

SUMMARY OF SCAN SITE 1

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OBJECTIVE OF DRILL HOLE

SCAN Site 1 is located at latitude 37°9.1'N, longitude 127°36.7'W in a water depth of 4745 meters. This position is at the outer edge of the Delgada Fan on a prominent positive magnetic anomaly which may be Heirtzler No. 12 (35 million years). Sediment thickness is approximately 300 meters. The purpose of this site was to investigate the geologic history of the Fan, and to sample and date the sediment directly overlying the basement in order to test the predicted age of the magnetic anomaly. In addition, it was hoped that a sample of the basement could be recovered for petrographic studies.

SURVEY METHODS

The survey of this site was made from the *Argo* between March 6-8, 1969. Navigation was by a Magnavox satellite and Loran A navigation systems. Magnetic-intensity traverses and acoustic-reflection profiles using 12 and 3.5 kHz, and a reflection profiler were run on a grid 75 kilometers square, with tracks about 20 kilometers apart. A piston core was taken. On the acoustic reflection profiles reproduced here, 5- and 10-second sweeps were used. The distance between hour marks on the 10-second sweep was approximately 20 kilometers.

NATURE OF THE SITE

The bottom topography is composed of a moderately rough basement overlain by conformable pelagic sediments. The upper strata appear to be ponded turbidites separated by basement topography. The piston core contains sticky clays interlaced with foraminiferal sands and brittle sandy clays. Age determinations are from early Pleistocene to Holocene.

MICROPALEONTOLOGY

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General Comments

Samples taken at 1.5-meter intervals from the piston cores, recovered during the preliminary surveys of the proposed Deep Sea Drilling Project sites in the northeast Pacific, were examined for calcareous nannofossils. The identified assemblages of nannofossils indicate that Pliocene sediment containing abundant discoasters is present in the upper 10 meters at only one place, Site 6. Elsewhere, only Pleistocene assemblages are present in the upper 10 meters. The abundant, widely distributed, Holocene nannofossil, *Emiliania huxleyi* (Lohmann) is not represented in any of the samples examined.

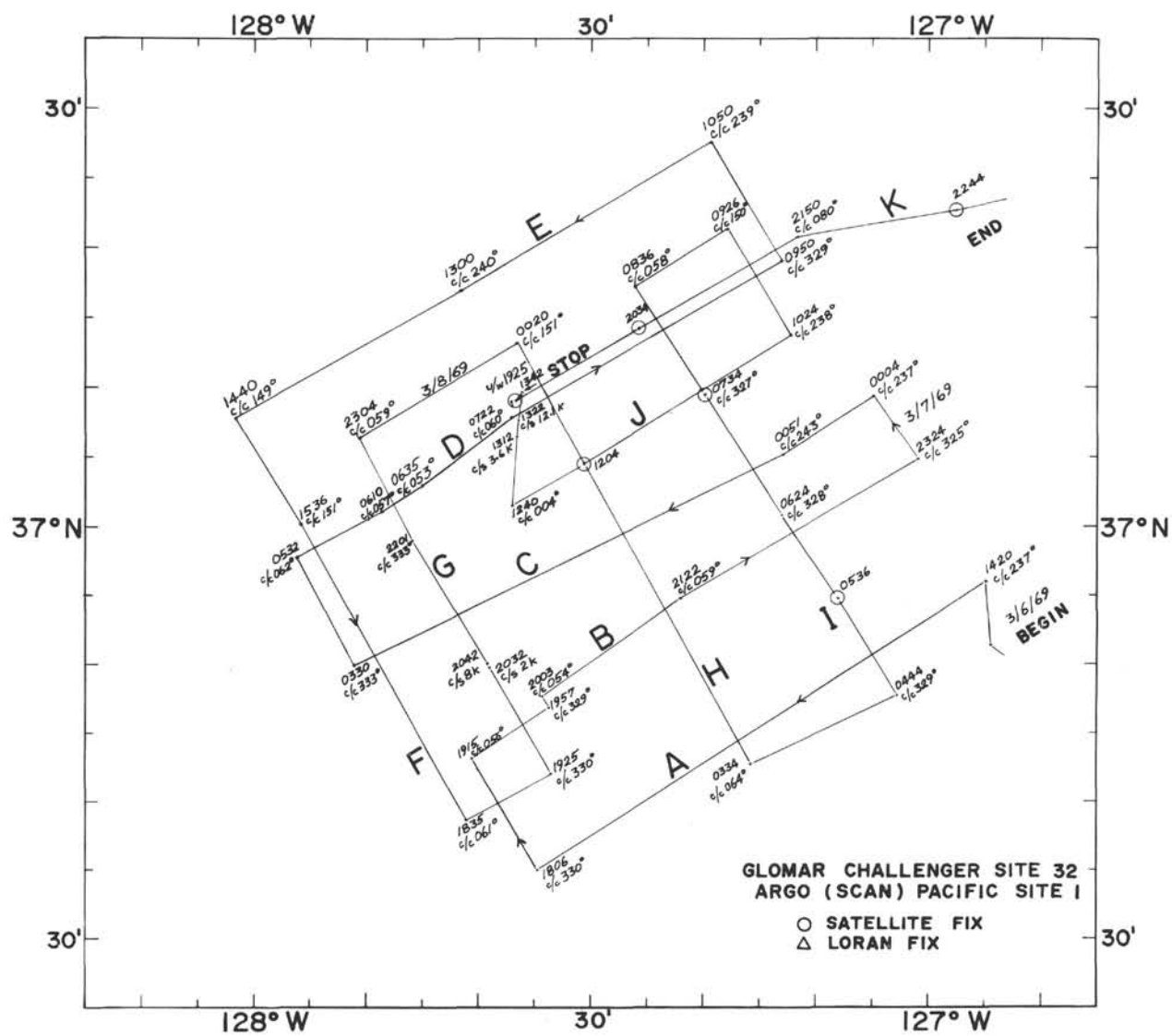
Diatoms are common only in surface samples (0 to 1 centimeter) at Sites 1, 2 and 4. Foraminifera are sparsely present in several samples from Sites 1, 2, 4, 5 and 6.

