

Table S1. Summary of annual precipitation depths, Hg concentrations, and Hg deposition by year for Midwestern USA study area, 2001–2016

[mm, millimeter; Hg, mercury; ng/L, nanogram per liter; $\mu\text{g}/\text{m}^2$, microgram per square meter]

Site identification number	Year with complete annual record of 52 weekly observations ^a	Annual precipitation depth (mm)	Annual precipitation-Hg concentration (ng/L)	Annual precipitation-Hg deposition ($\mu\text{g}/\text{m}^2$)	Number of weekly precipitation samples ^b	Number of weekly samples with estimated Hg deposition ^c
IN20	2001	1,040	11.7	12.2	44	0
IN20	2002	821	9.6	8.3	45	3
IN20	2003	1,363	11.2	15.2	46	0
IN20	2004	1,098	10.4	11.7	42	1
IN20	2005	869	9.2	8.0	49	0
IN20	2006	1,124	9.2	10.4	46	1
IN20	2007	1,065	6.4	6.8	38	3
IN20	2008	1,049	9.0	9.4	44	0
IN20	2009	1,012	5.4	7.8	46	1
IN21	2001	994	12.1	12.2	44	2
IN21	2002	1,289	11.6	15.0	45	0
IN21	2003	1,314	13.2	17.3	50	0
IN21	2004	1,214	12.8	15.6	43	1
IN21	2005	1,078	11.3	12.3	49	2
IN21	2006	1,385	12.3	17.1	43	0
IN21	2007	1,167	10.3	12.0	45	0
IN21	2008	1,351	12.1	16.3	44	0
IN21	2009	1,394	11.3	15.9	50	1
IN21	2011	1,667	11.6	19.6	47	1
IN21	2014	1,256	10.4	13.1	47	1
IN21	2015	1,509	8.2	12.4	46	0
IN21	2016	1,249	8.0	10.0	49	1
IN22	2014	1,152	9.4	10.8	46	0
IN22	2015	1,268	7.9	10.1	44	2
IN22	2016	1,143	8.1	9.5	44	5
IN26	2004	1,049	9.2	9.7	44	1
IN26	2005	1,188	9.6	11.4	47	1
IN26	2006	1,358	10.1	13.8	48	0
IN26	2007	1,070	9.1	9.8	45	0
IN26	2008	1,376	12.6	18.4	47	3
IN26	2009	1,179	8.1	9.6	48	0
IN28	2001	1,169	10.2	12.0	43	0
IN28	2002	1,180	8.3	10.3	42	7
IN28	2003	1,299	9.3	12.0	43	1
IN28	2004	1,012	9.7	9.9	39	0
IN28	2005	1,244	8.6	10.5	46	0
IN28	2006	1,401	8.4	11.7	46	0
IN28	2007	960	8.5	8.2	40	1
IN28	2008	1,459	10.1	14.8	47	0
IN28	2009	1,309	7.9	10.4	49	0

Table S1. Summary of annual precipitation depths, Hg concentrations, and Hg deposition by year for Midwestern USA study area, 2001–2016

[mm, millimeter; Hg, mercury; ng/L, nanogram per liter; $\mu\text{g}/\text{m}^2$, microgram per square meter]

