U.S. GEOLOGICAL SURVEY-BRANCH OF ATLANTIC MARINE GEOLOGY

CRUISE REPORT

1. **SHIP NAME (Parent vessel)/SUBMERSIBLE/OWNER-OPERATOR:** R/V Elusive owned by NOAA/NURC at Univ NC at Wilmington
2. **CRUISE # AND LEG:** Please ask Schwab
3. **PROJECT # AND NAME:** Please ask Schwab
4. **FUNDING AGENCY:** NOAA / USGS
5. **CONTRACT (If applicable)** —
6. **AREA OF OPERATIONS:** Coastal waters off Wrightsville Beach, NC (Lat. 34°12'S Long. 77°46'S)
7. **DATES AND PORTS OF CALL:** Day trips out/back from Wilmington, NC
8. **CHIEF SCIENTIST(S):** William J. Cleary, Professor of Geology at UNC-Wilmington
9. **SCIENTIFIC PARTY (Names,affiliations,cruise duties)** see attached
10. **SHIP'S CAPTAIN (and affiliation):** Dan Aspenleiter - NOAA/NURC
11. **PURPOSE OF CRUISE (brief statement)** Shoreface coring ops and surface sediment sampling using SCUBA
12. **NAVIGATION TECHNIQUES:** Mini Ranger, Loran
13. **SCIENTIFIC EQUIPMENT:** Percussion corer (diver operated)
14. **TABULATED INFORMATION:**
    - **DAYS AT SEA:** 4
    - **CONTINUOUS DATA (in km):** None
    - **STATIONS OCCUPIED (stationary and underway):** 28
    - **SUBMERSIBLE DIVES (BY #):** SCUBA at all stations
    - **STATION INFORMATION** (see attached)
      - **Station number:**
      - **Date of occupation:**
      - **Latitude/Longitude:**
      - **Water depth:**
      - **Sampling device (dive #):**
      - **Number and type of samples:**
    - **Remarks:**
15. **PAGE-SIZE TRACKCHART (including station & line #'s)** see attached.

Station/Sample Log for R/V Elusive Cruise 09/16/91-09/20/91
Dr. Wm. J. Cleary, Chief Scientist

(Note: MiniRanger Coords. use NC State Plane System, NAD27, Easting and Northing)

Station ID: WRBCH-1
MiniRanger Coords: 2376615.6E 164340.6N
Loran TD: None
Date: 16 September 1991 (JD=259)
Time: 09:00
Depth: 50 ft.
Samples: 1 percussion core
1 push core
1 grab sample
video observations (#1)

Station ID: WRBCH-2
MiniRanger Coords: 2384834.14 159519
Loran TD: 27265.0, 39116.7
Date: 16 September 1991 (JD=259)
Time: 12:40
Depth: 59 ft.
Samples: 1 percussion core
2 grab samples
1 rock (float) with attached gorgonians
2 rounded, bored gravels
video observations (#2)

Station ID: WRBCH-3
MiniRanger Coords: 2383582 160091.33
Loran TD: 27265.2, 39116.6
Date: 16 September 1991 (JD=259)
Time: 14:30
Depth: 63 ft.
Samples: 1 percussion core
1 disturbed push core
1 grab sample
assorted shells
video observations (#3)

Station ID: WRBCH-4
MiniRanger Coords: 2370073.4 168679.2
Loran TD: 27274.7, 39121.0
Date: 16 September 1991 (JD=259)
Time: 15:30
Depth: 40 ft.
Samples: 1 percussion core
1 grab sample
video observations (#4)

Station ID: WRBCH-5
MiniRanger Coords: 2368403 169761.917
Loran TD: 27275.8, 39121.9
Date: 17 September 1991 (JD=260)
Time: 09:15
Depth: 32 ft.
Samples: 1 percussion core
1 disturbed push core
1 grab sample
video observations (#1)

Station ID: WRBCH-6
MiniRanger Coords: 2369218.35 169179.78
Loran TD: 27275.2, 39121.4
Date: 17 September 1991 (JD=260)
Time: 10:30
Depth: 32 ft.
Samples: 1 percussion core
1 disturbed push core
2 grab samples
video observations (#2)

