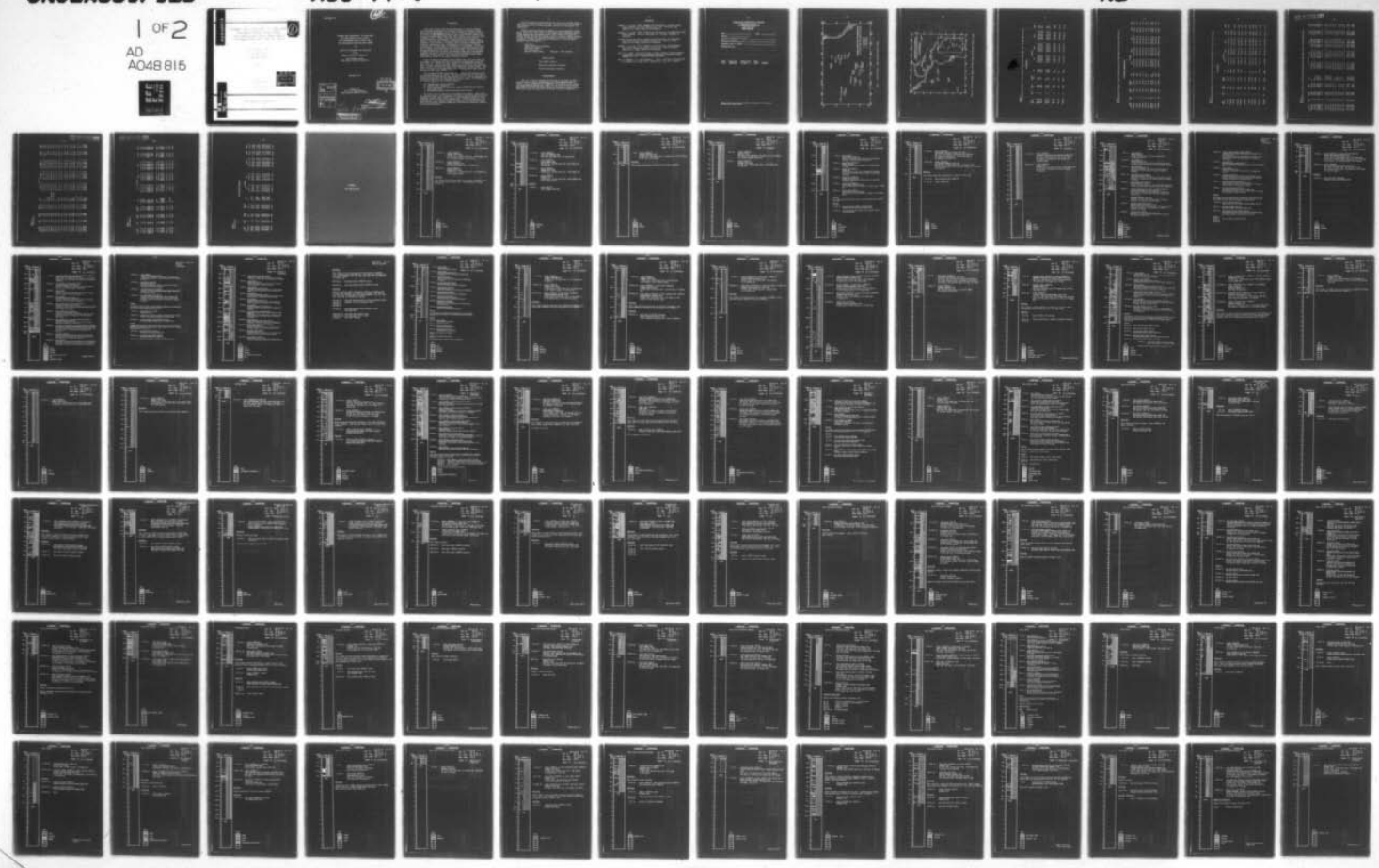
AD-A048 815 HAWAII INST OF GEOPHYSICS HONOLULU F/G 8/3
SEDIMENT CORE DESCRIPTIONS: R/V KANA KEOKI 1973 NORTH CENTRAL P--ETC(U)
SEP 77 F THEYER, C MATO N00014-75-C-0209
UNCLASSIFIED HIG-77-9 NL

1 OF 2
AD
A048 815



AD A048815

SEDIMENT CORE DESCRIPTIONS: R/V KANA KEOKI 1973 NORTH CENTRAL PACIFIC CRUISE, 1974 SOUTHEASTERN PACIFIC CRUISE, AND A 1974 MID-ATLANTIC RIDGE IPOD SITE SURVEY

By

Staff of the Sediment Core Laboratory
of the
Hawaii Institute of Geophysics

Fritz Theyer, Curator
Chris Mato, Technical Supervisor

SEPTEMBER 1977

DDC
RECEIVED
JAN 17 1978
D

Prepared for
OFFICE OF NAVAL RESEARCH
under Contract N00014-75-C-0269

Reproduction in whole or in part is permitted
for any purpose of the United States Government

HAWAII INSTITUTE OF GEOPHYSICS
UNIVERSITY OF HAWAII

AD No.
DDC FILE COPY

Data Report 33

HIG-77-9

SEDIMENT CORE DESCRIPTIONS: R/V KANA KEOKI 1973 NORTH CENTRAL PACIFIC CRUISE, 1974 SOUTHEASTERN PACIFIC CRUISE, AND A 1974 MID-ATLANTIC RIDGE IPOD SITE - SURVEY

By

Staff of the Sediment Core Laboratory

of the

Hawaii Institute of Geophysics

Fritz Theyer, Curator
Chris Mato, Technical Supervisor

September 1977

DDC
RECEIVED
JAN 17 1978
D

ACCESSION for
NTIS White Section X
DDC Buff Section
UNANNOUNCED
JUSTIFICATION
BY
DISTRIBUTION/AVAILABILITY CODES
Dist. AVAIL. and/or SPECIAL
A

Prepared for
Office of Naval Research
under Contract N00014-75-C-0209

Director,
Hawaii Institute of Geophysics

(See 1473)

DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

INTRODUCTION

This report presents generalized descriptions of deep-sea sediment cores collected by personnel of the Hawaii Institute of Geophysics (HIG) during the R/V Kana Keoki's cruise of 1973 in the North Central Pacific, and 1974 cruise in the Southeastern Pacific, and a 1974 IPOD-site survey conducted in the Mid-Atlantic Ridge area. The locations of the cores are shown in Figures 1 and 2. Table 1 lists the cores, stations and corrected satellite-navigation coordinates, as well as water depth (corrected m), length of core, and (where possible) geological age of the oldest sediments recovered at each location. In general, ages are based on radiolarians and planktonic foraminifera; they are designated in the listing as follows: Q (=Quaternary), TP (=Pliocene), TM (=Miocene), TO (=Oligocene), TE (=Eocene). Where possible, the foraminiferal zones of Blow (1969) are indicated; uncertain age determinations are shown by a question mark. Table 1 is followed by descriptions of the structural and lithologic sequences, and sedimentary components encountered in each core (the latter determined by microscopic examination of smear slides). The sedimentary nomenclature used is that established by JOIDES for the Deep Sea Drilling Project.

Cores are labeled according to ship (cruise) name, year, gear type, and core number. For example, KK 73-PC 11 indicates R/V Kana Keoki cruise 1973, Piston Core #11. The station number appears in the heading of the descriptions to further identify each core. Other gear types include free-fall cores (FFC), trigger cores (TC), and gravity-core temperature gradient (GCTG). PCOD refers to a piston core obtained with a core orienting device (COD), which is described by Seyb et al. (1977).

The standard procedures used during the preliminary core analyses at HIG are given by Andrews et al. (1970). The cores are initially cut into 150-cm long sections on board the ship, and stored at 2°-4° C. In the laboratory, the sections are then split into "working" and "archive" halves. The working half is routinely sampled in the following sequence:

1) Paleomagnetics (10-cm intervals)
2) Porosity (50-cm intervals)
3) Shear strength (50-cm intervals), using a GENORA Fall-Cone Penetrometer model G-200
4) Micropaleontological dating (top and bottom of core)

The archive half is reserved for non-destructive analyses. Smear slides are routinely taken at 50-cm intervals. To allow a finer definition of specific lithologic contacts, smear slides are also taken immediately above and below boundaries as well as within the boundary layer. A visual description of the archive halves, which includes diagrams of sedimentary structures and boundaries, color variations (Munsell color code), and textural variations, completes the preliminary analyses.

Both the working and archive halves are stored in an airtight plastic sleeve and a protective plastic "D" tube. The archive half is maintained in cold storage at 2°-4° C; the working half is kept in dry storage at room temperature.

These initial descriptions, in addition to those presented by Andrews et al. (1970, 1973, 1975, 1976) for the Solomon Islands 1968-1969 cruises, Murray Fracture Zone and Western Pacific 1970 cruises, and Eastern and Western Pacific 1971 and 1972 cruises, serve as a guide to samples available through the Sediment Core Analysis Laboratory of the Hawaii Institute of Geophysics. A sample request form is included (p. 4) in this report. Requests should be directed to:

Chris Mato
Hawaii Institute of Geophysics
University of Hawaii
2525 Correa Road
Honolulu, Hawaii 96822 Telephone: (808) 948-6605

CORE LAB STAFF

Fritz Theyer, Curator

Chris Mato, Technical Supervisor

Patrick Lineberger, Technician

ACKNOWLEDGMENTS

The core laboratory analysis was supported by the Office of Naval Research Contracts N00014-70-A-0016-0001 and N00014-70-A-0016-0001-AA. Coring retrieval operations were supported by the National Science Foundation Grant NSF-C482 (Mid-Atlantic Ridge) and the Office of Naval Research Grant N00014-70-A-0016-0001 (North Central and Southeastern Pacific Ocean). Additional support was provided by the Hawaii Institute of Geophysics.

REFERENCES

Andrews, J. E. et al. (1970) Sediment Core Descriptions: Solomon Islands Islands 1968-69, and Murray Fracture Zone, 1967. HIG-20-25, Data Report No. 16, Hawaii Institute of Geophysics.

Andrews, J. E. et al. (1973) Sediment Core Descriptions: R/V Mahi 1970 Cruise, Western Pacific. HIG-73-7, Data Report No. 24, Hawaii Institute of Geophysics.

Andrews, J. E. et al. (1975) Sediment Core Descriptions: R/V Kana Keoki 1971 Cruise, Eastern and Western Pacific Ocean. HIG-75-15, Data Report No. 28, Hawaii Institute of Geophysics.

Andrews, J. E. et al. (1976) Sediment Core Descriptions: R/V Kana Keoki 1972 Cruise, Eastern and Western Pacific Ocean. HIG-76-13, Data Report No. 32, Hawaii Institute of Geophysics.

Blow, W. H. (1969) "Late Middle Eocene to Recent Planktonic Biostratigraphy." Proceedings of the First International Conference on Planktonic Microfossils, Vol. 1, E. J. Brill, Leiden, Netherlands.

Seyb, S., Hammond, S. R., and Gilliard, T. (1977) A new device for measuring the behavior of a piston corer. Deep-Sea Res., Vol. 24, p. 943-949.

University of Hawaii at Manoa

Hawaii Institute of Geophysics
2525 Correa Road • Honolulu, Hawaii 96822
Cable Address: UNIHAW

SAMPLE REQUEST

NAME _____ DATE _____

ADDRESS _____

INSTITUTE OR COMPANY AFFILIATION _____

PURPOSE OF SAMPLING* _____

GEOGRAPHIC AREA OF INTEREST _____

PROPOSED ANALYSIS

CRUISE NO.	CORE ID OR DREDGE NO.	SAMPLE DEPTH IN CORE	SAMPLE SIZE	COMMENTS

*PLEASE SEND THE CORE LAB AN ABSTRACT OR PREPRINT OF THE RESULTS OBTAINED FROM THESE SAMPLES

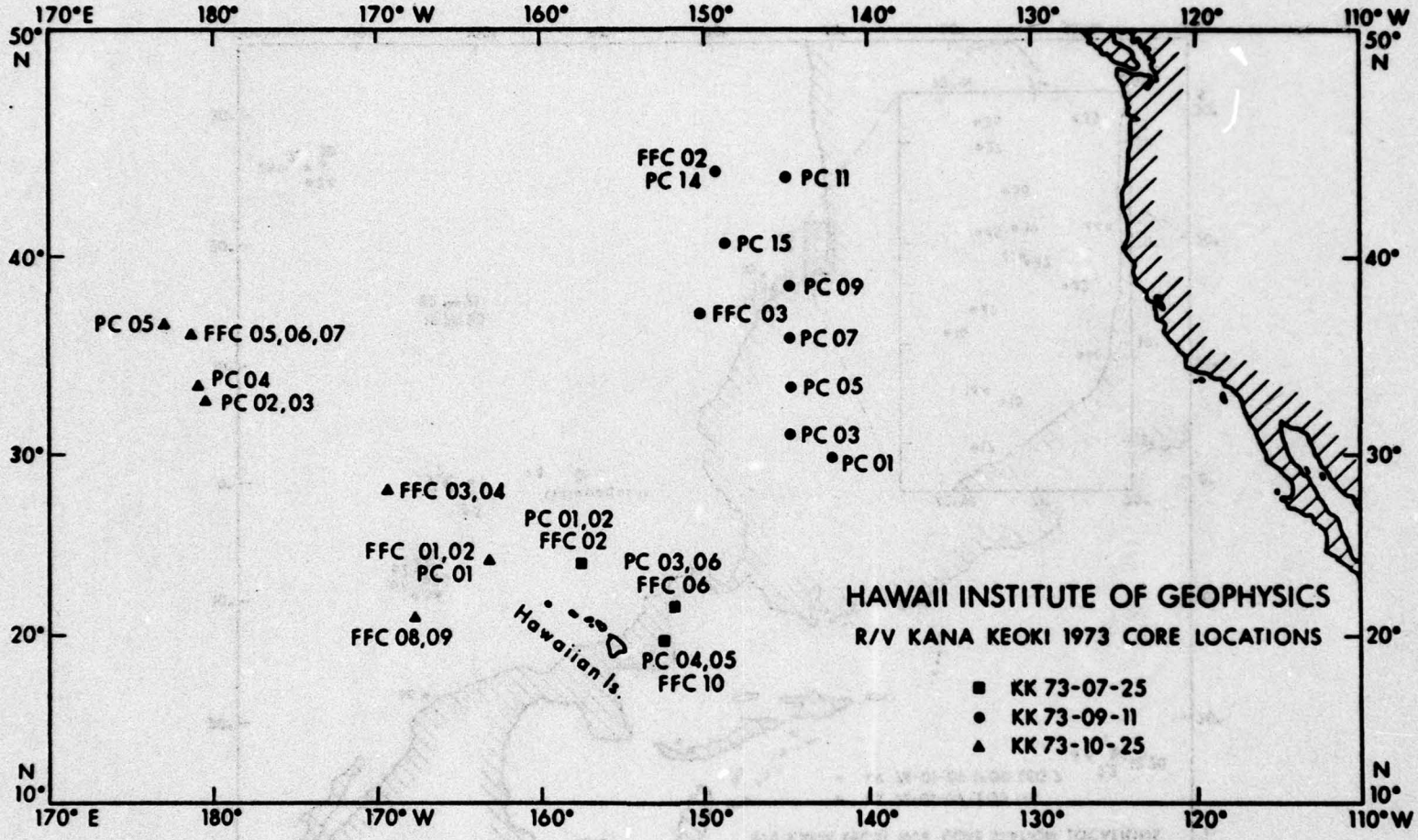


Fig. 1. Core Locations, North Central Pacific Ocean.

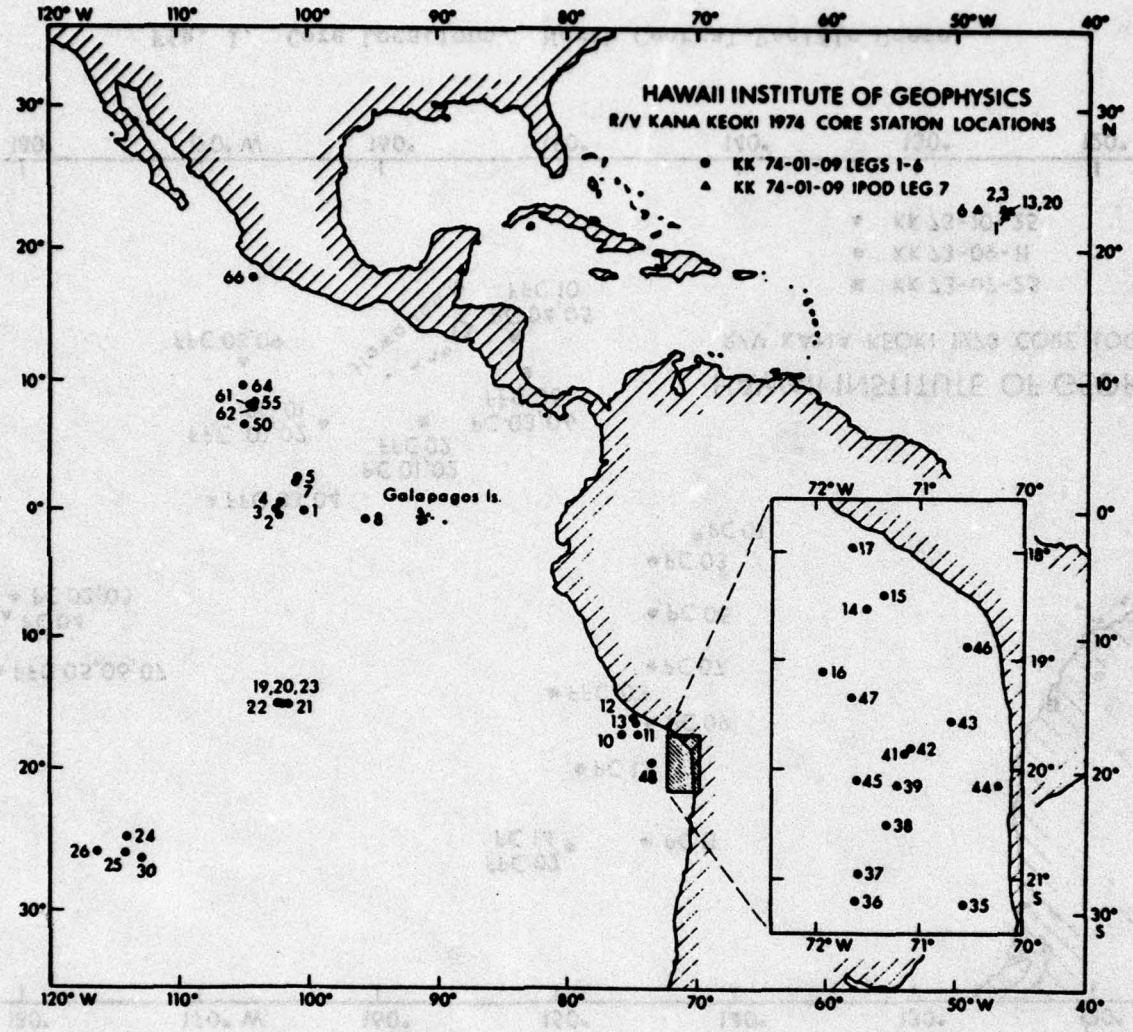


Fig. 2. Core locations, Eastern Pacific Ocean and Western Atlantic Ocean.

TABLE 1
Chronological Listing of Cores Obtained During R/V KANA KEOKI 1973 Cruise (KK73-07-25)

KK 73-07-25

CORE TYPE #	STA #	DEPTH (M)	LENGTH (M)	AGE	LOCATION LAT	LONG	DATE	PAGE
PCOD 01	1	4380	470	undet	24:04.36 N	157:26.96 W	1973 July 27	A-1
PCOD 02	1	4190	209	undet	24:04.60 N	157:27.70 W	1973 July 28	A-2
FFC 02	1	4190	96	undet	24:04.60 N	157:27.70 W	1973 July 28	A-3
FFC 04	1	4190	70	undet	24:04.60 N	157:27.70 W	1973 July 28	A-4
PCOD 03	2	5795	467	undet	21:42.67 N	151:41.35 W	1973 July 30	A-5
FFC 06	2	5725	119	undet	21:40.61 N	151:54.19 W	1973 July 31	A-6
FFC 07	2	5725	112	undet	21:40.61 N	151:54.19 W	1973 July 31	A-7
PCOD 04	3	5125	907	TE	19:44.54 N	152:21.97 W	1973 Aug 03	A-8
FFC 10	3	5125	105	undet	19:44.54 N	152:21.97 W	1973 Aug 05	A-10
PCOD 05	4	5035	1319	TE	19:43.82 N	152:23.82 W	1973 Aug 05	A-11
PCOD 06	5	5600	1490	undet	21:41.97 N	151:47.84 W	1973 Aug 07	A-13

TABLE 2
Chronological Listing of Cores Obtained During R/V KANA KEOKI 1973 Cruise (KK73-09-11)

KK 73-09-11 Church Anchor

CORE TYPE #	STA #	DEPTH (M)	LENGTH (M)	AGE	LOCATION LAT	LONG	DATE	TIME	PAGE
PC-001	2	4966	05.21	undet	29:54.49 N	142:12.52 W	1973 Sep 15	21:25	A-14
PC-003	5	5691	04.99	undet	31:06.27 N	144:45.84 W	1973 Sep 18	06:42	A-15
PC-005	8	3559	05.00	undet	33:36.90 N	144:47.00 W	1973 Sep 20	03:27	A-16
PCOD 07	11	5360	04.66	Q (?)	36:06.95 N	144:46.65 W	1973 Sep 21	23:15	A-17
PCOD 09	14	5194	08.17	undet	38:36.86 N	144:50.89 W	1973 Sep 23	19:54	A-18
PCOD 11	20	4587	01.05	Q(?)	43:07.94 N	144:59.18 W	1973 Sep 27	19:05	A-19
FFC-002	25	5202	01.09	QH	43:55.08 N	149:17.39 W	1973 Oct 02	10:35	A-20
PC-014	25	5202	05.60	undet	43:55.44 N	149:17.00 W	1973 Oct 02	11:21	A-21
PC-015	27	4865	05.68	undet	40:37.90 N	148:44.50 W	1973 Oct 04	15:40	A-22
FFC-003	28	5677	01.08	undet	37:16.87 N	150:18.12 W	1973 Oct 06	10:06	A-23

TABLE 3
Chronological Listing of Cores Obtained During R/V KANA KEOKI 1973 Cruise (KK73-10-25)

KK 73-10-25

CORE TYPE #	STA #	DEPTH (M)	LENGTH (M)	AGE	LOCATION LAT	LONG	DATE	TIME	PAGE
FFC-001	1	4896	01.07	UNDET	24:13.5 N	163:06.1 W	1973 Oct 31	07:14	A-24
PCOD-001	1	4907	01.15	UNDET	24:13.3 N	163:01.0 W	1973 Oct 31	10:42	
FFC-003	2	4616	01.17	UNDET	28:08.0 N	169:20.9 W	1973 Nov 02	09:32	A-25
PCOD-002	4	4858	00.24	Q(N23)	32:58.7 N	179:29.5 E	1973 Nov 10	05:47	A-26
PCOD-003	4	4843	01.09	UNDET	32:55.7 N	179:28.1 E	1973 Nov 10	16:34	A-27
PCOD-004	6	2424	09.99	TP	33:36.3 N	179:03.3 E	1973 Nov 14	15:14	A-28
FFC-005	7	3926	00.68	Q(?)	36:19.5 N	178:36.2 E	1973 Nov 15	10:49	A-29
FFC-006	7	3898	00.72	Q(?)	36:18.7 N	178:36.5 E	1973 Nov 15	10:56	A-30
FFC-007	7	3914	00.96	UTP	36:17.3 N	178:37.1 E	1973 Nov 15	11:09	A-31
PCOD-005	8	3526	03.47	UTP-LQP	36:47.3 N	176:58.7 E	1973 Nov 16	12:19	A-32
FFC-009	10	4883	00.99	UNDET	21:02.0 N	167:44.9 W	1973 Nov 25	07:13	A-33

BEST AVAILABLE COPY

TABLE 4
Chronological Listing of Cores Obtained During R/V KANA KEOKI 1974 Cruise (KK74-01-09)

CORE TYPE #	STA #	DEPTH (M)	LENGTH (M)	AGE	LOCATION LAT	LONG	DATE	TIME	PAGE
PCOD-001	1	3295	09.41	Q	0:12.2 S	100:21.8 W	1974 JAN.26	17:23	A-34
TC-001	1	3295	00.49	Q	0:12.2 S	100:21.8 W	1974 JAN.26	17:23	A-35
TC-002	2	3333	00.38	Q	0:20.3 S	102:14.6 W	1974 JAN.28	23:31	A-36
FFC-001	3	3140	00.90	Q(N23)	0: 1.3 N	102:12.7 W	1974 JAN.29	8:37	A-37
FFC-004	4	3226	00.89	Q(N23)	0:28.5 N	102: 8.9 W	1974 JAN.30	8:39	A-38
FFC-005	4	3138	00.93	Q(N23)	0:28.9 N	102: 8.3 W	1974 JAN.30	8:53	A-39
FFC-006	4	3127	00.93	Q	0:29.2 N	102: 9.6 W	1974 JAN.30	9: 3	A-40
FFC-007	4	3100	00.65	Q(N23)	0:29.4 N	102:10.6 W	1974 JAN.30	9:10	A-41
PCOD-004	5	3146	02.96	Q	2:22.2 N	100:49.9 W	1974 JAN.31	19:49	A-42
FFC-012	7	2947	00.80	Q(N23)	2:19.6 N	100:45.3 W	1974 FEB. 1	7: 3	A-43
FFC-017	8	3352	00.98	Q(N23)	0:52.1 S	95:29.4 W	1974 FEB. 3	4:50	A-44
FFC-018	8	3385	00.94	Q(N23)	0:54.3 S	95:24.3 W	1974 FEB. 3	5:28	A-45
PCOD-005	10	4424	01.09	UNDET	17:28.5 S	75:54.2 W	1974 FEB.23	5:59	A-46
PCOD-006	11	4606	07.70	Q	17:33.6 S	74:32.7 W	1974 FEB.24	3:54	A-47
PCOD-007	12	4349	05.41	Q(?)	16:13.8 S	74:57.2 W	1974 FEB.25	3:11	A-48
FFC-019	13	6719		UNDET	16:35.6 S	74:51.7 W	1974 FEB.25	23:28	
FFC-024	13	4160	00.32	Q(?)	16:22.4 S	74:43.4 W	1974 FEB.26	1:41	A-49
PCOD-008	13	3027	04.48	Q(?)	16:16.6 S	74:41.5 W	1974 FEB.26	3:15	A-50
PCOD-009	14	2636	04.25	Q(?)	18:32.3 S	71:32.9 W	1974 MAR. 1	22:58	A-51
PCOD-010	15	1385	03.74	Q	18:24.7 S	71:22.7 W	1974 MAR. 2	1:16	A-52
FFC-026	16	6782	01.00	Q	19: 5.2 S	71:54.4 W	1974 MAR. 2	22: 4	A-53
FFC-027	16	6424	01.21	UNDET	19: 8.9 S	71:58.2 W	1974 MAR. 2	22:49	A-54
FFC-028	16	6109	01.09	UNDET	19:11.2 S	72: 0.5 W	1974 MAR. 2	23:17	A-55
FFC-029	17	949		UNDET	17:59.3 S	71:45.3 W	1974 MAR. 3	22:12	
FFC-030	17	1044	00.54	UTM-LTP	17:58.9 S	71:40.8 W	1974 MAR. 3	22:57	A-56
FFC-031	17	1036	00.74	Q(?)	17:58.9 S	71:37.7 W	1974 MAR. 3	23:26	A-57
FFC-032	17	1065	00.79	Q(?)	17:58.9 S	71:35.7 W	1974 MAR. 3	23:35	A-58

TABLE 4
(continued)

CORE TYPE #	STA #	DEPTH (M)	LENGTH (M)	AGE	LOCATION LAT	LONG	DATE	TIME	PAGE
FFC-034	17	1108	00.80	Q(?)	17:58.9 S	71:36.2 W	1974 MAR. 3	23:39	A-59
PCOD-011	17	1170	01.78	Q	17:58.9 S	71:35.8 W	1974 MAR. 4	1: 9	A-60
PCOD-012	19	4206	02.77	TM	15:13.2 S	102: 9.0 W	1974 APR.19	16: 3	A-61
PCOD-013	20	4309	10.52	TM	15:13.2 S	102: 9.7 W	1974 APR.19	20: 3	A-62
FFC-035	21	3071	00.57	Q(N23)	15:16.2 S	101:38.9 W	1974 APR.20	2:38	A-63
FFC-037	21	4204	00.83	Q(N23)	15:15.8 S	101:31.7 W	1974 APR.20	3:24	A-64
PCOD-014	22	4246	01.37	TP-QP(N20-N22)	15:11.6 S	102:11.1 W	1974 APR.20	13: 6	A-65
PCOD-015	23	4300	01.75	UTM-LTP(N18)	15:12.4 S	102: 9.1 W	1974 APR.20	15:40	A-66
PCOD-016	24	3350	00.67	Q	24:56.7 S	114: 0.8 W	1974 APR.27	18:21	A-67
PCOD-017	25	3300	02.70	UNDET	25:13.4 S	114: 0.4 W	1974 APR.27	22:32	A-68
FFC-042	30	2851	00.43	UNDET	26:24.5 S	112:53.9 W	1974 MAY 5	10:14	A-69
FFC-047	35	1819	00.11	UNDET	21:15.3 S	70:35.4 W	1974 MAY 30	3:25	A-70
FFC-048	36	4269	01.05	UNDET	21:12.5 S	71:38.2 W	1974 MAY 30	17:55	A-71
FFC-050	37	4852	00.68	UNDET	20:58.1 S	71:37.0 W	1974 MAY 31	4: 9	A-72
PCOD-019	37	4597	00.29	MTE	20:57.4 S	71:35.8 W	1974 MAY 31	6: 5	A-73
FFC-052	38	6899	01.20	UNDET	20:31.6 S	71:18.7 W	1974 JUN. 1	5:17	A-74
FFC-053	38	6391	00.96	UNDET	20:31.6 S	71:21.4 W	1974 JUN. 1	5:37	A-75
FFC-055	39	7642	00.91	UTP-LQP	20:10.4 S	71:15.2 W	1974 JUN. 1	23:47	A-76
PCOD-020	41	4876	01.17	UNDET	19:52.5 S	71: 9.9 W	1974 JUN. 3	3:55	A-77
PCOD-021	42	4397	00.82	UTP-LQP	19:50.0 S	71: 6.4 W	1974 JUN. 3	6:31	A-78
FFC-058	43	963	00.63	Q(?)	19:35.3 S	70:42.6 W	1974 JUN. 4	2:51	A-79
FFC-059	43	989	00.40	Q(?)	19:35.3 S	70:43.6 W	1974 JUN. 4	2:58	A-80
FFC-060	43	1038	00.63	UNDET	19:35.3 S	70:44.4 W	1974 JUN. 4	3: 2	A-81
PCOD-022	43	1050	00.53	UNDET	19:35.7 S	70:43.9 W	1974 JUN. 4	3:55	A-82

BEST AVAILABLE COPY

BEST AVAILABLE COPY

TABLE 4
(continued)

CORE TYPE	#	STA #	DEPTH (M)	LENGTH (M)	AGE	LOCATION LAT	LOCATION LONG	DATE	TIME	PAGE
FFC-063		45	5661	01.10	UNDET	20: 8.2 S	71:30.6 W	1974 JUN. 5	2:51	A-83
FFC-065		45	5611	01.16	UNDET	20: 8.3 S	71:35.8 W	1974 JUN. 5	3:30	A-84
PCOD-023		45	5280	03.14	TO(?)	20: 5.0 S	71:39.3 W	1974 JUN. 5	5:49	A-85
FFC-070		46	1152	00.94	Q(?)	18:54.6 S	70:34.0 W	1974 JUN. 5	23:50	A-86
FFC-071		46	1174	00.50	Q(?)	18:54.9 S	70:34.6 W	1974 JUN. 5	23:55	A-87
PCOD-024		46	1223	04.49	Q(?)	18:55.0 S	70:35.9 W	1974 JUN. 6	1: 1	A-88
PCOD-025		46	1228	03.33	Q(?)	18:52.9 S	70:35.7 W	1974 JUN. 6	3:46	A-89
FFC-072		47	6707	00.66	UNDET	19:18.9 S	71:37.7 W	1974 JUN. 7	0:29	A-90
FFC-073		47	7396	00.15	Q(?)	19:20.6 S	71:39.9 W	1974 JUN. 7	0:52	A-91
PC-026		48	4593	11.50	UNDET	19:30.1 S	73:30.4 W	1974 JUN. 7	20:12	A-92
FFC-076		50	3535	01.03	Q	6:32.9 N	104:53.8 W	1974 JUN.30	8:43	A-93
FFC-077		55	3428	01.18	Q(N23)	8: 7.1 N	104: 8.4 W	1974 JUL. 4	23: 1	A-94
FFC-078		55	3421	01.14	Q(N23)	8: 6.9 N	104: 9.5 W	1974 JUL. 4	23:10	A-95
FFC-079		55	3427	01.16	Q(N23)	8: 6.8 N	104:10.5 W	1974 JUL. 4	23:17	A-96
FFC-080		55	3431	01.14	Q(N23)	8: 6.6 N	104:11.4 W	1974 JUL. 4	23:24	A-97
GCTG-CC1		61	3469	01.55	C	8: 5.4 N	104:18.8 W	1974 JUL. 6	16:49	A-98
GCTG-CC2		62	3319	01.11	C(N23)	7:52.4 N	104:14.6 W	1974 JUL. 6	20:15	A-99
GCTG-CC3		66	3938	02.40	C?	17:52.1 N	104:13.0 W	1974 JUL.16	17:44	A-100

