

Water-Data Report 2012

0208117980 ROANOKE SOUND CHANNEL LT. 22

 Albemarle-Chowan Basin
 Albemarle Subbasin

LOCATION.--Lat 35°53'00", long 75°37'30" referenced to North American Datum of 1927, Dare County, NC, Hydrologic Unit 03010205, approximately 0.8 mi west of Headquarters Island, and approximately 0.9 mi south of U.S. Highway 64/264 Roanoke Sound Bridge.

DRAINAGE AREA.--Indeterminate.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1990-93, July to August 2012.

REMARKS.--Station operated in 2012 to define water quality in the Albemarle Sound as part of the National Monitoring Network for U.S. Coastal Waters and their Tributaries. Water-quality samples were collected through a zone equal to double the secchi depth using the depth-integration sampling technique.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 1 of 5

[CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

| Date | Sample start time | Medium name | Sample type | Barometric pressure, mm Hg (00025) | Temperature, air, °C (00020) | Depth to bottom from water surface, at sampling location | | Dissolved oxygen, water, unfiltered, mg/L (00300) | water, unfiltered, field, standard units (00400) | pH, water, unfiltered, standard units (00400) | Specific conductance, water, unfiltered, µS/cm at 25°C (00095) |
|------------|-------------------|---------------|-------------|------------------------------------|------------------------------|--|--|---|--|---|--|
| | | | | | | meters (82903) | | | | | |
| 07-12-2012 | 1430 | Surface water | Regular | 765 | 26.3 | 3.80 | | 8.1 | 6.5 | | 22,300 |
| 08-28-2012 | 1200 | Surface water | Regular | 761 | 29.5 | 2.10 | | 7.6 | 8.1 | | 21,200 |

0208117980 ROANOKE SOUND CHANNEL LT. 22—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 5

[CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

| Date | Sample start time | Temperature, water, °C (00010) | Transparency, water, in situ, Secchi disc, m (00078) | micromole s of photons per square meter per second (99988) | Sampling depth, m (00098) | Photosynthetically active radiation (average flux density on a horizontal surface during measurement interval), | | Dissolved solids dried at 180°C, water, filtered, mg/L (70300) | | Suspended solids, water, unfiltered, mg/L (00530) | Calcium, water, filtered, mg/L (00915) | Magnesium, water, filtered, mg/L (00925) | Potassium, water, filtered, mg/L (00935) |
|------------|-------------------|-----------------------------------|---|---|------------------------------|---|----|--|-----|---|--|--|--|
| | | | | | | | | | | | | | |
| 07-12-2012 | 1430 | 28.3 | 0.90 | 835 | 1.8 | 13,800 | 22 | 161 | 474 | 144 | | | |
| 08-28-2012 | 1200 | 28.9 | .80 | 1,460 | 1.6 | 13,300 | 22 | 162 | 458 | 170 | | | |

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 3 of 5

[CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

| Date | Sample start time | Sodium, water, filtered, mg/L (00930) | Alkalinity, water, filtered, laboratory, mg/L as CaCO ₃ (29801) | Chloride, method, field, mg/L as CaCO ₃ (39086) | Fluoride, water, filtered, mg/L (00940) | Silica, water, filtered, mg/L as SiO ₂ (00950) | Sulfate, water, filtered, mg/L (00945) | Ammonia plus organic nitrogen, water, unfiltered, mg/L as N (00625) | | Ammonia, water, filtered, mg/L as N (00608) | |
|------------|-------------------|--|---|---|--|--|---|--|-----------------------|--|--|
| | | | | | | | | Alkalinity, water, filtered, inflection-point, fixed endpoint (pH 4.5) titration | incremental titration | | |
| 07-12-2012 | 1430 | 3,960 | 68.9 | -- | 7,600 | 0.36 | 0.727 | 1,060 | 0.67 | 0.227 | |
| 08-28-2012 | 1200 | 5,750 | -- | 61.7 | 7,200 | .31 | .829 | 995 | .69 | .225 | |

0208117980 ROANOKE SOUND CHANNEL LT. 22—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 4 of 5

[CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

| Date | Sample start time | Nitrate plus nitrite, water, filtered, mg/L as N (00631) | Nitrite, water, filtered, mg/L as N (00613) | Orthophosphate, water, filtered, mg/L as P (00671) | Phosphorus, water, unfiltered, mg/L as P (00665) | Chlorophyll a, phyto-plankton, chromato-graphic-fluorometric method, µg/L (70953) | Aluminum, water, filtered, µg/L (01106) | Cobalt, water, filtered, µg/L (01035) | Copper, water, filtered, µg/L (01040) |
|------------|-------------------|---|--|---|---|--|--|--|--|
| 07-12-2012 | 1430 | <.040 | <.001 | <.004 | 0.027 | 7.4 | <22.0 | 1.36 | <8.0 |
| 08-28-2012 | 1200 | <.040 | <.001 | <.004 | .030 | 7.3 | <33.0 | 1.51 | <12.0 |

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 5 of 5

[CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; m, meters; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than]

| Date | Sample start time | Iron, water, filtered, µg/L (01046) | Lead, water, filtered, µg/L (01049) | Manganese, water, filtered, µg/L (01056) | Molybdenum, water, filtered, µg/L (01060) | Nickel, water, filtered, µg/L (01065) | Zinc, water, filtered, µg/L (01090) |
|------------|-------------------|--|--|---|--|--|--|
| 07-12-2012 | 1430 | <48.0 | 0.545 | 4.63 | 8.89 | 0.94 | <14.0 |
| 08-28-2012 | 1200 | <35.2 | <.375 | 2.86 | 8.27 | <1.4 | <21.0 |