City of Lancaster, Ohio
Division of Water
Miller Park Wellhead Protection Program
Historical Groundwater Quality Data

MW-4D

PARAMETERS	Units	MCL/SMCL/ ACTION LEVEL	Oct-95	Jan-96	Apr-96	Jul-96	Feb-97	Apr-97	Jul-97	Oct-97	Jun-98	Dec-98	Jul-99	Aug-00	Nov-00	May-01	Oct-01	May-02
INORGANICS																		
ALUMINUM	mg/L	50 to 200 (S)	220	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
ANTIMONY	ug/L	6	ND	ND	ND	ND	4.7	ND	6.2	7.5	ND	ND	ND	ND	ND	ND	ND	ND
ARSENIC	ug/L	10.0	5.0	9.0	ND	10.9	12.0	13.0	1.0	1.0	8.8	8.9	7.7	6.1	6.0	9.0	8.0	6.7
BARIUM	ug/L	2000	290	340	200	ND	350	340	358	337	354	355	338	404	377	440	393	NA
BERYLLIUM	ug/L	4.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CADMIUM	ug/L	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CALCIUM	mg/L	--	95.0	100.0	72.0	310.0	97.0	97.0	96.0	102.0	81.0	96.0	103.0	96.2	110.0	110.0	100.0	98.9
CHROMIUM	ug/L	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COBALT	ug/L	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COPPER	ug/L	1000 (S) / 1300 (A)	ND	ND	ND	ND	ND	ND	ND	ND	11.0	ND	ND	ND	ND	NA	NA	NA
CYANIDE	mg/L	0.2	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IRON	ug/L	300 (S)	330	2200	700	12500	3800	3500	3000	3100	3300	3200	3100	3300	3480	3730	3410	3340
LEAD	ug/L	15 (A)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAGNESIUM	mg/L	--	29.0	29.0	19.0	42.0	28.0	28.0	27.0	28.0	26.0	28.0	28.0	28.2	29.0	32.0	31.0	31.9
MANGANESE	ug/L	50 (S)	180	190	140	320	180	190	170	160	174	162	168	189	200	220	200	200
MERCURY	ug/L	2.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NICKEL	ug/L	--	30.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
POTASSIUM	mg/L	--	2.0	1.6	15.0	< 5	1.4	1.7	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
SELENIUM	ug/L	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SILVER	ug/L	100 (S)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SODIUM	mg/L	--	20.0	16.0	18.0	38.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SULFIDE	mg/L	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	2.0	ND
THALLIUM	ug/L	2.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TIN	ug/L	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
VANADIUM	mg/L	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ZINC	ug/L	5000 (S)	30	50	20	36	ND	10	ND	ND	21	ND	ND	ND	ND	ND	ND	ND
VOLATILE ORGANICS VOC'S																		
Method 8260	Varies	Varies	D[1]	ND	ND	D[2]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FIELD PARAMETERS																		
STATIC WATER LEVEL	* from reference point																	
TEMPERATURE	°C	--	16.1	12.2	15.6	18.9	12.2	12.8	13.3	12.8	13.9	12.8	NM	19.2	10.4	13.9	12.7	13.8
pH	S.U.	6.5-8.5 (S)	7.40	7.40	7.80	7.60	7.60	7.60	6.90	6.90	7.60	7.60	7.40	7.31	7.24	6.80	7.50	7.10
CONDUCTIVITY	umhos/cm	--	575	580	539	590	750	800	750	720	720	730	760	700	840	680	820	720

PARAMETERS	Nov-02	May-03	Nov-03	May-04	Oct-04	May-05	Nov-05	Apr-06	Oct-06	May-07	Nov-07	Jun-08	Nov-08	Jul-09	Mar-15	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16
INORGANICS																						
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND
ANTIMONY	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ARSENIC	6.7	<5.0	6.3	7.2	<5.0	6.5	7.3	7.2	9.5	9.4	7.5	9.0	10.4	ND	4.0	5.0	4.0	5.0	5.0	4.0	3.4	3.9
BARIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	337	282	294	288	267	287	297	294
BERYLLIUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CADMIUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CALCIUM	96.2	103.0	110.0	104.0	104.0	106.0	92.4	95.0	108.0	109.0	97.3	97.3	103.0	98.4	105.0	99.1	99.1	101	92	96.1	99.7	96.8
CHROMIUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COBALT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COPPER	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND
CYANIDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IRON	3090	3140	3030	3220	2990	2950	3140	3120	3600	3510	3270	3140	3440	3210	ND	141	ND	ND	ND	ND	ND	ND
LEAD	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAGNESIUM	28.8	29.7	30.7	29.9	30.4	30.2	27.6	27.5	30.8	30.9	28.2	28.0	29.8	28.7	26.2	30.7	30.7	31.2	31.7	29.7	28.9	31.4
MANGANESE	181	194	179	199	182	181	196	214	231	243	206	236	231	241	215	228	228	235	249	235	242	246
MERCURY	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2	ND	ND	ND	ND	ND	ND
NICKEL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.0	ND	ND	ND	ND	ND	ND	ND
SELENIUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SILVER	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SODIUM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.1	14.1	15.9	12.7	14.9	14.1	13.2	14.1
SULFIDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
THALLIUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TIN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VANADIUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ZINC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOLATILE ORGANICS VOC'S																						
Method 8260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FIELD PARAMETERS																						
STATIC WATER LEVEL															12.84	12.42	12.60	12.31	13.11	13.13	13.28	13.48
TEMPERATURE	13.0	14.0	13.5	14.1	13.5	13.9	14.1	13.7	13.9	13.9	14.2	14.9	14.1	16.6	15.1	15.2	15.7	15.4	15.7	16.0	16.3	16.1
pH	7.31	7.19	7.31	6.75	7.39	7.43	7.42	7.30	7.35	7.35	7.29	7.38	7.27	7.38	7.34	7.31	7.37	7.34	7.37	7.19	7.22	7.36
CONDUCTIVITY	764	722	815	639	747	542	673	618	535	535	587	566	489	708	668	726	640	719	583	672	760	682

D[1] - Carbon Disulfate (2ug/l), D[2] - Carbon Disulfate (2ug/l)

*** Jan. 2017 - VOC's Out of Hold Time when analyzed**

(S) = Secondary Maximum Contaminant Level
(A) = Action Level
(O) = Ohio EPA Primary Maximum Contaminant Level
D = DETECTED
ND = NOT DETECTED
NA = NOT ANALZED
NM = NOT MEASURED