulfate	10-26-90 to 10-02-18	27	3.26	-8.87×10^{-6}	0.27	0.003	-0.3
USGS 46	Tritium	04-07-89 to 10-02-18	50	—	—	—	—	—
	Cesium-137	04-07-89 to 04-18-18	48	—	—	—	—	—
	Chloride	04-07-89 to 04-18-18	60	3.31	-4.02×10^{-5}	0.10	0.011	-1.5
	Nitrate	11-02-89 to 04-18-18	32	1.71	-9.55×10^{-5}	0.54	< 0.001	-3.5
	Sodium	11-02-89 to 04-18-18	32	2.52	-2.06×10^{-5}	0.22	0.004	-0.8
USGS 47	Strontium-90	04-07-89 to 04-18-18	48	3.75	-1.45×10^{-4}	0.58	< 0.001	-5.3
	Sulfate	10-26-90 to 04-18-18	27	3.33	-1.38×10^{-5}	0.41	< 0.001	-0.5
	Tritium	04-07-89 to 04-18-18	49	10.51	-3.08×10^{-4}	0.80	< 0.001	-11.3
	Cesium-137	01-31-89 to 10-04-18	58	—	—	—	—	—
	Chloride	01-31-89 to 10-04-18	58	3.95	-6.70×10^{-5}	0.54	< 0.001	-2.4
USGS 48	Nitrate	10-19-89 to 10-04-18	33	2.03	-6.03×10^{-5}	0.16	0.017	-2.2
	Plutonium-238	10-19-89 to 10-04-18	33	—	—	—	—	—
	Sodium	10-19-89 to 10-04-18	33	3.15	-4.65×10^{-5}	0.41	< 0.001	-1.7
	Strontium-90	01-31-89 to 10-04-18	57	4.89	-1.13×10^{-4}	0.89	< 0.001	-4.1
	Sulfate	10-31-90 to 10-04-18	29	3.60	-2.78×10^{-5}	0.71	< 0.001	-1.0
USGS 49	Tritium	01-31-89 to 10-04-18	58	10.89	-2.54×10^{-4}	0.75	< 0.001	-9.3
	Chloride	04-06-89 to 04-19-18	50	3.71	-4.23×10^{-5}	0.30	< 0.001	-1.5
	Nitrate	11-06-89 to 04-19-18	33	—	—	—	—	—
	Sodium	11-06-89 to 04-19-18	33	2.91	-2.33×10^{-5}	0.15	0.023	-0.9
	Strontium-90	04-06-89 to 04-19-18	54	3.48	-5.57×10^{-5}	0.18	0.001	-2.0
USGS 5	Sulfate	10-31-90 to 04-19-18	28	3.47	-1.73×10^{-5}	0.52	< 0.001	-0.6
	Tritium	04-06-89 to 04-19-18	54	10.34	-1.97×10^{-4}	0.67	< 0.001	-7.2
	1,1-Dichloroethylene	09-26-90 to 04-12-18	27	—	—	—	—	—
	1,1,1-Trichloroethane	09-26-90 to 04-12-18	27	—	—	—	—	—
	Carbon tetrachloride	09-26-90 to 04-12-18	27	—	—	—	—	—
USGS 6	Cesium-137	09-26-90 to 04-12-18	37	—	—	—	—	—
	CFC-12	09-26-90 to 04-12-18	27	—	—	—	—	—
	Chloride	07-16-92 to 04-12-18	38	1.75	4.03×10^{-5}	0.82	< 0.001	1.5

Table 6.1. Survival regression models for selected constituents measured for in water samples collected at wells in the U.S. Geological Survey (USGS) aquifer water-quality monitoring network, Idaho National Laboratory and vicinity, Idaho. Detected values of constituent concentrations are represented as ‘interval-censored’ data by accounting for sampling variability.—Continued

Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 5	Chloroform	09-26-90 to 04-12-18	27	—	—	—	—	—
	Chromium	09-26-90 to 04-12-18	37	—	—	—	—	—
	Nitrate	09-26-90 to 04-12-18	39	—	—	—	—	—
	Sodium	07-16-92 to 04-12-18	37	1.85	1.63×10^{-5}	0.50	< 0.001	0.6
	Tetrachloroethylene	09-26-90 to 04-12-18	27	—	—	—	—	—
	Toluene	09-26-90 to 04-12-18	27	—	—	—	—	—
	Trichloroethylene	09-26-90 to 04-12-18	27	—	—	—	—	—
	Tritium	09-26-90 to 04-12-18	39	—	—	—	—	—
USGS 51	Chloride	04-17-89 to 04-18-18	48	3.90	7.86×10^{-5}	0.45	< 0.001	2.9
	Nitrate	10-03-89 to 04-18-18	33	1.82	-6.54×10^{-5}	0.84	< 0.001	-2.4
	Sodium	10-10-90 to 04-18-18	32	2.92	4.06×10^{-5}	0.32	< 0.001	1.5
	Strontium-90	04-17-89 to 04-18-18	48	—	—	—	—	—
	Sulfate	10-24-95 to 04-18-18	27	3.24	8.12×10^{-6}	0.16	0.028	0.3
	Tritium	04-17-89 to 04-18-18	48	11.88	-2.16×10^{-4}	0.98	< 0.001	-7.9
USGS 52	Chloride	04-07-89 to 10-03-18	49	3.71	-4.13×10^{-5}	0.52	< 0.001	-1.5
	Nitrate	11-02-89 to 10-03-18	32	1.57	-4.64×10^{-5}	0.27	0.002	-1.7
	Sodium	11-02-89 to 10-03-18	32	2.98	-3.06×10^{-5}	0.37	< 0.001	-1.1
	Strontium-90	04-07-89 to 10-03-18	49	3.55	-1.34×10^{-4}	0.85	< 0.001	-4.9
	Sulfate	10-19-95 to 10-03-18	26	3.33	-6.85×10^{-6}	0.15	0.040	-0.3
	Tritium	04-07-89 to 10-03-18	49	10.52	-2.28×10^{-4}	0.80	< 0.001	-8.3
USGS 57	Cesium-137	10-14-97 to 10-02-18	22	—	—	—	—	—
	Chloride	01-05-89 to 10-02-18	70	6.75	-2.15×10^{-4}	0.59	< 0.001	-7.9
	Nitrate	12-22-89 to 10-02-18	32	2.33	-1.23×10^{-4}	0.78	< 0.001	-4.5
	Sodium	12-22-89 to 10-02-18	32	5.65	-1.91×10^{-4}	0.73	< 0.001	-7.0
	Strontium-90	01-05-89 to 10-02-18	69	4.58	-1.37×10^{-4}	0.75	< 0.001	-5.0
	Sulfate	10-29-90 to 10-02-18	28	3.87	-4.57×10^{-5}	0.92	< 0.001	-1.7
	Tritium	01-05-89 to 10-02-18	71	13.35	-4.17×10^{-4}	0.98	< 0.001	-15.2
USGS 58	Cesium-137	03-13-90 to 04-02-18	42	—	—	—	—	—
	Chloride	04-13-89 to 04-02-18	51	—	—	—	—	—
	Chromium	04-13-89 to 04-02-18	50	—	—	—	—	—
	Sodium	04-13-89 to 04-02-18	34	—	—	—	—	—
	Strontium-90	04-13-89 to 04-02-18	39	—	—	—	—	—
	Sulfate	10-30-95 to 04-02-18	28	3.00	3.37×10^{-5}	0.65	< 0.001	1.2
USGS 59	Tritium	04-13-89 to 04-02-18	51	10.31	-2.37×10^{-4}	0.91	< 0.001	-8.7
	Chloride	04-17-89 to 04-18-18	49	5.60	-1.63×10^{-4}	0.34	< 0.001	-6.0
	Nitrate	10-23-89 to 04-18-18	33	1.17	-6.73×10^{-5}	0.45	< 0.001	-2.5
	Sodium	04-17-89 to 04-18-18	34	4.34	-1.20×10^{-4}	0.32	< 0.001	-4.4
	Strontium-90	04-17-89 to 04-18-18	53	3.22	-6.99×10^{-5}	0.63	< 0.001	-2.6