TABLE 4
(continued)

KK 74-01-09 IPOD Leg 7

CORE TYPE #	STA #	DEPTH (M)	LENGTH (M)	AGE	LOCATION LAT	LONG	DATE	TIME	PAGE
PCOD-002	2	4221	07.35	Q	22:51.3 N	46:13.5 W	1975 Apr. 09	21:10	A-101
FFC-002	3	4346	00.89	Q(N23)	22:51.4 N	46:14.6 W	1975 Apr. 10	1:17	A-102
PCOD-003	3	4378	09.96	Q	22:48.0 N	46: 6.6 W	1975 Apr. 10	4:25	A-103
FFC-007	6	4043	00.80	Q(N23)	23: 2.9 N	45:57.2 W	1975 Apr. 10	23:36	A-105
FFC-008	6	4046	00.64	Q(N23)	23: 2.6 N	45:56.7 W	1975 Apr. 10	23:42	A-106
PCOD-004	6	4024	07.40	Q(?)	23: 1.1 N	45:53.2 W	1975 Apr. 11	1:44	A-107
FFC-012	13	4494	00.82	Q(N23)	22:46.1 N	46: 7.6 W	1975 Apr. 16	4: 0	A-108
FFC-013	13	4491	00.82	Q(N23)	22:46.6 N	46: 7.2 W	1975 Apr. 16	4: 6	A-109
FFC-014	13	4485	00.91	Q(N23)	22:46.9 N	46: 6.9 W	1975 Apr. 16	4: 9	A-110
FFC-015	13	4482	00.84	Q	22:46.8 N	46: 7.1 W	1975 Apr. 16	4:36	A-111
FFC-016	13	4493	00.85	Q(N23)	22:46.1 N	46: 7.0 W	1975 Apr. 16	4:42	A-112
FFC-017	13	4493	00.86	Q(N23)	22:45.7 N	46: 7.0 W	1975 Apr. 16	4:46	A-113
PC-005	20	4267	11.91	Q	22:44.2 N	46: 7.4 W	1975 Apr. 23	23:11	A-114

APPENDIX

Core Descriptions

LITHOLOGIC DESCRIPTION

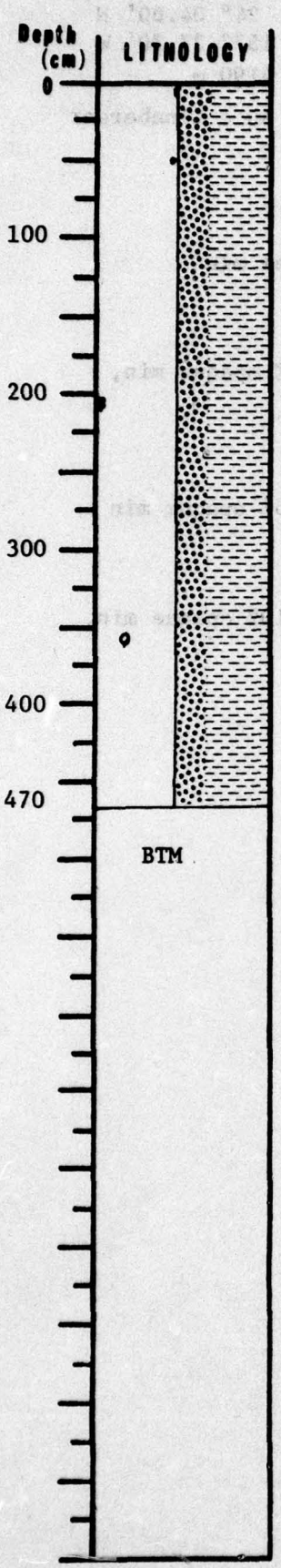
KK73-07-25 Sta. 01

Core ID PCOD 01

Lat., Long. 24° 04.36' N, 157° 26.96' W

Water Depth 4380 m

Logged By Au & Lineberger



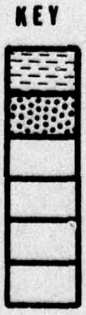
0–235 cm brown (10YR4/3)
MINERAL RICH CLAY
52–77% clay, 15–30% aniso min, 1–10% opaque min, 0–5% volcanic glass, 0–3% iso min

235–305 cm brown (10YR4/3)
MINERAL BEARING CLAY
91% clay, 8% aniso min, 1% opaque min

305–470 cm brown (10YR4/3)
MINERAL RICH CLAY
76–83% clay, 15–20% aniso min, 1–2% opaque min, tr–3% volcanic glass

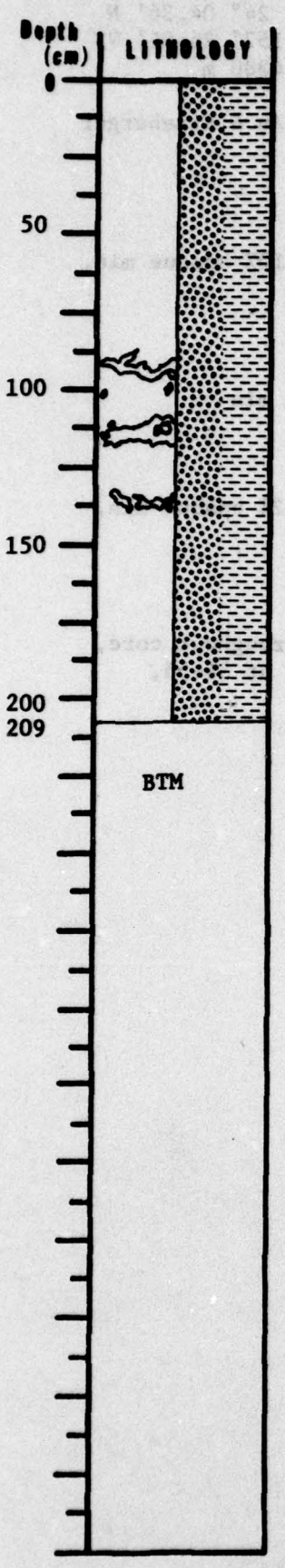
Mottling

Very slight mottling scattered very sparsely throughout core, very close in hue to base color. Rock fragments at 54–55, 361–365 cm.



LITHOLOGIC DESCRIPTION

Core ID	KK73-07-25 Sta. 01 PCOD 02
Lat., Long.	24° 04.60' N 157° 27.70' W
Water Depth	4190 m
Logged By	Au & Lineberger



0 - 25 cm — brown (10YR4/3)
CLAY RICH MINERAL SAND
59% aniso min, 25% clay, 15% opaque min

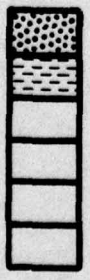
25-117 cm — brown (10YR4/3)
CLAY MINERAL SAND
60-70% clay, 10-30% aniso min, 10% opaque min, 10% iso min

117-192 cm — brown (10YR4/3)
MINERAL RICH CLAY
70-82% clay, 15-25% aniso min, 3-5% opaque min

192-209 cm — brown (10YR4/3)
MINERAL CLAY
59-65% clay, 30-35% aniso min, 5-10% opaque min, 0-1% volcanic glass

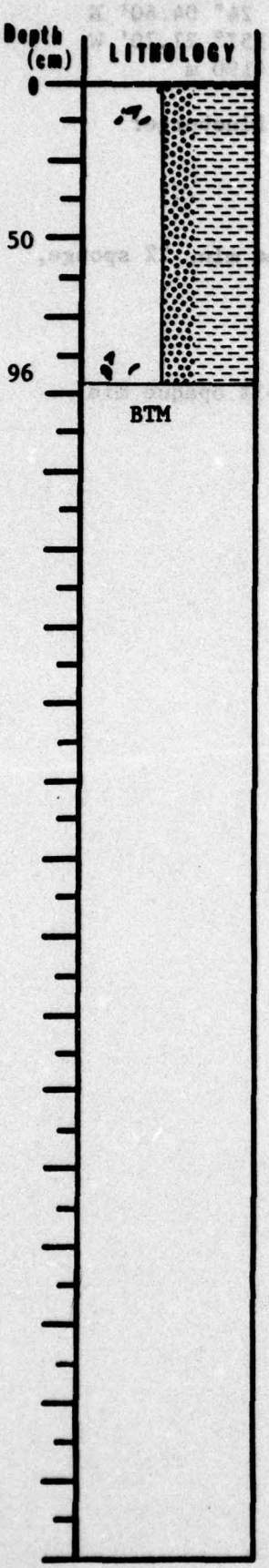
Layering

91-98 cm — black (N2.5/0)
CLAY - MINERAL RICH ASH



LITHOLOGIC DESCRIPTION

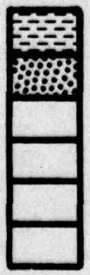
Core ID	KK73-07-25 Sta. 01 FFC 02
Lat., Long.	24° 04.60' N 157° 27.70' W
Water Depth	4190 m
Logged By	Au & Lineberger



0-96 brown (10YR4/3)
MINERAL BEARING CLAY
82-86% clay, 10% aniso min, 1% opaque min, tr-3% diatom, tr-3% rad, tr-1% sponge

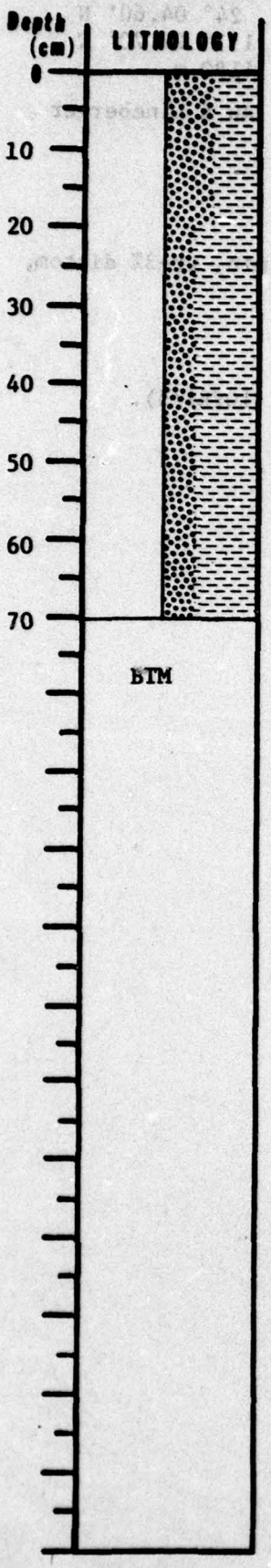
Mottling

Very slight mottling at 13-18 and 87-92; brown (10YR5/3).



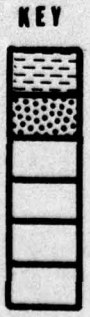
LITHOLOGIC DESCRIPTION

	KK73-07-25 Sta. 01
Core ID	FFC 04
Lat., Long.	24° 04.60' N 157° 27.70' W
Water Depth	4190 m
Logged By	Lineberger



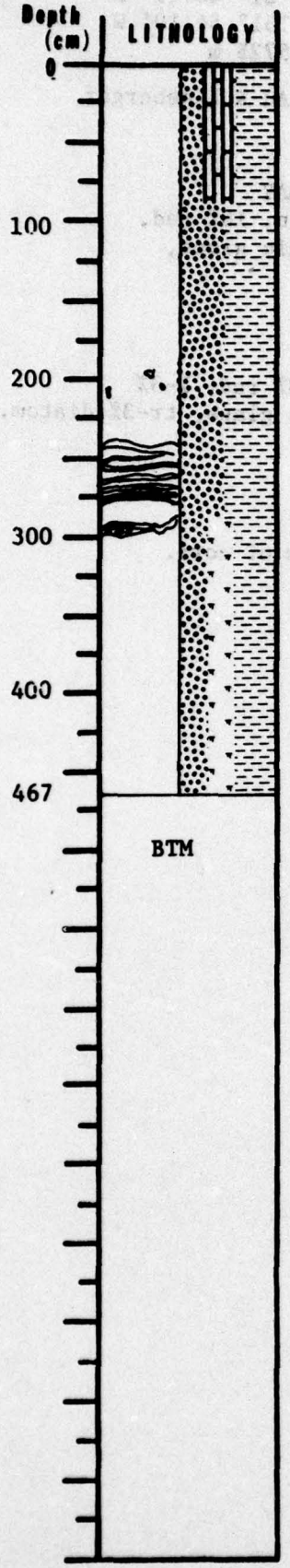
0–19 cm — brown (10YR4/3)
MINERAL CLAY
50% clay, 41% aniso min, 3% opaque min, 2% sponge, 2% volcanic glass, 1% zeolite

19–70 cm — brown (10YR4/3)
MINERAL RICH CLAY
76–79% clay, 15–20% aniso min, 2–3% opaque min, 1% zeolite



LITHOLOGIC DESCRIPTION

Core ID	KK73-07-25 Sta. 02 PCOD 03
Lat., Long.	21° 42.67' N 151° 41.35' W
Water Depth	5795 m
Logged By	Au & Lineberger



0 - 90 cm	brown (10YR4/3) MINERAL RICH SILICEOUS CLAY 56% clay, 12% aniso min, 10% diatom, 10% rad, 6% siliceous bioclastic, 4% volcanic glass, 1% opaque min
90-125 cm	grayish brown (10YR5/2.5) MINERAL RICH CLAY 79% clay, 15% aniso min, 4% opaque min, 1% volcanic glass, 1% zeolite
125-295 cm	grayish brown (10YR5/2) MINERAL CLAY 43-50% aniso min, 31-43% clay, 5-6% opaque min, 0-4% rad, 0-3% diatom, 1% volcanic glass, 1% zeolite, tr-1% siliceous bioclastic
295-340 cm	grayish brown (10YR5/2.5) MINERAL-ZEOLITE RICH CLAY 57-70% clay, 20% zeolite, 10-20% aniso min, 2% opaque min, 1% volcanic glass
340-400 cm	grayish brown (10YR5/2.5) ZEOLITE BEARING MINERAL RICH CLAY 67% clay, 25% aniso min, 5% zeolite, 1% volcanic glass, 1% opaque min
400-467 cm	grayish brown (10YR5/2) ZEOLITE BEARING CLAY MINERAL SAND 50% aniso min, 40% clay, 5% zeolite, 3% opaque min, 2% volcanic glass

Mottling

Very slight, very sparse mottling; brown to very dark grayish brown (10YR5/3, 4/2, 3/2).

Layering

244-288 cm	dark grayish brown (10YR4/2) parallel layering VOLCANIC GLASS-RAD BEARING CLAY MINERAL SAND
291-295 cm	very dark grayish brown (10YR3/2) layer contains chunks of indurated sediments

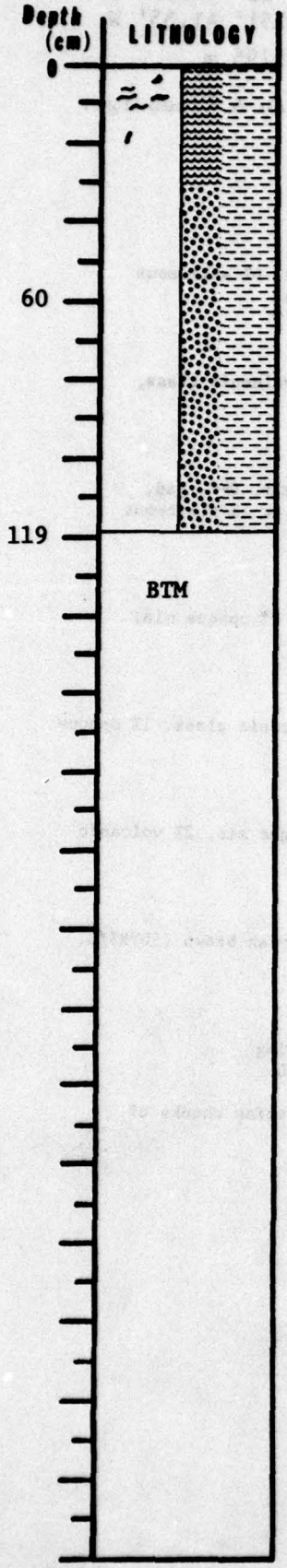
KEY



CLAY
SILICEOUS
MINERAL
ZEOLITE

LITHOLOGIC DESCRIPTION

Core ID	KK73-07-25 Sta. 02 FFC 06
Lat., Long.	21° 40.61' N 151° 54.19' W
Water Depth	5725 m
Logged By	Au & Lineberger



0 - 30 cm brown (10YR4/3)
RAD-MINERAL BEARING DIATOM RICH CLAY
50% clay, 15% diatom, 10% aniso min, 10% rad, 8% siliceous bioclastic, 3% volcanic glass, 2% sponge, 1% opaque min

30-119 cm brown (10YR4/3)
RAD BEARING MINERAL RICH CLAY
68-76% clay, 12-25% aniso min, 2-3% rad, 1-3% siliceous bioclastic, 1-2% volcanic glass, tr-3% diatom, 0-1% zeolite

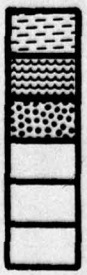
Mottling

Very slight mottling concentrated in upper 35 cm of core.

8 - 18 cm dark grayish brown (10YR4/2)

34 - 35 cm black (10YR2.5/1)

KEY



CLAY
DIATOM
MINERAL

LITHOLOGIC DESCRIPTION

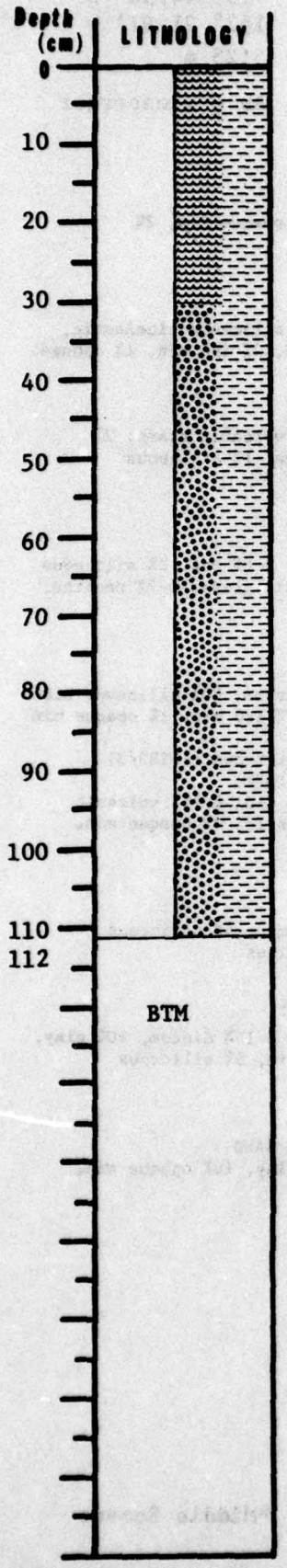
KK73-07-25 Sta. 02

Core ID FFC 07

Lat., Long. 21° 40.61' N, 151° 54.19' W

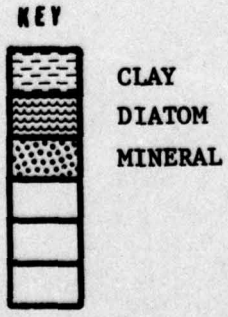
Water Depth 5725 m

Logged By Lineberger



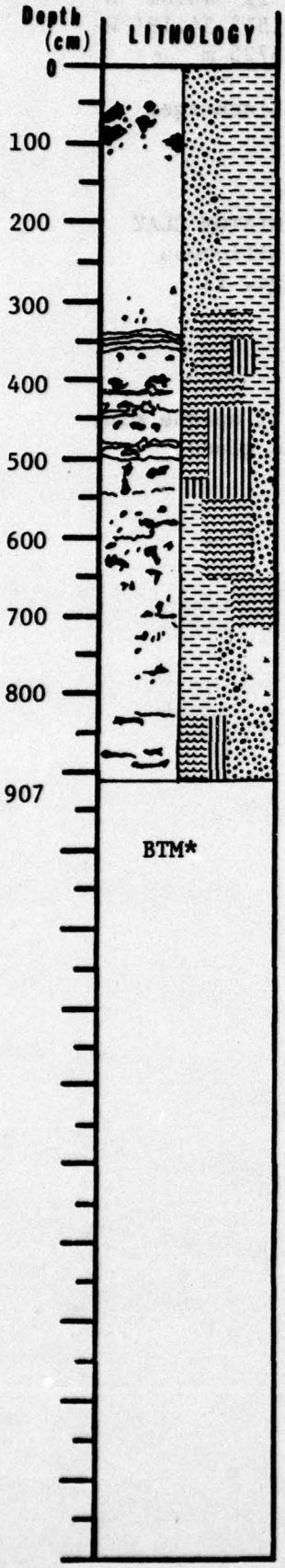
0 - 30 cm brown (10YR4/3)
SILICEOUS BIOCLASTIC-RAD BEARING DIATOM CLAY
37% clay, 32% diatom, 9% rad, 9% siliceous bioclastic, 8% aniso min, 3% sponge, 1% volcanic glass

30-112 cm brown (10YR4/3)
MINERAL CLAY
51-57% clay, 35-40% aniso min, 4-5% opaque min, 1% iso min, 1% sponge, 1% volcanic glass, 1% zeolite



LITHOLOGIC DESCRIPTION

Core ID	KK73-07-25 Sta. 03 PCOD 04
Lat., Long.	19° 44.54' N 152° 21.97' W
Water Depth	5125 m
Logged By	Au & Lineberger



0-95 cm brown (10YR4.5/3)
MINERAL RICH CLAY
74% clay, 15% aniso min, 5% iso min, 2% opaque min, 2% volcanic glass, 1% rad

95-100 cm brown (10YR4.5/3)
DIATOM-MINERAL RICH CLAY
47% clay, 20% aniso min, 14% diatom, 7% siliceous bioclastic, 5% volcanic glass, 2% opaque min, 2% rad, 2% iso min, 1% sponge

100-138 cm brown (10YR4.5/3)
ZEOLITE BEARING MINERAL CLAY
45% clay, 35% aniso min, 8% zeolite, 5% volcanic glass, 2% opaque min, 1% iso min, 1% rad, 1% sponge, 1% siliceous bioclastic

138-315 cm brown (10YR4.5/3) to (10YR4/3)
DIATOM BEARING MINERAL RICH CLAY
56-58% clay, 25% aniso min, 4-7% diatom, 3-6% rad, 2% siliceous bioclastic, 1-2% opaque min, 1-2% volcanic glass, 0-2% zeolite, tr-1% nanno

315-350 cm dark yellowish brown (10YR4.5/4)
DIATOM-MINERAL-RAD RICH CLAY
33% clay, 17% rad, 15% aniso min, 13% diatom, 10% siliceous bioclastic, 6% volcanic glass, 2% sponge, 1% iso min, 1% opaque min

350-400 cm very dark grayish brown (2.5Y3/2) to dark brown (10YR3/3)
VOLCANIC GLASS-MINERAL-CLAY RICH DIATOM OOZE
25-30% diatom, 20-25% clay, 15-22% aniso min, 8-15% volcanic glass, 5-10% rad, 5-10% siliceous bioclastic, 2% opaque min, tr-4% iso min

400-445 cm dark brown (10YR3/3)
RAD BEARING CLAY RICH DIATOM OOZE
55% diatom, 20% clay, 10% rad, 8% aniso min, 5% siliceous bioclastic, 1% opaque min, 1% volcanic glass

445-520 cm very dark grayish brown (2.5Y3/2)
RAD-CLAY BEARING DIATOM-MINERAL RICH ASH
28-30% volcanic glass, 16-25% aniso min, 8-15% diatom, 10% clay, 5-10% rad, 2-15% iso min, 2-10% opaque min, 5% siliceous bioclastic, 2-5% sponge

520-550 cm yellowish brown (10YR5/4)
CLAY BEARING VOLCANIC GLASS RICH MINERAL SAND
56% aniso min, 20% volcanic glass, 10% clay, 10% opaque min, 2% iso min, 1% diatom, 1% rad

KEY



CLAY
MINERAL
DIATOM
ASH
RAD
ZEOLITE

*Middle Eocene

KK73-07-25 Sta. 03
PCOD 04
(continued)

550-665 cm — yellowish brown (10YR5/4) to brown (10YR4/3)
VOLCANIC GLASS-RAD BEARING MINERAL-SILICEOUS BIOCLASTIC-CLAY RICH DIATOM OOZE
30-37% diatom, 18-25% clay, 10-20% siliceous bioclastic, 7-15% aniso min, 7-12% rad, 5-6% volcanic glass, 1-3% opaque min, tr-2% sponge

665-725 cm — brown (10YR4/3)
RAD-MINERAL BEARING DIATOM RICH CLAY
55% clay, 25% diatom, 9% aniso min, 5% rad, 5% siliceous bioclastic

725-800 cm — brown (10YR4/3)
MINERAL-ZEOLITE RICH CLAY
63-71% clay, 20% zeolite, 7-15% aniso min, 1-2% opaque min, 0-1% rad

800-820 cm — grayish brown (10YR5/2)
SILICEOUS BIOCLASTIC-DIATOM BEARING ZEOLITE-MINERAL RICH CLAY
53% clay, 15% aniso min, 12% zeolite, 8% diatom, 8% siliceous bioclastic, 2% opaque min, 2% volcanic glass

820-855 cm — very dark grayish brown (10YR3/2)
VOLCANIC GLASS BEARING CLAY RICH MINERAL SAND
61-65% aniso min, 15-20% clay, 8-10% opaque min, 5-8% volcanic glass, 1% zeolite, 0-5% diatom, 0-2% sponge

855-907 cm — very dark grayish brown (10YR3/2)
CLAY BEARING RAD-VOLCANIC GLASS RICH MINERAL SAND
40% aniso min, 20% volcanic glass, 15% rad, 10% clay, 10% opaque min, 4% sponge, 1% zeolite, 1% diatom

Mottling

Very slight to heavy mottling scattered throughout core, most densely at 340-560 cm; very dark gray through yellowish brown (10YR3/1, 3/2, 4/2, 5/3, 5/4) to (2.5Y3/2) to (5Y3/1), about same composition as base material.

85-100 cm — dark brown (10YR3/3) mottling
VOLCANIC GLASS-SILICEOUS BIOCLASTIC BEARING MINERAL RICH CLAY

100-124 cm — dark brown (10YR3/3) mottling
DIATOM-RAD-VOLCANIC GLASS BEARING MINERAL CLAY

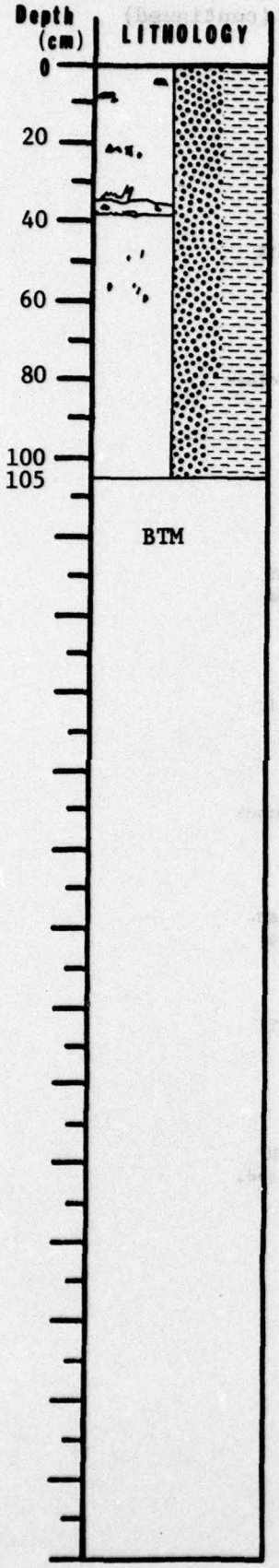
403-445 cm — very dark grayish brown (10YR3/2) mottling
RAD-SILICEOUS BIOCLASTIC BEARING MINERAL-CLAY-DIATOM RICH ASH
25% volcanic glass, 20% aniso min, 20% clay, 20% diatom, 5% rad, 5% siliceous bioclastic, 2% opaque min, 1% iso min

Layering

434-436 cm
470-477 cm
521-522 cm — dark gray (10YR3/1) parallel layering

LITHOLOGIC DESCRIPTION

	KK73-07-25 Sta. 03
Core ID	FFC 10
Lat., Long.	19° 44.54' N 152° 21.97' W
Water Depth	5125 m
Logged By	Au & Lineberger



0-80 cm brown (10YR4/3) to dark brown (10YR3.5/3)
DIATOM-RAD BEARING MINERAL CLAY
42-51% clay, 30-40% aniso min, 4-5% opaque min,
tr-8% rad, tr-8% siliceous bioclastic, 0-5% diatom,
1-2% zeolite, 1% volcanic glass, tr-1% sponge

80-105 cm brown (10YR4/3)
RAD-DIATOM BEARING MINERAL RICH CLAY
70% clay, 12% aniso min, 10% diatom, 3% rad,
2% siliceous bioclastic, 1% opaque min, 1% sponge,
1% volcanic glass

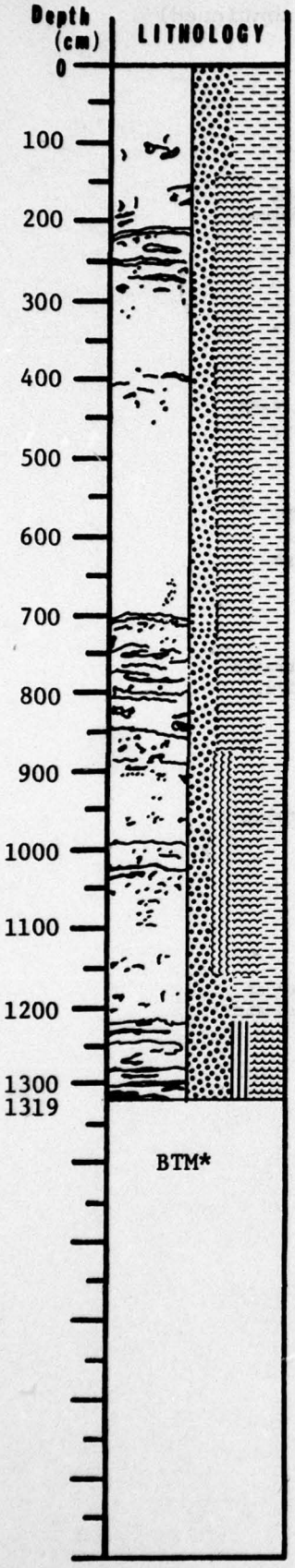
Layering

35-38 cm black (N2.5/0) layering
VOLCANIC GLASS RICH MINERAL CLAY



LITHOLOGIC DESCRIPTION

Core ID	KK73-07-25 Sta. 04 PCOD 05
Lat., Long.	19° 43.82' N 152° 23.82' W
Water Depth	5035
Logged By	Au & Lineberger



0-140 cm	dark brown (10YR3.5/3) to very dark grayish brown (10YR3/2) RAD-VOLCANIC GLASS BEARING MINERAL CLAY 51-68% clay, 25-35% aniso min, 2-8% opaque min, 2-3% volcanic glass, 1-3% rad, tr-3% diatom, 1-2% zeolite, tr-4% siliceous bioclastic
140-245 cm	brown (10YR4/3) to dark brown (10YR3/3) RAD BEARING MINERAL-DIATOM RICH CLAY 52% clay, 20% diatom, 15% aniso min, 5% rad, 5% siliceous bioclastic, 2% volcanic glass, 1% opaque min
245-260 cm	brown (10YR4/3) MINERAL CLAY 60% clay, 30% aniso min, 2% opaque min, 2% rad, 2% volcanic glass, 1% diatom, 1% siliceous bioclastic
260-320 cm	brown (10YR4/3) RAD BEARING DIATOM RICH MINERAL CLAY 25% clay, 25% aniso min, 23% diatom, 12% rad, 8% siliceous bioclastic, 2% volcanic glass, 2% zeolite
320-560 cm	brown (10YR4.5/3) to dark brown (10YR3.5/3) RAD BEARING MINERAL-DIATOM RICH CLAY 38-50% clay, 20-25% diatom, 11-23% aniso min, 6-10% rad, 3-10% siliceous bioclastic, 1-2% opaque min, tr-2% volcanic glass, tr-1% sponge, tr-1% zeolite
560-684 cm	brown (10YR4.5/3) to (10YR4/3) *RAD-DIATOM* BEARING MINERAL RICH CLAY 45-49% clay, 11-25% aniso min, 10% diatom, 5-10% rad, 3-15% siliceous bioclastic, 1-4% sponge, tr-4% volcanic glass, 0-5% zeolite
684-744 cm	brown (10YR4.5/3) to very dark grayish brown (10YR3/2) RAD-MINERAL BEARING DIATOM CLAY 40% clay, 29% diatom, 10% aniso min, 8% rad, 7% siliceous bioclastic, 4% sponge, 1% opaque min
744-880 cm	yellowish brown (10YR5/4) to very dark grayish brown (10YR3/2) RAD BEARING SILICEOUS BIOCLASTIC-MINERAL-CLAY RICH DIATOM OOZE 27-35% diatom, 20-28% clay, 12-17% siliceous bioclastic, 9-15% aniso min, 8% rad, 5% volcanic glass, 1-5% sponge, 1-2% opaque min
880-894 cm	dark brown (10YR3/3) VOLCANIC GLASS BEARING SILICEOUS BIOCLASTIC RICH RAD CLAY 25% clay, 25% rad, 22% aniso min, 13% siliceous bioclastic, 6% volcanic glass, 5% sponge, 3% opaque min
894-1162 cm	brown (10YR4/3) RAD BEARING SILICEOUS BIOCLASTIC-MINERAL RICH CLAY DIATOM OOZE 25-35% diatom, 26-30% clay, 15-25% aniso min, 6-20% siliceous bioclastic, 6-10% rad, 2-4% volcanic glass, 1-2% opaque min

KEY



CLAY
MINERAL
DIATOM
SILICEOUS BIOCLASTIC
RAD
VOLCANIC GLASS

*Middle Eocene

KK73-07-25 Sta. 04
PCOD-05
(continued)

1162-1215 cm brown (10YR5/3)
ZEOLITE BEARING MINERAL RICH CLAY
70-76% clay, 15% aniso min, 3-7% zeolite, 1-2% opaque min, 1-2% siliceous bioclastic, tr-3% volcanic glass, 0-2% diatom, 0-2% rad

1215-1228 cm grayish brown (10YR5/2)
RAD BEARING MINERAL CLAY
42% clay, 35% aniso min, 10% rad, 5% siliceous bioclastic, 2% sponge, 2% zeolite, 2% opaque min

1228-1275 cm very dark grayish brown (10YR4/2)
SILICEOUS BIOCLASTIC-CLAY-VOLCANIC GLASS BEARING MINERAL SAND
66% aniso min, 10% opaque min, 8% volcanic glass, 5% clay, 5% siliceous bioclastic

1275-1319 cm very dark grayish brown (10YR4/2)
SILICEOUS BIOCLASTIC-VOLCANIC GLASS RICH RAD MINERAL SAND
25% aniso min, 25% rad, 15% volcanic glass, 12% siliceous bioclastic, 10% clay, 10% opaque min, 1% diatom, 1% sponge, 1% zeolite

Mottling

Very slight to heavy mottling scattered sparsely throughout core, concentrated at 700-900 cm; black through pale brown (10YR2.5/1, 3/1, 3/2, 4/2, 4/3, 5/2, 5/3, 5/4, 6/3) and yellowish brown (5Y2.5/1, 3/2).

