

**Snapshot Day 10/7/08 Data  
(Salt Front RM 63.4)  
RIVER MILE 28**

**Nyack Memorial Park**

**Tom Perry & Dinorah Hudson - Nyack High School APES Class & Earth Science –  
60 students**

**Latitude 40°05.243'N, Longitude 73°54.988 'W**



**Location:** Nyack Park where Nyack Brook feeds in

**Area:** Open and grassy, has a parking lot, used for picnics, fishing

**Surrounding Land Use:** 100% park

**Sampling Site:** beach, banks altered, riprap on shoreline, bulkhead

**Plants in area:** no water plants in area

**Water depth:** varied

**River Bottom** – sandy/muddy bottom , water calm

<i><b>ITEM</b></i>	<i><b>Time</b></i>	<i><b>Reading 1</b></i>	<i><b>Reading 2</b></i>	<i><b>Comments</b></i>
<i><b>Physical</b></i>				
Air Temperature	10:20 AM 1:15 PM	19°C 21°C		
Wind Speed				
Cloud Cover	Clear			
Weather today				
Weather recently	Clear & warm			
<i><b>Chemical</b></i>				
<i>Phosphate</i> <b>10:30 AM</b>		0 mg/L		
<b>1:15 PM</b>		0 mg/L		
<i>Nitrate</i> <b>10:30 AM</b>		0 mg/L		
<b>1:15 PM</b>		0 mg/L		



1	0	1400	0.3	14.4		6.9	7.9	8.2
2	20	1446	0.3	14.4		7.1	9.0	8.3
3	40	1436	0.7	14.2		6.9	8.9	8.2
4	60	1437	0.3	14.2		6.6	8.9	8.1
5	80	1485	0.7	14.3		6.3	8.4	8.1
6	100	1573	0.6	14.4	17.7	5.8	8.2	7.8
7	120	2140	0.7	16.4	19.8	5.6	8.0	7.8
8	140	1985	?	19.3	20.6	6.8	7.7	7.9
9	160	2115	1.2	18.9	20.4	7.5	7.9	7.9
10	180	2156	0.5	16.4	16.6		8.1	7.9
11	190	2770	1.3	16.6	18.1		8.6	7.9

NOTE: Notice how conductivity was much higher at 1:15pm starting at station 6. This represents the saltier water of the rising tide. At stations 6,7 and 8, the bottom water is warmer than the surface water. Why doesn't the warm water rise to the top? At 9,10 and 11, wave action has mixed the water more.

Data Table 2: Time \_\_\_\_\_ 1:15 \_\_\_\_\_ Tide \_\_\_\_\_ Higher \_\_\_\_\_

<u>Station #</u>	<u>Distance (m)</u>	<u>Conductivity</u>	<u>Salinity (ppt)</u>	<u>Temperature (°C)</u>		<u>D. Oxygen (mg/L) Probe</u>	<u>pH</u>
				<u>Top</u>	<u>Bottom</u>		
1	0	1434	0.3	14.6	14.6	17.8	8.19
2	20	1438	0.7	14.5	14.5	18.0	8.26
3	40	1432	0.4	14.4	14.4	18.0	8.23

4	60	1435	0.3	14.5	14.4	17.9	8.16
5	80	1436	0.7	14.6	14.7	17.8	8.11
6	100	1700	0.8	13.7	14.7	17.6	8.01
7	120	2742	1.3	15.6	18.2	18.0	7.9
8	140	4278	1.0	19.9	21.0	18.2	8.09
9	160	4200	4.6	18.9	18.5	17.9	8.09
10	180	4218	4.6	19.6	18.3	17.9	8.12
11	190	4222	4.5	19.9	18.1	18.1	8.24