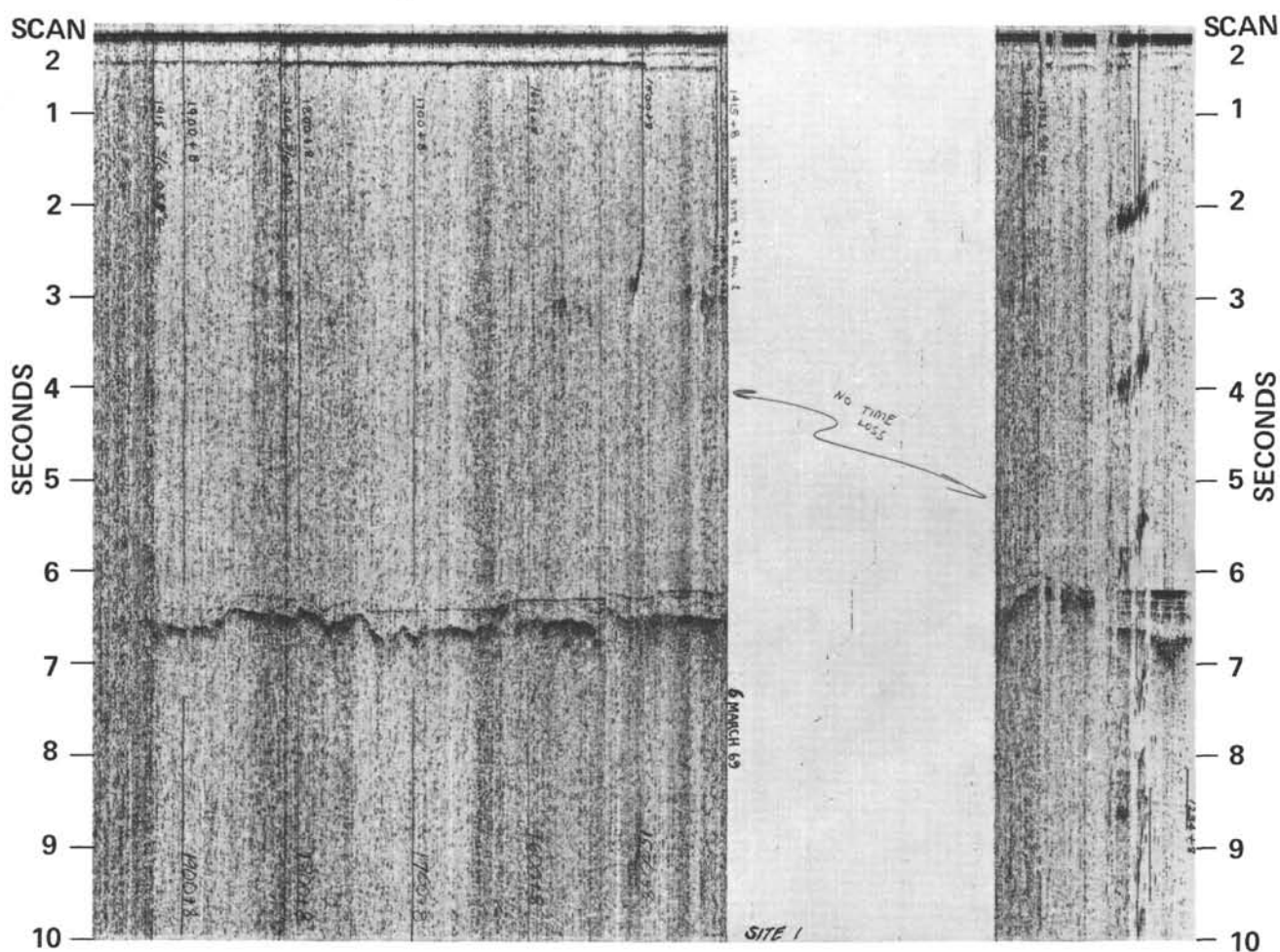
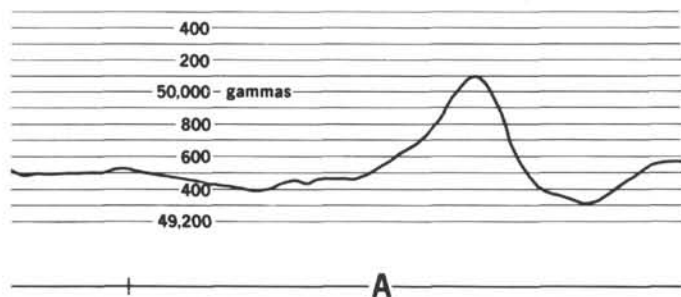
SCAN-1-P