131 - 137 cm black (10YR2.5/.) mottling
MINERAL RICH CLAY

718-1013 cm dark olive gray (5Y3/2) to yellowish brown (10YR5/4) mottling
VOLCANIC GLASS BEARING DIATOM RICH CLAY MINERAL SAND

1150-1160 cm very dark grayish brown (10YR3/2) mottling
CLAY-DIATOM BEARING VOLCANIC GLASS RICH MINERAL SAND

Layering

Abundant parallel layering, concentrated in lower part of core, most dense at 759-792 cm and 1258-1319 cm; black to pale brown (10YR2.5/1, 3/1, 5/4, 6/3 and yellowish brown (5Y2.5/1, 3/2).

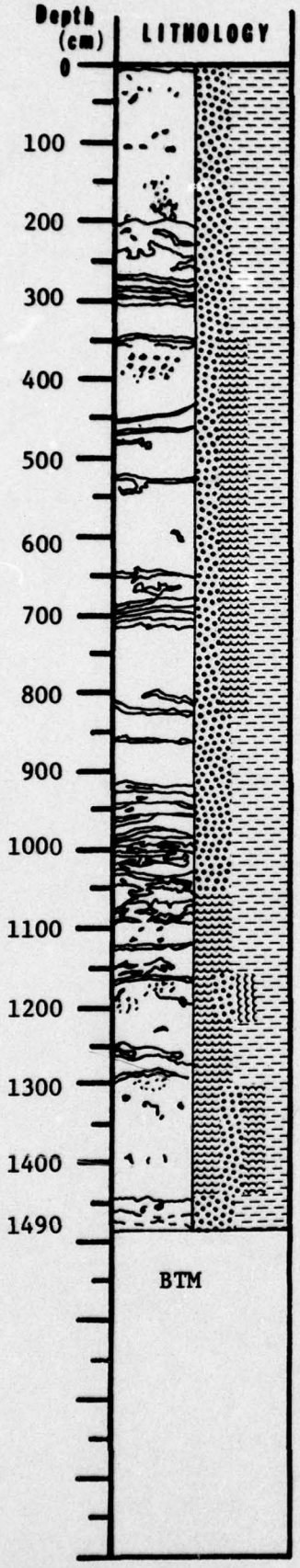
225 - 230 cm black (10YR2.5/1) layering
RAD-DIATOM BEARING CLAY MINERAL SAND

996 - 997 cm yellowish brown (10YR5/4) layering
RAD BEARING MINERAL RICH DIATOM CLAY

225 - 234 cm contains rock fragments. 310-312, 354-358 cm are void.

LITHOLOGIC DESCRIPTION

Core ID	KK73-07-25 Sta. 05 PCOD 06
Lat., Long.	21° 41.97' N 151° 47.84' W
Water Depth	5600 m
Logged By	Foreman & Lineberger



0–353 cm brown (10YR4/3) to dark brown (10YR3/3)
DIATOM-ZEOLITE BEARING MINERAL RICH CLAY
63–80% clay, 15–20% aniso min, 1–3% opaque min, 1–2% zeolite, 1–2% diatom, tr–3% rad, tr–2% siliceous bioclastic, tr–1% sponge

353–460 cm brown (10YR4/3)
MINERAL-DIATOM RICH CLAY
47% clay, 25% diatom, 15% aniso min, 5% siliceous bioclastic, 3% rad, 2% opaque min, 1% zeolite, 1% sponge

460–596 cm brown (10YR4/3)
RAD BEARING MINERAL RICH DIATOM CLAY
31–43% clay, 35% diatom, 10–24% aniso min, 4–5% rad, 2–3% siliceous bioclastic, 2% opaque min, 1–2% volcanic glass, tr–1% sponge

596–809 cm brown (10YR4/3)
RAD BEARING MINERAL-DIATOM RICH CLAY
37–47% clay, 22–25% diatom, 15–18% aniso min, 5–7% rad, 5% siliceous bioclastic, 1–3% opaque min, 1–2% volcanic glass

809–855 cm brown (10YR4/3)
RAD-DIATOM BEARING MINERAL RICH CLAY
51–69% clay, 10–23% aniso min, 8–10% diatom, 3–10% rad, 5% siliceous bioclastic, 1–2% opaque min, tr–1% volcanic glass

855–1024cm brown (10YR4/3)
RAD BEARING MINERAL-CLAY RICH DIATOM OOZE
25–38% diatom, 20–35% clay, 15–20% aniso min, 7–10% rad, 3–10% siliceous bioclastic, 2–5% volcanic glass, 1–3% opaque min, 1% sponge

1024–1160 cm brown (10YR4.5/3) to dark brown (10YR3/3)
VOLCANIC GLASS-SILICEOUS BIOCLASTIC-MINERAL BEARING CLAY RICH DIATOM OOZE
28–35% diatom, 25% clay, 10–15% aniso min, 10–15% rad, 10–15% siliceous bioclastic, 3–8% volcanic glass, 1–2% opaque min, tr–1% sponge

1160–1225 cm brown (10YR4.5/3)
MINERAL-SILICEOUS BIOCLASTIC-DIATOM RICH CLAY
46–53% clay, 15–20% diatom, 10–20% siliceous bioclastic, 10–15% aniso min, 5–8% rad, 3% volcanic glass, tr–1% opaque min

1225–1305 cm yellowish brown (10YR5/4) to brown (10YR4.5/3)
MINERAL BEARING DIATOM CLAY
47% clay, 35% diatom, 10% aniso min, 5% siliceous bioclastic, 1% sponge, 1% opaque min, 1% volcanic glass, 1% zeolite

1305–1450 cm brown (10YR4.5/3) to (10YR4/3)
RAD-MINERAL-DIATOM RICH CLAY
42–53% clay, 10–25% diatom, 10–15% aniso min, 8–15% rad, 8–10% siliceous bioclastic, 1% volcanic glass, tr–1% sponge

1450–1490 cm brown (10YR5/3) to (10YR4/3)
DIATOM BEARING MINERAL RICH CLAY
55% clay, 25% aniso min, 5% diatom, 5% siliceous bioclastic, 3% rad, 3% volcanic glass, 2% opaque min, 1% sponge, 1% zeolite

KEY



CLAY
DIATOM
MINERAL
SILICEOUS BIOCLASTIC
RAD

Mottling

Very slight to heavy mottling scattered sparsely throughout core, concentrated at 970-1030 cm; very dark gray through very pale brown (10YR3/1, 3/2, 3/3, 5/3, 5/4, 6/4, 7/3) to (2.5Y3/2) to (5Y3/1, 3/2).

385-396 cm yellowish brown (10YR5/4) mottle

524-527 cm very dark grayish brown (10YR3/2) mottle

Layering

Numerous parallel layers distributed unevenly throughout most of core, most abundant at 250-300 cm, 920-1060, 1260-1280 cm; very dark gray through very pale brown (10YR3/2, 3/3, 4/3, 5/4, 6/3, 6/4, 7/3) to (2.5Y3/2) to (5Y3/1).

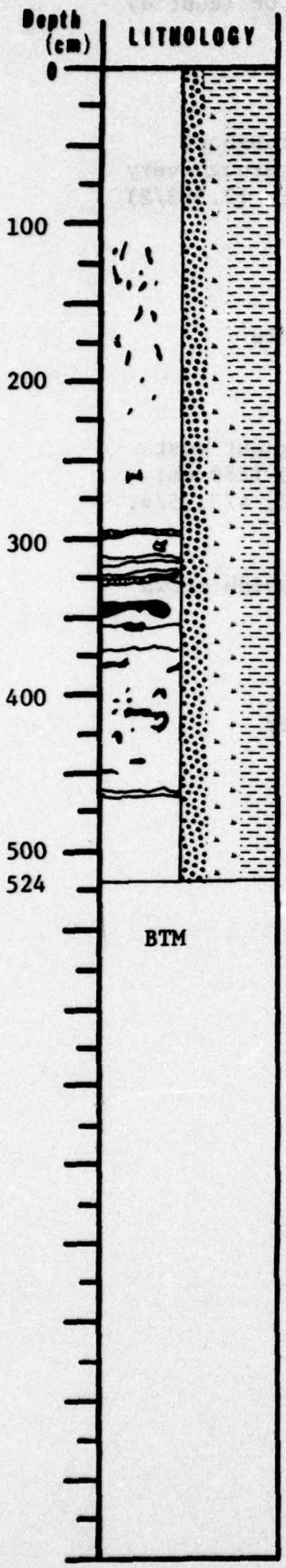
277-279 cm
460-461 cm
632-653 cm
927-931 cm
very dark grayish brown to light yellowish brown (10YR3/2, 3/3, 5/4) parallel layers

797-800 cm very dark grayish brown (10YR3/2) layer
CLAY RICH ASH

1044-1052 cm very dark gray (5Y3/1) layer
1138-1141 cm very dark gray (5Y3/1) layer
676-699 cm very faint banding

LITHOLOGIC DESCRIPTION

KK73-09-11 Sta. 02
Core ID PCOD 01
Lat., Long. 29° 54.49' N, 142° 12.52' W
Water Depth 4966 m
Logged By Au & Lineberger



0 - 20 cm brown (10YR4/3)
MINERAL BEARING CLAY
87% clay, 10% aniso min, 1% nanno

20 - 55 cm brown (10YR4/3)
ZEOLITE BEARING MINERAL RICH CLAY
70% clay, 20% aniso min, 6% zeolite, 2% volcanic glass, 1% opaque min

55-115 cm dark brown (10YR3/3)
ZEOLITE-MINERAL BEARING CLAY
78-79% clay, 10% aniso min, 8% zeolite, 2-3% volcanic glass, 1% opaque min

115-210 cm very dark grayish brown (10YR3/2)
MINERAL BEARING ZEOLITE RICH CLAY
76% clay, 14% zeolite, 7% aniso min, 1% opaque min

210-265 cm dark reddish brown (5YR2.5/2)
MINERAL BEARING ZEOLITIC CLAY
52-57% clay, 35-40% zeolite, 5-8% aniso min, tr-1% opaque min

265-310 cm dark reddish brown (5YR2.5/2)
MINERAL BEARING CLAY ZEOLITITE
48% zeolite, 44% clay, 5% aniso min, 1% opaque min

310-328 cm dark reddish brown (5YR3/4)
MINERAL BEARING CLAY RICH ZEOLITITE
69% zeolite, 25% clay, 5% aniso min, 1% opaque min

328-420 cm dark reddish brown (5YR3/2)
MINERAL BEARING CLAY ZEOLITITE
56-59% zeolite, 30-35% clay, 8% aniso min, tr-1% opaque min, 0-1% volcanic glass

420-524 cm dark reddish brown (5YR3/2)
MINERAL BEARING ZEOLITIC CLAY
51-66% clay, 30-40% zeolite, 3-8% aniso min

Mottling

Very slight mottling scattered sparsely throughout most of core; dark brown and dark reddish brown (10YR3/3, 4/4, 5/6) through yellowish brown (5YR2.5/2, 3/3, 3/4).

Layering

296-298 cm brown (10YR4/4)
MINERAL BEARING CLAY ZEOLITITE

318-321 cm reddish brown (5YR4/4)

321-328 cm dark reddish brown (5YR3/4)
MINERAL CLAY BEARING ZEOLITITE

337-342 cm dark reddish brown (5YR3/2)
MINERAL BEARING CLAY RICH ZEOLITITE

351-356 cm dark reddish brown (5YR3.5/2)
370-374 cm

397-408 cm dark reddish brown (5YR3/3)
459-463 cm

Large Mn nodules present at 308-311, 333-339, and 350-352 cm.

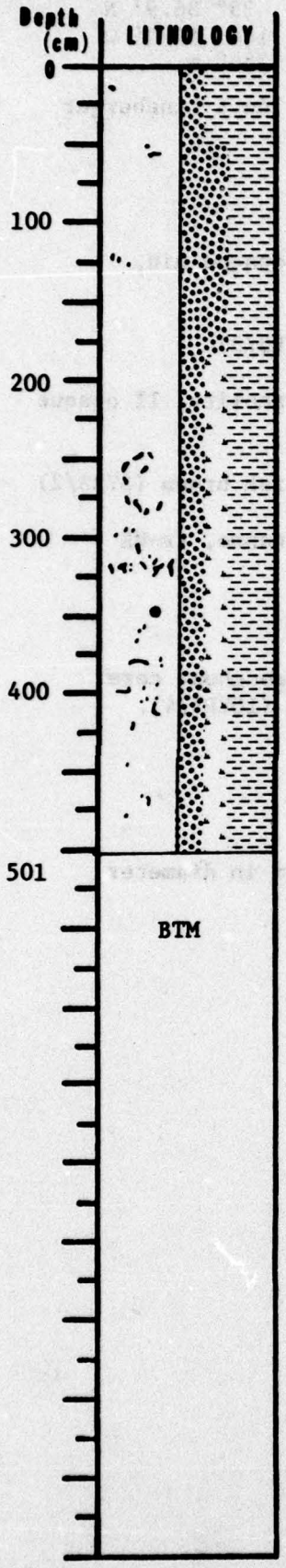
KEY



CLAY
ZEOLITE
MINERAL

LITHOLOGIC DESCRIPTION

	KK73-09-11 Sta. 05
Core ID	PCOD 03
Lat., Long.	31° 06' N 144° 46' W
Water Depth	5691 m
Logged By	Au & Lineberger



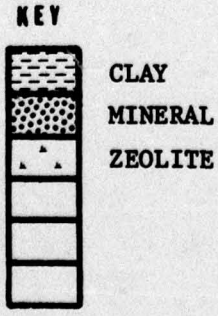
0 - 50 cm — brown (10YR4/3)
MINERAL BEARING CLAY
87-88% clay, 10% aniso min, tr-1% opaque min, 1% nanno

50-197 cm — brown (10YR4/3)
MINERAL RICH CLAY
77-87% clay, 11-20% aniso min, 1% opaque min, tr-2% volcanic glass, tr-1% zeolite

197-501 cm — brown (10YR4/3) to dark brown (10YR3/3)
ZEOLITE-MINERAL BEARING CLAY
82-90% clay, 8-11% aniso min, tr-7% zeolite, tr-1% opaque min, tr-1% volcanic glass

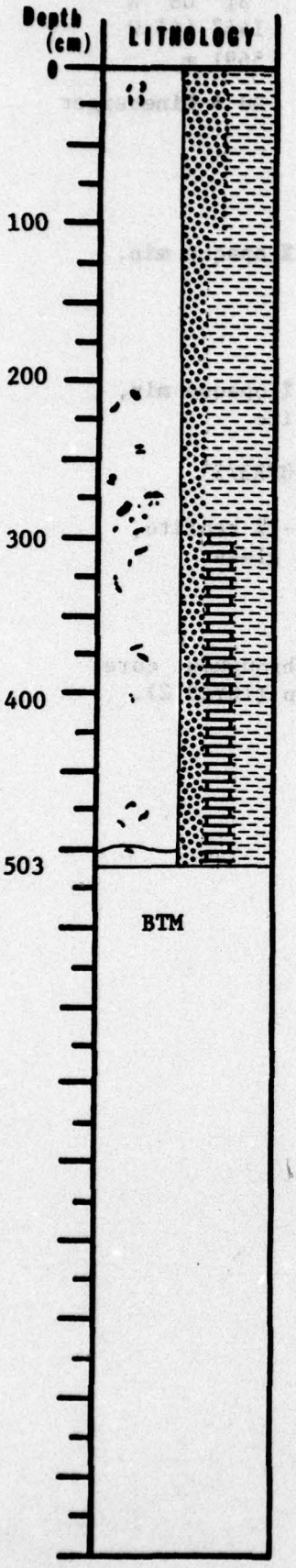
Mottling

Very slight mottling scattered very sparsely throughout core; pale brown (10YR6/3) and very dark grayish brown (10YR3/2).



LITHOLOGIC DESCRIPTION

Core ID	KK73-09-11 Sta. 08
	PCOD 05
Lat., Long.	33° 36.9' N
	144° 47.0' W
Water Depth	3559 m
Logged By	Au & Lineberger



0-100 cm brown (10YR4/3)
MINERAL RICH CLAY
72-80% clay, 15-24% aniso min, 2% opaque min, tr-2% nanno, tr-1% volcanic glass

100-290 cm brown (10YR4/3) to dark brown (10YR3/3)
MINERAL BEARING CLAY
84-92% clay, 5-9% aniso min, 1-5% zeolite, 1% opaque min

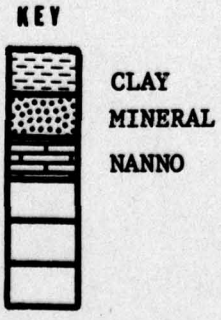
290-503 cm dark brown (7.5YR3/2) to dark reddish brown (5YR3/2)
NANNO-MINERAL BEARING CLAY
86-88% clay, 2-4% aniso min, 1-6% nanno, tr-8% zeolite, tr-2% volcanic glass

Mottling

Very slight mottling scattered very sparsely throughout core; brown (10YR5/3) to (10YR4/3) and yellowish brown (10YR5/4).

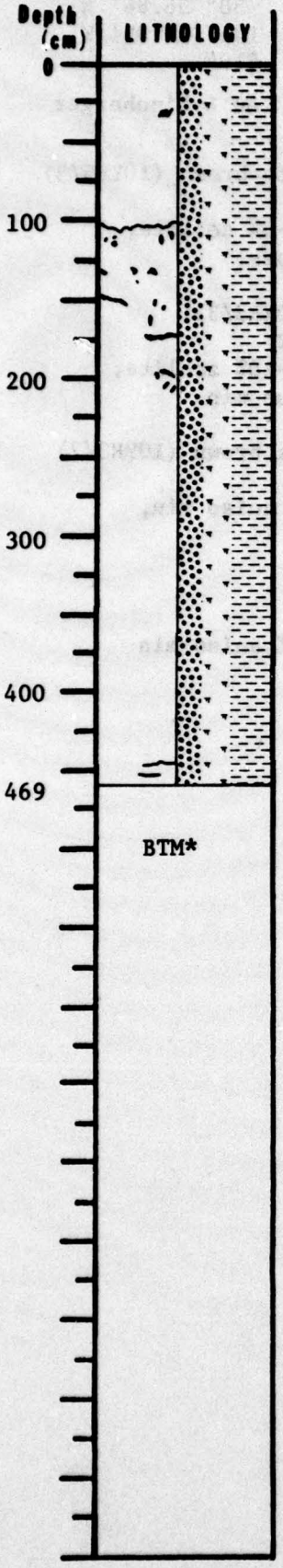
Layering

498-503 cm dark brown (7.5YR3/2) layering
MINERAL BEARING ZEOLITIC CLAY
layer contains Mn nodules up to 1cm in diameter



LITHOLOGIC DESCRIPTION

	KK73-09-11 Sta. 11
Core ID	PCOD 07
Lat., Long.	36° 06.95' N 144° 46.65' W
Water Depth	5360
Logged By	Au & Lineberger



0-235 cm brown (10YR4.5/3) to dark brown (10YR3/3)
ZEOLITE-MINERAL BEARING CLAY
89-95% clay, 2-5% aniso min, 2-4% zeolite,
tr-1% opaque min

235-469 cm dark brown (7.5YR3/2) to very dark brown (7.5YR2.5/2)
MINERAL BEARING ZEOLITE RICH CLAY
70-77% clay, 20-25% zeolite, 2% aniso min,
tr-1% opaque min

Mottling

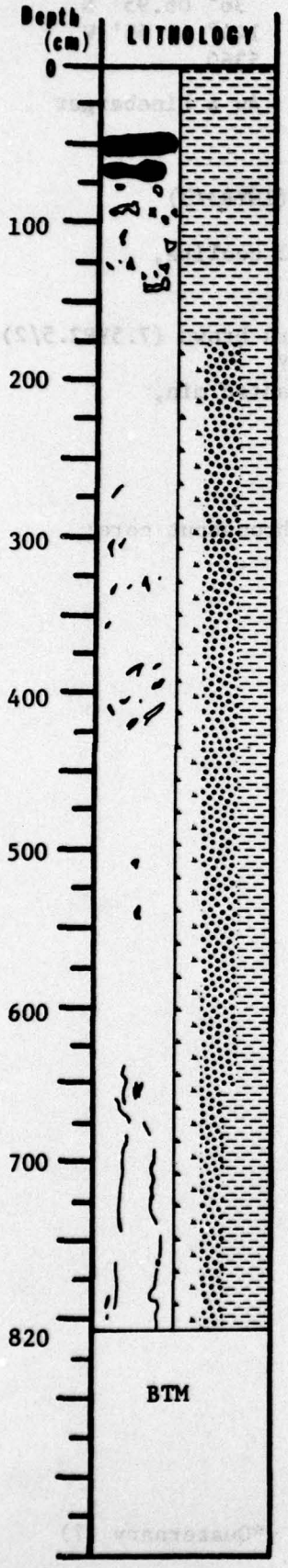
Very slight mottling scattered very sparsely throughout core; yellowish brown (10YR5/4) and brown (10YR5/3).



*Quaternary (?)

LITHOLOGIC DESCRIPTION

Core ID	KK73-09-11 Sta. 14 PCOD 09
Lat., Long.	38° 36.86' N 144° 50.89' W
Water Depth	5194 m
Logged By	Au & Lineberger



0-175 cm — light yellowish brown (10YR6/4) to brown (10YR5/3)
ZEOLITE-MINERAL BEARING CLAY
82-83% clay, 10-15% aniso min, 2-6% zeolite,
1% opaque min, tr-2% volcanic glass

175-520 cm — brown (10YR5/3) to dark brown (10YR3/3)
ZEOLITE BEARING MINERAL RICH CLAY
61-76% clay, 15-25% aniso min, 6-10% zeolite,
tr-3% volcanic glass, tr-1% opaque min

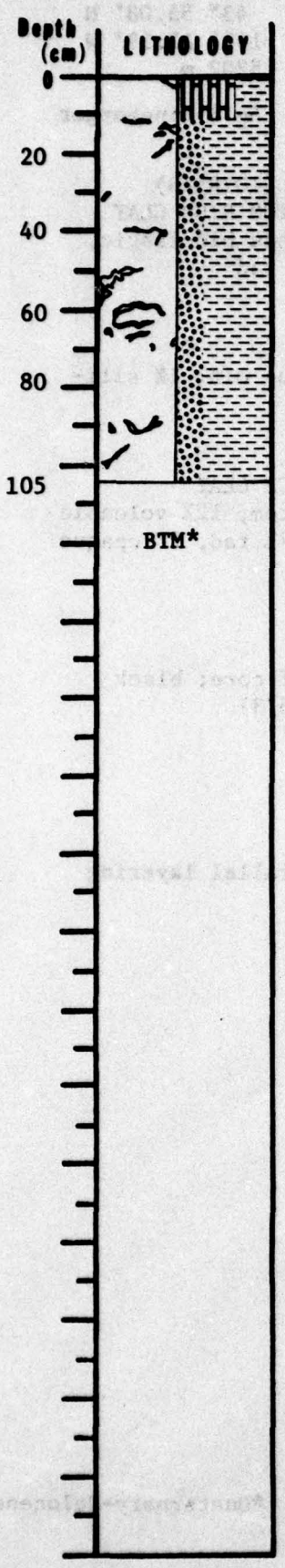
520-655 cm — dark brown (10YR3/3) to very dark brown (10YR3/2)
MINERAL-ZEOLITE RICH CLAY
58-69% clay, 14-25% zeolite, 15% aniso min,
1% opaque min

655-820 cm — dark brown (7.5YR3/2)
MINERAL BEARING ZEOLITIC CLAY
56-62% clay, 30-35% zeolite, 7-8% aniso min



LITHOLOGIC DESCRIPTION

Core ID	KK73-09-11 Sta. 20 PCOD 11
Lat., Long.	43° 07.94' N 144° 59.18' W
Water Depth	4587 m
Logged By	Au & Lineberger



0–7 cm pale brown (10YR6/3)
CALCAREOUS BIOCLASTIC RICH CLAY
43% clay, 20% calcareous bioclastic, 8% nanno, 8% foram, 6% aniso min, 5% diatom, 4% siliceous bioclastic, 3% volcanic glass, 1% rad, 1% sponge

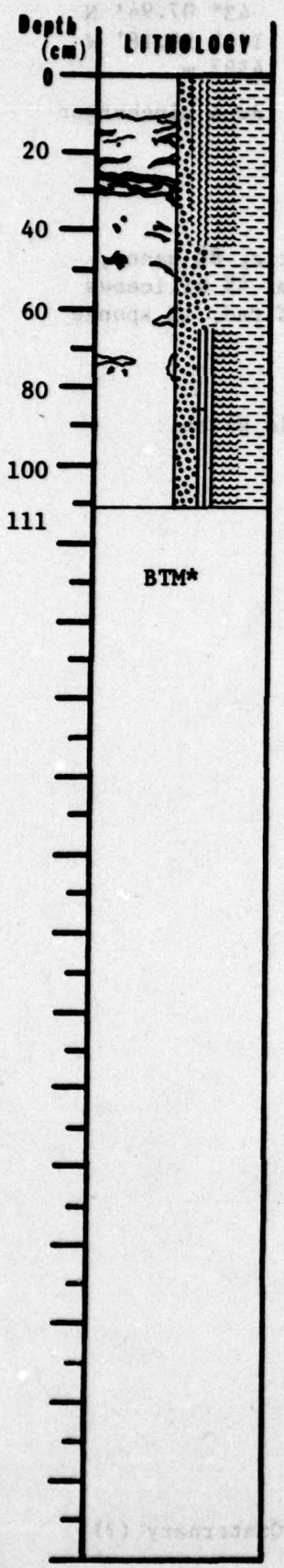
7–105 cm brown (10YR5/3)
MINERAL BEARING CLAY
87% clay, 8% aniso min, 1% volcanic glass, 2% siliceous bioclastic



*Quaternary (?)

LITHOLOGIC DESCRIPTION

Core ID	KK73-09-11 Sta. 25 FFC 02
Lat., Long.	43° 55.08' N 149° 17.39' W
Water Depth	5202 m
Logged By	Au & Lineberger



0-42 cm — grayish brown (10YR5/2) to brown (10YR5/3)
MINERAL-SILICEOUS BIOCLASTIC-DIATOM RICH CLAY
58% clay, 15% diatom, 12% siliceous bioclastic, 11% aniso min, 2% opaque min, 1% rad

42-65 cm — grayish brown (10YR5/2)
MINERAL RICH CLAY
82% clay, 15% aniso min, 1% opaque min, 1% siliceous bioclastic

65-111 cm — brown (10YR5/3)
VOLCANIC GLASS-DIATOM-MINERAL RICH CLAY
31% clay, 25% aniso min, 15% diatom, 12% volcanic glass, 8% siliceous bioclastic, 7% rad, 2% opaque min

Mottling

Very slight to slight mottling in upper part of core; black through pale brown (10YR2.5/1, 5/2, 5/3, 6/2, 6/3).

Layering

13-18 cm — black (10YR2.5/1) layering

29-32 cm, 34-36 cm — light brownish gray (10YR6/2) parallel layering



*Quaternary-Holocene

LITHOLOGIC DESCRIPTION

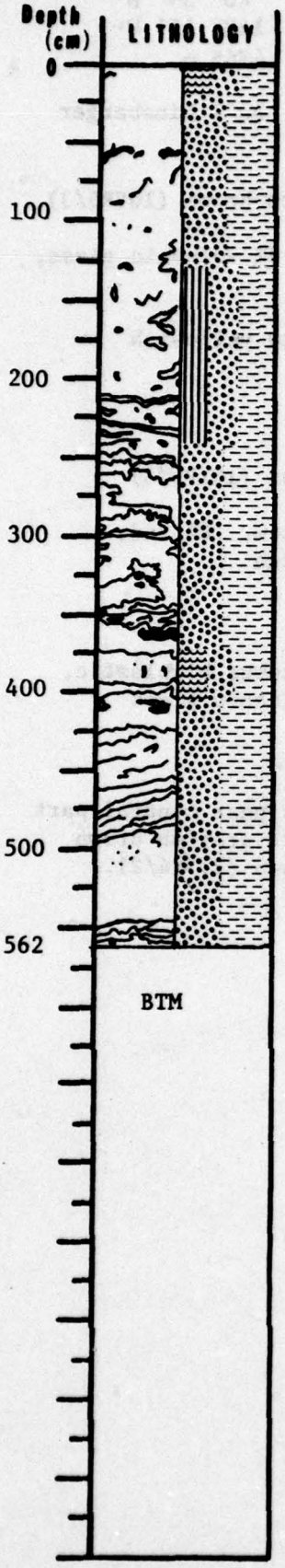
KK73-09-11 Sta. 25

Core ID PCOD 14

Lat., Long. 43° 55.44' N, 149° 17.00' W

Water Depth 5202 m

Logged By Au & Lineberger



0-14 cm — brown (10YR5/3)
DIATOM-MINERAL RICH CLAY
34% clay, 25% aniso min, 15% diatom, 10% siliceous bioclastic, 8% rad, 5% volcanic glass, 2% sponge

14-130 cm — yellowish brown (10YR5/4)
VOLCANIC GLASS BEARING MINERAL RICH CLAY
68-70% clay, 25% aniso min, 2-5% volcanic glass, 1% opaque min

130-230 cm — brown (10YR5/3)
RAD BEARING VOLCANIC GLASS-MINERAL RICH CLAY
29% clay, 25% aniso min, 20% volcanic glass, 10% rad, 8% diatom, 5% siliceous bioclastic, 2% sponge, 1% opaque min

230-377 cm — light yellowish brown (10YR6/4) to brown (10YR5/3)
VOLCANIC GLASS BEARING MINERAL RICH CLAY
46-69% clay, 20-25% aniso min, 5-11% volcanic glass, 2-8% siliceous bioclastic, 1-4% rad, 0-3% diatom, tr-2% sponge, tr-1% opaque min

377-400 cm — brown (10YR5/3)
SILICEOUS BIOCLASTIC BEARING DIATOM-MINERAL RICH CLAY
48% clay, 15% aniso min, 15% diatom, 10% siliceous bioclastic, 5% sponge, 3% rad, 3% volcanic glass

400-562 cm — light gray (5Y7/2) to brown (10YR5/3)
RAD BEARING MINERAL RICH CLAY
57-84% clay, 10-20% aniso min, 1-10% rad, 1-8% siliceous bioclastic, tr-8% sponge, tr-6% diatom, tr-5% volcanic glass, tr-1% opaque min

Mottling

Very slight to heavy mottling clustered densely near central portion of core, sparsely in upper and lower parts, very dark gray (10YR3/1, 4/2, 5/2, 5/3, 5/4, 6/4, 7/4) through strong brown (7.5YR5/6) and pale yellow (2.5Y6/2, 7/4); (5Y7/2).