Site identification number	Year with complete annual record of 52 weekly observations ^a	Annual precipitation depth (mm)	Annual precipitation-Hg concentration (ng/L)	Annual precipitation-Hg deposition ($\mu\text{g}/\text{m}^2$)	Number of weekly precipitation samples ^b	Number of weekly samples with estimated Hg deposition ^c
IN34	2001	866	12.1	10.5	42	0
IN34	2002	720	12.0	8.8	39	1
IN34	2003	887	13.7	12.4	45	3
IN34	2004	965	10.7	10.3	47	0
IN34	2005	644	12.1	7.8	44	0
IN34	2006	1,232	9.5	11.7	45	0
IN34	2007	1,085	9.5	10.4	45	1
IN34	2008	1,356	8.5	11.6	48	2
IN34	2009	1,099	8.9	9.8	48	1
IN34	2010	909	13.9	12.6	42	0
IN34	2011	1,154	13.0	15.0	50	0
IN34	2012	773	11.4	8.8	45	0
IN34	2014	1,171	9.4	11.4	49	4
IN34	2015	1,091	7.4	8.3	46	2
IN34	2016	1,072	6.9	7.6	47	2
IL11	2001	776	11.4	8.9	53	1
IL11	2002	877	10.9	9.6	38	0
IL11	2003	859	11.3	9.7	45	1
IL11	2004	969	10.4	10.1	41	5
IL11	2005	874	9.6	8.4	44	4
IL11	2006	858	9.9	8.5	48	5
IL11	2007	759	10	7.6	43	5
IL11	2008	1,305	10.9	14.2	47	4
IL11	2009	1,239	9.6	11.9	49	6
IL11	2010	932	12.2	11.4	44	3
IL11	2011	886	11.8	10.5	44	1
IL11	2012	753	12.6	9.5	46	3
IL11	2013	849	9.5	8.1	41	2
IL11	2014	1,048	12.8	13.4	47	5
IL11	2015	1,020	10.5	10.7	46	1
IL11	2016	948	11.3	10.8	43	2
IL63	2014	1,019	11.0	11.2	43	1
IL63	2015	1,551	8.6	13.4	46	2

Table S1. Summary of annual precipitation depths, Hg concentrations, and Hg deposition by year for Midwestern USA study area, 2001–2016

[mm, millimeter; Hg, mercury; ng/L, nanogram per liter; $\mu\text{g}/\text{m}^2$, microgram per square meter]

Site identification number	Year with complete annual record of 52 weekly observations ^a	Annual precipitation depth (mm)	Annual precipitation-Hg concentration (ng/L)	Annual precipitation-Hg deposition ($\mu\text{g}/\text{m}^2$)	Number of weekly precipitation samples ^b	Number of weekly samples with estimated Hg deposition ^c
KY10	2003	1,310	8.6	11.3	51	4
KY10	2004	1,470	8.0	11.8	47	3
KY10	2005	1,320	8.2	10.8	47	2
KY10	2006	1,281	9.1	11.7	50	2
KY10	2007	1,145	8.8	10.1	44	0
KY10	2008	1,233	8.3	10.2	48	0
KY10	2009	1,544	7.8	12.1	47	0
KY10	2010	1,462	7.3	10.7	46	4
KY10	2011	1,745	9.1	15.8	46	1
KY10	2012	1,145	8.6	9.8	46	0
KY10	2013	1,414	7.5	10.7	52	1
KY10	2014	1,173	8.7	10.2	45	1
KY10	2015	1,565	8.0	12.6	46	0
KY10	2016	1,295	7.7	10.0	46	2
MI26	2014	986	8.1	8.0	52	5
MI26	2015	1,110	8.6	9.3	48	3
MI52	2014	900	9.8	8.8	52	3
MI52	2015	829	14.1	11.7	46	2
MI52	2016	999	6.3	6.5	45	7
OH02	2005	855	11.4	9.8	45	0
OH02	2006	1,095	9.3	10.2	47	2
OH02	2007	947	8.8	8.4	47	5
OH02	2008	1,050	9.3	9.8	47	1
OH02	2009	905	7.5	6.8	50	2
OH02	2014	912	8.1	7.4	46	0
OH02	2015	1,215	7.6	9.2	48	0
OH02	2016	899	6.6	6.5	46	3
OH52	2015	797	8.89	7.08	45	1
OH52	2016	611	7.99	4.6	42	1

^a "Observation" is rain gage and precipitation collector in operation, regardless of measured weekly precipitation

^b "Sample" is measured weekly precipitation depth > 0.25 mm.

^c Number of samples with measured weekly precipitation depth >0.25 mm and Hg concentration and Hg deposition estimated with data from valid samples.