Station ID: WRBCH-7
MiniRanger Coords: 2367299.19 170442.048
Loran TD: 27276.6, 39122.4
Date: 17 September 1991 (JD=260)
Time: 11:00
Depth: 22 ft.
Samples: 1 percussion core
1 disturbed push core
2 grab samples
video observations (#3)

Station ID: WRBCH-8
MiniRanger Coords: 2372984.88 160756.5
Loran TD: 27271.3, 39189.0
Date: 17 September 1991 (JD=260)
Time: 12:30
Depth: 48 ft.
Samples: 1 grab sample
1 rock (float)
1 piece of outcrop
video observations (#4)

Station ID: WRBCH-9
MiniRanger Coords: 2371596.36 161403.071
Loran TD: 27272.2, 39109.1
Date: 17 September 1991 (JD=260)
Time: 13:15
Depth: 48 ft.
Samples: 2 grab samples with outcrop chunks in them
video observations (#5)

Station ID: WRBCH-10
MiniRanger Coords: 2367478.93 163082.2
Loran TD: 27274.9, 39109.0
Date: 17 September 1991 (JD=260)
Time: 13:30
Depth: 42 ft.
Samples: 2 grab samples
video observations (#6)

Station ID: WRBCH-11
MiniRanger Coords: 2365321.31 163925.385
Loran TD: 27276.2, 39109.1
Date: 17 September 1991 (JD=260)
Time: 14:00
Depth: 34 ft.
Samples: 1 percussion core
1 push core
2 grab samples
video observations (#7)

Station ID: WRBCH-12
MiniRanger Coords: 2363675 164474.429
Loran TD: None
Date: 17 September 1991 (JD=260)
Time: 14:38
Depth: 25 ft.
Samples: 1 percussion core
1 push core
2 grab samples
video observations (#8)

Station ID: WRBCH-13 (approx. halfway between WRBCH-12 and Sea Buoy)
MiniRanger Coords: None (generator failed while on station)
(approx. 2363919 161562)
Loran TD: None
Date: 17 September 1991 (JD=260)
Time: 15:39
Depth: 33 ft.
Samples: 2 grab samples
1 push core
video observations (#9)

Station ID: WRBCH-14
MiniRanger Coords: 2375535.94 171333.389
Loran TD: 27272.2, 39129.7
Date: 18 September 1991 (JD=261)
Time: 11:45
Depth: 44 ft.
Samples: 1 percussion core
1 push core
2 grab samples
video observations (#1)

Station ID: WRBCH-15
MiniRanger Coords: 2377895.75 170447.875
Loran TD: 27270.6, 39129.9
Date: 18 September 1991 (JD=261)
Time: 12:30
Depth: Needed from fatho trace and dive log
Samples: 1 percussion core
1 grab sample
video observations (#2)

Station ID: WRBCH-16
MiniRanger Coords: 2385514 167000
Loran TD: 27265.7, 39129.9
Date: 18 September 1991 (JD=261)
Time: 13:15
Depth: 49 ft.
Samples: 1 percussion core
2 grab samples
1 large black-stained mercenaria shell
video observations (#3)

Station ID: WRBCH-17
MiniRanger Coords: 2373917.25 172107
Loran TD: 27273.2, 39129.7
Date: 18 September 1991 (JD=261)
Time: 14:00
Depth: 46 ft.
Samples: 1 percussion core
2 grab samples
1 large, black-stained *mercenia* shell with coral encrustations
video observations (#4)

Station ID: WRBCH-18
MiniRanger Coords: 2371692.18 172980
Loran TD: 27274.7, 39129.7
Date: 18 September 1991 (JD=261)
Time: 14:30
Depth: 41 ft.
Samples: 1 percussion core
2 grab samples
assorted loose rocks
video observations (#5)

Station ID: WRBCH-19
MiniRanger Coords: 2370768.67 173486
Loran TD: X, 39130.2
Date: 18 September 1991 (JD=261)
Time: 15:00
Depth: 35 ft.
Samples: 1 percussion core
1 grab sample
1 bag assorted shells
video observations (#6)