Layering

217-221 cm — light yellowish brown (10YR6/4) layering

220-223 cm — grayish brown (10YR5/2) layering

361-370 cm — very dark gray (10YR3/1) layering
DIATOM BEARING MINERAL-VOLCANIC GLASS-CLAY

400-406 cm — dark gray (5Y4/1) parallel layering
RAD-DIATOM BEARING MINERAL-CLAY RICH VOLCANIC GLASS SAND

463-464 cm — grayish brown (10YR5/2) parallel layering

474-492 cm — grayish brown (10YR5/2) parallel layering eight closely spaced 1 to 2 cm thick layers

Large Mn nodules found at 367-373 cm and 400-411 cm.

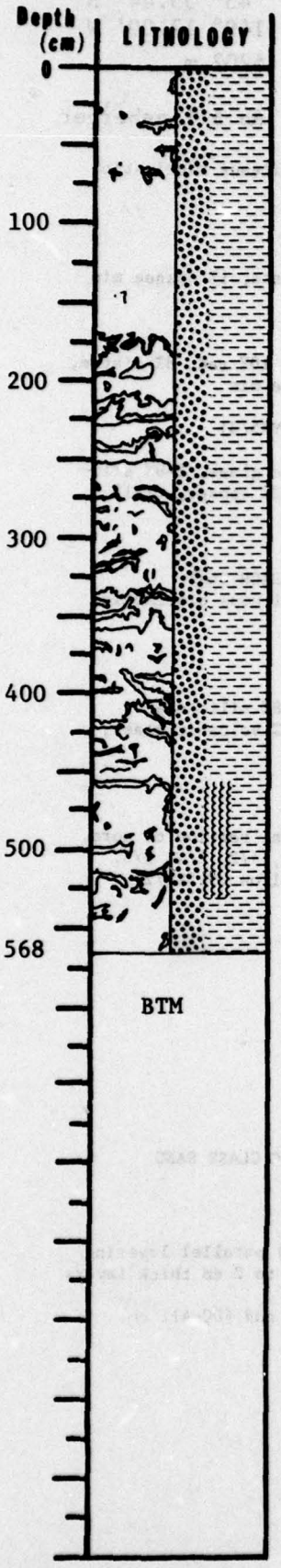
KEY



CLAY
MINERAL
DIATOM
VOLCANIC GLASS

LITHOLOGIC DESCRIPTION

Core ID	KK73-09-11 Sta. 27 PCOD 15
Lat., Long.	40° 38' N 148° 45' W
Water Depth	4865 m
Logged By	Au & Lineberger



0-417 cm — light yellowish brown (10YR6/4) to brown (10YR5/3)
MINERAL RICH CLAY
77-89% clay, 11-20% aniso min, 1-3% volcanic glass, tr-1% opaque min

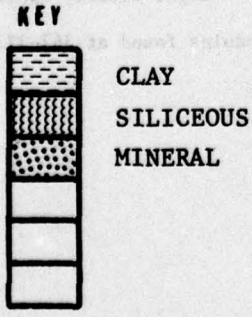
417-460 cm — light yellowish brown (10YR6/4) to yellowish brown (10YR5/4)
MINERAL BEARING CLAY
91% clay, 8% aniso min

460-535 cm — yellowish brown (10YR5/4) to brown (10YR5/3)
MINERAL RICH SILICEOUS CLAY
51% clay, 12% aniso min, 10% diatom, 10% rad, 10% siliceous bioclastic, 5% sponge

535-568 cm — light yellowish brown (10YR6/4)
MINERAL BEARING CLAY
82% clay, 10% aniso min, 2% siliceous bioclastic, 2% zeolite, 1% opaque min, 1% volcanic glass

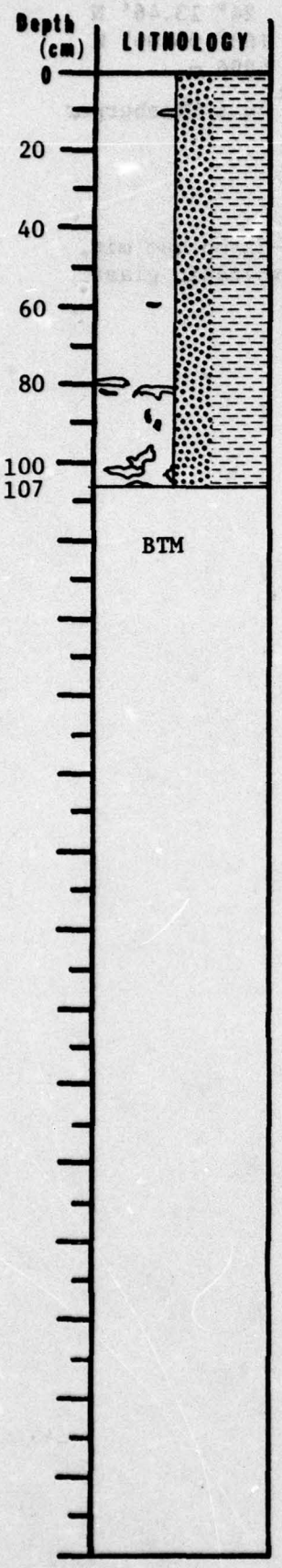
Mottling

Very slight to slight mottling clustered densely near central part of core, sparsely in upper and lower parts; dark grayish brown (10YR5/3, 5/4, 6/4) through light yellowish brown (2.5Y4/2).



LITHOLOGIC DESCRIPTION

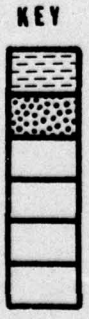
	KK73-09-11 Sta. 28
Core ID	FFC 03
Lat., Long.	37° 16' N 150° 18' W
Water Depth	5677 m
Logged By	Au & Lineberger



0-107 cm brown (10YR5/3)
MINERAL RICH CLAY
75-81% clay, 15% aniso min, 1-2% opaque min, 1-2% volcanic glass, tr-1% iso min, 0-2% diatom, 0-2% rad

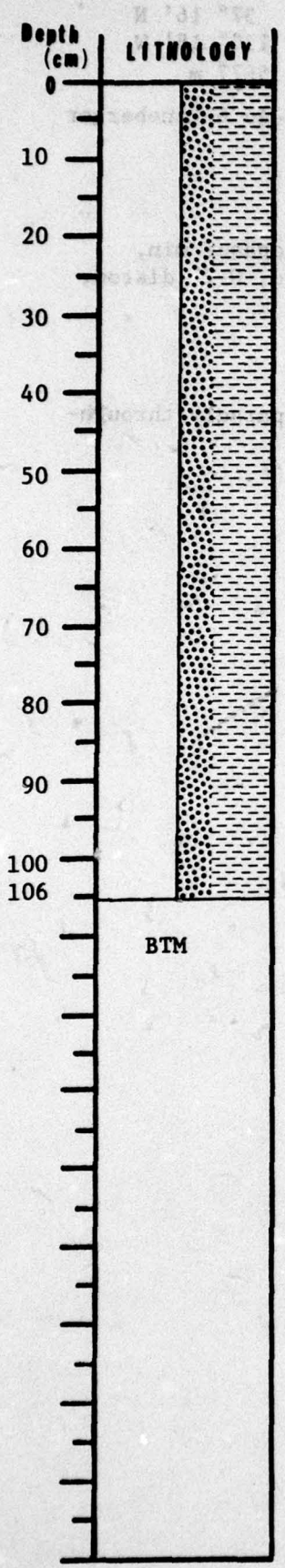
Mottling

Very slight to slight mottling scattered very sparsely throughout core; light yellowish brown (10YR6/4).

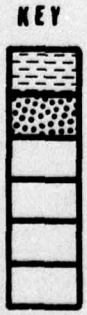


LITHOLOGIC DESCRIPTION

	KK73-10-25 Sta. 01
Core ID	FFC 01
Lat., Long.	24° 13.46' N 163° 06.06' W
Water Depth	4896 m
Logged By	Au & Lineberger

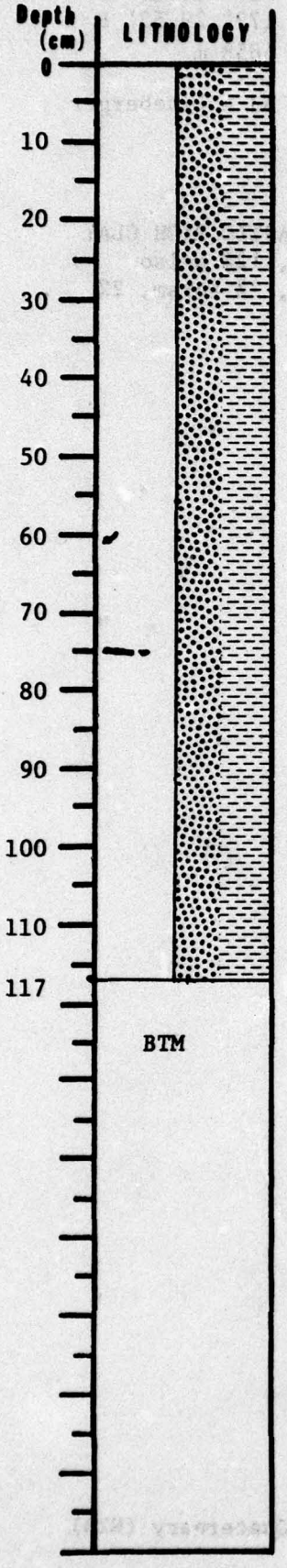


0-106 cm brown (10YR4/3)
MINERAL RICH CLAY
75-80% clay, 15-20% aniso min, tr-2% opaque min, 1% zeolite, tr-1% iso min, tr-1% volcanic glass



LITHOLOGIC DESCRIPTION

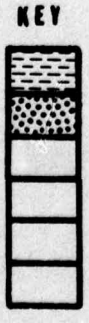
Core ID	KK73-10-25 Sta. 02 FFC 03
Lat., Long.	28° 08.00' N 169° 20.86' W
Water Depth	4616 m
Logged By	Au & Lineberger



0-117 cm brown (10YR4/3)
MINERAL RICH CLAY
67-85% clay, 10-25% aniso min, 1% volcanic glass, tr-1% zeolite, tr-1% iso min, 0-1% diatom, 0-1% rad, 0-1% sponge

Mottling

Very slight mottling at 60-78 cm; yellowish brown (10YR5/4).



CLAY
MINERAL

LITHOLOGIC DESCRIPTION

Hawaiian Swell

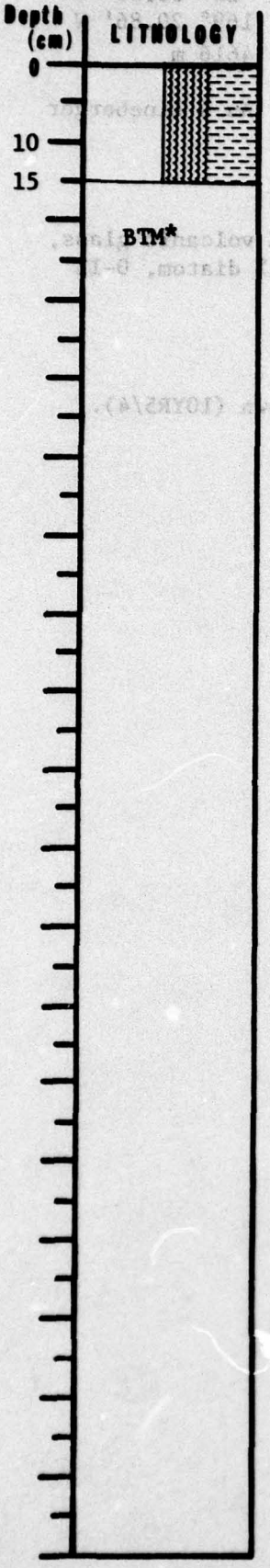
KK73-10-25 Sta. 04

Core ID PCOD 02

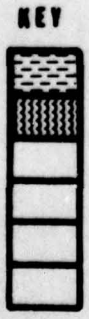
Lat., Long. 32° 58.73' N, 179° 29.53' E

Water Depth 4858 m

Logged By Au & Lineberger



0–15 cm brown (10YR5/3) to (10YR4/3)
RAD-DIATOM BEARING SILICEOUS BIOCLASTIC RICH CLAY
45% clay, 15% siliceous bioclastic, 12% aniso min, 10% diatom, 8% rad, 3% sponge, 2% foram, 2% opaque min, 1% nanno



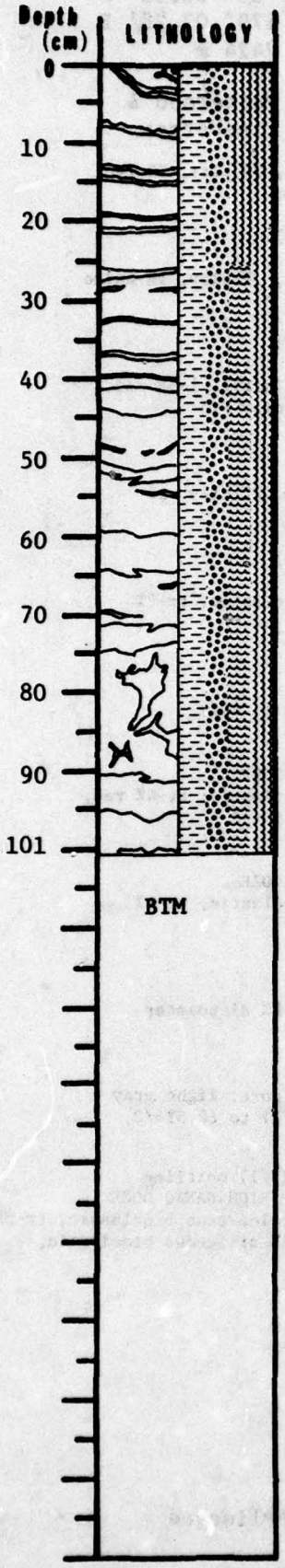
CLAY

SILICEOUS BIOCLASTIC

*Quaternary (N23)

LITHOLOGIC DESCRIPTION

Core ID	KK73-10-25 Sta. 04 PCOD 03
Lat., Long.	32° 55.7' N 179° 28.1' E
Water Depth	4843 m
Logged By	Au & Lineberger



0 - 25 cm — brown (10YR5/3)
MINERAL-CLAY RICH SILICEOUS OOZE
20% rad, 20% diatom, 20% clay, 20% siliceous bioclastic, 15% aniso min, 3% sponge, 2% opaque min

25-101 cm — brown (10YR5/3)
SILICEOUS BIOCLASTIC-MINERAL RICH DIATOM CLAY
23-29% clay, 25% diatom, 20% aniso min, 15-20% siliceous bioclastic, 1% sponge

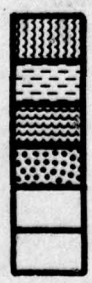
Mottling

Moderate mottling abundant throughout core; light yellowish brown (10YR6/4). Rare and very slight mottles of dark brown (10YR4/3).

72 - 75 cm — light yellowish brown (10YR6/4)
RAD BEARING SILICEOUS BIOCLASTIC-DIATOM-MINERAL BEARING CLAY

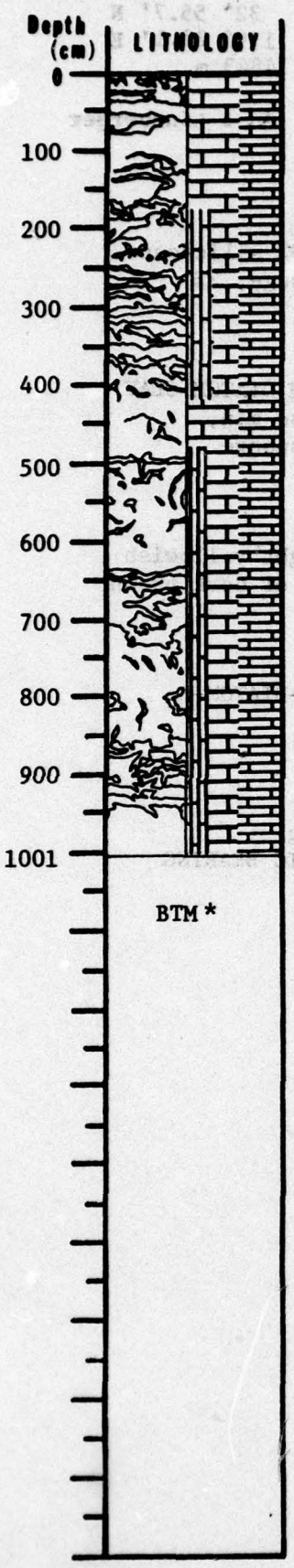
Layering

41 - 44 cm — white (2.5Y8/2) parallel layering
CLAY-MINERAL-CALCAREOUS BIOCLASTIC BEARING NANNO RICH FORAM OOZE



LITHOLOGIC DESCRIPTION

Core ID	KK73-10-25 Sta. 06 PCOD 04
Lat., Long.	33° 36.32' N 179° 03.28' E
Water Depth	2424 m
Logged By	Patterson & Lineberger



0-4 cm pale brown (10YR6/3)
FORAM-CALCAREOUS BIOCLASTIC RICH NANNO OOZE
52% nanno, 20% calcareous bioclastic, 20% foram, 2% clay, 2% rad, 1% aniso min, 1% diatom, 1% siliceous bioclastic

4-35 cm white (10YR8/2) to light brownish gray (2.5Y6/2)
NANNO RICH FORAM OOZE
67% foram, 15% nanno, 10% calcareous bioclastic, 3% clay, 1% aniso min, 1% diatom, 1% rad

35-183 cm white (10YR8/1) to light brownish gray (10YR6/2)
FORAM RICH NANNO OOZE
64-86% nanno, 9-20% foram, 2-5% calcareous bioclastic, 1-3% rad, tr-2% clay, tr-2% siliceous bioclastic, tr-1% aniso min

183-215 cm white (10YR8/1) to light gray (10YR7/2)
FORAM-CALCAREOUS BIOCLASTIC RICH NANNO OOZE
67% nanno, 15% calcareous bioclastic, 11% foram, 2% clay, 1% diatom, 1% rad, 1% siliceous bioclastic

215-418 cm white (10YR8/1) to light brownish gray (2.5Y6/2)
CALCAREOUS BIOCLASTIC-FORAM RICH NANNO OOZE
70-78% nanno, 8-20% foram, 5-15% calcareous bioclastic, tr-2% rad, tr-1% clay

418-483 cm white (10YR8/1) to light gray (5Y6/1)
FORAM-NANNO OOZE
55% nanno, 35% foram, 5% calcareous bioclastic, 1% clay

483-865 cm white (10YR8/1) to light gray (5Y7/1)
CALCAREOUS BIOCLASTIC BEARING FORAM RICH NANNO OOZE
74-87% nanno, 4-12% foram, 4-10% calcareous bioclastic, tr-4% rad, tr-1% clay, tr-1% diatom, tr-1% siliceous bioclastic

865-930 cm white (10YR8/1) to light gray (5Y7/1)
CALCAREOUS BIOCLASTIC BEARING FORAM RICH NANNO OOZE
63-74% nanno, 15-17% foram, 7-8% calcareous bioclastic, tr-1% discoaster

930-1001 cm white (5Y8/1)
FORAM-CALCAREOUS BIOCLASTIC BEARING NANNO OOZE
86% nanno, 5% calcareous bioclastic, 5% foram, 2% discoaster

Mottling

Very slight to heavy mottling scattered liberally throughout core; light gray and pale brown through white (10YR6/1, 6/3, 7/1, 7/2, 8/1, 8/2) to (2.5Y6/2, 7/1, 8/1) to (5Y6/1, 7/1, 7/2, 8/1).

375-378 cm	white (10YR8/1) to light gray (2.5Y7/1) mottling
452-460 cm	CALCAREOUS BIOCLASTIC BEARING FORAM RICH NANNO OOZE
500-583 cm	59-73% nanno, 12-20% foram, 6-10% calcareous bioclastic, tr-3%
639-696 cm	clay, tr-3% diatom, tr-2% rad, tr-2% siliceous bioclastic,
897-900 cm	tr-1% opaque min

102-106, 622-625 and 628-630 cm are void.

KEY



NANNO

FORAM

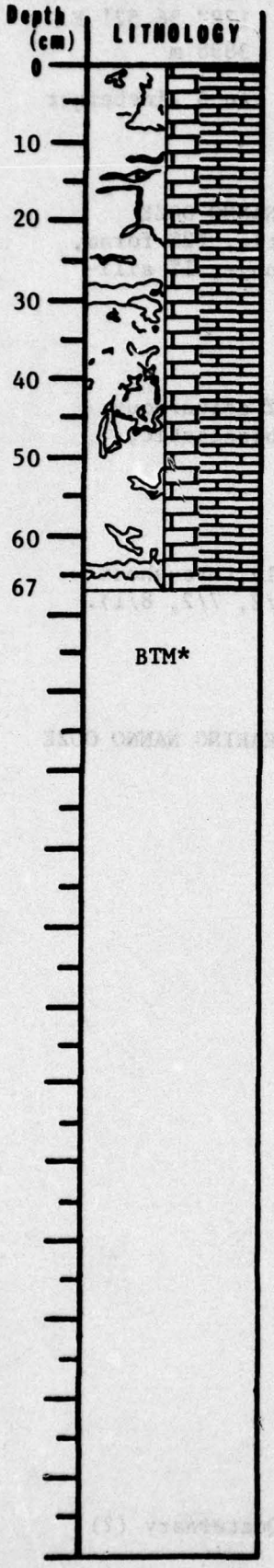
CALCAREOUS BIOCLASTIC

*Pliocene

LITHOLOGIC DESCRIPTION

KK73-10-25 Sta. 07

Core ID	FFC 05
Lat., Long.	36° 19.53' N 178° 36.21' E
Water Depth	3926 m
Logged By	Au & Lineberger



0-32 cm — pale brown (10YR6/3)
FORAM RICH NANNO OOZE
62% nanno, 11% foram, 10% calcareous bioclastic, 5% diatom, 4% clay, 2% rad, 2% volcanic glass, 1% siliceous bioclastic

32-67 cm — light gray (10YR7/1)
FORAM BEARING NANNO OOZE
74-77% nanno, 6-7% foram, 4% diatom, 3-4% calcareous bioclastic, 3-4% rad, 3% siliceous bioclastic, 2% clay, tr-1% sponge

Mottling

Very slight to slight mottling scattered densely throughout core; brown through white (10YR5/3, 6/2, 6/3, 7/2, 8/1).

Mn nodule at 0-2 cm.

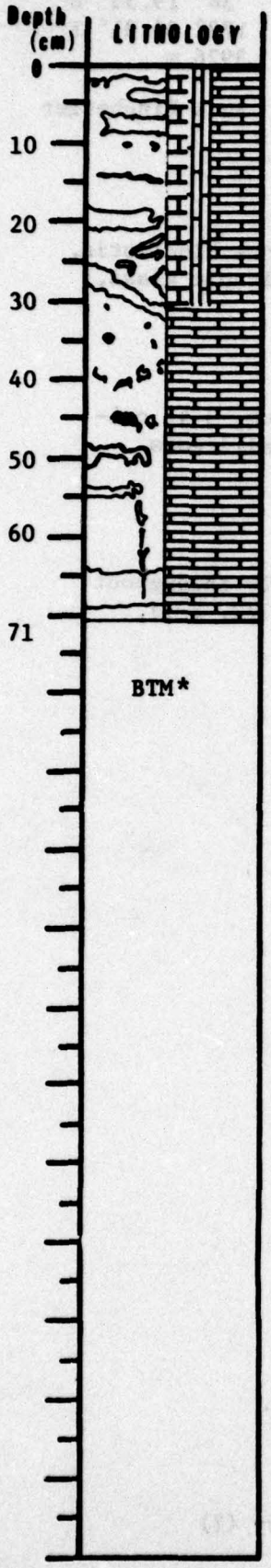


*Quaternary (?)

LITHOLOGIC DESCRIPTION

KK73-10-25 Sta. 07

Core ID	FFC 06
Lat., Long.	36° 18.74' N 178° 36.52' E
Water Depth	3898 m
Logged By	Au & Lineberger



0-30 cm pale brown (10YR6/3)
FORAM-CALCAREOUS BIOCLASTIC RICH NANNO OOZE
60% nanno, 15% calcareous bioclastic, 12% foram, 4% diatom, 2% clay, 2% rad, 1% sponge, 1% siliceous bioclastic

30-72 cm light gray (10YR7/1)
NANNO OOZE
74% nanno, 9% foram, 4% diatom, 3% calcareous bioclastic, 2% rad, 2% siliceous bioclastic, 1% volcanic glass

Mottling

Very slight to slight mottling scattered densely throughout upper part of core; brown to white (10YR5/3, 6/2, 7/2, 8/1).

Layering

64-68 cm light brownish gray (10YR6/2)
VOLCANIC GLASS-RAD-DIATOM-FORAM BEARING NANNO OOZE

Rock fragments at 67-68 cm.

KEY



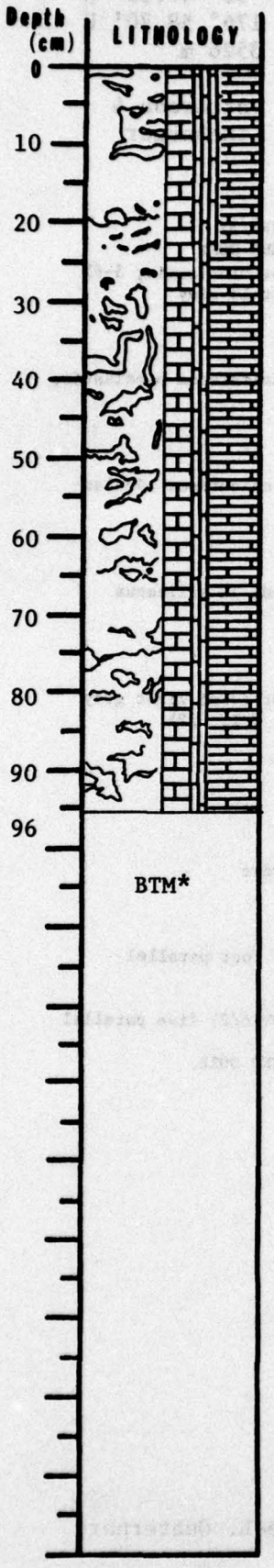
NANNO
CALCAREOUS BIOCLASTIC
FORAM

*Quaternary (?)

LITHOLOGIC DESCRIPTION

KK73-10-25 Sta. 07

Core ID	FFC 07
Lat., Long.	36° 17.25' N 178° 37.14' E
Water Depth	3914 m
Logged By	Au & Lineberger



0-23 cm — pale brown (10YR6/3)
FORAM-CALCAREOUS BIOCLASTIC RICH NANNO OOZE
52% nanno, 25% calcareous bioclastic, 12% foram, 4% diatom, 2% siliceous bioclastic, 1% clay, 1% rad, 1% sponge

23-50 cm — light gray (10YR7/1)
FORAM-CALCAREOUS BIOCLASTIC BEARING NANNO OOZE
71% nanno, 10% calcareous bioclastic, 7% foram, 4% siliceous bioclastic, 3% diatom, 2% rad, 1% clay

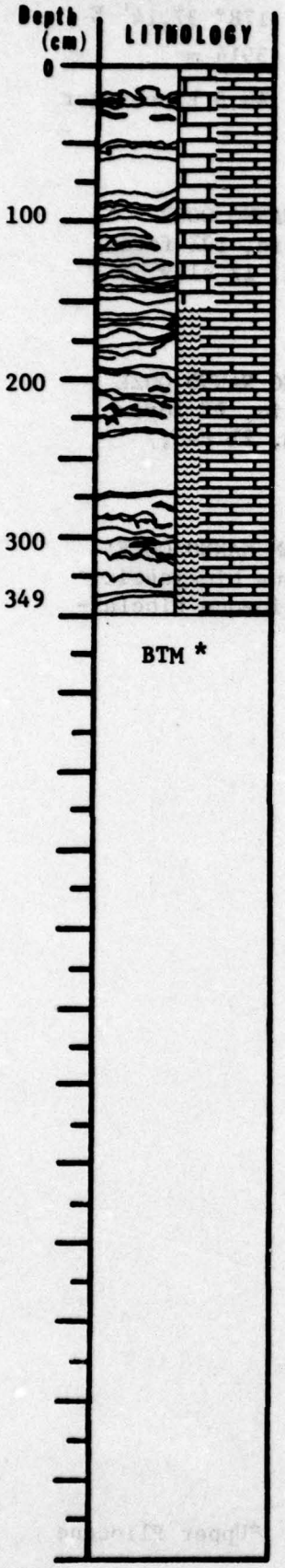
50-96 cm — pale brown (10YR6/3)
CALCAREOUS BIOCLASTIC BEARING FORAM-NANNO OOZE
36% nanno, 30% foram, 11% calcareous bioclastic, 7% clay, 5% diatom, 4% rad, 3% siliceous bioclastic, 1% sponge.



*Upper Pliocene

LITHOLOGIC DESCRIPTION

Core ID	KK73-10-25 Sta. 08 PCOD 05
Lat., Long.	36° 47.33' N 176° 58.70' E
Water Depth	3526 m
Logged By	Patterson & Lineberger



0 - 39 cm — light gray (2.5Y7/2) to very pale brown (10YR7/3)
CALCAREOUS BIOCLASTIC BEARING FORAM RICH NANNO OOZE
53-73% nanno, 15-20 % foram, 3-10% calcareous bioclastic, 3-6% diatom, 2-4% rad, 2% siliceous bioclastic, tr-1% clay

39 - 81 cm — white (2.5Y8/2) to very pale brown (10YR7/3)
FORAM BEARING NANNO OOZE
82% nanno, 9% foram, 3% diatom, 2% rad, 1% calcareous bioclastic, 1% siliceous bioclastic

81-155 cm — white (10YR8/1)
DIATOM BEARING FORAM RICH NANNO OOZE
58% nanno, 17% foram, 8% diatom, 7% rad, 3% calcareous bioclastic, 3% siliceous bioclastic, 1% clay

155-349 cm — white (10YR8/1) to (10YR8/2)
DIATOM BEARING NANNO OOZE
76-81% nanno, 5-7% diatom, 3-8% foram, 3% rad, 2% siliceous bioclastic, 1-2% clay

Mottling

Very slight to heavy mottling scattered sparsely throughout core; light gray and pale brown through white (10YR6/1, 6/3, 7/1, 7/2, 7/3, 8/1, 8/2).

