

WATER TREATMENT PLANT, EAST LIVERPOOL, OHIO

MANGANESE PM10 CONCENTRATIONS 2009, 2011-2020 (January)

2009		2011		2012		2013		2014		20
Date	µg/m3	Date	µg/m3	Date	µg/m3	Date	µg/m3	Date	µg/m3	Date
2009-01-01	0.014	2011-06-26	0.011	2012-01-04	0.011	2013-01-04	0.014*	2014-01-05	1.200	2015-01-06
2009-01-07	0.071	2011-07-02	0.262	2012-01-10	0.145	2013-01-10	0.260	2014-01-11	0.016*	2015-01-12
2009-01-13	0.014*	2011-07-08	0.344	2012-01-16	0.326	2013-01-16	0.014*	2014-01-17	0.016	2015-01-18
2009-01-19	0.036	2011-07-14	0.985	2012-01-22	0.019	2013-01-22	0.017	2014-01-23	0.014*	2015-01-24
2009-01-25	0.014*	2011-07-20	0.279	2012-01-28	0.008	2013-01-28	0.018	2014-01-29	1.000	2015-01-30
2009-01-31	0.014*	2011-07-26	0.152	2012-01-04	0.014*	2013-02-03	0.014*	2014-02-04	0.250	2015-02-05
2009-02-06	0.610	2011-08-01	0.180	2012-01-10	0.056	2013-02-09	0.110	2014-02-10	0.048	2015-02-11
2009-02-12	0.014*	2011-08-07	0.010	2012-01-16	0.130	2013-02-15	0.570	2014-02-16	0.031	2015-02-17
2009-02-18	0.470	2011-08-13	0.118	2012-01-22	0.014*	2013-02-21	0.130	2014-02-22	0.031	2015-02-23
2009-02-24	0.260	2011-08-19	1.540	2012-01-28	0.015*	2013-02-27	0.015*	2014-02-28	0.680	2015-03-01
2009-03-02	0.058	2011-08-25	0.026	2012-02-03	0.410	2013-03-05	1.000	2014-03-06	0.430	2015-03-07
2009-03-08	0.049	2011-08-31	1.230	2012-02-09	0.040	2013-03-11	0.340	2014-03-12	0.022	2015-03-13
2009-03-14	0.017	2011-09-06	1.530	2012-02-15	0.099	2013-03-17	0.014	2014-03-18	0.290	2015-03-19
2009-03-20	0.050	2011-09-12	0.993	2012-02-21	0.210	2013-03-23	0.026	2014-03-24	0.029	2015-03-25
2009-03-26	0.540	2011-09-18	0.030	2012-02-27	0.022	2013-03-29	0.120	2014-03-30	0.015*	2015-03-31
2009-04-01	0.470	2011-09-24	0.012	2012-03-04	0.015*	2013-04-04	0.460	2014-04-05	0.015	2015-04-06
2009-04-07	0.015*	2011-09-30	0.007	2012-03-10	0.014*	2013-04-10	0.086	2014-04-11	0.047*	2015-04-12
2009-04-13	0.460	2011-10-06	0.928	2012-03-16	0.025	2013-04-16	0.200	2014-04-17	0.170	2015-04-18
2009-04-19	0.022	2011-10-12	2.450	2012-03-22	0.170	2013-04-22	0.220	2014-04-23	0.020	2015-04-24
2009-04-25	0.032	2011-10-18	0.295	2012-03-28	0.026	2013-04-28	AV	2014-04-29	0.082	2015-04-30
2009-05-01	0.015*	2011-10-24	0.123	2012-04-03	0.230	2013-05-04	0.230	2014-05-05	AN	2015-05-06
