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CRUISE REPORT

R/V Atlantic Twin

Boston Harbor

AT1-88-BH

9/26/88 -- 9/28/88

by

Rick R. Rendigs

Ship: R/V Atlantic Twin

Cruise Number: AT1-88-BH

Parent Project: Boston Harbor

Funding Agency: USGS

Funding Amount: \$20,000

Contract Number: 9470-04132

Contract Start and End: FY88

Area of Operations: Boston Harbor

Dates and ports: start: 9/26/88
end: 9/28/88
port: Pier 4, Charlestown, Boston, MA

Chief Scientist: Rick Rendigs

Cruise data curator: Rick Rendigs

Scientific Party: Carol Parmenter, Adam Brown, Dave Lubinski, Rick Rendigs, USGS.
Ralph Lewis, University of Connecticut
Glenn Kern, Captain, R/V Atlantic Twin

Purpose of Cruise: The objective of the cruise was to collect twelve vibracores from specified sites within Boston Harbor. The location of these sites was determined from selected high resolution seismic survey lines conducted during the summer of 1987 by the U.S. Geological Survey.

The cores will be x-rayed, split, described, photographed and subsampled for geochemical, geotechnical, and sedimentologic analyses. Correlation of lithologic results will be utilized to further define the Holocene and Pleistocene stratigraphic history of Boston Harbor.

Navigation Techniques: The ship navigated by Loran C signals which were acquired on a Megapulse 500 Accufix receiver. These signals were written to disc and hardcopy throughout the acoustic surveying and coring operations in Boston Harbor. A Northstar 6000 receiver was also used as a navigational cross check.

A 10 to 15 minute high resolution seismic survey was conducted at each site prior to coring operations. A buoy was then deployed along the seismic line as a marker for each coring site. The ship would then anchor along side the buoy and commence coring operations.

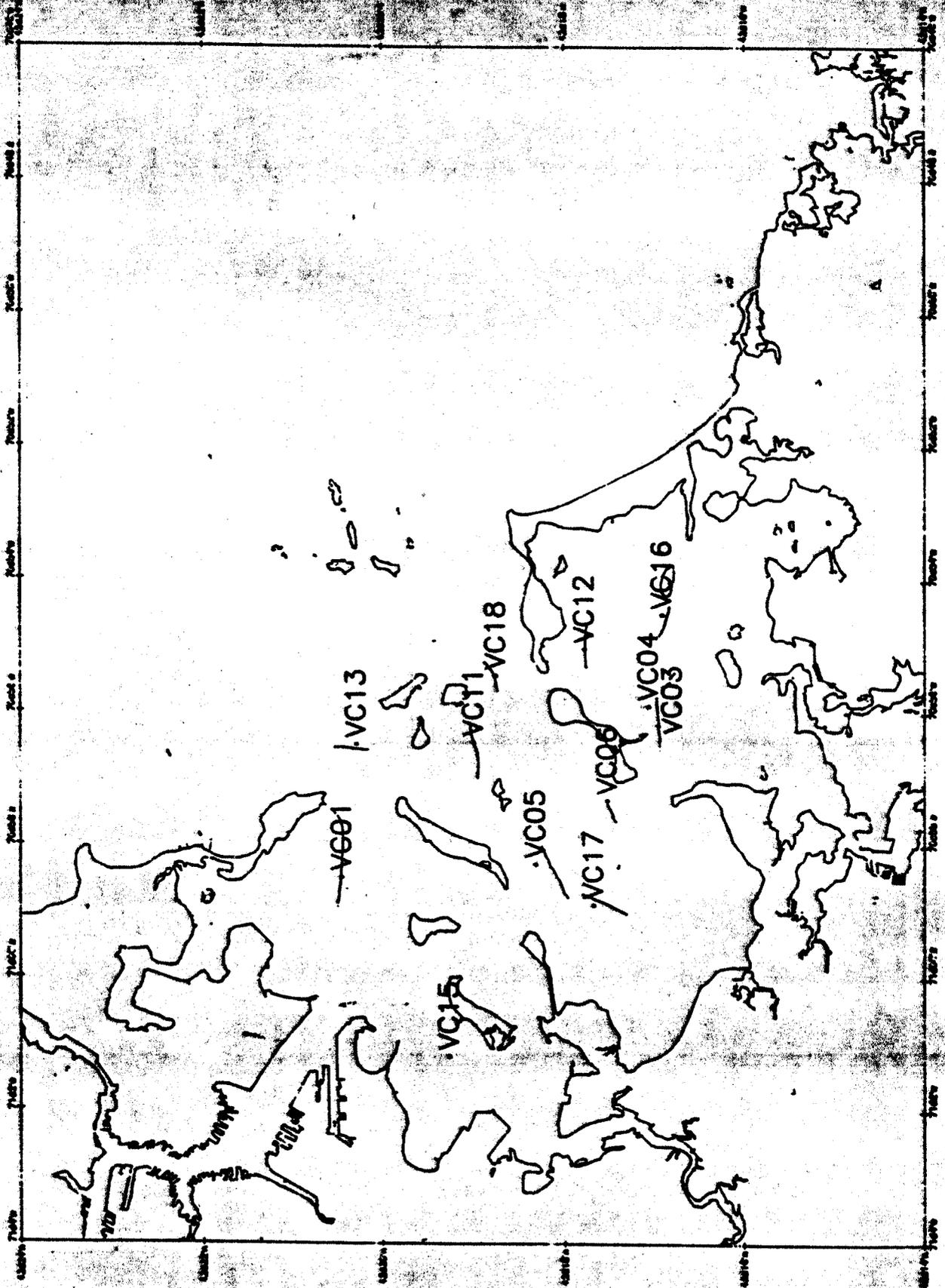
Scientific Equipment: Alpine Geophysical Pneumatic vibracore
Geopulse seismic system
Megapulse/IBM PC navigation system

Tabulated information: days at sea - 3
stations surveyed - 11
kilometers of seismic data - 9.63
coring stations - 12

Data inventory:

Geophysical log book
Navigation 3.5 inch hard disc
Navigation hard copies
Station data sheets
Vibracore penetrometer records
Copies of 1987 seismic records - N87-1
Seismic records from AT1-88-BH survey
Misc. navigation notebook
Core inventory

Boston Harbor



Cruise: AT1-83-BH - Vibracore Locations

VC# = Vibracore Number