Layering

14 - 18 cm, 26 - 33 — white (10YR8/2) parallel layering
DIATOM-RAD-FORAM BEARING NANNO OOZE

89 - 98 cm — very pale brown (10YR7/3) three parallel layers
RAD-DIATOM-FORAM BEARING NANNO OOZE

121-145 cm — light gray (10YR7/2) five parallel layers

163-197 cm — very pale brown (10YR7/3) to white (10YR8/2) four parallel layers

223-274 cm — white (10YR8.5/1) to light brownish gray (10YR6/2) five parallel layers
CALCAREOUS BIOCLASTIC BEARING FORAM RICH NANNO OOZE

335-339 cm — pale brown (10YR6/3) parallel layering
RAD-DIATOM-FORAM BEARING NANNO OOZE

KEY

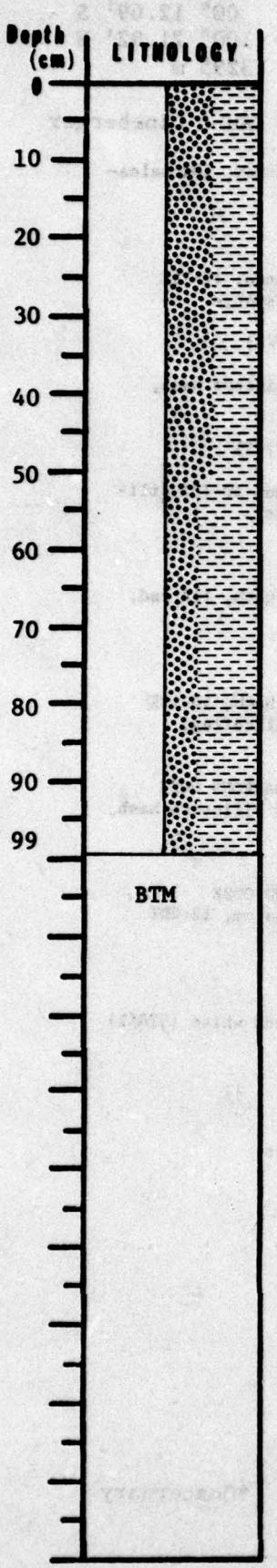


NANNO
FORAM
DIATOM

*U. Pliocene-L. Quaternary

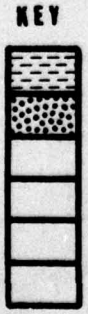
LITHOLOGIC DESCRIPTION

Core ID	KK73-10-25 Sta. 10 FFC 09
Lat., Long.	21° 02.05' N 167° 44.92' W
Water Depth	4883 m
Logged By	Au & Lineberger



0-50 cm brown (10YR4/3)
MINERAL CLAY
65% clay, 30% aniso min, 7% opaque min, 3% volcanic glass, 2% nanno

50-99 cm brown (10YR4/3)
MINERAL RICH CLAY
81% clay, 8% aniso min, 6% opaque min, 2% iso min, 1% volcanic glass, 1% zeolite



LITHOLOGIC DESCRIPTION

East Pacific Rise

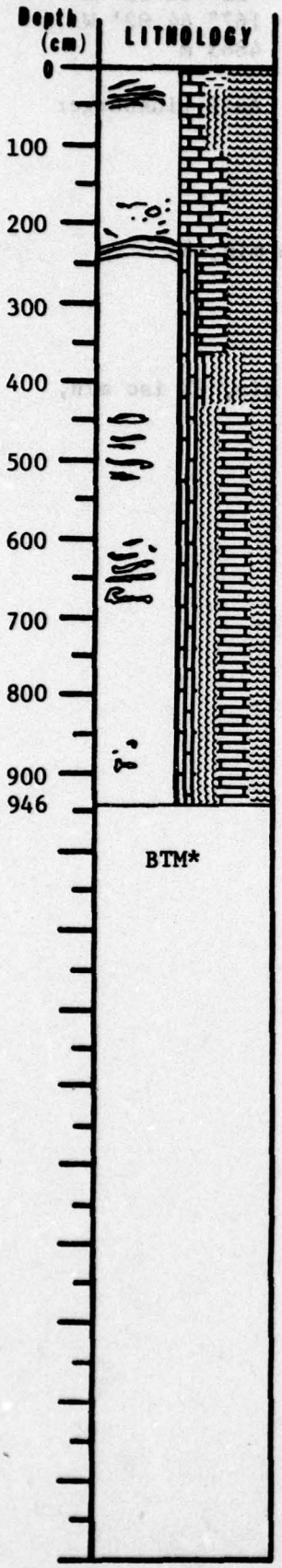
KK74-01-09 Sta. 01

Core ID PCOD 01

Lat., Long. 00° 12.69' S, 100° 21.82' W

Water Depth 3295 m

Logged By Au & Lineberger



0-15 cm — brown (10YR5/3)
FORAM-NANNO RICH CLAY DIATOM OOZE
20% clay, 20% diatom, 15% nanno, 12% foram, 10% rad, 10% calcareous hash, 10% siliceous hash, 2% sponge

15-118 cm — white (2/5Y8/2) to light greenish gray (5GY7/1)
FORAM-NANNO RICH SILICEOUS HASH DIATOM OOZE
25-35% diatom, 20-28% siliceous hash, 15-25% nanno, 12-15% foram, 8-10% calcareous hash, 7-10% rad, tr-1% sponge

118-225 cm — pale yellow (5Y8/3) to light greenish gray (5G7/1)
FORAM-NANNO RICH DIATOM OOZE
25-35% diatom, 25% nanno, 12-15% foram, 10% siliceous hash, 8-10% rad, 7% calcareous hash

225-385 cm — pale yellow (5Y8/3) to light greenish gray (5GY7/2)
NANNO-CALCAREOUS HASH RICH DIATOM OOZE
28-35% diatom, 18-25% calcareous hash, 15% nanno, 10-15% siliceous hash, 7-15% rad, 7-10% foram, tr-1% sponge

385-425 cm — white (2.5Y8/2)
RAD-SILICEOUS HASH-DIATOM RICH CALCAREOUS OOZE
30% calcareous hash, 25% diatom, 15% siliceous hash, 11% rad, 10% nanno, 7% forams

425-692 cm — white (5Y8/1) to light greenish gray (5GY7/1)
CALCAREOUS HASH-DIATOM RICH NANNO OOZE
26-35% nanno, 20-30% diatom, 20-24% calcareous hash, 10-12% siliceous hash, 6-10% rad, 5-7% foram, tr-1% silicoflag.

692-752 cm — white (5Y8/2) to light greenish gray (5GY7/1)
FORAM-RAD-SILICEOUS HASH-NANNO-DIATOM RICH CALCAREOUS OOZE
29% calcareous hash, 20% diatom, 15% nanno, 13% siliceous hash, 12% rad, 11% foram

752-946 cm — white (5Y8/2) to light greenish gray (5G7/1)
SILICEOUS HASH-DIATOM-CALCAREOUS HASH RICH NANNO OOZE
20-35% nanno, 13-24% calcareous hash, 13-20% diatom, 12-20% siliceous hash, 5-12% rad, 5-12% foram

Mottling

Slight to moderate mottling throughout; pale yellow (5Y8/3) and white (5Y8/1).

195-693 cm — purple (5P5/1, 5P7/1) mottles

Layering

235-246 cm — white (5Y8/1) and purple (5P5/1) parallel layers

784-787 cm
864-873 cm — light greenish gray (5Y6/1) parallel layers

784-787 cm — Indurated layers

KEY



DIATOM
SILICEOUS HASH
CALCAREOUS HASH
NANNO
CLAY
FORAM-NANNO

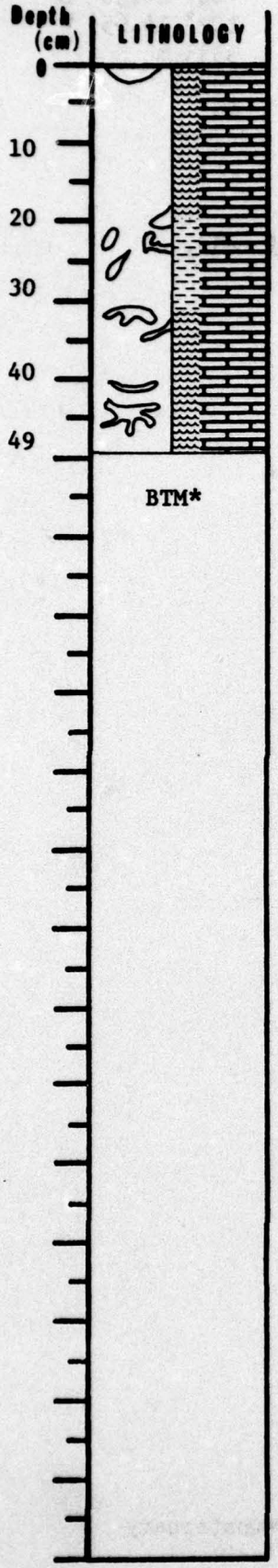
*Quaternary

LITHOLOGIC DESCRIPTION

East Pacific Rise

KK74-01-09 Sta. 01

Core ID	TC 01
Lat., Long.	00° 12.17' S 100° 21.82' W
Water Depth	3295 m
Logged By	Au & Lineberger



0-20 cm pale brown (10YR6/3)
RAD BEARING DIATOM RICH NANNO OOZE
60% nannos, 20% diatoms, 10% rad, 5% clay

20-32 cm pale brown (10YR6/3)
RAD-DIATOM BEARING CLAY RICH NANNO OOZE
55% nannos, 30% clay, 5% diatoms, 5% rads

32-49 cm pale brown (10YR6/3)
CLAY-RAD BEARING DIATOM RICH NANNO OOZE
55% nannos, 25% diatoms, 10% rads, 5% clay

Mottling

Very slight to slight mottling; brown (10YR5/3) and white (2.5Y8/2).

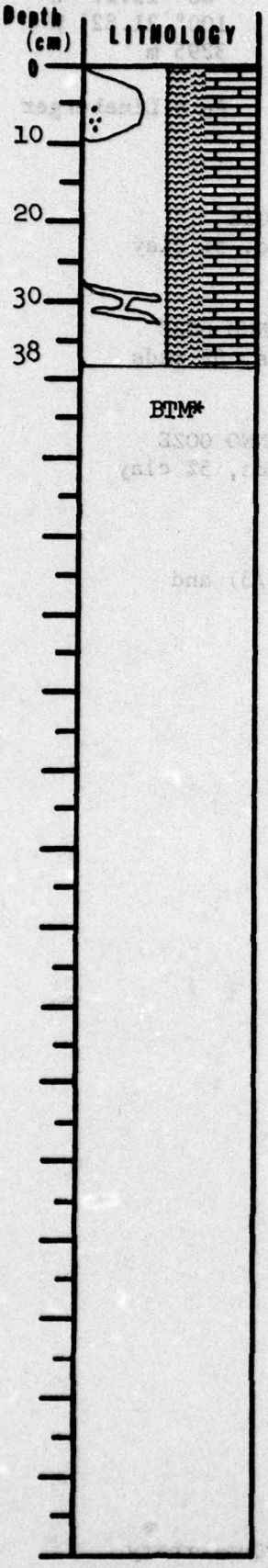
17-20 cm white (2.5Y8/2) mottle
DIATOM RICH NANNO OOZE



*Quaternary

LITHOLOGIC DESCRIPTION

East Pacific Rise
KK74-01-09
Core IB TC 02 Sta. 02
Lat., Long. 00° 20.30' S 102° 14.65' W
Water Depth 3333 m
Logged By Au

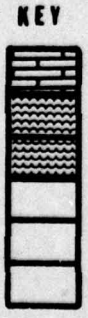


0-38 cm very pale brown (10YR7/4)
RAD-DIATOM RICH NANNO OOZE
68-70% nannos, 20% diatoms, 10% rads,
0-2% aniso min

Mottling

0-8 cm white (10YR8/2) mottles
27-32 cm RAD-DIATOM BEARING NANNO OOZE

Sand-size grains of volcanic glass at 5-8 cm.

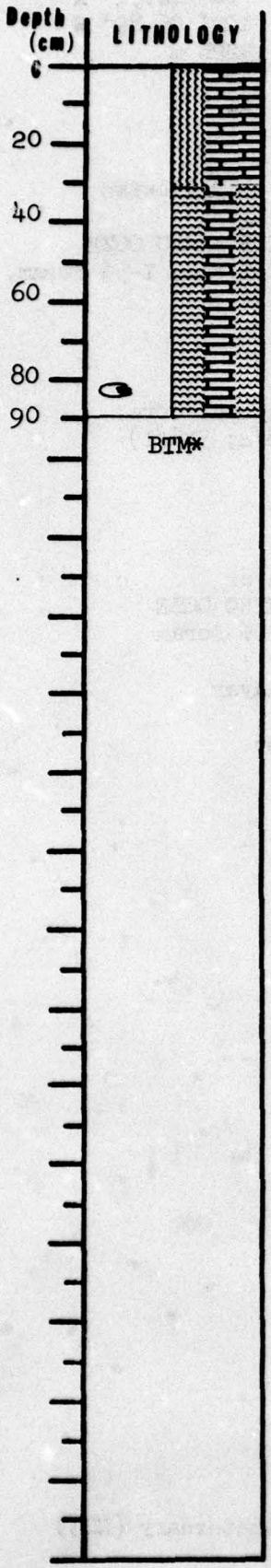


*Quaternary

LITHOLOGIC DESCRIPTION

East Pacific Rise
KK74-09-01

Core ID FFC 01 Sta. 03
Lat., Long. 00° 01.35' N, 102° 12.68' W
Water Depth 3140 m
Logged By Au



0-33 cm — very pale brown (10YR7/4)
RAD-DIATOM RICH NANNO OOZE
75% nanno, 15% diatom, 10% rad

33-90 cm — light brownish gray (2.5Y6/3) to white (5Y8/2)
FORAM BEARING RAD RICH DIATOM-NANNO OOZE
43-52% nanno, 25-30% diatom, 15% rad,
8-10% foram, 0-2% clay

Mottling

81-86 cm — light gray (5Y7/2) mottle

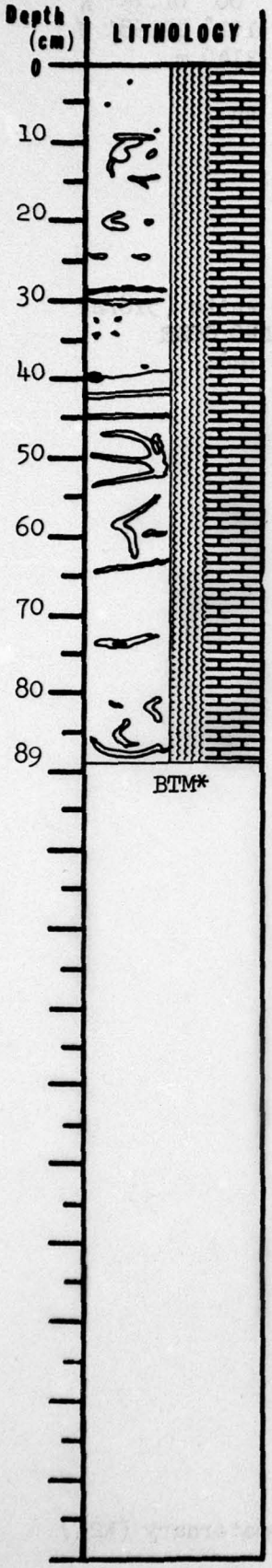


*Quaternary (N23)

LITHOLOGIC DESCRIPTION

Gàlapagos Spreading Ctr.
KK74-01-09

Core ID	FFC 04 Sta. 04
Lat., Long.	00° 28.52' N 102° 06.89' W
Water Depth	3226 m
Logged By	Au



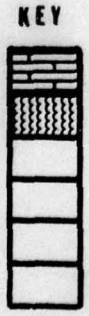
0-89 cm — light yellowish brown (10YR6/4) to yellowish brown (10YR5/4) and light gray (5Y7/2) CLAY-FORAM BEARING RAD-DIATOM RICH NANNO OOZE
58-77% nanno, 10-25% diatom, 5-15% rad, 1-5% foram, 0-5% clay

Mottling

Very slight to slight mottling scattered throughout core; pale brown (10YR6/3) to light gray (2.5Y7/2, 8/2; 5Y6/1) to pale yellow (5Y7/3) to white (5Y8/2).

Layering

29-30 cm	light gray (2.5Y7/2) parallel layer FORAM BEARING RAD-DIATOM RICH NANNO OOZE 60% nanno, 20% diatom, 15% rad, 5% foram
42-43 cm	pale yellow (2.5Y7/4) parallel layer
44-45 cm	pale olive (5Y6/3) parallel layer

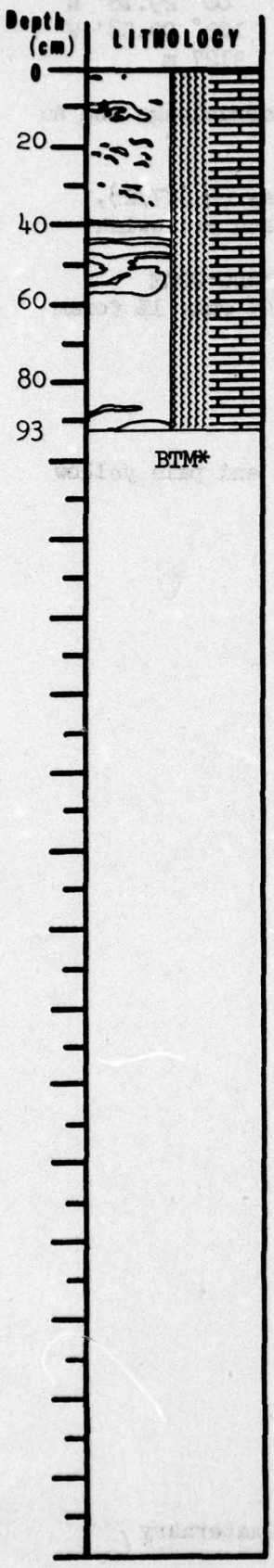


*Quaternary (N23)

LITHOLOGIC DESCRIPTION

Galapagos Spreading Ctr.
KK74-01-09

Core ID FFC 05 Sta. 04
Lat., Long. 00° 28.86' N
102° 08.29' W
Water Depth 3138 m
Logged By Au



0-93 cm light yellowish brown (10YR6/4) to yellowish brown (10YR5/4) and light gray (5Y7/2) CLAY-FORAM BEARING RAD-DIATOM RICH NANNO OOZE 55-78% nanno, 10-25% diatom, 7-15% rad, 2-5% foram, 0-4% clay

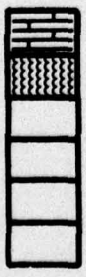
Mottling

Very slight to slight mottling concentrated in upper half of core; light gray to white (2.5Y7/2, 8/2) to pale yellow to white (5Y7/3, 8/2) to light greenish gray (5GY7/1).

Layering

38-40 cm pale yellow (2.5Y7/4) parallel layer

42-44 cm pale olive (5Y6/3) parallel layer
FORAM BEARING RAD-DIATOM RICH NANNO OOZE
78% nanno, 10% rad, 10% diatom, 2% foram



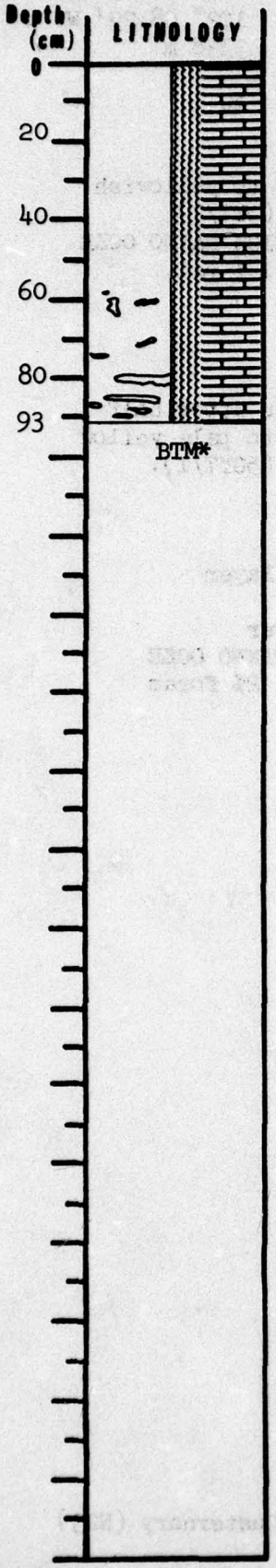
*Quaternary (N23)

LITHOLOGIC DESCRIPTION

Galapagos Spreading Ctr.
KK74-01-09

Core ID FFC 06 Sta. 04
Lat., Long. 00° 29.16' N, 102° 09.58' W
Water Depth 3127 m

Logged By Barraclough and Au



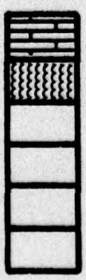
0-93 cm — pale yellow (2.5Y8/4), light gray (2.5Y7/2), dark yellowish brown (10YR4/4) and yellowish brown (10YR5/4)
FORAM BEARING RAD-DIATOM RICH NANNO OOZE
64-89% nanno, 5-20% diatom, 5-10% rad, 1% foram

Mottling

Medium to heavy mottling.

59-93 cm — light yellowish brown (2.5Y6/4) and pale yellow (2.5Y7/4)

Volcanic ash in upper 50 cm of core.

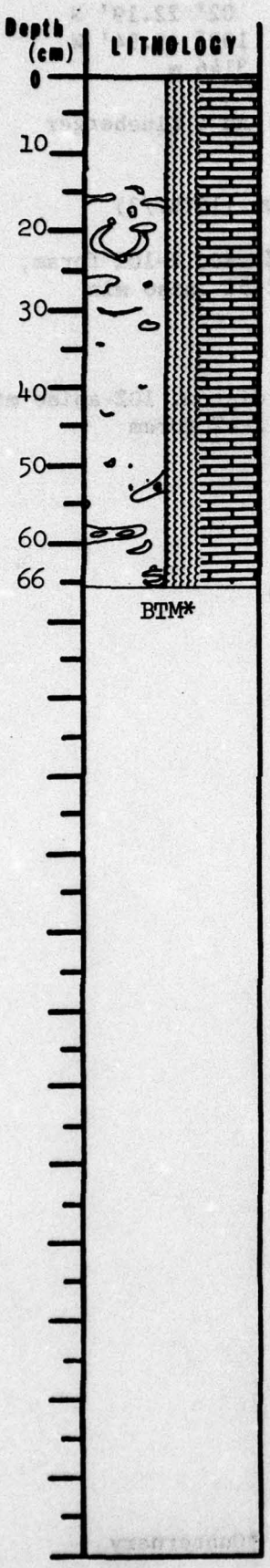


*Quaternary

LITHOLOGIC DESCRIPTION

Galapagos Spreading Ctr.
KK74-01-09

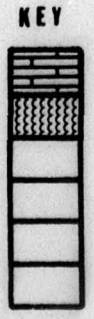
Core ID FFC 07 Sta. 04
Lat., Long. 00° 29.40' N, 102° 10.63' W
Water Depth 3100 m
Logged By Au



0-66 cm light yellowish brown (10YR6/4), yellowish brown (10YR5/4) and light gray (5Y7/2) CLAY-FORAM BEARING RAD-DIATOM RICH NANNO OOZE 60-80% nanno, 10-20% diatom, 5-10% rad, 3-5% foram, 0-5% clay

Mottling

Very slight to heavy mottling throughout core; light gray (2.5Y7/2) to white (2.5Y8/2), very pale brown (10YR7/3) and light gray (5Y7/2)

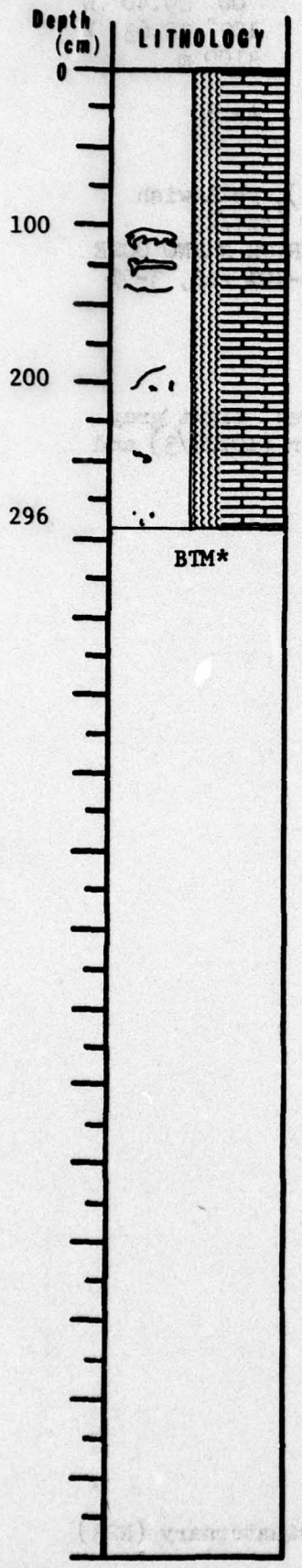


*Quaternary (N23)

LITHOLOGIC DESCRIPTION

Galapagos Spreading Center

Core ID	KK74-01-09 Sta. 05 PCOD 04
Lat., Long.	02° 22.19' N 100° 49.94' W
Water Depth	3146 m
Logged By	Au & Lineberger



0-172 cm white (10YR8/2) to very pale brown (10YR7/3)
RAD-DIATOM BEARING NANNO OOZE
50-78% nanno, 7-10% diatom, 5-10% rad, 2-10% foram, 2-6% volcanic glass, 2-6% clay, 2-5% aniso min

172-296 cm light yellowish brown (10YR6/4)
DIATOM-RAD RICH NANNO OOZE
44-53% nanno, 12-26% rad, 10-15% diatom, 10% aniso min, 5-6% clay, 3-10% volcanic glass, 2-4% foram

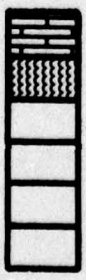
Mottling

Very slight mottling

100-122 cm very pale brown (10YR7/4) mottles

139-140 cm dark gray (10YR4/1) mottles

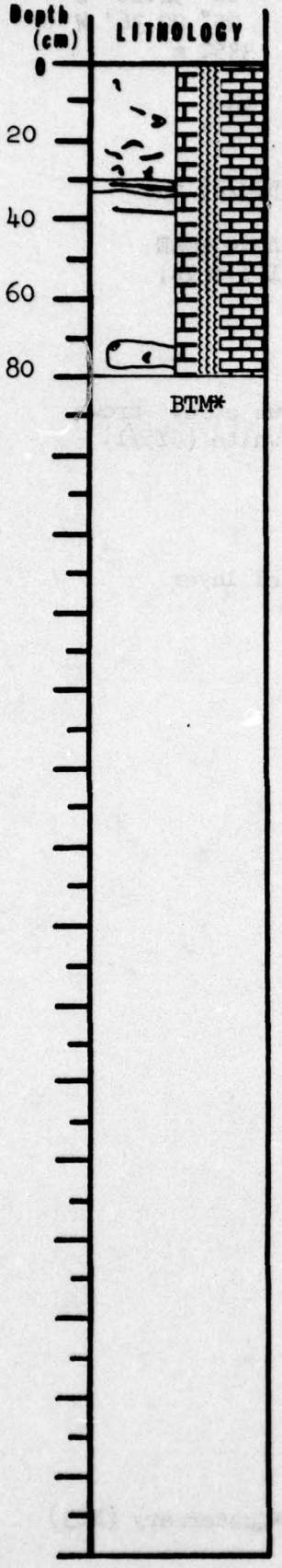
198-290 cm very pale brown (10YR8/4) mottles



*Quaternary

LITHOLOGIC DESCRIPTION

Galapagos Rise
KK74-01-09
Core ID FFC 12 Sta. 07
Lat., Long. 02° 19.60' N
100° 46.29' W
Water Depth 2947 m
Logged By Au



0-80 cm — brown (10YR4/3) to light gray (5Y7/2)
DIATOM-RAD BEARING FORAM RICH NANNO OOZE
65-88% nannos, 3-10% forams, 3-10% rads,
3-10% diatoms, 3-5% aniso min

Mottling

Very slight to heavy mottling sparse throughout core; brown (10YR5/3), pale olive (5Y6/3), light gray (5Y5/1) and light greenish gray (5GY7/1)

Layering

30-33 cm — pale olive (5Y6/3) parallel layer
DIATOM-RAD BEARING FORAM RICH NANNO OOZE
80% nannos, 10% foram, 5% rad, 5% diatom

KEY



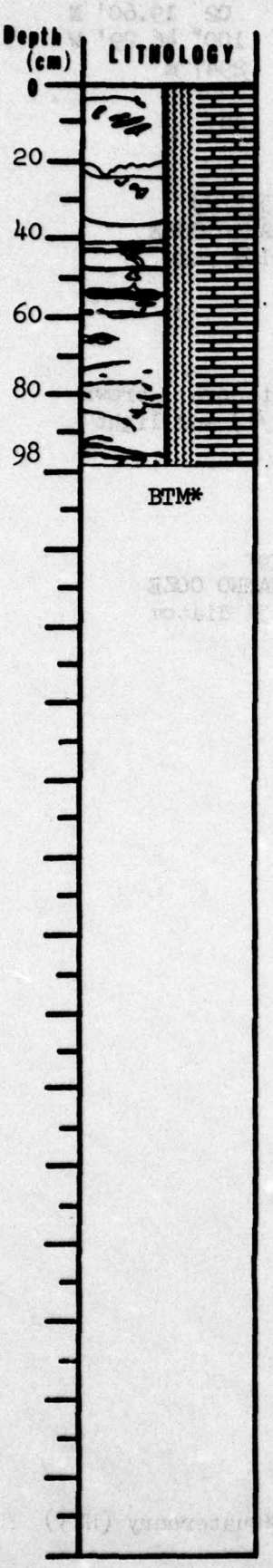
NANNO
FORAM
DIATOMS & RADS

*Quaternary (N23)

LITHOLOGIC DESCRIPTION

Galapagos Rise
KK74-01-09

Core ID FFC 17 Sta. 08
Lat., Long. 00° 52.10' S
95° 29.36' W
Water Depth 3352 m
Logged By Au



0-83 cm — dark brown (10YR3/3), white (2.5Y8/2) and light gray (5Y7/2)
FORAM BEARING RAD-DIATOM RICH NANNO OOZE
68-73% nannos, 15-20% diatoms, 10% rads, 1-2% forams

Mottling

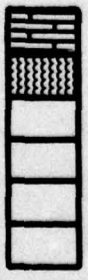
Very slight to slight mottling dense throughout core; brown (10YR4/3), white (2.5Y8/2), and gray through white (5Y5/1, 6/2, 7/2, 8/1)

Layering

36-37 cm — light olive gray (5Y6/2) parallel layer

41-42 cm
43-44 cm
47-48 cm
52-53 cm — white (5Y8/1) parallel layers

KEY



NANNO

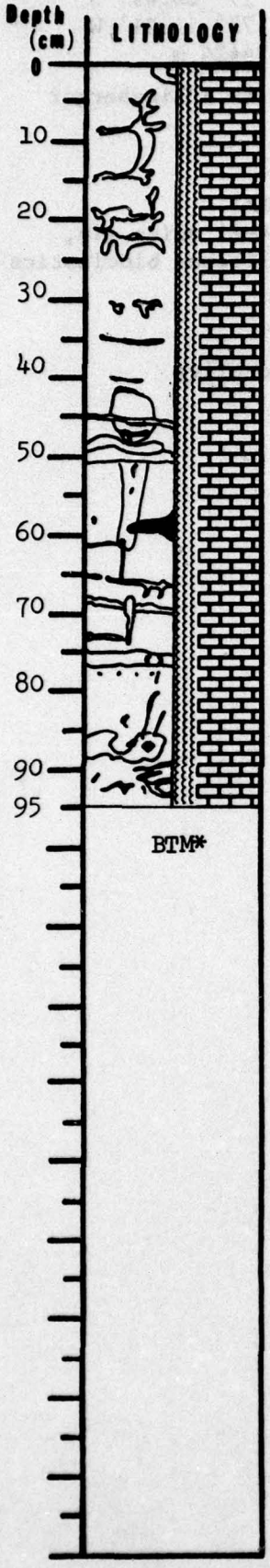
DIATOM-RAD

*Quaternary (N23)

LITHOLOGIC DESCRIPTION

Galapagos Rise
KK74-01-09

Core ID FFC 18 Sta. 08
Lat., Long. 00° 54.31' S, 95° 24.29' W
Water Depth 3385 m
Logged By Au



0-24 cm — dark brown (10YR3/3) to brown (10YR5/3)
CLAY BEARING RAD-DIATOM RICH NANNO OOZE
72% nannos, 15% diatoms, 10% rads, 3% clay

24-92 cm — white (2.5Y8/2) to light gray (5Y7/2)
RAD-DIATOM RICH NANNO OOZE
75% nannos, 15% diatoms, 10% rads

92-95 cm — light gray (2.5Y7/2)
FORAM BEARING RAD-DIATOM RICH NANNO OOZE
63% nannos, 20% diatoms, 15% rads, 2% forams

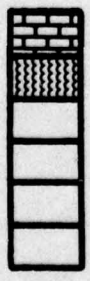
Mottling

Very slight to heavy mottling dense throughout core; very dark grayish brown through light gray (10YR3/2, 3/3, 6/3) to (2.5Y7/2) and olive (5Y4/3, 5/1, 6/1, 6/2, 7/2).