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Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 59	Sulfate	10-23-95 to 04-18-18	26	3.59	-2.62×10^{-5}	0.60	< 0.001	−1.0
	Tritium	04-17-89 to 04-18-18	53	11.43	-3.23×10^{-4}	0.73	< 0.001	−11.8
USGS 6	Chloride	07-07-92 to 10-20-11	23	1.30	8.30×10^{-5}	0.65	< 0.001	3.0
	Nitrate	09-26-90 to 10-20-11	24	−0.99	3.40×10^{-5}	0.29	0.004	1.2
	Sodium	07-07-92 to 10-20-11	23	—	—	—	—	—
	Strontium-90	09-26-90 to 10-20-11	24	—	—	—	—	—
	Sulfate	07-17-95 to 10-20-11	19	2.69	1.84×10^{-5}	0.47	< 0.001	0.7
	Tritium	09-26-90 to 10-20-11	24	—	—	—	—	—
USGS 65	1,1-Dichloroethylene	05-16-91 to 04-04-18	39	—	—	—	—	—
	1,1,1-Trichloroethane	05-16-91 to 04-04-18	39	1.40	-2.47×10^{-4}	0.98	< 0.001	−9.0
	Carbon tetrachloride	05-16-91 to 04-04-18	39	—	—	—	—	—
	Cesium-137	02-17-89 to 04-04-18	70	—	—	—	—	—
	CFC-12	05-16-91 to 04-04-18	39	—	—	—	—	—
	Chloride	02-17-89 to 04-04-18	74	—	—	—	—	—
	Chloroform	05-16-91 to 04-04-18	39	—	—	—	—	—
	Chromium	02-17-89 to 04-04-18	72	6.23	-1.15×10^{-4}	0.89	< 0.001	−4.2
	Nitrate	10-17-89 to 04-04-18	45	—	—	—	—	—
	Plutonium-238	05-16-91 to 04-04-18	40	—	—	—	—	—
	Sodium	04-11-89 to 04-04-18	49	2.47	1.52×10^{-5}	0.38	< 0.001	0.6
	Strontium-90	02-17-89 to 04-04-18	74	—	—	—	—	—
	Sulfate	10-23-90 to 04-04-18	42	4.91	1.09×10^{-5}	0.33	< 0.001	0.4
	Tetrachloroethylene	05-16-91 to 04-04-18	39	—	—	—	—	—
	Toluene	05-16-91 to 04-04-18	39	—	—	—	—	—
	Trichloroethylene	05-16-91 to 04-04-18	39	−2.12	-1.47×10^{-5}	1.00	< 0.001	−0.5
	Tritium	02-17-89 to 04-04-18	76	13.02	-3.15×10^{-4}	0.99	< 0.001	−11.5
USGS 67	Chloride	04-11-89 to 10-01-18	43	5.97	-1.19×10^{-4}	0.53	< 0.001	−4.4
	Nitrate	10-03-89 to 10-01-18	30	0.85	4.54×10^{-5}	0.32	< 0.001	1.7
	Sodium	04-11-89 to 10-01-18	30	4.73	-9.20×10^{-5}	0.76	< 0.001	−3.4
	Strontium-90	04-11-89 to 10-01-18	43	3.07	-3.46×10^{-5}	0.12	0.024	−1.3
	Sulfate	10-17-95 to 10-01-18	27	3.55	-1.34×10^{-5}	0.64	< 0.001	−0.5
	Tritium	04-11-89 to 10-01-18	43	12.18	-2.65×10^{-4}	0.99	< 0.001	−9.7
USGS 7	1,1-Dichloroethylene	05-20-91 to 04-11-18	36	—	—	—	—	—
	1,1,1-Trichloroethane	05-20-91 to 04-11-18	36	—	—	—	—	—
	Carbon tetrachloride	05-20-91 to 04-11-18	36	—	—	—	—	—
	Cesium-137	05-20-91 to 04-11-18	36	—	—	—	—	—
	CFC-12	05-20-91 to 04-11-18	36	—	—	—	—	—
	Chloride	05-20-91 to 04-11-18	38	—	—	—	—	—
	Chloroform	05-20-91 to 04-11-18	36	—	—	—	—	—

Table 6.1. Survival regression models for selected constituents measured for in water samples collected at wells in the U.S. Geological Survey (USGS) aquifer water-quality monitoring network, Idaho National Laboratory and vicinity, Idaho. Detected values of constituent concentrations are represented as ‘interval-censored’ data by accounting for sampling variability.—Continued

Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 7	Chromium	05-20-91 to 04-11-18	36	2.10	-1.03×10^{-4}	0.41	< 0.001	−3.8
	Nitrate	05-20-91 to 04-11-18	38	—	—	—	—	—
	Sodium	05-20-91 to 04-11-18	38	—	—	—	—	—
	Strontium-90	05-20-91 to 04-11-18	39	—	—	—	—	—
	Tetrachloroethylene	05-20-91 to 04-11-18	36	—	—	—	—	—
	Toluene	05-20-91 to 04-11-18	36	—	—	—	—	—
	Trichloroethylene	05-20-91 to 04-11-18	36	—	—	—	—	—
USGS 76	Tritium	05-20-91 to 04-11-18	40	—	—	—	—	—
	Cesium-137	04-07-89 to 04-05-18	55	—	—	—	—	—
	Chloride	04-07-89 to 04-05-18	56	—	—	—	—	—
	Chromium	04-07-89 to 04-05-18	50	—	—	—	—	—
	Nitrate	09-29-89 to 04-05-18	35	—	—	—	—	—
	Sodium	10-17-90 to 04-05-18	34	2.09	1.58×10^{-5}	0.74	< 0.001	0.6
	Strontium-90	04-07-89 to 04-05-18	55	—	—	—	—	—
USGS 77	Sulfate	10-17-90 to 04-05-18	32	3.01	3.01×10^{-5}	0.78	< 0.001	1.1
	Tritium	04-07-89 to 04-05-18	56	9.65	-2.08×10^{-4}	0.99	< 0.001	−7.6
	1,1-Dichloroethylene	10-25-90 to 10-01-18	37	−0.97	-8.24×10^{-5}	0.57	< 0.001	−3.0
	1,1,1-Trichloroethane	10-25-90 to 10-01-18	37	1.51	-2.56×10^{-4}	0.95	< 0.001	−9.3
	Carbon tetrachloride	10-25-90 to 10-01-18	37	—	—	—	—	—
	Cesium-137	10-25-90 to 10-01-18	36	—	—	—	—	—
	CFC-12	10-25-90 to 10-01-18	36	−1.26	-6.73×10^{-5}	0.75	0.040	−2.5
	Chloride	03-31-89 to 10-01-18	49	5.50	-6.68×10^{-5}	0.55	< 0.001	−2.4
	Chloroform	10-25-90 to 10-01-18	37	—	—	—	—	—
	Chromium	10-25-90 to 10-01-18	37	3.11	-5.90×10^{-5}	0.43	< 0.001	−2.2
	Fluoride	10-25-90 to 10-01-18	37	−1.73	1.30×10^{-5}	0.15	0.016	0.5
	Nitrate	10-30-89 to 10-01-18	44	1.96	-6.35×10^{-5}	0.66	< 0.001	−2.3
	Plutonium-238	10-25-90 to 10-01-18	37	—	—	—	—	—
	Sodium	10-30-89 to 10-01-18	43	—	—	—	—	—
	Strontium-90	03-31-89 to 10-01-18	48	—	—	—	—	—
	Sulfate	10-25-90 to 10-01-18	37	3.62	-1.59×10^{-5}	0.73	< 0.001	−0.6
USGS 79	Tetrachloroethylene	10-25-90 to 10-01-18	37	—	—	—	—	—
	Toluene	10-25-90 to 10-01-18	37	—	—	—	—	—
	Trichloroethylene	10-25-90 to 10-01-18	37	—	—	—	—	—
	Tritium	03-31-89 to 10-01-18	49	12.69	-2.72×10^{-4}	0.97	< 0.001	−9.9
	Chloride	04-01-89 to 04-05-18	50	2.84	-2.78×10^{-5}	0.54	< 0.001	−1.0
	Chromium	04-01-89 to 04-05-18	48	2.18	-3.67×10^{-5}	0.23	< 0.001	−1.3
	Sodium	11-06-89 to 04-05-18	32	—	—	—	—	—
	Sulfate	10-30-95 to 04-05-18	26	3.37	-1.50×10^{-5}	0.20	0.015	−0.5

Table 6.1. Survival regression models for selected constituents measured for in water samples collected at wells in the U.S. Geological Survey (USGS) aquifer water-quality monitoring network, Idaho National Laboratory and vicinity, Idaho. Detected values of constituent concentrations are represented as ‘interval-censored’ data by accounting for sampling variability.—Continued

Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 79	Tritium	04-01-89 to 04-05-18	50	—	—	—	—	—
USGS 8	Cesium-137	05-01-89 to 04-13-15	44	—	—	—	—	—
	Chloride	05-01-89 to 04-10-18	47	2.28	-1.68×10^{-5}	0.27	< 0.001	-0.6
	Chromium	05-31-91 to 04-10-18	36	1.90	-6.49×10^{-5}	0.26	0.012	-2.4
	Nitrate	05-31-91 to 04-10-18	36	-0.31	1.59×10^{-5}	0.34	< 0.001	0.6
	Sodium	05-31-91 to 04-10-18	36	1.82	7.29×10^{-6}	0.19	0.006	0.3
	Tritium	05-01-89 to 04-10-18	48	—	—	—	—	—
	Chloride	04-14-89 to 04-17-18	66	3.01	-1.24×10^{-5}	0.16	< 0.001	-0.5
USGS 82	Nitrate	10-04-89 to 04-17-18	32	-0.40	-1.44×10^{-5}	0.20	0.008	-0.5
	Sodium	04-14-89 to 04-17-18	32	2.44	-6.39×10^{-6}	0.22	0.005	-0.2
	Strontium-90	04-14-89 to 04-17-18	70	—	—	—	—	—
	Sulfate	10-17-95 to 04-17-18	26	2.98	6.24×10^{-6}	0.33	0.001	0.2
	Tritium	04-14-89 to 04-17-18	70	9.13	-4.38×10^{-4}	0.31	< 0.001	-16.0
	1,1-Dichloroethylene	10-05-94 to 04-25-11	18	—	—	—	—	—
	1,1,1-Trichloroethane	10-05-94 to 04-25-11	18	—	—	—	—	—
USGS 83	Carbon tetrachloride	10-05-94 to 04-25-11	18	—	—	—	—	—
	Cesium-137	03-29-94 to 04-25-11	28	—	—	—	—	—
	CFC-12	10-05-94 to 04-25-11	18	—	—	—	—	—
	Chloride	04-13-89 to 04-25-11	40	2.73	-2.96×10^{-5}	0.28	< 0.001	-1.1
	Chloroform	10-05-94 to 04-25-11	18	—	—	—	—	—
	Chromium	03-29-94 to 04-25-11	28	—	—	—	—	—
	Nitrate	10-25-89 to 04-25-11	33	—	—	—	—	—
	Sodium	10-25-89 to 04-25-11	34	—	—	—	—	—
	Tetrachloroethylene	10-05-94 to 04-25-11	18	—	—	—	—	—
	Toluene	10-05-94 to 04-25-11	18	—	—	—	—	—
	Trichloroethylene	10-05-94 to 04-25-11	18	—	—	—	—	—
	Tritium	04-13-89 to 04-25-11	44	—	—	—	—	—
	1,1-Dichloroethylene	04-14-94 to 10-18-18	36	—	—	—	—	—
	1,1,1-Trichloroethane	04-14-94 to 10-18-18	36	-0.68	-1.27×10^{-4}	0.87	< 0.001	-4.6
	Carbon tetrachloride	04-14-94 to 10-18-18	36	—	—	—	—	—
USGS 84	Cesium-137	04-14-94 to 10-21-15	33	—	—	—	—	—
	CFC-12	04-14-94 to 10-18-18	36	—	—	—	—	—
	Chloride	04-01-89 to 10-18-18	46	—	—	—	—	—
	Chloroform	04-14-94 to 10-18-18	36	—	—	—	—	—
	Chromium	04-01-89 to 10-18-18	45	—	—	—	—	—
	Nitrate	04-14-94 to 10-18-18	38	—	—	—	—	—
	Plutonium-238	04-14-94 to 10-21-15	34	—	—	—	—	—
	Sodium	11-14-89 to 10-18-18	42	—	—	—	—	—

Table 6.1. Survival regression models for selected constituents measured for in water samples collected at wells in the U.S. Geological Survey (USGS) aquifer water-quality monitoring network, Idaho National Laboratory and vicinity, Idaho. Detected values of constituent concentrations are represented as ‘interval-censored’ data by accounting for sampling variability.—Continued

Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 84	Strontium-90	04-14-94 to 10-21-15	32	—	—	—	—	—
	Sulfate	10-18-90 to 10-18-18	37	—	—	—	—	—
	Tetrachloroethylene	04-14-94 to 10-18-18	36	—	—	—	—	—
	Toluene	04-14-94 to 10-18-18	36	—	—	—	—	—
	Trichloroethylene	04-14-94 to 10-18-18	36	—	—	—	—	—
	Tritium	04-01-89 to 10-18-18	47	10.33	-2.38×10^{-4}	0.81	< 0.001	-8.7
USGS 85	Chloride	04-01-89 to 04-16-18	50	5.44	-1.78×10^{-4}	0.87	< 0.001	-6.5
	Nitrate	10-30-89 to 04-16-18	34	1.74	-1.09×10^{-4}	0.87	< 0.001	-4.0
	Sodium	10-30-89 to 04-16-18	34	3.95	-9.87×10^{-5}	0.91	< 0.001	-3.6
	Strontium-90	04-01-89 to 04-16-18	50	—	—	—	—	—
	Sulfate	10-24-90 to 04-16-18	28	2.84	5.35×10^{-5}	0.73	< 0.001	2.0
	Tritium	04-01-89 to 04-16-18	51	12.20	-3.27×10^{-4}	0.95	< 0.001	-11.9
USGS 86	Cesium-137	05-31-91 to 10-13-15	32	—	—	—	—	—
	Chloride	04-21-89 to 06-06-18	45	3.29	-3.09×10^{-5}	0.70	< 0.001	-1.1
	Chromium	05-31-91 to 06-06-18	34	2.83	-2.64×10^{-5}	0.25	0.002	-1.0
	Nitrate	05-31-91 to 06-06-18	35	0.62	-2.71×10^{-5}	0.10	0.049	-1.0
	Sodium	05-31-91 to 06-06-18	34	—	—	—	—	—
	Tritium	04-21-89 to 06-06-18	46	—	—	—	—	—
USGS 87	1,1-Dichloroethylene	01-04-89 to 04-10-18	75	—	—	—	—	—
	1,1,1-Trichloroethane	01-04-89 to 04-10-18	75	-1.53	-1.36×10^{-5}	0.07	0.038	-0.5
	Carbon tetrachloride	01-04-89 to 04-10-18	75	-1.31	1.80×10^{-4}	0.75	< 0.001	6.6
	Cesium-137	01-04-89 to 04-10-18	76	—	—	—	—	—
	CFC-12	01-04-89 to 04-10-18	75	-4.67	2.49×10^{-4}	0.55	< 0.001	9.1
	Chloride	01-04-89 to 04-10-18	76	2.05	6.74×10^{-5}	0.41	< 0.001	2.5
	Chloroform	01-04-89 to 04-10-18	75	-3.44	1.38×10^{-4}	0.78	< 0.001	5.1
	Chromium	04-13-94 to 04-10-18	36	3.81	-1.25×10^{-4}	0.39	< 0.001	-4.6
	Nitrate	04-05-89 to 04-10-18	42	—	—	—	—	—
	Plutonium-238	01-04-89 to 04-10-18	75	—	—	—	—	—
	Sodium	04-05-89 to 04-10-18	42	1.88	4.89×10^{-5}	0.38	< 0.001	1.8
	Strontium-90	01-04-89 to 04-10-18	75	—	—	—	—	—
	Sulfate	04-05-89 to 04-10-18	28	—	—	—	—	—
	Tetrachloroethylene	01-04-89 to 04-10-18	75	-2.98	6.67×10^{-5}	0.41	< 0.001	2.4
	Toluene	01-04-89 to 04-10-18	75	—	—	—	—	—
	Trichloroethylene	01-04-89 to 04-10-18	75	-2.57	1.68×10^{-4}	0.77	< 0.001	6.1
	Tritium	01-04-89 to 04-10-18	76	7.88	-9.48×10^{-5}	0.95	< 0.001	-3.5
USGS 88	1,1-Dichloroethylene	01-04-89 to 10-22-18	125	—	—	—	—	—
	1,1,1-Trichloroethane	01-04-89 to 10-22-18	125	0.74	-2.40×10^{-4}	0.88	< 0.001	-8.8
	Carbon tetrachloride	01-04-89 to 10-22-18	125	1.71	-1.27×10^{-4}	0.57	< 0.001	-4.7

