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TITLE

Collection and preparation of samples for Agency's programme of intercalibration methods and procedures for measurement of environmental radioactivity

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PROGRESS REPORT - FINAL

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Institute: Bhabha Atomic Research Center
Health Physics Division

Principal Investigator: Dr. B. Patel

Period: July 1, 1974 to June 30, 1975

Task: Collection and preparation of sediment samples for
Inter-calibration Methods and Procedures for Measurement
of Environmental Radioactivity (Part of a coordinated
programme on Marine Radioactivity Studies)

About 75 kg wet sediment sample was collected from the clam bed (Trombay) in the Bombay Harbour. The clam bed is within 2 km radius of discharge zone receiving low level (10^{-1} μ Si/ml) aqueous radioactive wastes, containing strontium-90, ruthenium-106, cesium-137, cerium-141 etc.

The surface sediment was scrapped using a plastic scraper and collected in polythene bags, at low water time.

The large pieces of gravel, shells etc. were removed from the thick slurry and homogenized in a plastic drum. The slurry was next frozen, batch-wise, at -40°C and lyophilized.

Dry sediment powder was sieved and large pieces of gravels etc were removed. The sieved powder was then transferred in a round plastic drum and once again homogenized.

The freeze dried and homogenized sample was packed in polythene bags and sent to Dr. E. Fukai, Laboratory of Marine Radioactivity, Monaco.


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