Station ID: WRBCH-20
MiniRanger Coords: 2371108.62 176103.333
Loran TD: 27275.8, 39135.4
Date: 19 September 1991 (JD=262)
Time: 09:19
Depth: 28 ft.
Samples: 1 percussion core
2 surface grab samples
1 subsurface disturbed push core
video observations (#1)

Station ID: WRBCH-21
MiniRanger Coords: 2369790.94 173691.875
Loran TD: 27276.0, 39130.0
Date: 19 September 1991 (JD=262)
Time: 09:45
Depth: 25 ft.
Samples: 1 percussion core
2 surface grab samples
1 sub-surface grab sample
1 *crassostrea* shell from 12-15 cm sub-surface
video observations (#2)

Station ID: WRBCH-22
MiniRanger Coords: 2372713.72 175250.379
Loran TD: 27274.7, 39134.9
Date: 19 September 1991 (JD=262)
Time: 10:30
Depth: 36 ft.
Samples: 1 percussion core
2 surface grab samples
1 sub-surface grab sample
1 encrusted cockle from surface
video observations (#3)

Station ID: WRBCH-23
MiniRanger Coords: 2376223 174168.9
Loran TD: 27272.5, 39135.3
Date: 19 September 1991 (JD=262)
Time: 11:15
Depth: 42 ft.
Samples: 1 percussion core
2 surface grab samples
1 sub-surface grab sample
1 cockle shell from surface
video observations (#4)

Station ID: WRBCH-24
MiniRanger Coords: 2378161.36 173517
Loran TD: 27271.3, 39135.5
Date: 19 September 1991 (JD=262)
Time: 12:45
Depth: 49 ft.
Samples: 1 percussion core
2 surface grab samples
1 sub-surface grab sample
video observations (#5)

Station ID: WRBCH-25
MiniRanger Coords: 2383936.08 170974.833
Loran TD: 27267.4, 39135.4
Date: 19 September 1991 (JD=262)
Time: 13:35
Depth: 49 ft.
Samples: 1 percussion core
2 surface grab samples
1 sub-surface grab sample
video observations (#6)