Core length: 10.2 meters. All samples are devoid of calcareous nannofossils. Fragments of siliceous microfossils occur in some samples and foraminifera are present in a sample at 262 to 263 centimeters.

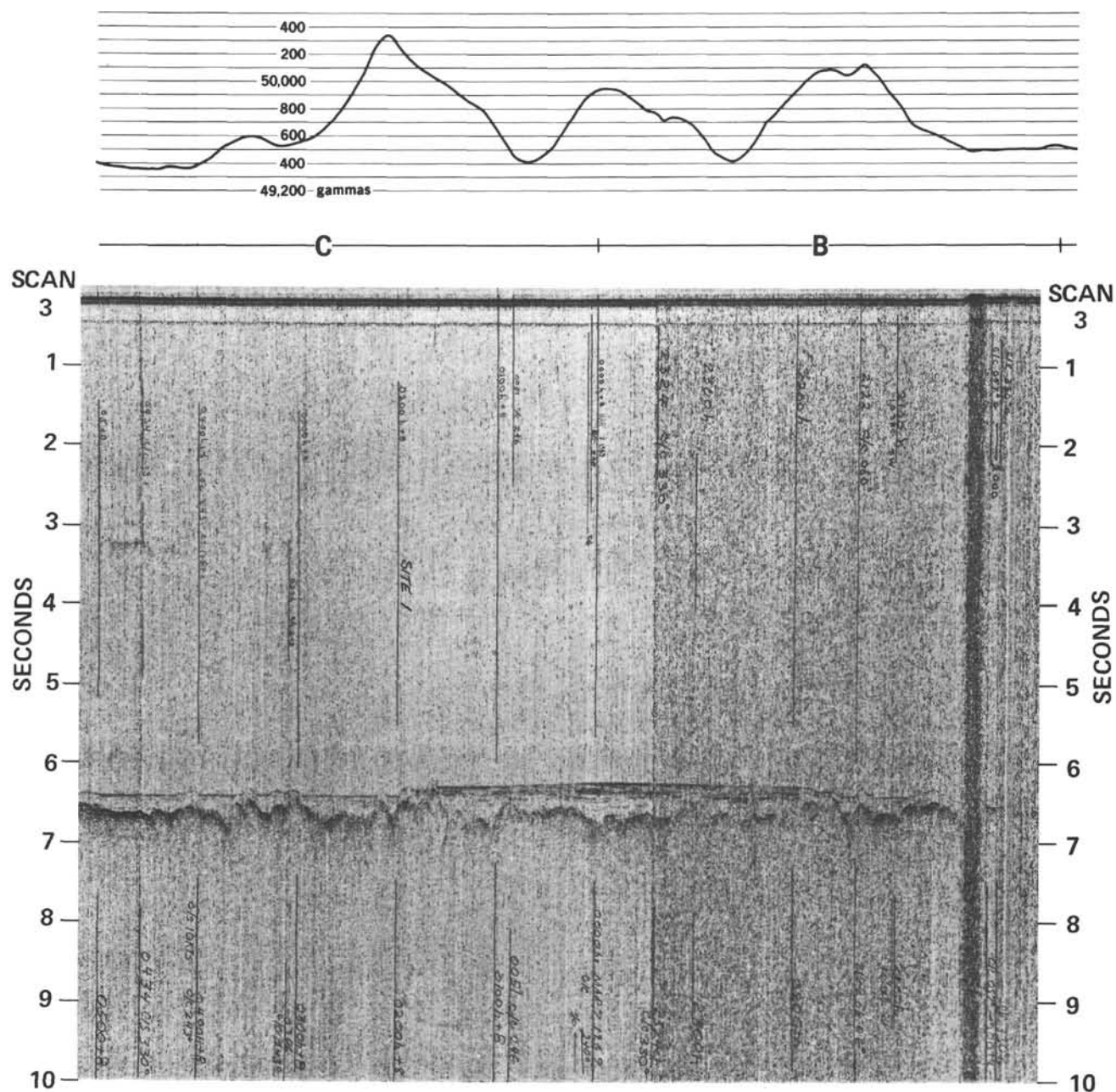
Foraminifera, SCAN-1-P, 262-263 cm (P. B. Smith, U. S. Geological Survey)

A sample from a depth of 262 to 263 centimeters in this core contains the fauna listed below. None of these foraminifera are extinct, and the indicated age is early Pliocene to Holocene: *Angulogerina angulosa*; *Bolivina argentea*; *B. bramlettei*; *B. pseudobeyrichi*; *B. seminuda*; *Bulimina striata*; *B. subacuminata*; *B. tenuata*; *Buliminella elegantissima*; *Cassidulina cushmani*; *C. subglobosa quadrata*; *Cibicides* cf. *C. conoideus*; *Epistominella pacifica*; *Globigerina bulloides*; *G. pachyderma*; *Globobulimina pacifica*; *Protelphidium* sp.; *Triloculina* sp.; *Uvigerina peregrina*; *U. auberiana*; *Nonion poratilioides*; *Nonionella miocenica*; and, *N. globosa*.