2009-05-07	0.015*	2011-10-30	0.010	2012-04-09	0.015*	2013-05-10	0.130	2014-05-11	0.040	2015-05-12
2009-05-13	0.190	2011-11-05	0.076	2012-04-15	0.015*	2013-05-16	0.028	2014-05-17	0.015*	2015-05-18
2009-05-19	0.033	2011-11-11	0.020	2012-04-21	0.015*	2013-05-22	0.017*	2014-05-23	0.050	2015-05-24
2009-05-25	0.031	2011-11-17	0.017	2012-04-27	0.015*	2013-05-28	0.120	2014-05-29	0.140	2015-05-30
2009-05-31	0.043	2011-11-23	0.035	2012-05-03	0.075	2013-06-03	0.120	2014-06-04	0.130	2015-06-05
2009-06-06	0.028	2011-11-29	0.030	2012-05-09	0.016	2013-06-09	0.020	2014-06-10	0.120	2015-06-11
2009-06-12	0.036	2011-12-05	0.524	2012-05-15	0.032	2013-06-15	0.019	2014-06-16	0.048	2015-06-17
2009-06-18	0.023	2011-12-11	0.029	2012-05-21	0.160	2013-06-21	0.060	2014-06-22	0.024	2015-06-23
2009-06-24	0.042	2011-12-17	0.007	2012-05-27	0.015*	2013-06-27	0.026	2014-06-28	0.180	2015-06-29
2009-06-30	0.015*	2011-12-23	0.004	2012-06-02	0.015*	2013-07-03	0.059	2014-07-04	0.025	2015-07-05
2009-07-06	0.220	2011-12-29	1.850	2012-06-08	0.015*	2013-07-09	0.015*	2014-07-10	0.080	2015-07-11
2009-07-12	0.015*	2011-10-05	AG	2012-06-14	AN	2013-07-15	0.026	2014-07-16	0.070	2015-07-17
2009-07-18	0.015*	2011-10-12	0.081	2012-06-20	0.022	2013-07-21	0.015*	2014-07-22	0.065	2015-07-23
2009-07-24	0.016	2011-10-13	1.580	2012-06-26	0.110	2013-07-27	0.024	2014-07-28	0.016*	2015-07-29
2009-07-30	0.081	2011-10-14	AV	2012-07-02	0.110	2013-08-02	0.035	2014-08-03	0.015*	2015-08-04
2009-08-05	0.260	2011-10-15	0.003	2012-07-08	0.015*	2013-08-08	0.057	2014-08-09	0.140	2015-08-10
2009-08-11	0.270	2011-10-16	0.002	2012-07-14	0.016*	2013-08-14	0.015*	2014-08-15	0.081	2015-08-16
2009-08-17	0.140	2011-10-17	0.006	2012-07-20	0.064	2013-08-20	0.053	2014-08-21	0.015	2015-08-22
2009-08-23	0.015*	2011-10-18	0.032	2012-07-26	0.460	2013-08-26	0.280	2014-08-27	0.110	2015-08-28
2009-08-29	0.015*	2011-10-19	1.210	2012-08-01	0.070	2013-09-01	0.049	2014-09-02	0.016*	2015-09-03
2009-09-04	0.120	2011-10-20	0.007	2012-08-07	0.099	2013-09-07	0.032	2014-09-08	0.840	2015-09-09
2009-09-10	1.100	2011-10-21	0.001	2012-08-13	0.310	2013-09-13	0.020	2014-09-14	0.034	2015-09-15
2009-09-16	0.680	2011-10-22	0.002	2012-08-19	0.016*	2013-09-19	0.096	2014-09-20	0.084	2015-09-21