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Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 88	Cesium-137	01-04-89 to 10-22-18	77	—	—	—	—	—
	CFC-12	01-04-89 to 10-22-18	125	—	—	—	—	—
	Chloride	01-04-89 to 10-22-18	77	4.27	1.73×10^{-5}	0.10	0.005	0.6
	Chloroform	01-04-89 to 10-22-18	125	—	—	—	—	—
	Nitrate	04-04-89 to 10-22-18	32	1.09	-8.24×10^{-5}	0.37	< 0.001	−3.0
	Plutonium-238	01-04-89 to 10-22-18	76	—	—	—	—	—
	Sodium	04-04-89 to 10-22-18	32	3.74	5.21×10^{-6}	0.11	0.049	0.2
	Strontium-90	01-04-89 to 10-22-18	76	—	—	—	—	—
	Sulfate	04-04-89 to 10-22-18	26	4.55	-4.56×10^{-5}	0.49	< 0.001	−1.7
	Tetrachloroethylene	01-04-89 to 10-22-18	125	—	—	—	—	—
	Toluene	01-04-89 to 10-22-18	125	−7.91	3.14×10^{-4}	0.12	0.006	11.5
	Trichloroethylene	01-04-89 to 10-22-18	125	0.45	-8.08×10^{-5}	0.58	< 0.001	−3.0
	Tritium	01-04-89 to 10-22-18	77	—	—	—	—	—
USGS 89	1,1-Dichloroethylene	01-04-89 to 05-09-18	47	—	—	—	—	—
	1,1,1-Trichloroethane	01-04-89 to 05-09-18	47	—	—	—	—	—
	Carbon tetrachloride	01-04-89 to 05-09-18	47	—	—	—	—	—
	Cesium-137	01-04-89 to 04-14-15	45	—	—	—	—	—
	CFC-12	01-04-89 to 05-09-18	47	—	—	—	—	—
	Chloride	01-04-89 to 05-09-18	75	3.44	2.17×10^{-5}	0.13	0.001	0.8
	Chloroform	01-04-89 to 05-09-18	47	—	—	—	—	—
	Nitrate	04-04-89 to 05-09-18	33	0.72	-1.29×10^{-5}	0.46	< 0.001	−0.5
	Plutonium-238	01-04-89 to 04-14-15	45	—	—	—	—	—
	Sodium	04-04-89 to 05-09-18	31	2.79	1.50×10^{-5}	0.25	0.003	0.5
	Strontium-90	01-04-89 to 04-14-15	71	—	—	—	—	—
	Sulfate	04-04-89 to 05-09-18	26	—	—	—	—	—
	Tetrachloroethylene	01-04-89 to 05-09-18	47	—	—	—	—	—
	Toluene	01-04-89 to 05-09-18	47	—	—	—	—	—
	Trichloroethylene	01-04-89 to 05-09-18	47	—	—	—	—	—
	Tritium	01-04-89 to 05-09-18	75	—	—	—	—	—
USGS 9	Cesium-137	05-31-91 to 10-13-15	34	—	—	—	—	—
	Chloride	04-21-89 to 10-17-18	49	3.55	-5.62×10^{-5}	0.70	< 0.001	−2.1
	Chromium	05-31-91 to 10-17-18	37	—	—	—	—	—
	Nitrate	05-31-91 to 10-17-18	37	—	—	—	—	—
	Sodium	10-20-89 to 10-17-18	42	2.81	-2.95×10^{-5}	0.80	< 0.001	−1.1
	Tritium	04-21-89 to 10-17-18	50	—	—	—	—	—
USGS 97	1,1-Dichloroethylene	11-30-89 to 03-26-18	52	—	—	—	—	—
	1,1,1-Trichloroethane	11-30-89 to 03-26-18	52	—	—	—	—	—
	Carbon tetrachloride	11-30-89 to 03-26-18	52	—	—	—	—	—