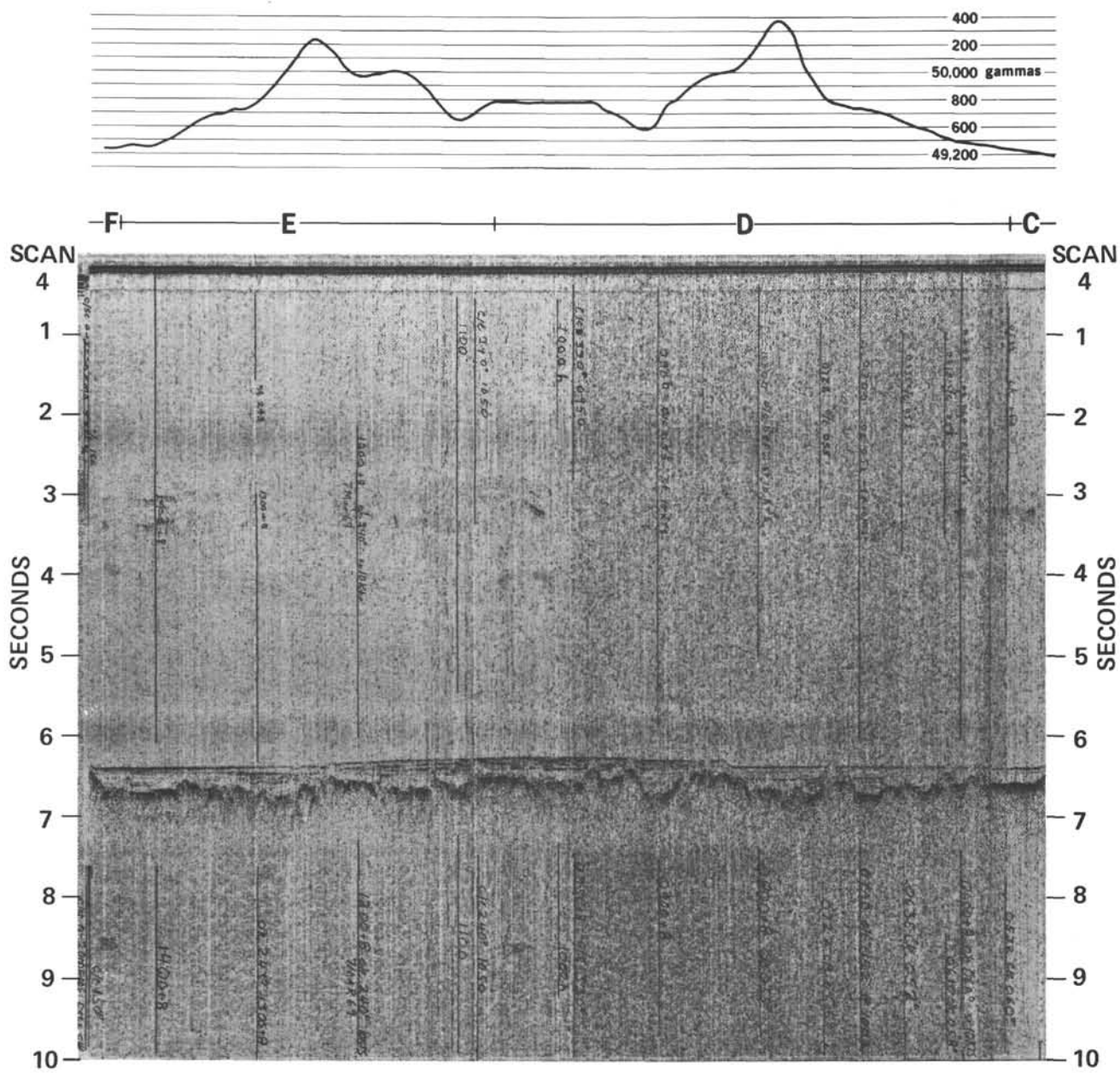




