#94024

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

e-MAIL CRUISE REPORT

1. SHIP NAME (Parent vessel)/SUBMERSIBLE/OWNER-OPERATOR:
   Asterias / WHOI

2. CRUISE # AND LEG: ASTR 94-4

3. PROJECT # AND NAME: 9470-30060 EEZ Seafloor Mapping

4. FUNDING AGENCY: USGS

5. CONTRACT (If applicable): NA

6. AREA OF OPERATIONS: Massachusetts Bay

7. DATES AND PORTS OF CALL: 7/5/94 - 7/8/94
   Day Trips
   Coast Guard Base @ Boston

8. CHIEF SCIENTIST(S): William W. Danforth

9. SCIENTIFIC PARTY (Names,affiliations,cruise duties):
   William Danforth, USGS
   Thomas O'Brien, USGS
   Jane Denny, USGS/DUKE
   Brian Wilson, Datasonics
   Rick Rendigs, USGS
   Chuck Denham, USGS

10. SHIP'S CAPTAIN (and affiliation): David Olmsted, WHOI

11. PURPOSE OF CRUISE (brief statement):
    Side-scan sonar survey was conducted in a localized area (1 km x 2.5 km) within Massachusetts Bay.
    Van Veen Grab samples and slow cores were collected to enable ground-truthing of the sonar data.

12. NAVIGATION TECHNIQUES: DGPS

13. SCIENTIFIC EQUIPMENT: Datasonics SIS 1000
    Van Veen Grab Sampler
    Slow Core
    Video Camera & Recorder

14. TABULATED INFORMATION:

DAYS AT SEA: 3 days
CONTINUOUSdays
CONTINUOUS DATA (in km): 61.5 km (side-scan data)
STATIONS OCCUPIED (stationary and underway): 28 Stations
SUBMERSIBLE DIVES (BY #): NA
STATION INFORMATION:

Station number: 1
Date of occupation: 7/6/94 (JD=187)
Latitude/Longitude: 42 23.5755 70 49.9164
Water depth: 111 ft
Sampling device (dive #): slow core
Number and type of samples: 3 samples (core subsampled)
Remarks:

Station number: 2
Date of occupation: 7/6/94 (JD=187)
Latitude/Longitude: 42 23.5206 70 49.8370
Water Depth: 110 ft
Sampling device: slow core
Number and type of samples: 3 samples (core subsampled)

Station number: 3
Date of occupation: 7/6/94 (JD=187)
Latitude/Longitude: 42 23.3169 70 49.6490
Water Depth: 111 ft
Sampling device: slow core
Number and type of samples: 3 samples (core subsampled)

Station number: 4
Date of occupation: 7/6/94 (JD=187)
Latitude/Longitude: 42 23.1725 70 49.4989
Water Depth: 111 ft
Sampling device: slow core
Number and type of samples: No subsampling - core stored intact

Station number: 5
Date of occupation: 7/6/94 (JD=187)
Latitude/Longitude: 42 23.3686 70 49.3739
Water Depth: 100 ft
Sampling device: slow core
Number and type of samples: No subsampling - core stored intact

Station number: 6
Date of occupation: 7/794 (JD=188)
Latitude/Longitude: 42 23.4322 70 49.7639
Water Depth: 117 ft
Sampling device: slow core
Number and type of samples: 3 samples (core subsampled)

Station number: 7
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.2262 70 49.5886
Water Depth: 116 ft
Sampling device: slow core
Number and type of samples: 3 samples (core subsampled)

Station number: 8
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.7598 70 49.9072
Water Depth: 90 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: No grab - video recorded

Station number: 9
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.7035 70 49.8276
Water Depth: 90 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: No grab - video recorded

Station number: 10
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.6632 70 49.8907
Water Depth: 115 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: No grab - video recorded

Station number: 11
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.5659 70 49.9063
Water Depth: 117 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: Water content & Grain Size & Video

Station number: 12
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.4480 70 49.7974
Water Depth: 116 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: Water content, grain size, video

Station number: 13
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.4180 70 49.2705
Water Depth: 101 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: Water content, grain size, video

Station number: 14
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.2610 70 49.6742
Water Depth: 110 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: Water content, grain size, video

Station number: 15
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.1553 70 49.4930
Water Depth: 114 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: grain size, video

Station number: 16
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.2242 70 49.4357
Water Depth: 113 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: grain size, video

Station number: 17
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.3665 70 49.3716
Water Depth: 101 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: grain size, video

Station number: 18
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.5808 70 49.3076
Water Depth: 112 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: grain size, video

Station number: 19
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.4206 70 49.9205
Water Depth: 113 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: water content, grain size, video

Station number: 20
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.2207 70 49.8312
Water Depth: 112 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: grain size, video

Station number: 21
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.1560 70 49.7791
Water Depth: 110 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: grain size, video

Station number: 22
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 23.0280 70 49.8994
Water Depth: 108 ft
Sampling device: Van Veen Grab
Number and type of samples: water content, grain size

Station number: 23
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 22.9978 70 49.6523
Water Depth: 108 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: grain size, video

Station number: 24
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 22.9388 70 49.5103
Water Depth: 109 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: grain size, video

Station number: 25
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 22.6806 70 49.9054
Water Depth: 108 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: video

Station number: 26
Date of occupation: 7/7/94 (JD=188)
Latitude/Longitude: 42 22.6884 70 49.6413
Water Depth: 78 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: Video

Number and type of samples: No grab - video recorded

Station number: 27
Date of occupation: 7/7/94
Latitude/Longitude: 42 23.7353 70 49.5323
Water Depth: 112 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: water content, grain size, video

Station number: 28
Date of occupation: 7/7/94 (JD=188)
Latitude/Longtidue: 42 23.8625 70 49.3803
Water Depth: 100 ft
Sampling device: Van Veen Grab & Video
Number and type of samples: grain size, video

15. PAGE-SIZE TRACKCHART (including station & line #'s)