Layering

45-46 cm — white (5Y8/1) parallel layer

75-77 cm — light olive gray (5Y6/2) parallel layer



*Quaternary (N23)

LITHOLOGIC DESCRIPTION

Peru Continental Margin

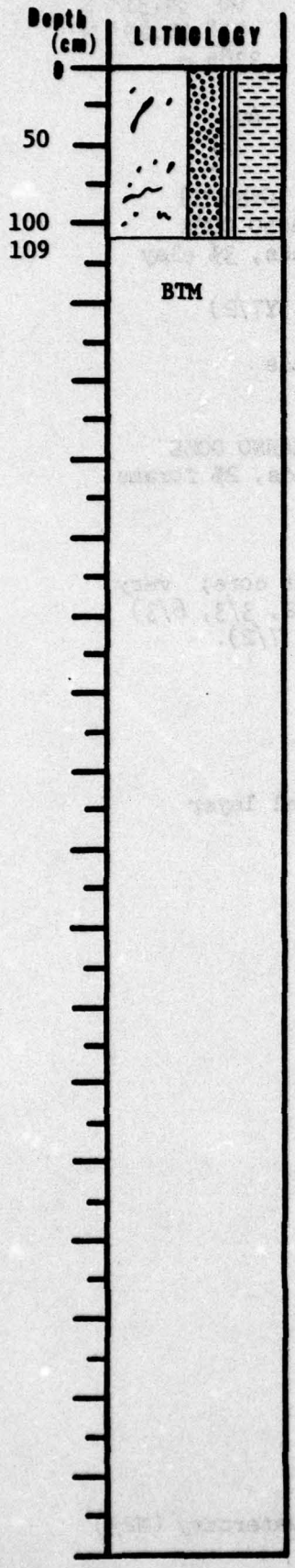
KK74-01-09 Sta. 10

Core ID PCOD 05

Lat., Long. 17° 28.49' S, 75° 54.21' W

Water Depth 4424 m

Logged By Au & Lineberger



0-109 cm gray (5Y5/1)
MINERAL-VOLCANIC GLASS BEARING CLAY
77-88% clay, 7% volcanic glass, 4-8% aniso min, tr-2% diatom, tr-2% rad, 1-4% siliceous bioclastics

Mottling

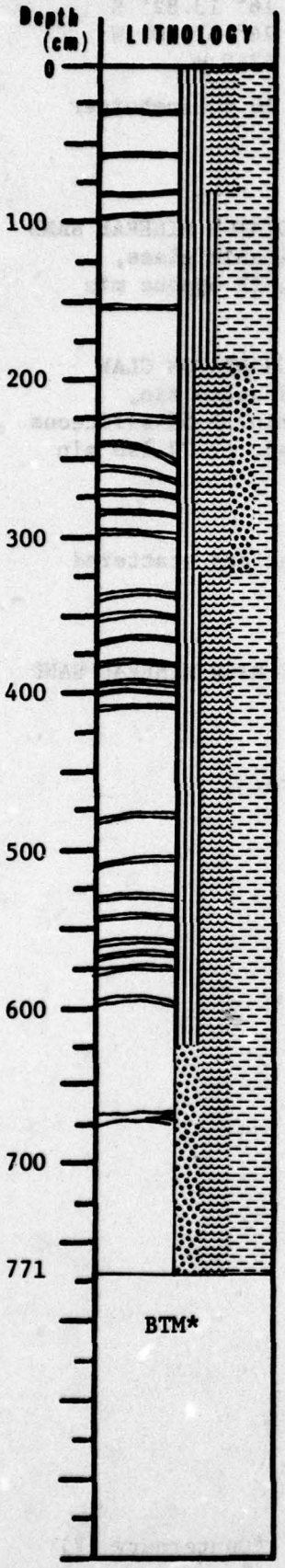
Slight mottling throughout; purple (5P4/1) and olive gray (5Y5/2).



LITHOLOGIC DESCRIPTION

Peru Continental Margin

Core ID	KK74-01-09 Sta. 11 PCOD 06
Lat., Long.	17° 33.63' S 74° 32.66' W
Water Depth	4606 m
Logged By	Au & Lineberger



0 - 55 cm — olive gray (5Y4/2)
DIATOM-VOLCANIC GLASS RICH CLAY
64% clay, 15% volcanic glass, 12% diatom, 7% aniso min, 2% opaque min

55-185 cm — olive gray (5Y4/2)
VOLCANIC GLASS CLAY
57-59% clay, 30% volcanic glass, 6-9% diatom, 5-7% aniso min

185-320 cm — olive gray (5Y4/2)
VOLCANIC GLASS-MINERAL RICH CLAY DIATOM OOZE
30-40% diatom, 32-43% clay, 12-22% aniso min, 12-17% volcanic glass

320-620 cm — olive gray (5Y4/2) to greenish gray (5GY5/1)
VOLCANIC GLASS-DIATOM RICH CLAY
46-62% clay, 15-17% diatom, 7-17% volcanic glass, 7-15% aniso min, 5-9% siliceous hash

620-771 cm — greenish gray (5GY5/1)
DIATOM-MINERAL RICH CLAY
39-51% clay, 17-20% aniso min, 12-15% diatom, 9-10% volcanic glass, 4-8% rad, 1-9% siliceous bioclastic

Layering

Numerous layers, coarser and slightly indurated; greenish gray (5Y5/1).

195-205 cm — light gray (5Y7/1)
VOLCANIC GLASS SAND
coarser, slightly indurate

Layers of dusky yellow green (5GY5/2) and purple (5P4/1).

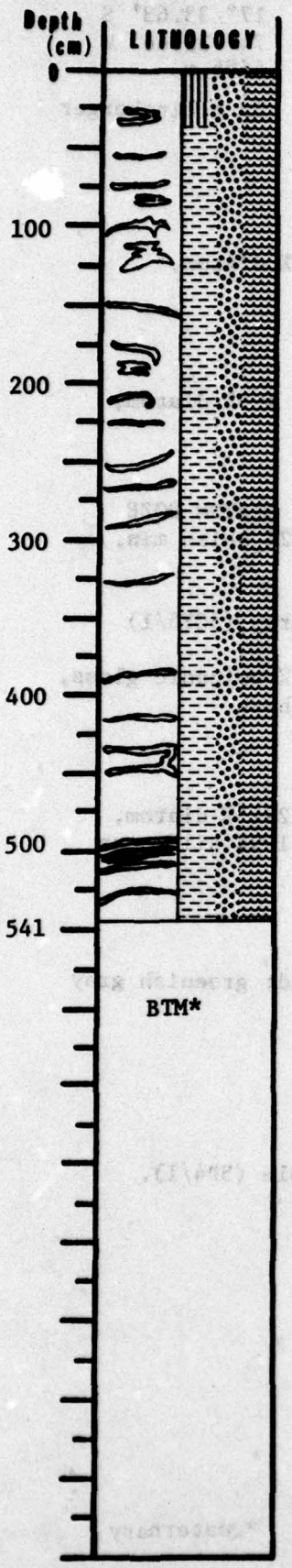


*Quaternary

LITHOLOGIC DESCRIPTION

Peru Continental Margin

Core ID	KK74-01-09 Sta. 12
	PCOD 07
Lat., Long.	16° 13.82' S
	74° 57.20' W
Water Depth	4349 m
Logged By	Au & Lineberger



0-45 cm dark olive gray (5Y3/2)
CLAY BEARING VOLCANIC GLASS RICH DIATOM MINERAL SAND
36% aniso min, 35% diatom, 15% volcanic glass,
10% clay, 2% siliceous bioclastic, 1% opaque min

45-541 cm dark olive gray (5Y3/2)
VOLCANIC GLASS BEARING MINERAL RICH DIATOM CLAY
27-33% clay, 25-30% diatom, 25-27% aniso min,
5-8% volcanic glass, 2-5% opaque min, 2-5% siliceous
bioclastic, tr-3% sponge, tr-2% rad, tr-2% iso min

Mottling

Slight mottling in upper 35 cm of core; abundant and scattered evenly below.

35-541 cm very dark gray (5Y3/1) mottling
VOLCANIC GLASS BEARING DIATOM CLAY RICH MINERAL SAND

Layering

Numerous layers scattered evenly throughout core.

KEY



MINERAL
CLAY
DIATOM
VOLCANIC GLASS

*Quaternary (?)

LITHOLOGIC DESCRIPTION

Peru Continental Margin

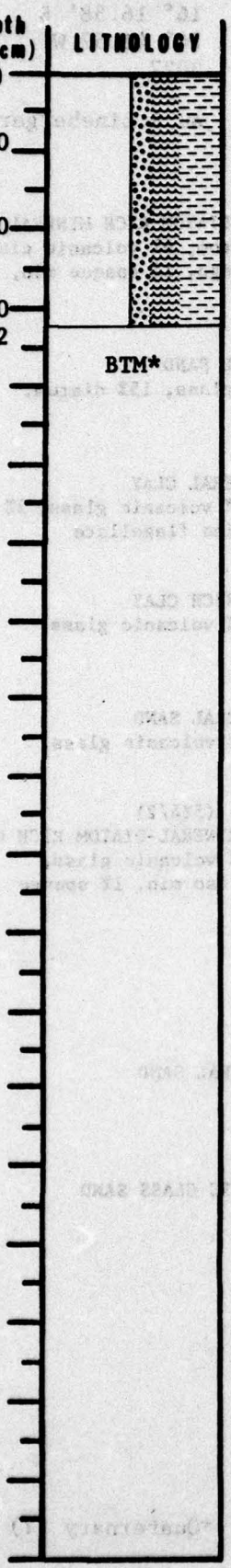
KK74-01-09 Sta. 13

Core ID FFC 24

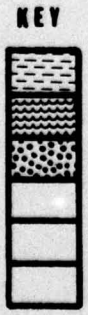
Lat., Long. 16° 22.41' S, 74° 43.40' W

Water Depth 4160 m

Logged By Au & Lineberger



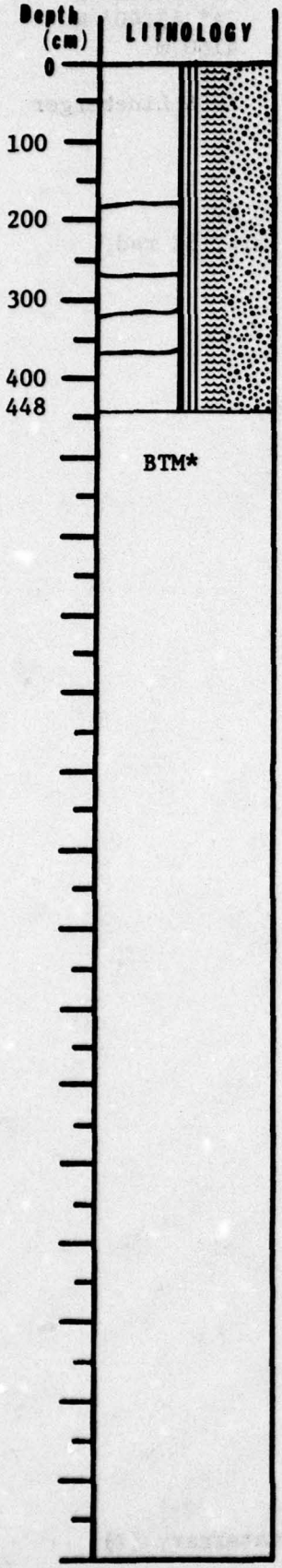
0-32 cm olive gray (5Y4/2)
RAD BEARING MINERAL-DIATOM RICH CLAY
70% clay, 15% diatom, 10% aniso min, 3% rad, 2% opaque min



*Quaternary (?)

LITHOLOGIC DESCRIPTION

Core ID	KK74-01-09 Sta. 13 PCOD 08
Lat., Long.	16° 16.58' S 74° 41.52 W
Water Depth	3027
Logged By	Au & Lineberger



0-155 cm dark olive gray (5Y3.5/2)
SILICEOUS HASH-VOLCANIC GLASS BEARING DIATOM RICH MINERAL CLAY
35% clay, 30-33% aniso min, 15-20% diatom, 6% volcanic glass, 4-5% siliceous hash, 2% rads, 1-3% sponge, 1% opaque min, 0-1% iso min

155-220 cm olive gray (5Y4/2)
DIATOM-VOLCANIC GLASS-CLAY RICH MINERAL SAND
40% aniso min, 23% clay, 15% volcanic glass, 15% diatom, 3% opaque min, 2% siliceous hash

220-305 cm dark olive gray (5Y3.5/2)
VOLCANIC GLASS BEARING DIATOM RICH MINERAL CLAY
34% clay, 30% aniso min, 20% diatom, 6% volcanic glass, 3% opaque min, 3% siliceous hash, 2% rad, 2% silico flagellate

305-355 cm olive gray (5Y4/2)
VOLCANIC GLASS-DIATOM BEARING MINERAL RICH CLAY
55% clay, 25% aniso min, 10% diatom, 5% volcanic glass, 3% opaque min, 1% sponge

355-385 cm dark olive gray (5Y3.5/2)
VOLCANIC GLASS-DIATOM BEARING CLAY MINERAL SAND
49% aniso min, 30% clay, 10% diatom, 5% volcanic glass, 3% opaque min, 2% siliceous hash

385-448 cm dark olive gray (5Y3.5/2) to olive gray (5Y4/2)
SILICEOUS HASH-VOLCANIC GLASS BEARING MINERAL-DIATOM RICH CLAY
39% clay, 25% diatom, 15% aniso min, 5% volcanic glass, 2-5% siliceous hash, 3% opaque min, 1% iso min, 1% sponge

Layering

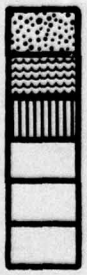
179-183 cm dark gray (5Y4/1) layers
CLAY RICH VOLCANIC GLASS-MINERAL SAND

270-275 cm dark gray (5Y4/1)
VOLCANIC GLASS-DIATOM-CLAY BEARING MINERAL SAND

317-320 cm dark gray (5Y4/1)

361-362 cm dark gray (5Y4/1)
DIATOM-CLAY BEARING MINERAL RICH VOLCANIC GLASS SAND

KEY



MINERAL CLAY
DIATOM
VOLCANIC GLASS

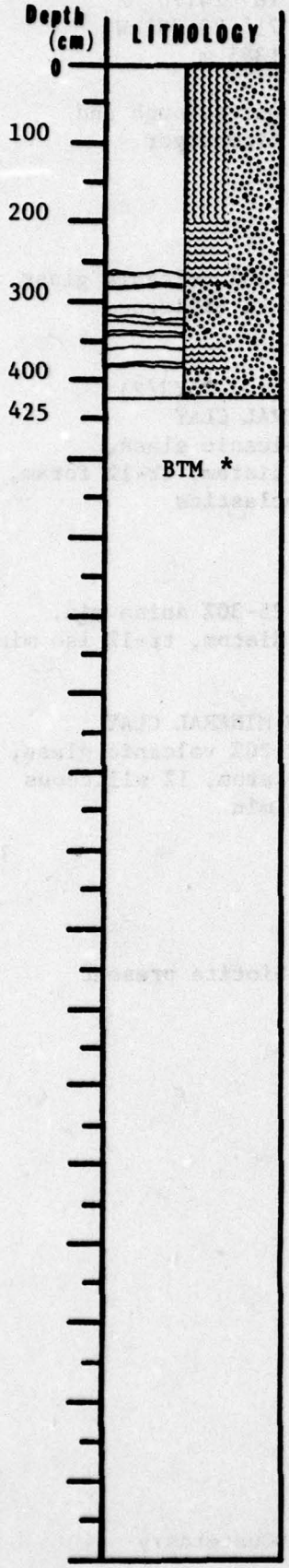
*Quaternary (?)

LITHOLOGIC DESCRIPTION

Slope off North Chile

KK74-01-09 Sta. 14

Core ID	PCOD 09
Lat., Long.	18° 32.30' S 71° 32.86' W
Water Depth	2636 m
Logged By	Barraclough & Lineberger



0-75 cm olive gray (5Y3/2)
VOLCANIC GLASS BEARING MINERAL-BIOGENIC SILICA RICH CLAY
30% clay, 25% diatoms, 20% aniso min, 10% siliceous bioclastics, 7% volcanic glass, 2% opaque min, 2% rads, 1% iso min

75-200 cm olive gray (5Y3/2)
VOLCANIC GLASS BEARING BIOGENIC SILICA RICH MINERAL CLAY
28-30% clay, 25-30% aniso min, 20-25% diatoms, 7-10% siliceous bioclastics, 7-8% volcanic glass, 2% opaque min, 2% sponge, 1-2% rads, 1% iso min

200-275 cm olive gray (5Y3/2)
VOLCANIC GLASS-DIATOM RICH MINERAL CLAY
28-36% clay, 27-30% aniso min, 15-24% diatom, 10-15% volcanic glass, tr-2% rad, 2% opaque min, 1% iso min, 1% sponge

275-350 cm olive gray (5Y3/2)
BIOGENIC SILICA-VOLCANIC GLASS BEARING MINERAL CLAY
40-43% clay, 37% aniso min, 6-8% volcanic glass, 5-7% diatom, 4-5% siliceous bioclastics, 2% opaque min, 1% sponge

350-390 cm olive gray (5Y3/2)
VOLCANIC GLASS-DIATOM RICH MINERAL CLAY
35% clay, 24% aniso min, 15% diatom, 12% volcanic glass, 7% siliceous bioclastics, 2% opaque min, 2% sponge

390-425 cm olive gray (5Y3/2)
NANNO-VOLCANIC GLASS-DIATOM BEARING CLAY MINERAL SAND
45% aniso min, 27% clay, 10% diatom, 7% volcanic glass, 5% siliceous bioclastics, 3% nanno, 2% opaque min, 1% iso min, 1% sponge

Layering

Layers at 282, 293, 310, 320, 325, 335, 340, 355, 380, and 388 cm.

KEY



MINERAL CLAY

DIATOM

BIOGENIC SILICA

*Quaternary (?)

LITHOLOGIC DESCRIPTION

Slope off North Chile

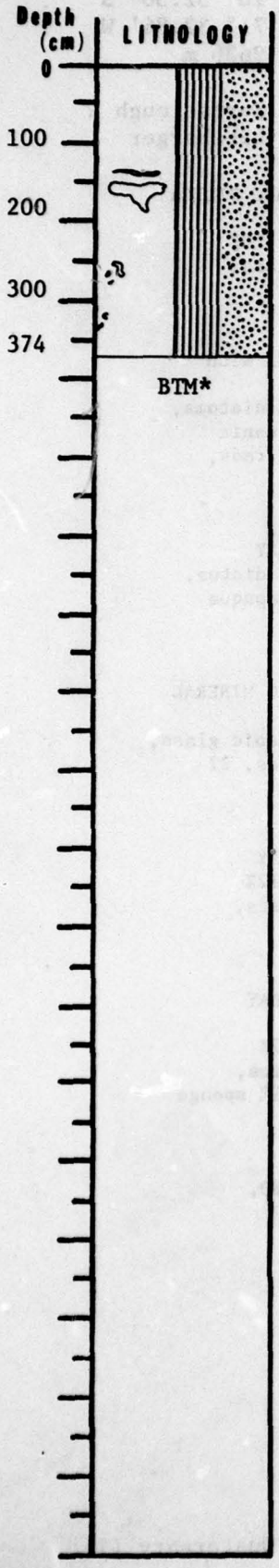
KK74-01-09 Sta. 15

Core ID PCOD 10

Lat., Long. 18° 24.70' S, 71° 22.75' W

Water Depth 1385 m

Logged By Barraclough and Lineberger



0-140 cm dark olive gray (5Y3/2)
VOLCANIC GLASS RICH MINERAL CLAY
36-50% clay, 30-36% aniso min, 12-20% volcanic glass, 2-3% opaque min, tr-4% diatom, tr-2% siliceous bioclastics, 0-1% iso min

140-200 cm olive gray (5Y4/2) to dark olive gray (5Y3/2)
NANNO-VOLCANIC GLASS BEARING MINERAL CLAY
53-55% clay, 30% aniso min, 7% volcanic glass, 3% nanno, 2-4% opaque min, tr-2% diatom, tr-1% foram, tr-1% sponge, tr-1% siliceous bioclastics

200-255 cm dark olive gray (5Y3/2)
MINERAL-VOLCANIC GLASS-CLAY
37-38% clay, 30% volcanic glass, 25-30% aniso min, 2% opaque min, 1-3% nanno, tr-1% diatom, tr-1% iso min

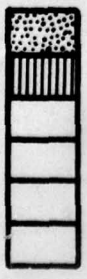
255-374 cm dark olive gray (5Y3/2)
NANNO BEARING VOLCANIC GLASS RICH MINERAL CLAY
40-41% clay, 30-35% aniso min, 12-20% volcanic glass, 3% nanno, 2-3% opaque min, 1-4% diatom, 1% siliceous bioclastics, tr-1% rad, tr-1% iso min

Mottling

Slight to moderate mottling below 140 cm.

quartz, feldspar, glauconite, Mn micronodules, biotite present throughout core.

KEY



MINERAL CLAY

VOLCANIC GLASS

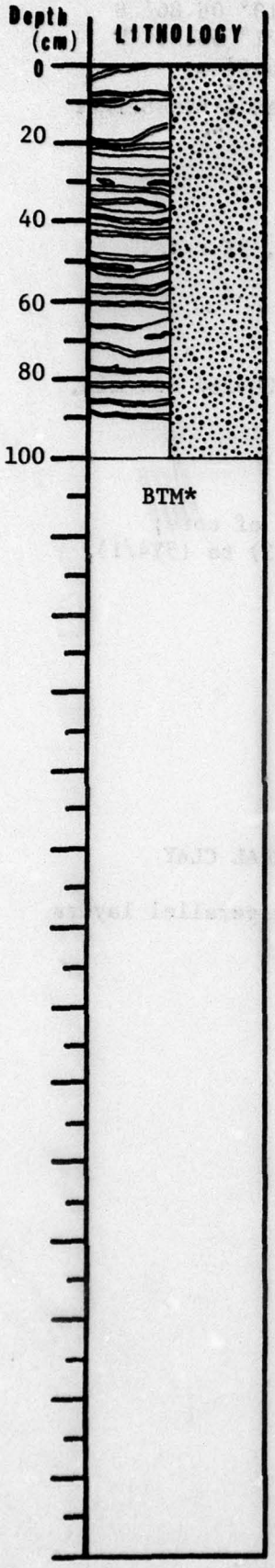
*Quaternary

LITHOLOGIC DESCRIPTION

Peru-Chile Trench

KK74-01-09 Sta. 16

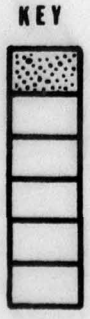
Core ID	FFC 26
Lat., Long.	19° 05.17' S 71° 54.36' W
Water Depth	6782 m
Logged By	Au & Lineberger



0-10 cm — dark gray (5Y4/1)
CLAY RICH MINERAL SAND
60-63% aniso min, 30-32% clay, 5% glass, 1% opaque min

10-16 cm — dark gray (5Y4.5/1)
CLAY BEARING MINERAL SAND
67% aniso min, 20% glass, 10% clay, 2% siliceous hash, 1% opaque min

16-100 cm — olive gray (5Y4/2) to dark olive gray (5Y3/2)
CLAY MINERAL SAND
30-52% aniso min, 30-48% clay, 15-20% glass, 1-2% opaque min

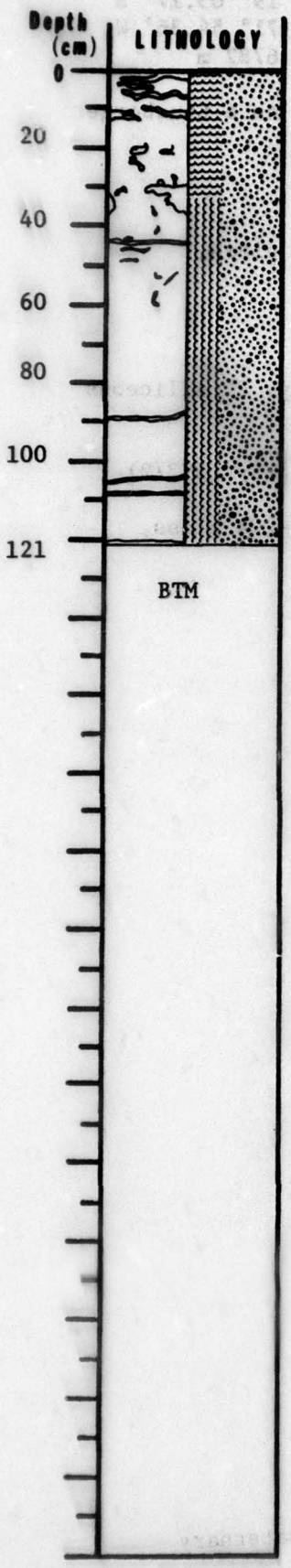


*Quaternary

LITHOLOGIC DESCRIPTION

Peru-Chile Trench

Core ID	KK74-01-09 Sta. 16 FFC 27
Lat., Long.	19° 08.86' S 71° 58.18' W
Water Depth	6424 m
Logged By	Au & Lineberger



0-30 cm — brown (10YR4/3)
DIATOM RICH MINERAL CLAY
35% clay, 35% iso min, 20% diatom, 5% rads, 5% aniso min

30-121 cm — dark gray (5Y4/1)
SILICEOUS HASH RICH MINERAL CLAY
40% clay, 20-30% siliceous hash, 20-25% iso min, 10% aniso min, 2-10% nannos

Mottling

Very slight to heavy mottling all in upper half of core; black to brown to dark gray (10YR2.5/1, 4/2, 5/3) to (5Y4/1).

0-15 cm — black (10YR2.5/1) mottle
DIATOM RICH MINERAL CLAY

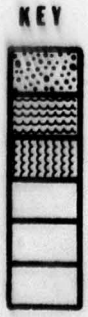
29-34 cm — brown (10YR5/3) mottle
MINERAL CLAY

Layering

44-45 cm — dark greenish gray (5GY4/1) layer
NANNO BEARING SILICEOUS HASH-MINERAL CLAY

88-89 cm, 105 cm, 107 cm — dark greenish gray (5GY4/1) three parallel layers

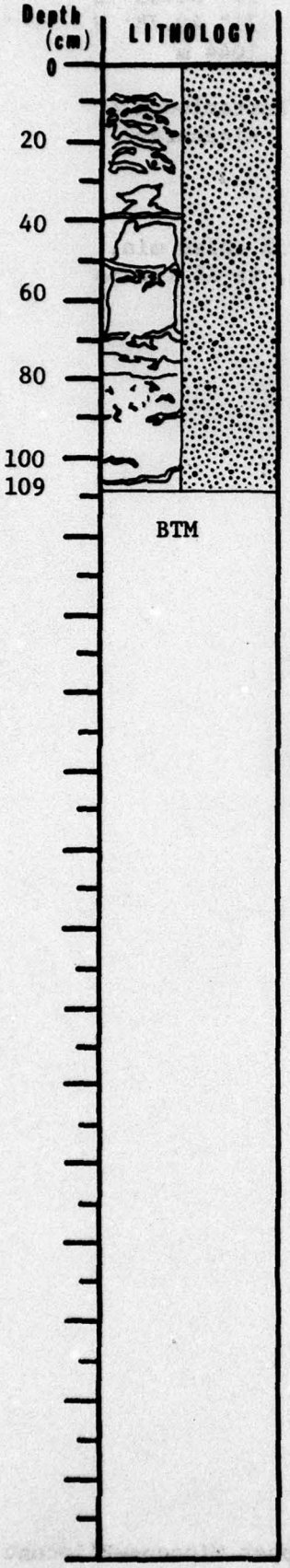
120-121 cm — olive (5Y4/3) layer



LITHOLOGIC DESCRIPTION

Peru-Chile Trench

Core ID	KK74-01-09 Sta. 16
	FFC 28
Lat., Long.	19° 11.23' S
	72° 00.50' W
Water Depth	6109 m
Logged By	Au & Lineberger



0-109 cm olive brown (2.5Y4/4) to dark gray (5Y4.5/1) MINERAL CLAY
49-55% clay, 35-40% aniso min, 2-5% ash, 1-2% opaque min, 1-2% siliceous hash

Mottling

Very slight to heavy mottling dense concentration in upper part of core, thinner in lower part; very dark brown (7.5YR3/2), very dark gray (2.5Y3/1, 3/2, 4/2) to (5Y4/1), brown (10YR3/1, 5/3) and greenish gray (5GY4/1, 5/1).

Layering

37-38 cm very dark gray (10YR3/1) layer

74-78 cm dark greenish gray (5GY4/1) layer
CLAY MINERAL SAND

105-108 cm dark greenish gray (5GY4/1) layer



LITHOLOGIC DESCRIPTION

South Peru Continental Margin

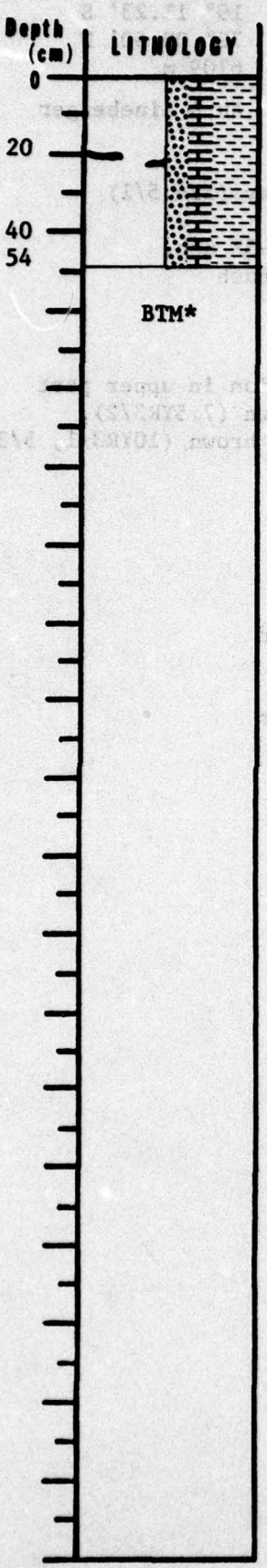
KK74-01-09 Sta. 17

Core ID FFC 30

Lat., Long. 17° 58.95' S
71° 40.78' W

Water Depth 1044 m

Logged By Barraclough & Lineberger

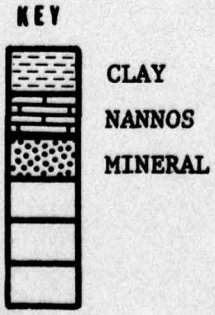


0-54 cm dark olive gray (5Y3/2)
MINERAL-NANNO RICH CLAY
49-55% clay, 20-25% nannos, 20-25% aniso min, 2-3% glass, tr-1% siliceous hash, tr-1% forams

Mottling

Very slight to slight mottling.

19-21 cm olive gray (5Y4/2)



*Upper Miocene-Pliocene

LITHOLOGIC DESCRIPTION

South Peru Continental Margin

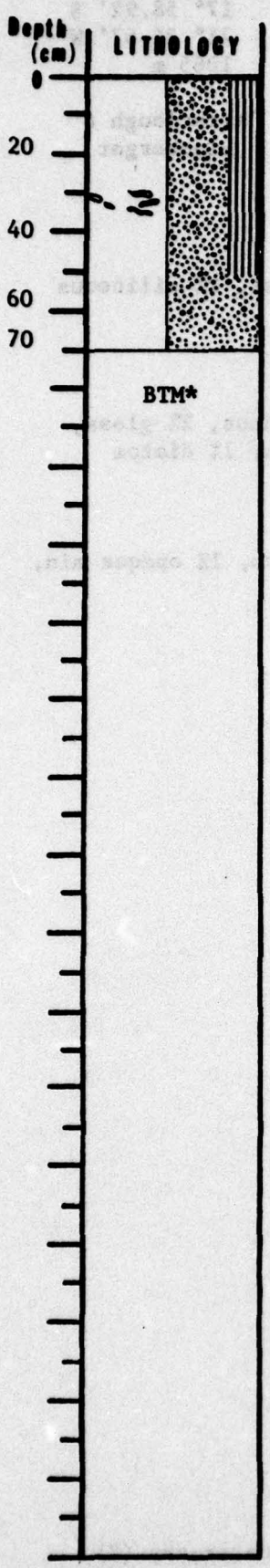
KK74-01-09 Sta. 17

Core ID: FFC 31

Lat., Long.: 17° 58.91' S, 71° 37.66' W

Water Depth: 1036 m

Logged By: Barraclough & Lineberger



0-27 cm — dark olive gray (5Y3/2) to black (5Y2.5/2)
VOLCANIC GLASS BEARING MINERAL CLAY
49% clay, 43% aniso min, 5% glass

27-50 cm — dark olive gray (5Y3/2)
VOLCANIC GLASS BEARING CLAY RICH MINERAL SAND
70% aniso min, 20% clay, 7% glass, 1% opaque min, 1% siliceous hash

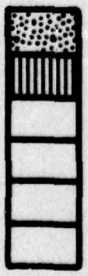
50-70 cm — dark olive gray (5Y3/2)
MINERAL CLAY
51% clay, 40% aniso min, 2% opaque min, 2% glass, 1% diatom, 1% siliceous hash

Mottling

Slight to medium mottling

27-36 cm — black (5Y2.5/2)

KEY



MINERAL SAND

VOLCANIC GLASS

*Quaternary (?)

