

Library Reference 7.11

Concentration summary of other parameters, Onondaga Lake South Deep, 2011.

Parameter (Units)	Sample Date Range 2010	Sample Depth Range (m)	N Samples	Concentration Results		
				Range	Average	Std Error
BOD5 (mg/L)	03/30 - 05/17	UML/LWL	10	2 - 3	2.2	0.13
Alkalinity (mg/L)	03/30 - 12/13	UML/LWL	46	130 - 230	185	2.86
Hardness (mg/L)	03/30 - 12/13	UML/LWL	38	330 - 458	403	4.25
pH (Std Units)	03/30 - 12/13	0 - 18	141	7.05 - 8.36	7.7	0.02
Temperature (°C)	03/30 - 12/13	0 - 18	160	3.1 - 27.03	13	0.50
Total organic carbon (mg/L)	03/30 - 12/13	0 - 18	76	2.36 - 3.88	3.0	0.05
Total organic carbon, filtered (mg/L)	03/30 - 06/07	0 - 18	20	2.3 - 2.97	2.5	0.04
Total inorganic carbon (mg/L)	03/30 - 12/13	0 - 18	76	31 - 56.2	44	0.66
Total Kjeldahl nitrogen (mg/L)	03/30 - 12/13	0 - 18	137	0.291 - 2.12	0.69	0.025
Organic nitrogen (mg/L)	03/30 - 12/13	0 - 18	133	0.14 - 1.04	0.42	0.013
Ammonia as N (mg/L)	03/30 - 12/13	0 - 18	137	0.016 - 1.98	0.26	0.025
Nitrite as N (mg/L)	03/30 - 12/13	UML/LWL	42	0.0143 - 0.102	0.041	0.0038
Nitrate as N (mg/L)	03/30 - 12/13	UML/LWL	42	1.04 - 2.13	1.7	0.04
Total phosphorus (mg/L)	03/30 - 12/13	0 - 18	137	0.008 - 0.078	0.023	0.0009
Soluble reactive phosphorus (mg/L)	03/30 - 12/13	0 - 18	137	0.001 - 0.038	0.004	0.0005
Total dissolved phosphorus (mg/L)	03/30 - 12/13	0 - 18	137	0.003 - 0.045	0.009	0.0006
Silica (mg/L)	03/30 - 12/13	0 - 18	84	1.36 - 9.28	4.2	0.20
Calcium (mg/L)	03/30 - 12/13	UML/LWL	38	102 - 144	126	1.37
Sodium (mg/L)	03/30 - 12/13	UML/LWL	38	134 - 242	193	3.99
Sulfate (mg/L)	03/30 - 12/13	UML/LWL	38	86.5 - 139	116	2.27
Chloride (mg/L)	03/30 - 12/13	UML/LWL	42	240 - 411	352	6.76
Salinity (ppt)	03/30 - 12/13	0 - 18	141	0.65 - 1.09	0.86	0.007
Conductivity (umHos/cm)	03/30 - 12/13	0 - 18	141	1300 - 2114	1694	12.66
Total solids (mg/L)	03/30 - 12/13	0 - 18	76	804 - 1304	1071	11.56
Total suspended solids (mg/L)	03/30 - 12/13	0 - 18	76	2 - 5	2.5	0.10
Total dissolved solids (mg/L)	03/30 - 12/13	0 - 18	84	755 - 1156	969	10.13
Turbidity (NTU)	03/30 - 12/13	UML	54	1.62 - 7.23	3.3	0.21
Phaeophytin-a (mg/m3)	03/30 - 12/13	0 - 3 (TC)	36	0.2 - 1.92	0.47	0.075
Arsenic (mg/L)	04/06 - 11/08	UML/LWL	8	0.002 - 0.002	0.0020	0
Cadmium (mg/L)	04/06 - 11/08	UML/LWL	8	0.0008 - 0.0008	0.0008	0.00E+00
Chromium (mg/L)	04/06 - 11/08	UML/LWL	8	0.002 - 0.002	0.0020	0
Copper (mg/L)	04/06 - 11/08	UML/LWL	8	0.0025 - 0.0025	0.0025	0.000000
Iron (mg/L)	03/30 - 12/13	UML/LWL	38	0.04 - 0.192	0.08	0.007
Lead (mg/L)	04/06 - 11/08	UML/LWL	8	0.002 - 0.002	0.0020	0
Magnesium (mg/L)	03/30 - 12/13	UML/LWL	38	18.3 - 23.9	22	0.24
Manganese (mg/L)	03/30 - 12/13	UML/LWL	38	0.02 - 0.926	0.15	0.039
Mercury, methyl (ng/l)	04/19 - 10/24	3 - 18	6	0.058 - 0.137	0.08	0.012
Mercury, total (ng/l)	04/19 - 10/24	3 - 18	6	0.98 - 1.85	1.5	0.14
Nickel (mg/L)	04/06 - 11/08	UML/LWL	8	0.0038 - 0.0038	0.0038	0.00E+00
Potassium (mg/L)	04/06 - 11/08	UML/LWL	8	3.26 - 4.26	3.8	0.15
Selenium (mg/L)	04/06 - 11/08	UML/LWL	8	0.002 - 0.002	0.0020	0
Zinc (mg/L)	04/06 - 11/08	UML/LWL	8	0.005 - 0.0181	0.0080	0.00195

Notes:

UML = Upper mixed layer composite; LWL = Lower water layer composite; TC = Tube composite standardized to 0-3m.

(a) Late fall, winter, and early spring (Oct. 1 – May 31) when the lake waters are not strongly stratified: the default UML is 0, 3, 6m; the default LWL is defined as 9, 12, 15 and 18m.

(b) Summer stratification period (June 1 – Sept. 30): UML composite shall always include samples collected at 0 and 3 m depths, and inclusion of water collected at 6 m in the composite shall be evaluated based on the temperature profiles measured during the sampling event; LWL composite will typically include water collected at depths of 12, 15 and 18 m, and inclusion of the 12 m depth should be reviewed during each sampling event; the 9m depth is not included in either composite, as it is consistently in the metalimnion during this period.