

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

Bold 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 |