LITHOLOGIC DESCRIPTION

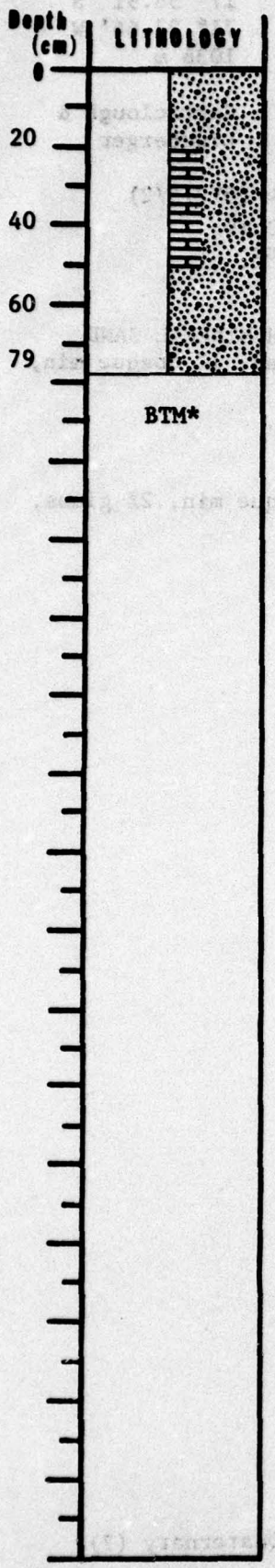
KK74-01-09 Sta. 17

Core ID FFC 32

Lat., Long. 17° 58.92' S
71° 36.67' W

Water Depth 1065 m

Logged By Barraclough & Lineberger



0-20 cm — black (5Y2.5/2)
CLAY MINERAL SAND
51% aniso min, 40% clay, 2% glass, 2% siliceous hash, 1% rad, 1% opaque min

20-50 cm — olive gray (5Y4/2)
NANNO BEARING CLAY MINERAL SAND
41% aniso min, 40% clay, 10% nannos, 2% glass, 2% siliceous hash, 1% opaque min, 1% diatom

50-79 cm — olive gray (5Y4/2)
CLAY RICH MINERAL SAND
68% aniso min, 20% clay, 5% glass, 1% opaque min, 1% siliceous hash

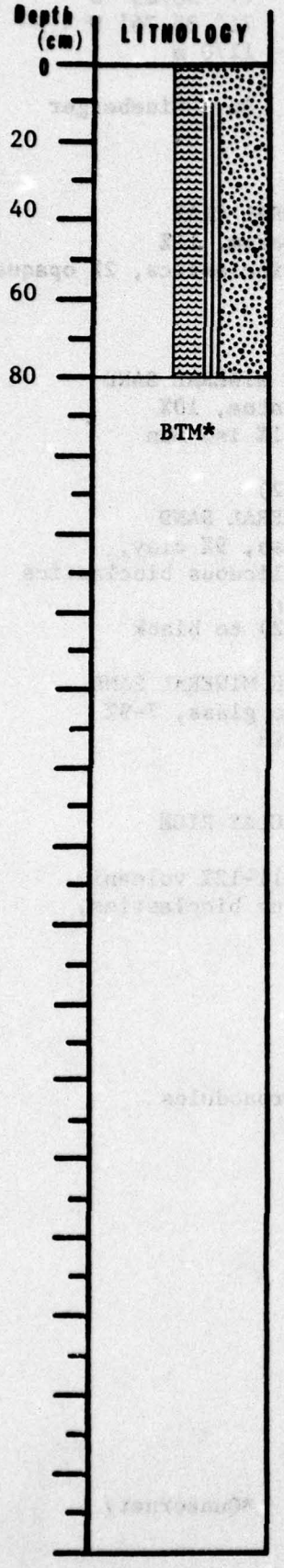


*Quaternary (?)

LITHOLOGIC DESCRIPTION

South Peru Continental Margin KK74-01-09 Sta. 17

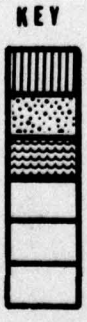
Core ID	FFC 34
Lat., Long.	17° 58.92' S 71° 36.23' W
Water Depth	1108 m
Logged By	Barraclough & Lineberger



0-10 cm — dark olive gray (5Y3/2)
DIATOM BEARING CLAY RICH MINERAL SAND
47% aniso min, 23% clay, 10% diatom, 8% ash,
8% siliceous hash, 3% opaque min

10-60 cm — dark olive gray (5Y3/2)
ASH BEARING DIATOM RICH MINERAL CLAY
32% clay, 25% aniso min, 15% diatom,
15% siliceous hash, 8% ash, 3% opaque min

60-80 cm — dark olive gray (5Y3/2)
DIATOM-ASH-CLAY BEARING MINERAL SAND
60% aniso min, 10% clay, 9% ash, 8% diatom,
8% siliceous hash, 3% opaque min



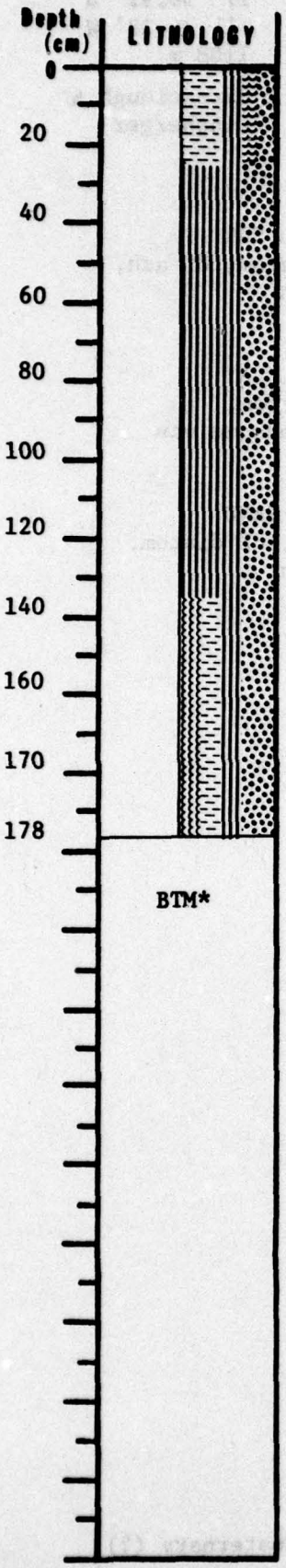
*Quaternary (?)

LITHOLOGIC DESCRIPTION

South Peru Continental Margin

KK74-01-09 Sta. 17

Core ID	PCOD 11
Lat., Long.	17° 58.85' S 71° 35.76' W
Water Depth	1170 m
Logged By	Au & Lineberger



0-3 cm — dark olive gray (5Y3/2)
VOLCANIC GLASS-DIATOM RICH MINERAL CLAY
36% clay, 25% aniso min, 15% diatom, 11% volcanic glass, 10% siliceous bioclastics, 2% opaque min, 1% iso min

3-27 cm — black (5Y2.5/2)
VOLCANIC GLASS-DIATOM RICH CLAY MINERAL SAND
35% aniso min, 25% clay, 15% diatom, 10% volcanic glass, 3% opaque min, 1% iso min

27-57 cm — very dark grayish brown (2.5Y3/2)
CLAY BEARING VOLCANIC GLASS MINERAL SAND
50% aniso min, 30% volcanic glass, 9% clay, 3% opaque min, 3% diatom, 2% siliceous bioclastics

57-135 cm — very dark grayish brown (2.5Y3/2) to black (5Y2.5/1)
CLAY BEARING VOLCANIC GLASS RICH MINERAL SAND
70-75% aniso min, 9-12% volcanic glass, 7-9% clay, 2-3% opaque min, 1% iso min

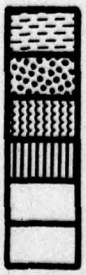
135-178 cm — black (5Y2.5/1)
BIOGENIC SILICA-VOLCANIC GLASS-CLAY RICH MINERAL SAND
50-55% aniso min, 11-15% clay, 11-12% volcanic glass, 8-11% diatom, 5% siliceous bioclastics, 3-9% opaque min, 2-3% iso min

Minerals Identified

Quartz and feldspar present throughout core.

20 cm	biotite, hornblende (?), Mn micronodules
30 cm	chert, biotite, Mn micronodules
80 cm	augite, biotite
100 cm	augite, biotite
130 cm	biotite
140-178 cm	Mn micronodules

KEY



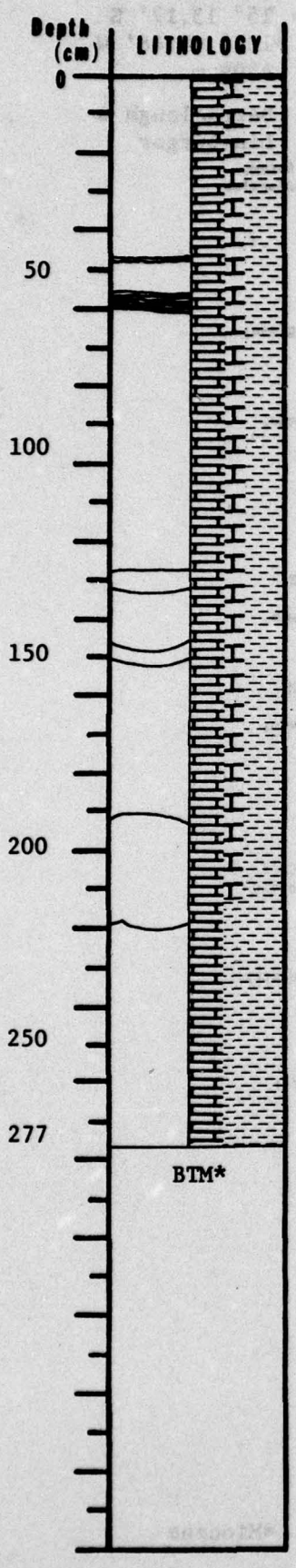
CLAY
MINERAL
BIOGENIC SILICA
VOLCANIC GLASS

*Quaternary

LITHOLOGIC DESCRIPTION

Bauer Basin

Core ID	KK74-01-09 Sta. 19 PCOD 12
Lat., Long.	15° 13.17' S 102° 09.03' W
Water Depth	4206 m
Logged By	Au & Lineberger



0-60 cm — brown (10YR5/3) to dark brown (7.5YR3/3)
FORAM BEARING DISCOASTER RICH CLAY
60% clay, 20% discoaster, 10% foram, 6% zeolite, 3% nanno, 1% iso min

60-218 cm — very pale brown (10YR7/4) to dark brown (7.5YR3/3)
FORAM BEARING NANNO CLAY
51-55% clay, 30% discoaster, 11-15% nanno, 3% foram

218-277 cm — dark brown (7.5YR4/4, 3/3)
NANNO RICH CLAY
74% clay, 15% nanno, 10% discoaster, 1% foram



*Miocene

LITHOLOGIC DESCRIPTION

Bauer Basin

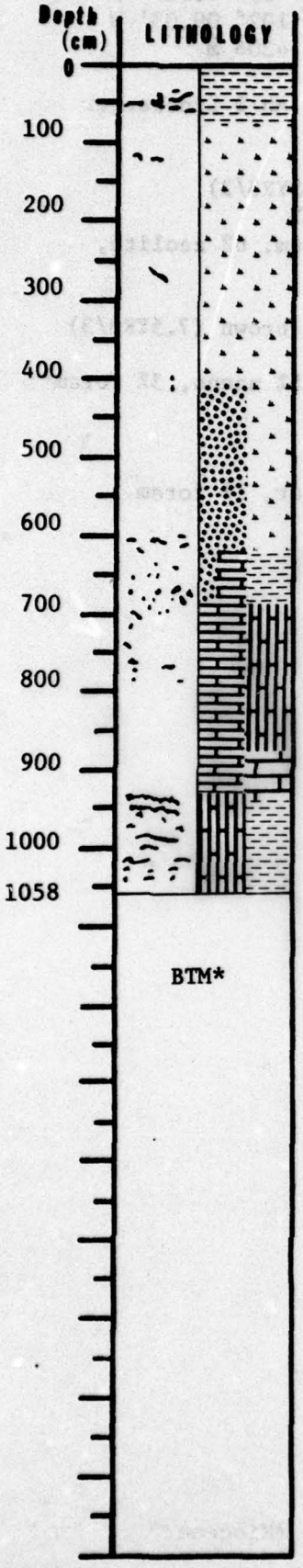
KK74-01-09 Sta. 20

Core ID PCOD 13

Lat., Long. 15° 13.17' S, 102° 09.68' W

Water Depth 4309 m

Logged By Barraclough & Lineberger



0-25 cm black (10YR2.5/1)
MINERAL-ZEOLITE BEARING CLAY
86% clay, 9% zeolite, 3% aniso min

25-75 cm black (10YR2.5/1)
MINERAL BEARING ZEOLITE-BIOGENIC CARBONATE RICH CLAY
50% clay, 20% calcareous bioclastics, 11% zeolite, 11% foram, 4% discoaster, 3% nanno, 2% aniso min, 1% siliceous bioclastics

75-340 cm black (10YR2.5/1)
MINERAL BEARING ZEOLITE RICH CLAY
74-82% clay, 15-25% zeolite, tr-3% aniso min

340-410 cm black (10YR2.5/1)
MINERAL BEARING ZEOLITIC CLAY
53-62% clay, 30% zeolite, 6-15% aniso min, 1% volcanic glass, 1% discoaster

410-606 cm dark reddish brown (5YR2.5/2) to black (10YR2.5/1)
NANNO BEARING MINERAL-ZEOLITE RICH CLAY
61-68% clay, 10-20% zeolite, 10-15% aniso min, 2-11% nanno, tr-1% discoaster, tr-1% volcanic glass

606-685 cm dark reddish brown (5YR2.5/2)
ZEOLITE BEARING MINERAL-NANNO RICH CLAY
67-72% clay, 8-12% nanno, 10% aniso min, 8-9% zeolite, tr-1% discoaster

685-865 cm yellowish brown (10YR5/4)
FORAM BEARING CLAY RICH CALCAREOUS BIOCLASTIC NANNO OOZE
35-49% nanno, 20-35% calcareous bioclastics, 20% clay, 3-6% foram, 2-5% discoaster, tr-3% zeolite, 1-2% aniso min, 0-2% volcanic glass

865-937 cm yellowish brown (10YR5/4)
CALCAREOUS BIOCLASTIC BEARING CLAY RICH NANNO FORAM OOZE
40-50% foram, 26-31% nanno, 12% clay, 5-15% calcareous bioclastics, 4% discoaster, tr-1% zeolite, tr-1% aniso min,

937-996 cm yellowish brown (10YR5/4)
BIOGENIC CARBONATE CLAY
45-50% clay, 26-38% nanno, 10% calcareous bioclastics, 4-8% foram, 1-2% discoaster, 1-2% aniso min

996-1030 cm very dusky red (2.5YR2.5/2)
MINERAL-VOLCANIC GLASS BEARING BIOGENIC CARBONATE RICH CLAY
58% clay, 20% nanno, 15% calcareous bioclastics, 2% volcanic glass, 2% aniso min, 2% discoaster, 1% zeolite

1030-1058 cm very dusky red (2.5YR2.5/2)
BIOGENIC CARBONATE RICH CLAY
80% clay, 10% calcareous bioclastics, 3% nanno, 2% discoaster, 1% foram, 1% aniso min, 1% zeolite, 1% volcanic glass

Mottling

Slight to heavy mottling scattered very sparsely throughout core; very dusky red through yellowish brown (10YR5/3, 5/4) to (5YR2.5/2, 4/4) to (2.5YR2.5/2).

823-937 cm sandy

0-20, 53-57, 335-340, 560-606 cm; disturbed

Minerals Identified

50 cm quartz
350 cm quartz and feldspar

KEY



ZEOLITIC CLAY
BIOGENIC CARBONATE
NANNO
FORAM
MINERAL
CLAY

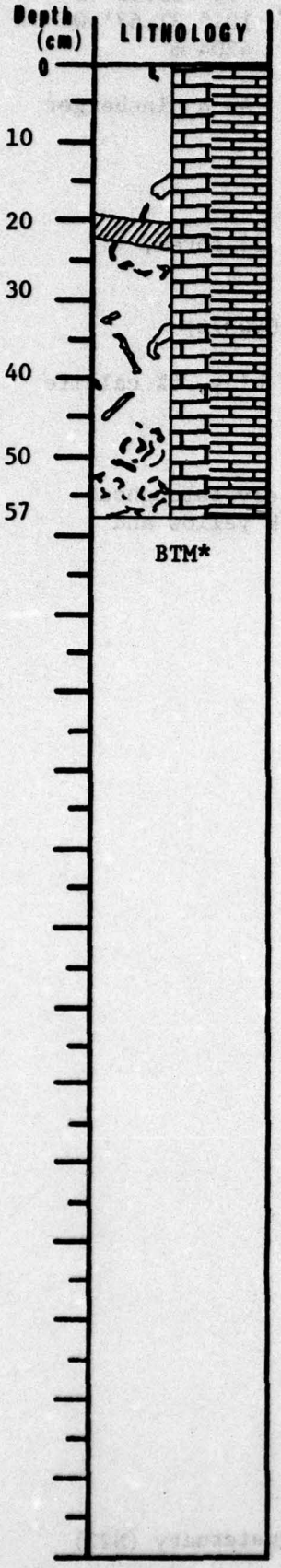
*Miocene

LITHOLOGIC DESCRIPTION

Bauer Basin

KK74-01-09 Sta. 21

Core ID	FFC 35
Lat., Long.	15° 16.16' S 101° 38.86' W
Water Depth	3071 m
Logged By	Au & Lineberger

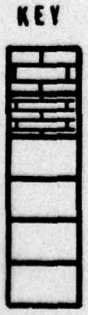


0-57 cm light gray (10YR7/2)
FORAM RICH NANNO OOZE
60-74% nannos, 15-30% forams, 10% calcite min.

Mottling

Very slight to slight mottling.

0-57 cm	white (10YR8/1) mottles
45-55 cm	brown (10YR5/3) mottles
20-23 cm	void-crack



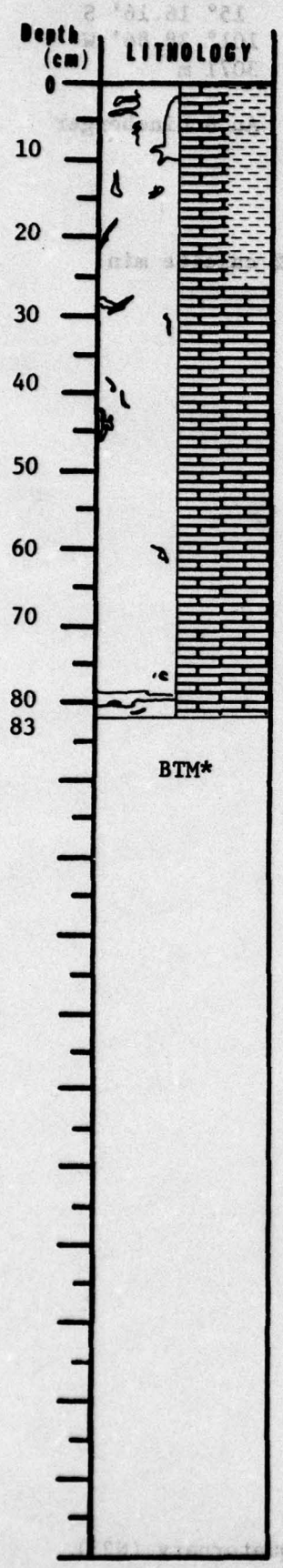
*Quaternary (N23)

LITHOLOGIC DESCRIPTION

Bauer Basin

KK74-01-09 Sta. 21

Core ID	FFC 37
Lat., Long.	15° 15.80' S 101° 31.67' W
Water Depth	4204 m
Logged By	Au & Lineberger



0-25 cm brown (10YR4/3)
MINERAL BEARING NANNO CLAY
47% clay, 40% nanno, 8% calcite, 3% foram, 1% aniso min

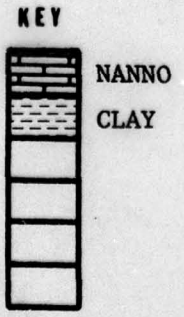
25-83 cm brown (10YR4/3) to dark brown (10YR3/3)
FORAM BEARING NANNO OOZE
78-80% nanno, 5-10% foram, 3-10% clay, 5% calcite

Mottling

Very slight to slight mottling scattered sparsely throughout core; very dark grayish brown through brownish yellow and very pale brown (10YR3/2, 5/3, 6/3, 6/6, 7/3).

Layering

77-81 cm pale brown (10YR6/3)

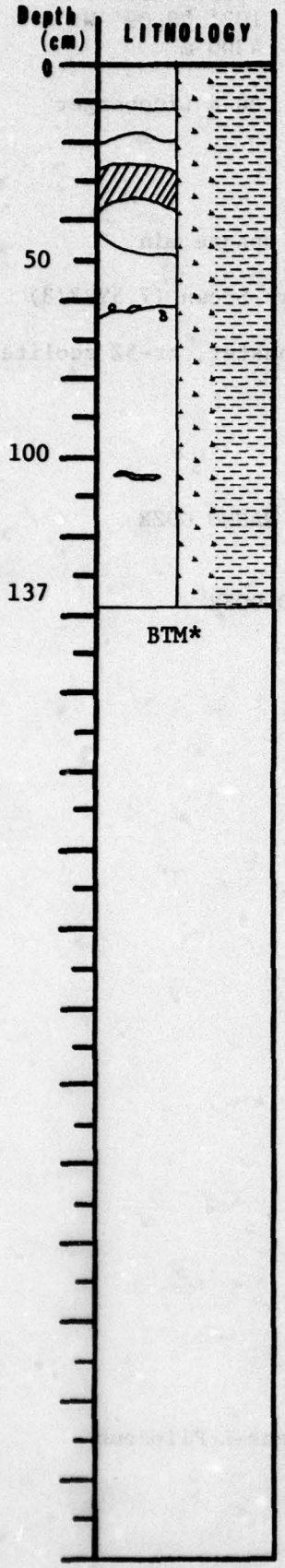


*Quaternary (N23)

LITHOLOGIC DESCRIPTION

Bauer Basin

Core ID	KK74-01-09 Sta. 22
	PCOD 14
Lat., Long.	15° 11.63' S
	102° 11.11' W
Water Depth	4246 m
Logged By	Au & Lineberger



0-137 cm very dark brown (7.5YR2.5/2)
MINERAL BEARING ZEOLITE RICH CLAY
74-87% clay, 12-25% zeolite, 0-2% aniso min

Layering

13-20 cm brown (10YR5/3) layers
MINERAL-ZEOLITE-FORAM BEARING CLAY NANNO OOZE

45-60 cm brown (10YR5/3)
FORAM-ZEOLITE BEARING NANNO CLAY

24-35 cm void

Core catchers found at 2-13 cm and at 35-45 cm.

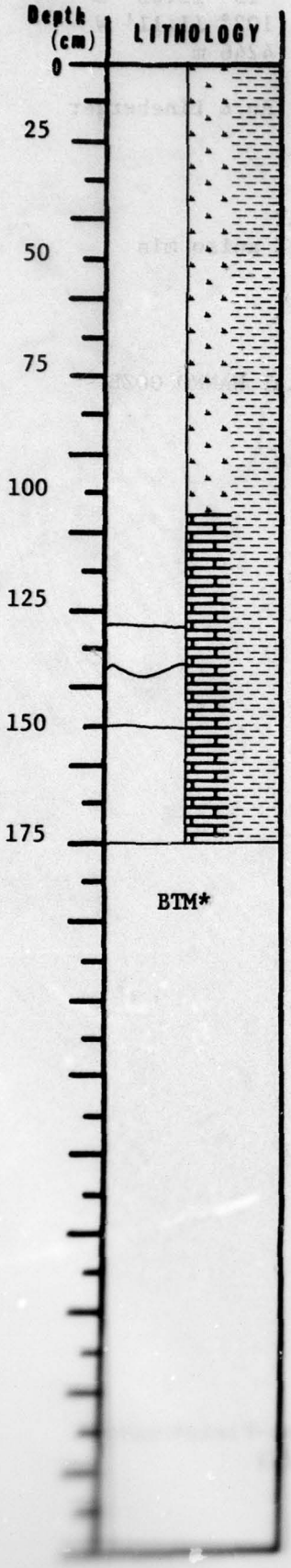


*Pliocene-Pleistocene (N20-N22)

LITHOLOGIC DESCRIPTION

Bauer Basin

Core ID	KK74-01-09 Sta. 23 PCOD 15
Lat., Long.	15° 12.37' S 102° 09.09' W
Water Depth	4300 m
Logged By	Au & Lineberger



0-104 cm — dark reddish brown (5YR2.5/2)
ZEOLITE RICH CLAY
80-87% clay, 11-20% zeolite, 1% opaque min

104-175 cm — very pale brown (10YR8/3) to dark brown (7.5YR3/3)
MINERAL BEARING NANNO RICH CLAY
66-74% clay, 15% nanno, 5% discoaster, tr-5% zeolite, 2-4% aniso min

Layering

128-136 cm — very pale brown (10YR8/3)
MINERAL BEARING CLAY RICH FORAM NANNO OOZE

136-150 cm — yellowish brown (10YR5/4)
MINERAL-FORAM BEARING CLAY-NANNO OOZE

128-136 cm — sandy



*U Miocene-L Pliocene (N18)

LITHOLOGIC DESCRIPTION

East Pacific Rise

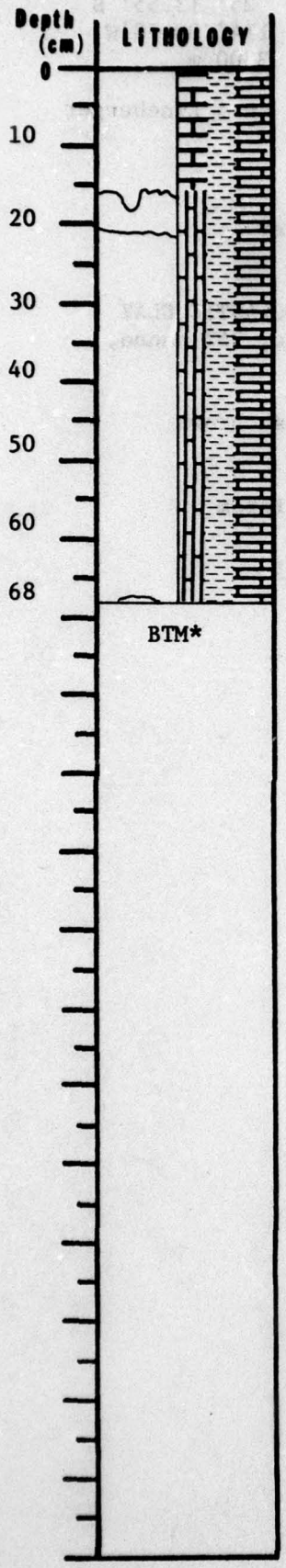
KK74-01-09 Sta. 24

Core ID: PCOD 16

Lat., Long.: 24° 56.68' S, 114° 00.84' W

Water Depth: 3350 m

Logged By: Patterson and Lineberger



0-15 cm — brown (7.5YR4/2)
FORAM RICH CLAY-NANNO OOZE
50% nanno, 38% clay, 11% foram, 1% discoaster

15-68 cm — brown (7.5YR4/2) and dark brown (7.5YR3/2)
NANNO-CALCAREOUS BIOCLASTIC-CLAY
35% clay, 30% calcareous bioclastics, 25% discoaster, 10% nanno

Mottling

Medium to slight mottling.

67-68 cm — brown (7.5YR4/2)

Layering

16-22 cm — dark brown (7.5YR3/2)
CLAY-NANNO OOZE

KEY



NANNO

CLAY

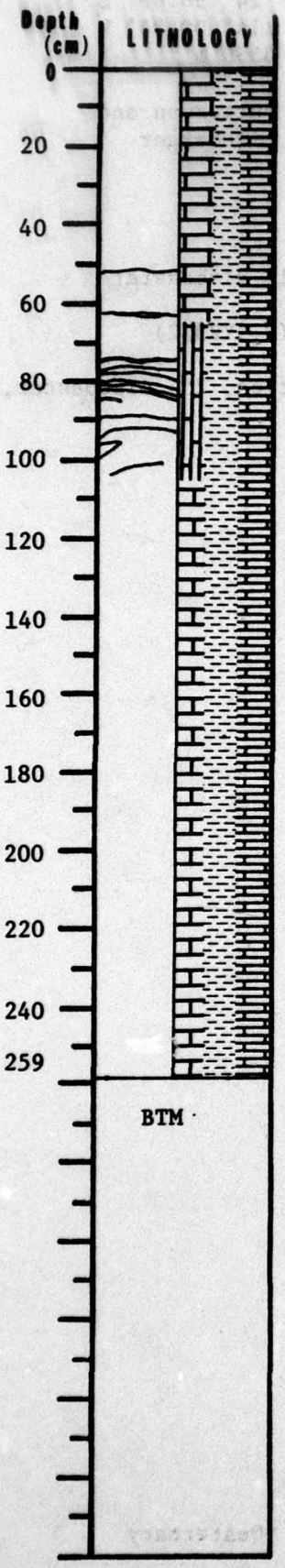
FORAM

CALCAREOUS BIOCLASTIC

*Quaternary

LITHOLOGIC DESCRIPTION

Core ID	KK74-01-09 Sta. 25 PCOD 17
Lat., Long.	25° 13.55' S 114° 00.78'W
Water Depth	3300 m
Logged By	Au & Lineberger



0-63 cm brown (10YR5/3) to (10YR4/3)
CLAY-FORAM-NANNO OOZE
36-40% nanno, 34-40% foram, 30% clay

63-114 cm brown (10YR5/3)
FORAM BEARING NANNO-CALCAREOUS BIOCLASTIC CLAY
38% clay, 30% calcareous bioclastic, 25% nanno, 2% foram

113-259 cm dark brown (10YR3/3) to dark grayish brown (10YR4/2)
FORAM RICH NANNO CLAY
35-45% clay, 35-40% nanno, 15-25% foram

Mottling

Slight mottling at 63-113 cm, brown (10YR4/3)

Layering

52-63 cm pale brown (10YR6/3) layering
CLAY-NANNO-FORAM OOZE

KEY

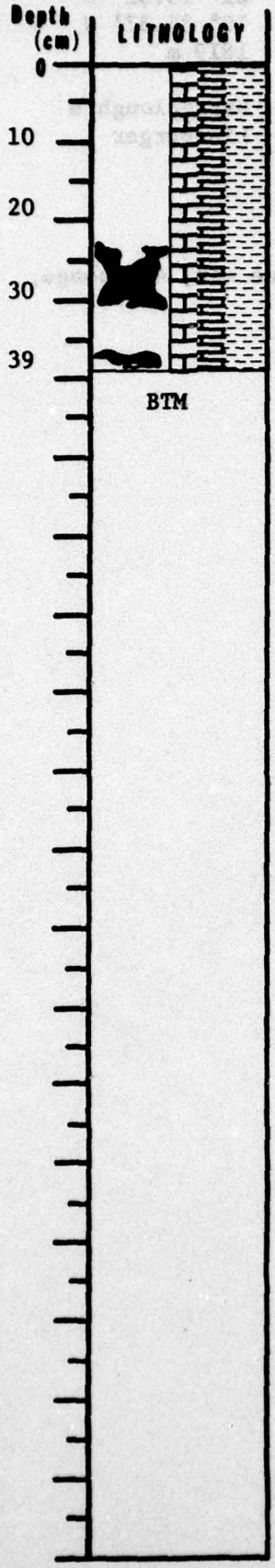


NANNO
FORAM
CLAY
CALCAREOUS BIOCLASTIC

LITHOLOGIC DESCRIPTION

East Pacific Rise

Core ID	KK74-01-09 Sta. 30 FFC 42
Lat., Long.	26° 24.50 S 112° 53.90 W
Water Depth	2851 m
Logged By	Au & Lineberger



0-9 cm very dark grayish brown (10YR3/2)
FORAM BEARING NANNO CLAY
45% clay, 38% nanno, 10% foram,
8% calcareous bioclastics

9-39 cm dark brown (10YR3/2)
FORAM-NANNO RICH CLAY
55% clay, 20% nanno, 15% foram,
10% calcareous bioclastics

Mottling

Moderate to very slight mottling in lower half of core; mostly black (10YR2.5/1) FORAM BEARING NANNO RICH CLAY.
Rare dark yellowish brown (10YR4/4).