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Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 97	Cesium-137	03-14-94 to 05-18-16	36	—	—	—	—	—
	CFC-12	11-30-89 to 03-26-18	42	—	—	—	—	—
	Chloride	04-19-89 to 03-26-18	100	3.62	-1.25×10^{-5}	0.21	< 0.001	−0.5
	Chloroform	11-30-89 to 03-26-18	42	—	—	—	—	—
	Chromium	04-19-89 to 03-26-18	47	—	—	—	—	—
	Nitrate	10-12-89 to 03-26-18	66	0.46	2.08×10^{-5}	0.06	0.038	0.8
	Plutonium-238	03-14-94 to 03-31-15	32	—	—	—	—	—
	Sodium	04-19-89 to 03-26-18	42	2.53	1.98×10^{-5}	0.64	< 0.001	0.7
	Strontium-90	03-14-94 to 05-18-16	36	—	—	—	—	—
	Sulfate	11-30-89 to 03-26-18	93	3.63	-1.03×10^{-5}	0.25	< 0.001	−0.4
	Tetrachloroethylene	11-30-89 to 03-26-18	52	—	—	—	—	—
	Toluene	11-30-89 to 03-26-18	52	—	—	—	—	—
	Trichloroethylene	11-30-89 to 03-26-18	52	—	—	—	—	—
	Tritium	04-19-89 to 03-26-18	91	—	—	—	—	—
USGS 98	1,1-Dichloroethylene	11-29-89 to 10-15-18	54	—	—	—	—	—
	1,1,1-Trichloroethane	11-29-89 to 10-15-18	54	—	—	—	—	—
	Carbon tetrachloride	11-29-89 to 10-15-18	54	—	—	—	—	—
	Cesium-137	11-29-89 to 05-16-16	37	—	—	—	—	—
	CFC-12	11-29-89 to 10-15-18	41	—	—	—	—	—
	Chloride	04-19-89 to 10-15-18	98	2.81	-1.10×10^{-5}	0.11	< 0.001	−0.4
	Chloroform	11-29-89 to 10-15-18	41	—	—	—	—	—
	Chromium	04-19-89 to 10-15-18	47	—	—	—	—	—
	Nitrate	11-29-89 to 10-15-18	64	—	—	—	—	—
	Plutonium-238	11-29-89 to 10-21-15	32	—	—	—	—	—
	Sodium	10-10-89 to 10-15-18	41	2.14	1.61×10^{-5}	0.41	< 0.001	0.6
	Strontium-90	11-29-89 to 05-16-16	37	—	—	—	—	—
	Sulfate	11-29-89 to 10-15-18	91	—	—	—	—	—
	Tetrachloroethylene	11-29-89 to 10-15-18	54	—	—	—	—	—
	Toluene	11-29-89 to 10-15-18	54	—	—	—	—	—
	Trichloroethylene	11-29-89 to 10-15-18	54	—	—	—	—	—
USGS 99	Tritium	04-19-89 to 10-15-18	88	—	—	—	—	—
	1,1-Dichloroethylene	11-30-89 to 05-18-16	22	—	—	—	—	—
	1,1,1-Trichloroethane	11-30-89 to 05-18-16	22	—	—	—	—	—
	Carbon tetrachloride	11-30-89 to 05-18-16	22	—	—	—	—	—
	Chloride	04-19-89 to 10-11-18	100	2.98	9.04×10^{-6}	0.06	0.012	0.3
	Chromium	04-19-89 to 10-11-18	47	—	—	—	—	—
	Sodium	04-19-89 to 10-11-18	34	2.39	2.39×10^{-5}	0.71	< 0.001	0.9
	Sulfate	11-30-89 to 10-11-18	88	—	—	—	—	—

Table 6.1. Survival regression models for selected constituents measured for in water samples collected at wells in the U.S. Geological Survey (USGS) aquifer water-quality monitoring network, Idaho National Laboratory and vicinity, Idaho. Detected values of constituent concentrations are represented as ‘interval-censored’ data by accounting for sampling variability.—Continued

Well name	Constituent name	Period of record	Number of observations	Model coefficients		Pseudo R^2	p -value	Long-term trend
				α	β			
USGS 99	Tetrachloroethylene	11-30-89 to 05-18-16	22	—	—	—	—	—
	Toluene	11-30-89 to 05-18-16	22	—	—	—	—	—
	Trichloroethylene	11-30-89 to 05-18-16	22	—	—	—	—	—
	Tritium	04-19-89 to 10-11-18	89	—	—	—	—	—
WS INEL 1	Chloride	04-19-89 to 04-05-18	62	5.73	-1.49×10^{-4}	0.82	< 0.001	−5.4
	Chromium	04-19-89 to 04-05-18	45	2.53	-3.75×10^{-5}	0.32	< 0.001	−1.4
	Sodium	10-10-89 to 04-05-18	33	3.26	-5.05×10^{-5}	0.55	< 0.001	−1.8
	Sulfate	12-14-89 to 04-05-18	52	4.48	-7.19×10^{-5}	0.76	< 0.001	−2.6
	Tritium	04-19-89 to 04-05-18	54	—	—	—	—	—

References Cited

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