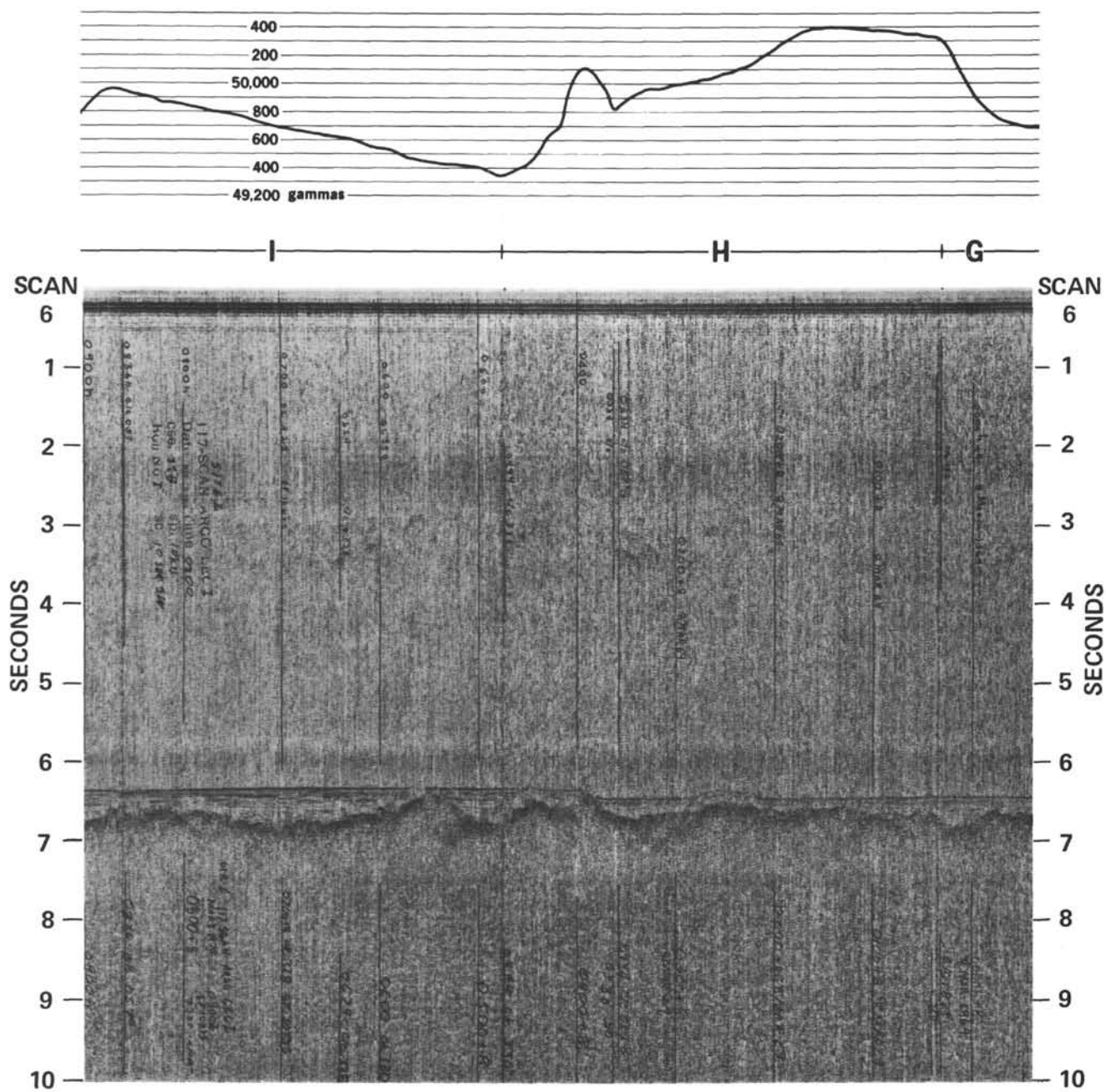
SCAN Survey, Site 1, Track A.