2009-09-22	0.500	2011-10-23	0.002	2012-08-25	0.016*	2013-09-25	AV	2014-09-26	3.600	2015-09-27
2009-09-28	AN	2011-10-24	0.012	2012-08-31	0.089	2013-10-01	0.067	2014-10-02	0.270	2015-10-03
		2011-10-25	0.021	2012-09-06	0.018	2013-10-07	0.015*	2014-10-08	0.020	2015-10-09
		2011-10-26	0.135	2012-09-12	1.400	2013-10-13	0.170	2014-10-14	0.870	2015-10-15
		2011-10-27	0.045	2012-09-18	0.016*	2013-10-19	0.063	2014-10-20	0.026	2015-10-21
		2011-10-28	0.427	2012-09-24	0.045	2013-10-25	0.096	2014-10-26	0.020	2015-10-27
		2011-10-29	0.001	2012-09-30	0.019	2013-10-31	0.059	2014-11-01	0.022	2015-11-02
		2011-10-30	0.001	2012-10-06	0.015*	2013-11-06	0.270	2014-11-07	0.015*	2015-11-08
		2011-10-31	0.024	2012-10-12	0.120	2013-11-12	0.024	2014-11-13	0.015*	2015-11-14
		2011-11-01	0.010	2012-10-18	0.087	2013-11-18	0.015*	2014-11-19	0.015*	2015-11-20
		2011-11-02	0.028	2012-10-24	0.220	2013-11-24	0.015*	2014-11-25	0.100	2015-11-26
		2011-11-03	0.034	2012-10-30	0.230	2013-11-30	0.140	2014-12-01	0.320	2015-12-02
		2011-11-04	0.094	2012-11-05	0.020	2013-12-06	0.046	2014-12-07	0.230	2015-12-08
		2011-11-05	0.012	2012-11-11	0.043	2013-12-12	0.014*	2014-12-13	0.015*	2015-12-14
		2011-11-06	0.035	2012-11-17	0.025	2013-12-18	0.710	2014-12-19	0.015*	2015-12-20
		2011-11-07	0.016	2012-11-23	0.023	2013-12-24	0.015*	2014-12-25	0.015*	2015-12-26
		2011-11-08	0.038	2012-11-29	0.110	2013-12-30	0.050	2014-12-31	0.014*	
		2011-11-09	0.036	2012-12-05	0.019					
		2011-11-10	0.012	2012-12-11	0.014*					
		2011-11-11	0.002	2012-12-17	0.230					
		2011-11-12	0.002	2012-12-23	0.014*					
		2011-11-13	0.002	2012-12-29	0.430					
		2011-11-14	0.004							
		2011-11-15	0.004							
		2011-11-16	0.028							
		2011-11-17	0.003							
		2011-11-18	0.020							
		2011-11-19	0.006							
		2011-11-20	0.001							
		2011-11-21	0.039							
		2011-11-22	0.018							
		2011-11-23	0.006							
		2011-11-24	0.002							
		2011-11-25	0.128							
		2011-11-26	0.131							
		2011-11-27	0.002							
		2011-11-28	0.013							
		2011-11-29	0.003							
		2011-11-30	0.002							
		2011-12-01	0.007							

