

Illinois EPA/McLean County Landfill #2 Groundwater Inorganic Results

15 May 2018

Parameters	Interwell	G114				G209			
		Intrawell	IEPA	MCL	RPD	Intrawell	IEPA	MCL	RPD
Ammonia, dissolved (mg/L)	8.17	1.18	0.60	0.4	40.00%	0.5	0.11	<0.10	N/C
Arsenic, dissolved (µg/L)	90.8	5	<0.5	<5	N/C	5	1.01	<5	N/C
Boron, dissolved (µg/L)	785.4	290.5	268	276	-2.94%	90	82.2	73	11.86%
Cadmium, dissolved (µg/L)	1	4	<3	<1	N/C	4	<3	<1	N/C
Chloride, dissolved (mg/L)	30	287.9	213	214	-0.47%	156.3	83.9	85	-1.30%
Chromium, dissolved (µg/L)	1	1	<5	<1	N/C	1	<5	<1	N/C
Cyanide, total (mg/L)	0.005	0.009	<0.005	<0.005	N/C	0.009	<0.005	<0.005	N/C
Lead, dissolved (µg/L)	2	5	<5	<2	N/C	5	<5	<2	N/C
Magnesium, dissolved (mg/L)	60.4	91.2	67.1	67.2	-0.15%	78.7	53.3	54.2	-1.67%
Mercury, dissolved (µg/L)	0.5	0.5	<0.06	<0.5	N/C	0.5	<0.06	<0.5	N/C
Nitrate, dissolved (mg/L)*	0.1	0.1	<0.100	<0.10	N/C	0.37	<0.100	<0.10	N/C
pH	6.48-9.26	7.6-8.6	7.1	6.37	10.84%	5.15-8.74	7.1	6.49	8.98%
Phenols	55	20	15.7	<10	N/C	20	<10	<10	N/C
Spec. Cond. (µmhos/cm)	1243.7	3025.5	1,677	1587	5.51%	1185	1128	1060	6.22%
Sulfate, dissolved (mg/L)	37	267.8	151	180	-17.52%	441.5	97.8	111	-12.64%
Total Dissolved Solids (mg/L)	576.2	1100.3	996	1080	-8.09%	820.9	726	665	8.77%
Zinc, dissolved (µg/L)	5	20	<25	<5	N/C	20	<25	<5	N/C

Parameters	Interwell	G222				G213					
		Intrawell	IEPA	MCL	RPD	Intrawell	IEPA 1°	IEPA Dupe	IEPA 1°/ Dupe RPD	MCL	RPD
Ammonia, dissolved (mg/L)	8.17	7.98	4.49	3.31	30.26%	2.64	0.43	0.43	0.00%	0.32	29.33%
Arsenic, dissolved (µg/L)	90.8	119.8	59.6	62	-3.95%	5	<0.5	<0.5	N/C	<5	N/C
Boron, dissolved (µg/L)	785.4	712	518	464	11.00%	201.1	171	177	3.45%	177	-1.71%
Cadmium, dissolved (µg/L)	1	1	<3	<1	N/C	4	<3	<3	N/C	<1	N/C
Chloride, dissolved (mg/L)	30	30	8.30	9	-8.09%	231.7	167	166	0.60%	170	-2.08%
Chromium, dissolved (µg/L)	1	1	<5	<1	N/C	1	<5	<5	N/C	<1	N/C
Cyanide, total (mg/L)	0.005	0.005	<0.005	<0.005	N/C	0.009	<0.005	<0.005	N/C	<0.005	N/C
Lead, dissolved (µg/L)	2	2	<5	2	N/C	5	<5	<5	N/C	<2	N/C
Magnesium, dissolved (mg/L)	60.4	64.8	43.5	42.3	2.80%	85.1	58.9	59.4	0.85%	59.5	-0.59%
Mercury, dissolved (µg/L)	0.5	0.5	<0.06	<0.5	N/C	0.5	<0.06	<0.06	N/C	<0.5	N/C
Nitrate, dissolved (mg/L)*	0.1	0.1	<0.100	<0.10	N/C	0.1	<0.100	<0.100	N/C	<0.10	N/C
pH	6.48-9.26	3.32-12.1	7.5	7.94	-5.70%	7.2-8.1	7.0	7.0	0.00%	7.70	-9.52%
Phenols	55	10	<10	<10	N/C	20	16.9	23.9	34.31%	<10	N/C
Spec. Cond. (µmhos/cm)	1243.7	1630.4	815	779	4.52%	2471.2	1512	1513	0.07%	1419	6.38%
Sulfate, dissolved (mg/L)	37	73.4	<10	<10	N/C	208.3	150	149	0.67%	147	N/C
Total Dissolved Solids (mg/L)	576.2	654.9	462	458	0.87%	974.1	926	926	0.00%	916	1.09%
Zinc, dissolved (µg/L)	5	5	<25	<5	N/C	20	<25	<25	N/C	<5	N/C

Ave RPD, IEPA 1°/Dupe: 3.99%
 (including bis(2-ethylhexyl)phthalate RPD)

N/C = Not calculated

N/S = Not sampled

IEPA Prim. = IEPA primary sample of that well

Dupe = IEPA field duplicate of that well

RPD = Relative Percent Difference

*IEPA result is for nitrate + nitrite, so not necessarily comparable to facility result or permitted standards

<# = Below indicated reporting limit

Italic result = exceeds interwell (and intrawell, if applicable)

Illinois EPA/First Environmental Labs Comparison

total RPDs	30
Abs RPDs ≤10%	22
Abs RPDs ≤20%	27