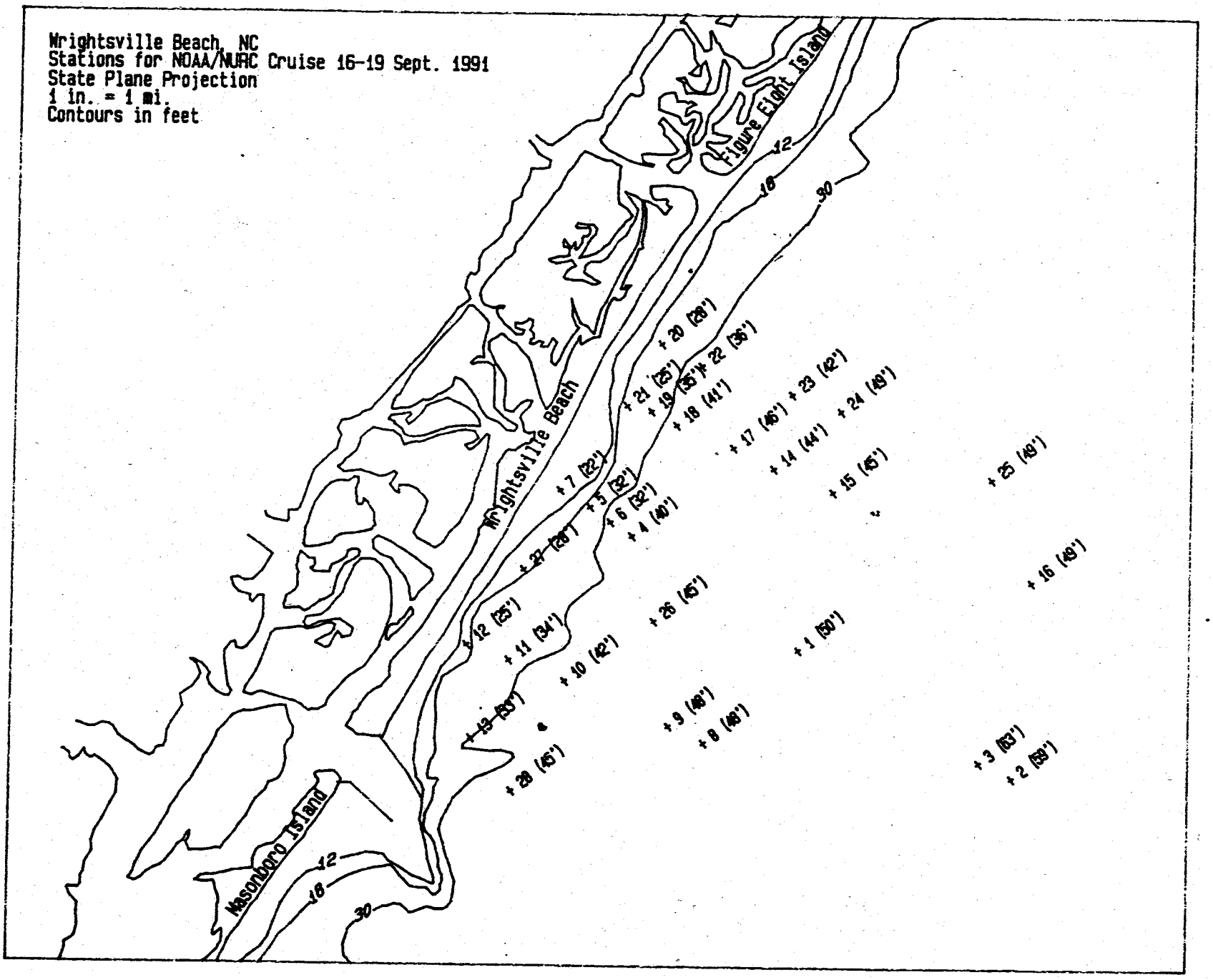
Station ID: WRBCH-26
MiniRanger Coords: 2370899.35 165414.5
Loran TD: 27273.6, 39115.7
Date: 19 September 1991 (JD=262)
Time: 14:30
Depth: 45 ft.
Samples: 1 percussion core
2 surface grab samples
1 sub-surface grab sample
video observations (#7)

Station ID: WRBCH-27
MiniRanger Coords: 2365843.21 167365.105
Loran TD: 27276.9, 39115.7
Date: 19 September 1991 (JD=262)
Time: 15:14
Depth: 28 ft.
Samples: 1 percussion core
2 surface grab samples
1 sub-surface grab sample
1 bag assorted shells and fragments
video observations (#8)

Station ID: WRBCH-28
MiniRanger Coords: 2365539.86 158868.857
Loran TD: 27275.0, 39100.1
Date: 19 September 1991 (JD=262)
Time: 15:55
Depth: 45 ft.
Samples: 1 push core
2 surface grab samples
1 subsurface grab sample
video observations (#9)

R/V Elusive Cruise 09/16/91-09/20/91
Scientific Party

Dan Aspenleiter - Captain	NURC
Bill Cleary - Chief Scientist	UNCW
Glenn Taylor - Divemaster	NURC
Dave Nichols - Navigation/Tech.	USGS
Rob Thieler - Asst. Scientist	Duke U.
Andrew Shepard - Sci. Dir./Diver	NURC


Wrightsville Beach, NC
Stations for NOAA/NURC Cruise 16-19 Sept. 1991
State Plane Projection
1 in. = 1 mi.
Contours in feet
Figure Eight Island
Wrightsville Beach
Masonboro Island
12
16
30
+20 (28')
+21 (25')
+19 (35')
+22 (36')
+18 (41')
+17 (46')
+23 (42')
+14 (44')
+24 (49')
+15 (45')
+25 (49')
+16 (49')
+7 (22')
+5 (32')
+6 (32')
+4 (40')
+27 (20')
+12 (25')
+11 (34')
+10 (42')
+26 (45')
+1 (50')
+9 (46')
+8 (46')
+3 (53')
+2 (59')
+28 (45')