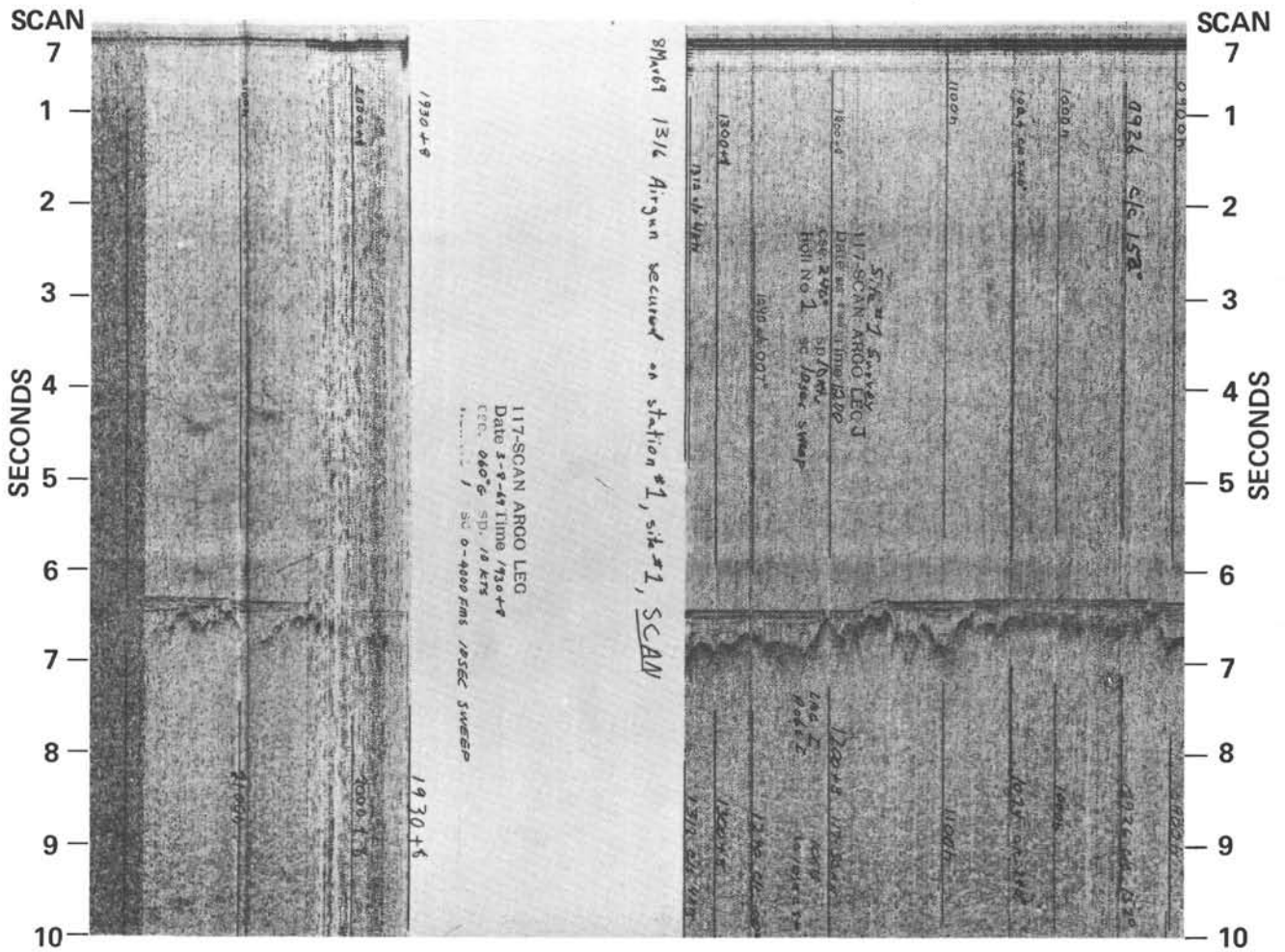
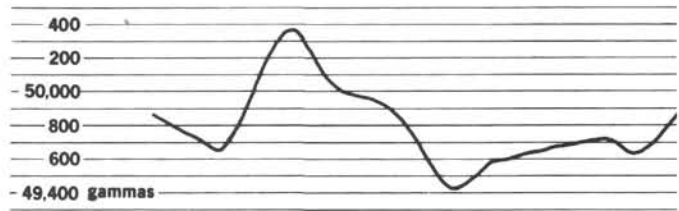
SCAN Survey, Site 1, Tracks B and C.



SCAN Survey, Site 1, Tracks C, D, E and F.



SCAN Survey, Site 1, Tracks G, H and I.



SCAN Survey, Site 1, Tracks I and J.

DEPTH (m)	LITHOLOGY	COLOR	SAMPLE INTERVAL	SAMPLE DESCRIPTION
1	Soft sandy clay	10YR 4/2		0-1 cm. Soft sandy clay, dark yellow-brown.
2	Plastic sandy clay	5GY 5/1		44-45 cm. Plastic silty clay.
3	Clayey fine sand	5GY 4/1		194-195 cm. Same.
4				262-263 cm. Clayey-fine sand, dark greenish-gray containing terrigenous grains and foraminifera. Probably coarse part of turbidite bed. Lower Pliocene to Holocene foraminifera.
5	Brittle sandy clay	5GY 5/1		412-413 cm. Brittle sandy clay, greenish-gray.
6				573-574 cm. Same.
7				
8	Plastic silty clay	5Y 5/1		723-724 cm. Plastic silty clay, olive-gray.
9				873-874 cm. Same.
10				1023-1024 cm. Same.
11				

Summary of Piston Core 1.