

0209749990 UNIVERSITY LAKE AT INTAKES NEAR CHAPEL HILL, NC

LOCATION.--Lat 35°53'48", long 79°05'33", Orange County, Hydrologic Unit 03030002, at Orange Water and Sewage Authority intakes, and 1.8 mi southwest of Chapel Hill.

DRAINAGE AREA.--30 mi².

PERIOD OF RECORD.--Water years 1989 to current year.

REMARKS.--Station operated to define water quality as part of a six-county regional surface-water quality assessment. Samples for nutrient and chlorophyll a and b analyses were collected through a sampling zone equal to double the secchi disk depth using the depth-integration sampling technique.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	COLOR (PLAT- INUM- COBALT UNITS) (00080)	SAM- PLING DEPTH (M) (00098)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)	PH WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT													
12...	0900	40	1.0	.50	758	5.6	60	7.2	96	18.2	33	8.80	2.76
12...	0905	--	3.0	--	758	.1	1	7.0	114	16.8	--	--	--
12...	0910	--	6.0	--	758	.2	2	7.6	416	14.1	--	--	--
APR													
22...	1130	25	1.0	.90	760	8.4	102	7.5	101	24.6	30	7.50	2.64
22...	1135	--	4.0	--	760	1.5	15	6.4	106	13.8	--	--	--
22...	1140	--	8.0	--	760	.5	5	6.9	169	10.5	--	--	--
JUN													
21...	1115	30	1.0	.50	765	6.9	84	7.5	122	25.8	37	9.48	3.17
21...	1120	--	3.0	--	765	.5	6	7.1	148	22.7	--	--	--
21...	1125	--	6.0	--	765	.3	3	7.0	251	12.9	--	--	--
AUG													
16...	1015	40	1.0	1.00	757	5.0	64	7.3	142	27.8	45	11.7	3.73
16...	1020	--	3.0	--	757	.1	1	7.0	193	24.5	--	--	--
16...	1025	--	6.0	--	757	.2	3	7.3	381	15.1	--	--	--

Date	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD IT FIELD (MG/L AS CACO3) (00419)	BICAR- BONATE IT-FLD AS (MG/L AS HCO3) (99440)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	NITRO- GEN, AM- MONIA + DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
OCT													
12...	2.76	5.18	38	47	5.17	E.1	16.8	2.8	82	E.009	.86	<.013	<.002
12...	--	--	--	--	--	--	--	--	--	.318	1.3	<.013	<.002
12...	--	--	--	--	--	--	--	--	--	3.83	10	<.065	E.008
APR													
22...	2.00	7.15	25	30	7.89	<.1	11.5	7.4	70	<.015	.48	<.013	<.002
22...	--	--	--	--	--	--	--	--	--	E.011	.57	<.013	<.002
22...	--	--	--	--	--	--	--	--	--	.995	1.8	<.013	<.002
JUN													
21...	2.55	7.59	32	39	8.33	E.1	13.1	6.0	84	<.015	.84	<.013	<.002
21...	--	--	--	--	--	--	--	--	--	.057	1.0	<.013	<.002
21...	--	--	--	--	--	--	--	--	--	1.83	3.0	E.010	<.002
AUG													
16...	3.40	7.47	47	58	7.87	E.1	15.5	8.9	96	<.015	.83	<.013	<.002
16...	--	--	--	--	--	--	--	--	--	.163	1.0	<.013	<.002
16...	--	--	--	--	--	--	--	--	--	5.29	6.6	<.013	E.002

Date	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70954)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ARSENIC TOTAL (UG/L AS AS) (01002)	CADMIUM WATER TOTAL UNFLTRD RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)
OCT													
12...	<.007	E.05	9.3	24.8	E.8	30	<2	<.1	<.8	E1.3	<1.0	800	<1
12...	<.007	.08	--	--	--	--	--	--	--	--	--	--	--
12...	<.035	<.30	--	--	--	--	--	--	--	--	--	2480	--
APR													
22...	<.007	<.06	7.6	10.8	.8	30	<2	<.1	<.8	<2.0	E1.1	250	M
22...	<.007	E.04	--	--	--	--	--	--	--	--	--	590	--
22...	.102	.16	--	--	--	--	--	--	--	--	--	8840	--
JUN													
21...	<.007	E.05	9.4	23.9	.5	--	--	--	--	--	--	260	--
21...	<.007	E.05	--	--	--	--	--	--	--	--	--	2650	--
21...	.037	.09	--	--	--	--	--	--	--	--	--	23600	--
AUG													
16...	<.007	--	9.5	E24.8	E1.7	--	--	--	--	--	--	340	--
16...	<.007	--	--	--	--	--	--	--	--	--	--	550	--
16...	.044	--	--	--	--	--	--	--	--	--	--	37400	--

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	SELENIUM, TOTAL RECOVERABLE (UG/L AS SE) (01147)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)
OCT							
12...	1140	.01	<2	<2.0	<2	<.3	<20
12...	--	--	--	--	--	--	--
12...	2280	--	--	--	--	--	--
APR							
22...	70.5	.01	<2	<2.0	<2	<.3	<20
22...	981	--	--	--	--	--	--
22...	2800	--	--	--	--	--	--
JUN							
21...	276	--	--	--	--	--	--
21...	8010	--	--	--	--	--	--
21...	7370	--	--	--	--	--	--
AUG							
16...	336	--	--	--	--	--	--
16...	2370	--	--	--	--	--	--
16...	11400	--	--	--	--	--	--

Remark codes used in this report:
 < -- Less than
 E -- Estimated value
 M -- Presence verified, not quantified

