

Library Reference 7.6.6

Statistical comparison of mean results between South and North deep stations from 1999 to 2009 combined.

Statistically significant results ($P < 0.05$) are shaded. NA = No data available.

Parameter	Units	Upper Mixed Layer				Lower Water Layer			
		N	South	North	P	N	South	North	P
Secchi Disc Depth	meters	43	2.04	2.19	0.010	0	NA	NA	--
pH	Std Units	44	7.86	7.90	0.001	44	7.52	7.53	0.388
Temperature	°C	44	14.1	14.1	0.657	44	8.98	8.94	0.685
Specific conductance	umHos/cm	44	1,908	1,945	0.037	44	1,993	2,018	0.034
Dissolved oxygen	mg/L	44	10.1	10.1	0.897	44	5.53	5.21	0.005
5-day BOD	mg/L	44	2.61	2.77	0.159	44	3.32	3.40	0.544
Total Alkalinity	mg/L	44	166	166	0.921	44	190	191	0.344
Total Organic Carbon	mg/L	44	4.01	4.08	0.451	44	3.71	3.81	0.523
TOC Filtered	mg/L	44	3.65	3.68	0.534	44	3.37	3.51	0.423
Total Inorganic Carbon	mg/L	44	43	43	0.141	44	51	51	0.407
Total Kjeldahl Nitrogen	mg/L	44	1.02	0.99	0.0163	44	1.58	1.57	0.562
TKN Filtered	mg/L	44	0.84	0.81	0.038	44	1.42	1.41	0.692
Organic Nitrogen	mg/L	44	0.55	0.52	0.032	44	0.39	0.38	0.676
Ammonia-N	mg/L	44	0.47	0.47	0.847	44	1.20	1.18	0.543
Nitrite-N	mg/L	44	0.077	0.073	0.001	44	0.073	0.073	0.970
Nitrate-N	mg/L	44	1.64	1.55	5.0E-08	44	1.21	1.13	0.077
Total Phosphorus	mg/L	44	0.06	0.06	0.126	44	0.19	0.18	0.424
Soluble Reactive Phosphorus	mg/L	44	0.03	0.03	0.197	44	0.14	0.14	0.672
Silica	mg/L	40	2.44	2.48	0.363	40	3.86	3.94	0.210
Silica (dissolved)	mg/L	4	2.82	2.74	0.650	4	4.15	4.46	0.297
Calcium	mg/L	44	131	134	0.020	44	134	137	0.049
Sodium	mg/L	44	227	229	0.316	44	237	238	0.686
Potassium	mg/L	44	4.57	4.51	0.032	44	4.37	4.34	0.381
Sulfate	mg/L	44	161	162	0.551	44	154	154	0.972
Chloride	mg/L	44	432	435	0.131	44	445	448	0.473
Total Solids	mg/L	44	1,244	1,258	0.039	44	1,276	1,283	0.328
Total Volatile Solids	mg/L	42	210	220	0.096	42	208	207	0.958
Total Suspended Solids	mg/L	44	3.44	3.13	0.053	44	2.80	2.67	0.460
Volatile Suspended Solids	mg/L	42	2.46	2.42	0.691	42	2.08	2.01	0.361
Total Dissolved Solids	mg/L	44	1,167	1,187	0.022	44	1,198	1,209	0.104
Turbidity	NTU	32	3.91	3.49	0.055	0	NA	NA	--
Arsenic	mg/L	44	0.002	0.002	P-1	44	0.002	0.002	0.140
Iron	mg/L	44	0.090	0.070	0.002	44	0.10	0.09	0.213
Copper	mg/L	44	0.0022	0.0021	0.715	44	0.0020	0.0019	0.103
Chromium	mg/L	44	0.0013	0.0014	0.282	44	0.0014	0.0013	0.149
Cadmium	mg/L	44	0.00072	0.00060	0.251	44	0.00069	0.00070	0.323
Mercury	ng/L	9	3.13	2.25	0.056	9	2.94	2.78	0.593
Methyl mercury	ng/L	9	0.12	0.08	0.046	9	0.45	0.54	0.275
Lead	mg/L	44	0.0035	0.0028	0.189	44	0.00	0.00	0.273
Magnesium	mg/L	44	23.85	24.13	0.012	44	23.65	24.00	0.073
Manganese	mg/L	44	0.030	0.046	0.331	44	0.22	0.23	0.765
Nickel	mg/L	44	0.0041	0.0045	0.300	44	0.0039	0.0039	0.709
Selenium	mg/L	44	0.0020	0.0020	P-1	44	0.0020	0.0020	P-1
Zinc	mg/L	44	0.0076	0.0064	0.138	44	0.0081	0.0067	0.269
Phaeophytin-a	meters	44	1.34	1.43	0.473	0	NA	NA	--
Chlorophyll-a; Log Transformed	mg/m3	44	9.71	9.95	0.711	0	NA	NA	--
Fecal Coliforms; Log Transformed	count/100	44	24.7	15.6	0.0022	0	NA	NA	--
E. coli; Log Transformed	count/100	35	18.5	12.7	0.066	0	NA	NA	--

Notes: UML = 0m, 3m and 6m; LWL = 12m, 15m, 18m

The averages are based on concentration data, and are not volume-averages. Phaeophytin-a and Chlorophyll-a were collected in the Photic Zone through 2007; in 2008 and 2009, only Tube Composite samples were collected. Averages were calculated using the laboratory reported limit of detection when an observation was reported at below that limit. NA = Not Analyzed.

P-1 indicates the Pearson correlation was 1, and the values between North and South were identical.