AQS Qualifier Code	Qualifier Description
*MD	Value less than MDL
AN	Machine Malfunction
AV	Power Failure
BA	Maintenance/Routine Repairs
AG	Sample Time out of Limits
	School Air Toxics Project: https://www3.epa.gov/air/sat/schools.html

** Due to Covid-19 and Ohio's stay at home order, all filterable and canister data ceased collection after Jan. 2020. It is TBD when new data will be collected, analyzed and posted.

15	2016		2017		2018		2019		2020**	
µg/m3	Date	µg/m3	Date	µg/m3	Date	µg/m3	Date	µg/m3	Date	µg/m3
0.079	2016-01-01	0.520	2017-01-01	0.015*	2018-01-02	0.017	2019-01-03	0.329	2020-01-04	0.016*
0.210	2016-01-07	0.016*	2017-01-07	0.015*	2018-01-08	0.015*	2019-01-09	0.015*	2020-01-10	1.4
0.053	2016-01-13	0.017	2017-01-13	0.190	2018-01-14	0.015*	2019-01-15	0.015*	2020-01-16	0.016*
0.040	2016-01-19	0.500	2017-01-19	0.053	2018-01-20	AN	2019-01-21	0.050	2020-01-22	1.67
0.031	2016-01-25	1.100	2017-01-25	0.034	2018-01-26	0.129	2019-01-27	0.015*	2020-01-28	0.016*
0.043	2016-01-31	0.021	2017-01-31	AN	2018-02-01	0.016*	2019-02-02	0.799		
0.150	2016-02-06	0.032	2017-02-06	0.270	2018-02-07	0.016	2019-02-08	0.015*		
0.096	2016-02-12	0.072	2017-02-12	0.015*	2018-02-13	0.231	2019-02-14	0.506		
0.050	2016-02-18	BA	2017-02-18	0.035	2018-02-19	0.229	2019-02-20	0.470		
0.120	2016-02-24	0.160	2017-02-24	0.084	2018-02-25	0.017	2019-02-26	0.202		
0.760	2016-03-01	0.260	2017-03-02	0.015*	2018-03-03	0.015	2019-03-04	0.015*		
0.041	2016-03-07	0.160	2017-03-08	0.015*	2018-03-09	0.015*	2019-03-10	0.015*		
1.000	2016-03-13	0.016*	2017-03-14	0.040	2018-03-15	0.016*	2019-03-16	0.015*		
0.270	2016-03-19	0.015	2017-03-20	0.088	2018-03-21	0.045*	2019-03-22	0.015*		
0.280	2016-03-25	0.015*	2017-03-26	0.016*	2018-03-27	0.111	2019-03-28	0.137		
0.930	2016-03-31	0.083	2017-04-01	0.015*	2018-04-02	0.100	2019-04-03	0.082		
0.096	2016-04-06	0.520	2017-04-07	0.015*	2018-04-08	0.016*	2019-04-09	0.050		
0.170	2016-04-12	0.054	2017-04-13	0.186	2018-04-14	0.062	2019-04-15	0.015*		
0.190	2016-04-18	0.340	2017-04-19	0.095	2018-04-20	0.052	2019-04-21	0.328		
0.200	2016-04-24	0.025	2017-04-25	0.711	2018-04-26	0.051	2019-04-27	0.000		
0.430	2016-04-30	0.032	2017-05-01	0.062	2018-05-02	0.163	2019-05-03	0.048		
0.023	2016-05-06	0.560	2017-05-07	0.016*	2018-05-08	0.039	2019-05-09	0.151		
0.180	2016-05-12	AN	2017-05-13	0.018	2018-05-14	0.016*	2019-05-15	0.089		
0.230	2016-05-18	0.200	2017-05-19	0.272	2018-05-20	0.016*	2019-05-21	0.157		
0.059	2016-05-24	0.045	2017-05-25	0.055*	2018-05-26	0.057	2019-05-27	0.042		
0.140	2016-05-30	0.021	2017-05-31	0.016*	2018-06-01	0.016	2019-06-02	0.015*		
0.047	2016-06-05	0.016*	2017-06-06	0.016*	2018-06-07	0.219	2019-06-08	0.168		
1.500	2016-06-11	0.019	2017-06-12	0.017	2018-06-13	0.016	2019-06-14	0.037		
0.310	2016-06-17	0.170	2017-06-18	0.016*	2018-06-19	0.067	2019-06-20	0.017*		
0.099	2016-06-23	0.030	2017-06-24	0.016*	2018-06-25	0.145	2019-06-26	0.017*		
0.036	2016-06-29	0.026	2017-06-30	0.022	2018-07-01	0.016*	2019-07-02	0.059		
0.036	2016-07-05	0.016*	2017-07-06	0.024	2018-07-07	0.019	2019-07-08	0.103		
0.880	2016-07-11	0.140	2017-07-12	0.031	2018-07-13	0.280	2019-07-14	0.015*		
0.790	2016-07-17	0.016*	2017-07-18	0.051	2018-07-19	0.193	2019-07-20	0.016*		
0.160	2016-07-23	0.016*	2017-07-24	0.016*	2018-07-25	0.105	2019-07-26	0.115		
0.064	2016-07-29	0.016*	2017-07-30	0.016*	2018-07-31	0.218	2019-08-01	0.110		
2.600	2016-08-04	0.170	2017-08-05	0.016*	2018-08-06	0.050	2019-08-07	0.016*		
0.033	2016-08-10	0.330	2017-08-11	0.016*	2018-08-12	0.043	2019-08-13	0.263		
0.130	2016-08-16	0.016*	2017-08-17	0.091	2018-08-18	0.032	2019-08-19	0.016*		
0.250	2016-08-22	0.041	2017-08-23	0.016*	2018-08-24	0.112	2019-08-25	0.027		
0.076	2016-08-28	0.016*	2017-08-29	0.138	2018-08-30	0.127	2019-08-31	0.016*		
0.160	2016-09-03	0.017	2017-09-04	0.044	2018-09-05	0.162	2019-09-06	0.080		
0.130	2016-09-09	0.026	2017-09-10	0.016*	2018-09-11	0.064	2019-09-12	0.049		
0.210	2016-09-15	0.130	2017-09-16	0.016*	2018-09-17	0.312	2019-09-18	0.482		