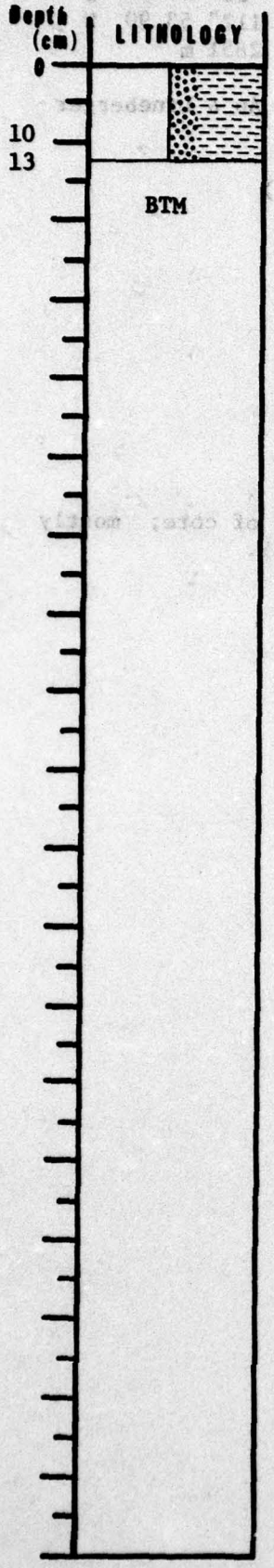


LITHOLOGIC DESCRIPTION

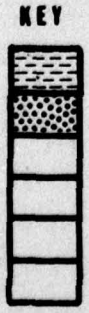
North Chile Continental Margin

KK74-01-09 Sta. 35

Core ID	FFC 47
Lat., Long.	21° 15.31' S 70° 35.37' W
Water Depth	1819 m
Logged By	Barraclough & Lineberger

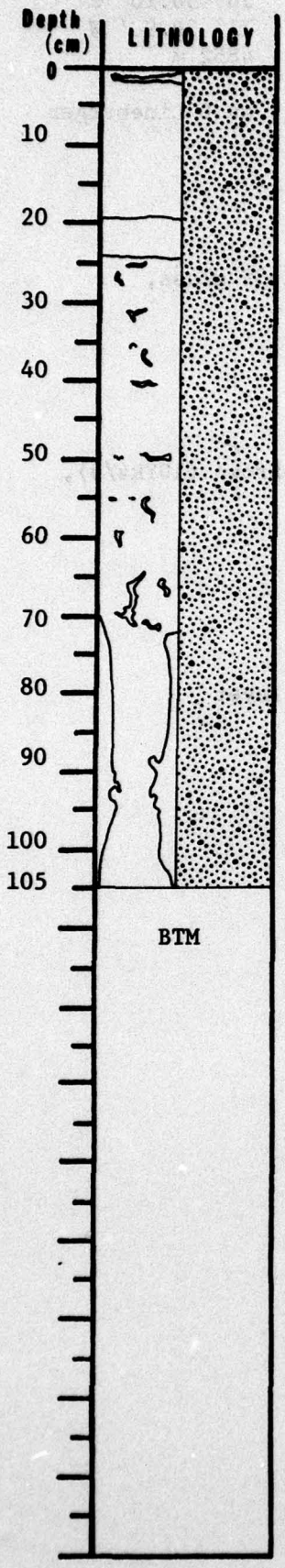


0-13 cm black (5Y2.5/1)
MINERAL RICH CLAY
67% clay, 20% aniso min, 5% opaque min, 4% sponge, 2% ash, 1% diatom



LITHOLOGIC DESCRIPTION

Core ID	KK74-01-09 Sta. 36 FFC 48
Lat., Long.	21° 12.47' S 71° 38.21' W
Water Depth	4269 m
Logged By	Au & Lineberger



0-24 cm — brown (10YR4/3) to dark yellowish brown (10YR4/4)
MINERAL RICH CLAY
65-69% clay, 20-30% aniso min, 1-2% diatom,
1% opaque min, tr-1% rad

24-73 cm — pale brown (10YR6/3) to olive gray (5Y5/2)
MINERAL CLAY
54-55% clay, 40% aniso min, 1-2% glass,
1-2% siliceous hash, 1% diatom

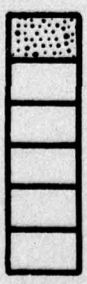
73-105 cm — light brownish gray (2.5Y6/2) and olive (5Y5/3)
MINERAL RICH CLAY
63% clay, 30% aniso min, 2% nannos, 2% diatom

Mottling

Very slight to heavy mottling scattered sparsely throughout core; dark brown (10YR3/3, 6/3) through light brownish gray (2.5Y6/2) and olive (5Y4/1, 4/3).

Layering

19-23 cm — yellowish brown (10YR5/4) layer
MINERAL RICH CLAY



LITHOLOGIC DESCRIPTION

KK74-01-09 Sta. 37

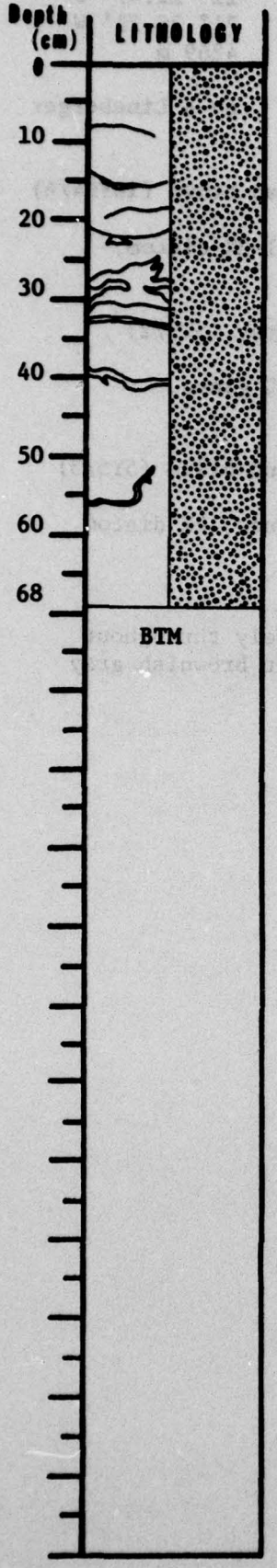
North Chile Continental Margin

Core ID FFC 50

Lat., Long. 20° 58.10' S, 71° 36.98' W

Water Depth 4852 m

Logged By Au & Lineberger



0-68 cm yellowish brown (10YR5/4) and pinkish gray (7.5YR6/2) MINERAL CLAY
47-55% clay, 40-45% aniso min, 2-3% glass, tr-2% diatom

Mottling

Very slight to heavy mottling.

14-55 cm brown (10YR5/3), dark yellowish brown (10YR4/4), and yellowish brown (10YR5/4)

Layering

9-14 cm brown (7.5YR4/2) layer MINERAL CLAY

29-31 cm light yellowish brown (10YR6/4) layer
37-40 cm

0-15 cm Pieces of indurated sediment

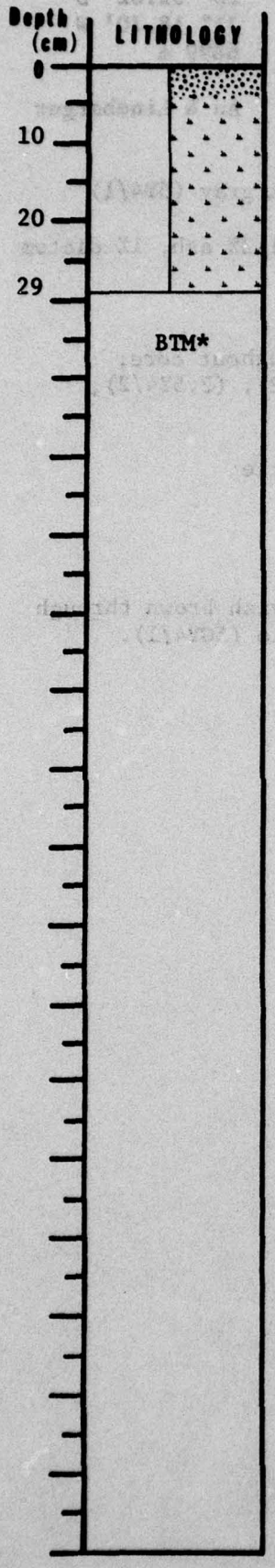
KEY



MINERAL CLAY

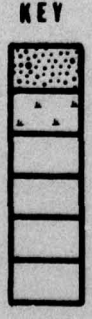
LITHOLOGIC DESCRIPTION

Core ID	KK74-01-09 Sta. 37
	PCOD 19
Lat., Long.	20° 57.39' S
	71° 36.82' W
Water Depth	4597 m
Logged By	Barraclough and Lineberger



0-5 cm — yellowish brown (10YR5/4)
DIATOM-ZEOLITE-VOLCANIC GLASS BEARING MINERAL RICH CLAY
60% clay, 20% aniso min, 7% volcanic glass, 6% zeolite, 4% diatom, 2% opaque min, 2% sponge

5-29 cm — white (10YR8/2) to dark reddish brown (5YR2.5/2)
NANNO-MINERAL BEARING ZEOLITIC CLAY
50% clay, 40% zeolite, 4% opaque min, 3% aniso min, 2% nanno, 1% iso min



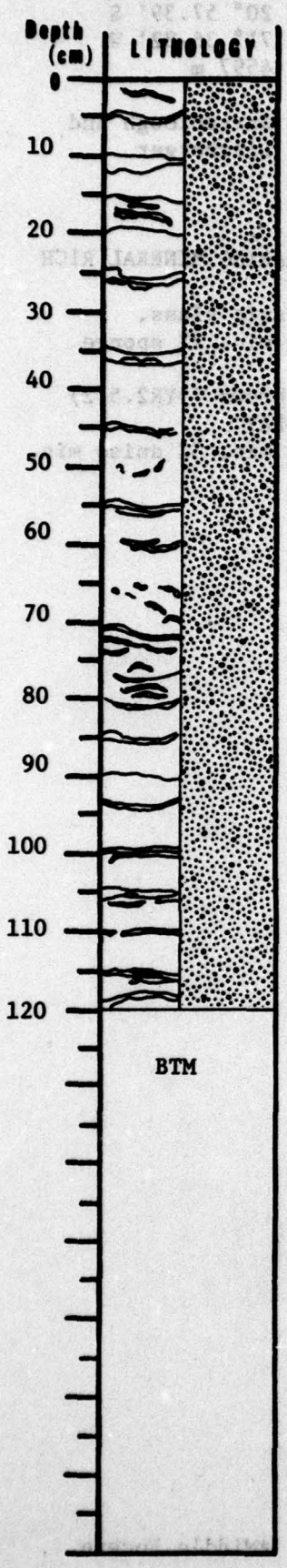
*Middle Eocene

LITHOLOGIC DESCRIPTION

Peru-Chile Trench

KK74-01-09 Sta. 38

Core ID	FFC 52
Lat., Long.	20° 31.62' S 71° 18.70' W
Water Depth	6899 m
Logged By	Au & Lineberger



0-120 cm grayish brown (2.5Y5/2) and dark gray (5Y4/1) MINERAL CLAY
48-62% clay, 30-45% aniso min, 1-3% ash, 1% diatom

Mottling

Very slight to slight mottling, abundant throughout core; brown through dark greenish gray (10YR4/3, 5/2), (2.5Y4/2), (5Y3/2, 4/1) and (5GY4/1).

65 cm dark greenish gray (5GY4/1) mottle
MINERAL CLAY

Layering

Layers abundant throughout most of core; grayish brown through dark greenish gray (2.5Y5/2) to (5Y3/2, 4/1) to (5GY4/1).

16-19 cm dark olive gray (5Y3/2) layer
MINERAL CLAY

84-86 cm dark greenish gray (5GY4/1)
MINERAL CLAY

KEY



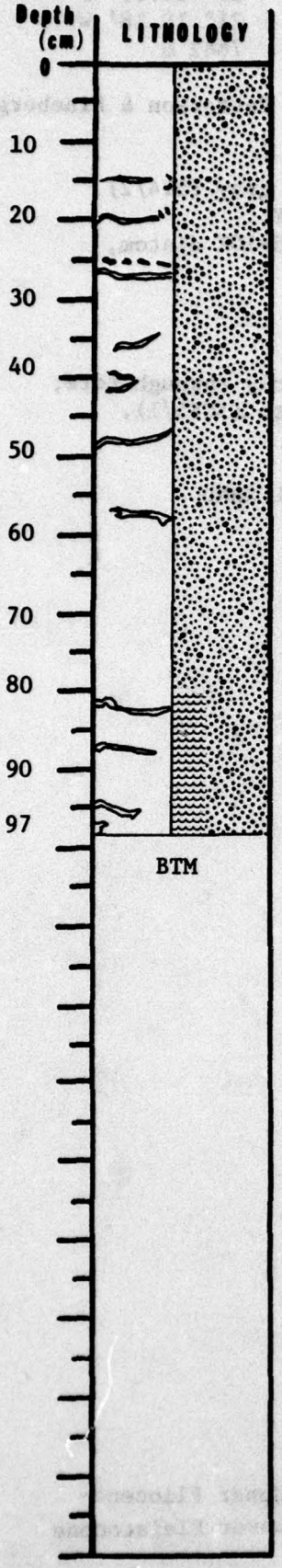
MINERAL CLAY

LITHOLOGIC DESCRIPTION

Peru-Chile Trench

KK74-01-09 Sta. 38

Core ID	FFC 53
Lat., Long.	20° 31.61' S 71° 21.41' W
Water Depth	6391 m
Logged By	Au & Lineberger



0-80 cm dark brown (10YR3/3) to olive (5Y5/3)
MINERAL CLAY
62-70% clay, 25-30% aniso min, 1-2% opaque min, 1-2% ash, tr-1% diatoms

80-97 cm dark gray (5Y4.5/1)
DIATOM BEARING MINERAL CLAY
48% clay, 35% aniso min, 8% diatoms, 5% siliceous hash, 1% opaque min, 1% ash

Mottling

Very slight to slight mottling throughout core; brown through black and olive (10YR4/3) to (5Y2.5/1, 3/1, 5/3, 5/4) to (5GY4/1).

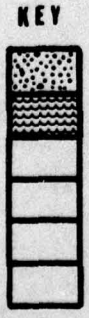
86-87 cm black (5Y2.5/1) mottle
MINERAL CLAY

Layering

26-27 cm dark greenish gray (5GY4/1) layers
MINERAL CLAY

47-48 cm dark greenish gray (5GY4/1) layer

82-83 cm dark gray (5Y4/1) layer



LITHOLOGIC DESCRIPTION

Peru-Chile Trench

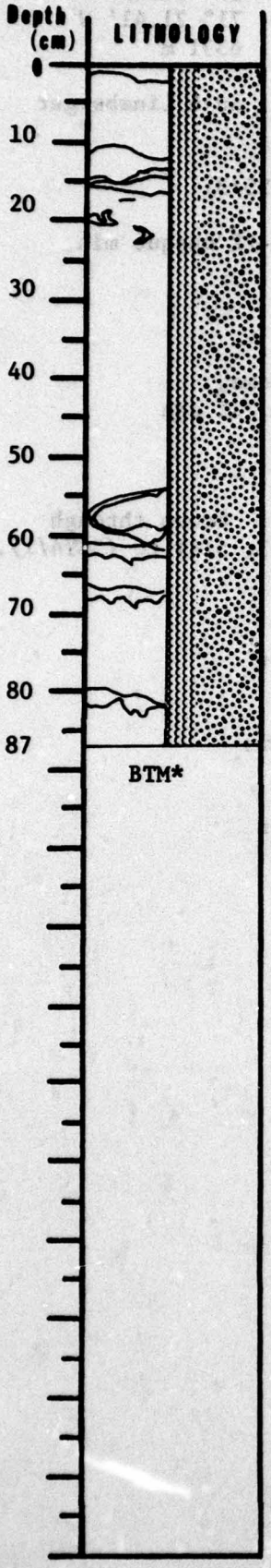
KK74-01-09 Sta. 39

Core ID FFC 55

Lat., Long. 20° 10.39' S, 71° 18.18' W

Water Depth 7642 m

Logged By Patterson & Lineberger



0-87 cm greenish gray (5GY5/1) to olive gray (5Y4/2)
SILICEOUS HASH RICH MINERAL CLAY
38-46% clay, 40-45% aniso min, 5-10% diatom,
1-5% siliceous hash, tr-2% rads

Mottling

Very slight to heavy mottling scattered unevenly through core; black, gray and greenish gray (5Y2.5/1, 5/1) to (5GY5/1).

59 cm greenish gray (5GY5/1) mottle
DIATOM BEARING CLAY RICH MINERAL SAND

Black ash streaks throughout core.

KEY



SILICEOUS HASH

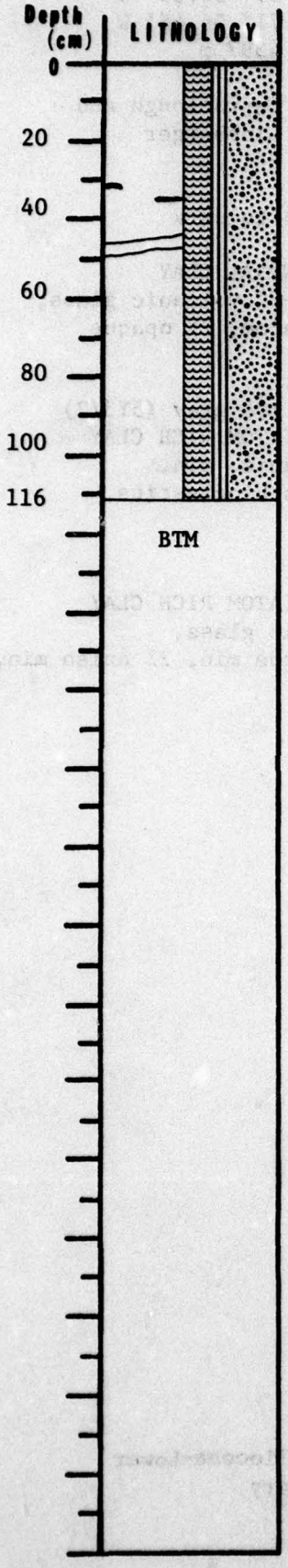
MINERAL CLAY

*Upper Pliocene-
Lower Pleistocene

LITHOLOGIC DESCRIPTION

Peru-Chile Trench

Core ID	KK74-01-09 Sta. 41 PCOD 20
Lat., Long.	19° 52.49' S 71° 09.90' W
Water Depth	4876 m
Logged By	Au & Lineberger



0-116 cm grayish brown (2.5Y5/2) through very dark grayish brown (2.5Y3/2)
DIATOM-VOLCANIC GLASS BEARING MINERAL CLAY
50-51% clay, 30-35% aniso min, 6-8% volcanic glass, 2-8% diatom, 2-3% opaque min, tr-2% siliceous bioclastics, tr-1% rad

Mottling

Slight mottling.

32-40 cm dark olive gray (5Y3/2) mottling

Layering

44-47 cm dark olive gray (5Y3/2) layering
VOLCANIC GLASS RICH MINERAL CLAY

Minerals Identified

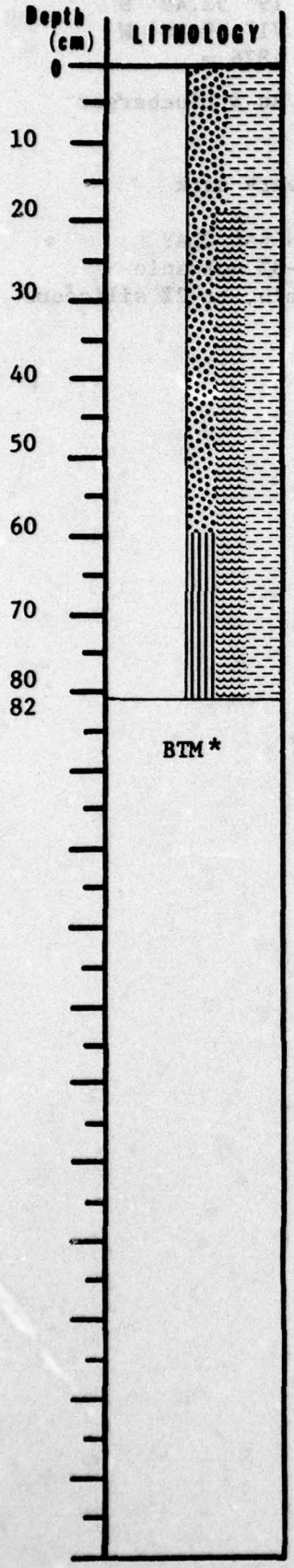
60 cm quartz, feldspar, Mn micronodules



LITHOLOGIC DESCRIPTION

North Chile Continental Margin

Core ID	KK74-01-09 Sta. 42
	PCOD 21
Lat., Long.	19° 50.05' S
	71° 06.45' W
Water Depth	4397 m
Logged By	Barraclough and Lineberger



0-18 cm — very dark grayish brown (2.5Y3/2) to dark olive gray (5Y3/2)
DIATOM-VOLCANIC GLASS BEARING MINERAL CLAY
40-51% clay, 30-38% aniso min, 6-7% volcanic glass, 5% siliceous bioclastic, 3-5% diatom, 2% opaque min, 1-2% sponge, tr-1% iso min

18-59 cm — greenish gray (5GY5/1) to dark olive gray (5Y3/2)
VOLCANIC GLASS BEARING MINERAL-DIATOM RICH CLAY
42-47% clay, 25% diatom, 15-25% aniso min, 5-6% volcanic glass, 5% siliceous bioclastics, 1% opaque min, 1% sponge

59-82 cm — dark olive gray (5Y3/2)
MINERAL BEARING VOLCANIC GLASS-DIATOM RICH CLAY
37% clay, 25% diatom, 25% volcanic glass, 5% siliceous bioclastics, 2% opaque min, 2% aniso min, 2% sponge, 1% rad, 1% iso min

Minerals Identified

quartz and feldspar present throughout core.

30 cm — biotite, glauconite

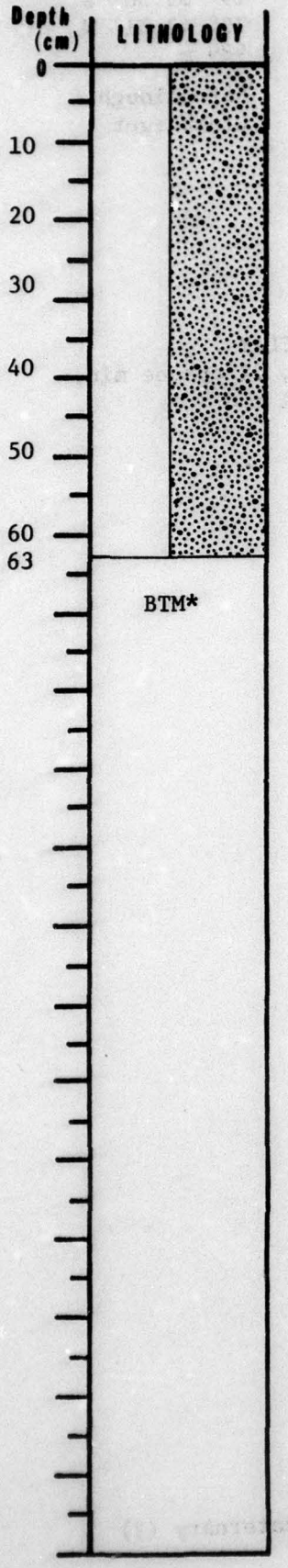


*Upper Pliocene-Lower Quaternary

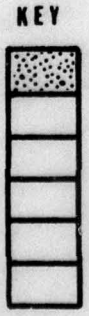
LITHOLOGIC DESCRIPTION

Shallow Margin North Chile KK74-01-09 Sta. 43

Core ID	FFC 58
Lat., Long.	19° 35.33' S 70° 42.85' W
Water Depth	963 m
Logged By	Barraclough & Lineberger



0-63 cm dark olive gray (5Y3/2) and black (5Y2.5/2) MINERAL CLAY
40-50% clay, 42-48% aniso min, 2-5% opaque min, 2% ash, 0-3% nannos
feldspar and quartz abundant
glauconite and magnetite present



MINERAL CLAY

*Quaternary (?)

AD-A048 815 HAWAII INST OF GEOPHYSICS HONOLULU F/G 8/3
SEDIMENT CORE DESCRIPTIONS: R/V KANA KEOKI 1973 NORTH CENTRAL P--ETC(U)
SEP 77 F THEYER, C MATO N00014-75-C-0209
UNCLASSIFIED HIG-77-9 NL

2 OF 2
AD
A048 815

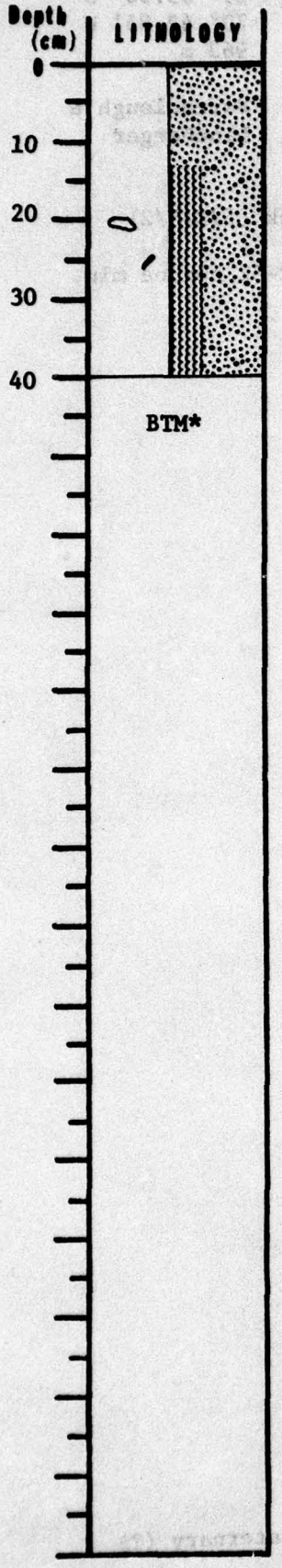


END
DATE
FILMED
2-78
DDC

LITHOLOGIC DESCRIPTION

Shallow Margin North Chile KK74-01-09 Sta. 43

Core ID	FFC 59
Lat., Long.	19° 35.30' S 70° 43.81' W
Water Depth	989 m
Logged By	Barraclough & Lineberger



0-12 cm black (5Y2.5/1)
CLAY MINERAL SAND
49% aniso min, 40% clay, 2% ash

12-40 cm dark olive gray (5Y3/2)
SILICEOUS BEARING MINERAL RICH CLAY
60% clay, 30% aniso min, 3% ash, 2% opaque min, 2% diatom, 2% siliceous hash, 1% rad

KEY



CLAY -MINERAL SAND
SILICEOUS

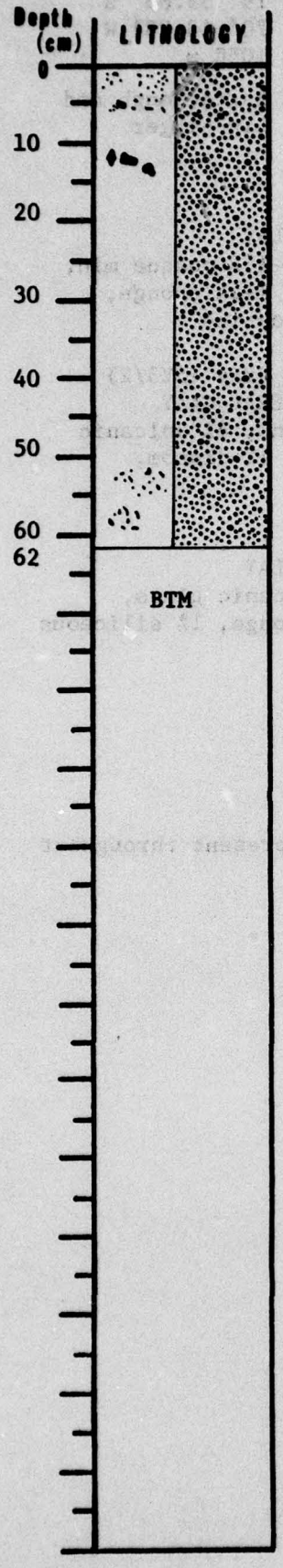
*Quaternary (?)

LITHOLOGIC DESCRIPTION

Shallow Margin Morth Chile

KK74-01-09 Sta. 43

Core ID	FFC 60
Lat., Long.	19° 35.28' S 70° 44.36' W
Water Depth	1038 m
Logged By	Barraclough & Lineberger



0-45 cm dark olive gray (5Y3/2)
CLAY MINERAL SAND
60-70% aniso min, 36-46% clay, 1-3% ash,
1% opaque min

45-62 cm dark olive gray (5Y3/2)
CLAY RICH MINERAL SAND
70% aniso min, 17% clay, 5% opaque min, 4% ash,
2% iso min

Mottling

0-8 cm dark olive gray (5Y3/2)
50-62 cm ASH CLAY

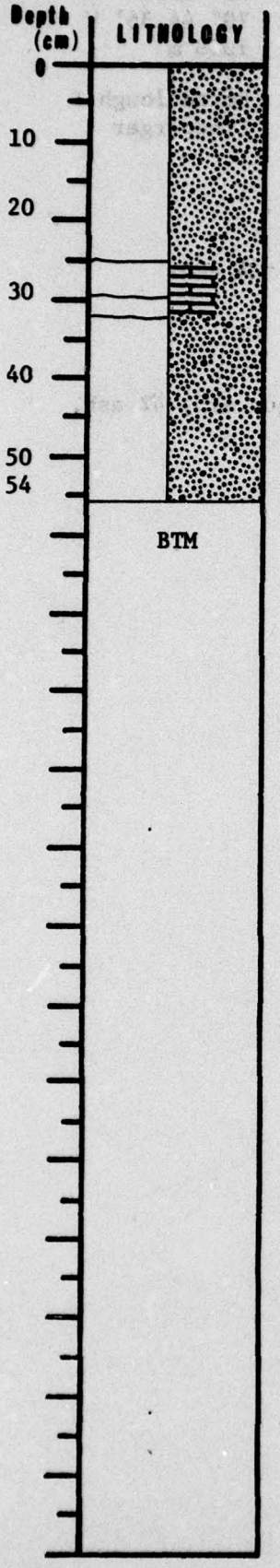
Mineral grains visible throughout core.



LITHOLOGIC DESCRIPTION

North Chile Continental Margin

Core ID	KK74-01-09 Sta. 43
	PCOD 22
Lat., Long.	19° 35.65' S
	70° 43.93' W
Water Depth	1050 m
Logged By	Barraclough and Lineberger



0-25 cm — black (5Y2.5/2)
VOLCANIC GLASS BEARING MINERAL CLAY
40-41% clay, 31-40% aniso min, 7-15% opaque min, 7-8% volcanic glass, 2% iso min, 1-2% sponge, tr-1% diatom, 1% siliceous bioclastics

25-32 cm — black (2.5Y2.5/0) and dark olive gray (5Y3/2)
VOLCANIC GLASS BEARING NANNO MINERAL CLAY
30% clay, 26% aniso min, 25% nanno, 6% volcanic glass, 2% siliceous bioclastics, 1% diatom, 1% sponge, 1% iso min

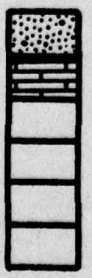
32-54 cm — dark olive gray (5Y3/2)
VOLCANIC GLASS BEARING MINERAL CLAY
42% clay, 33% aniso min, 10% volcanic glass, 8% opaque min, 2% iso min, 1% sponge, 1% siliceous bioclastics

Layering

29-32 cm — black (2.5Y2.5/0)
VOLCANIC GLASS RICH MINER

quartz, feldspar, glauconite, Mn micronodules present throughout core.

KEY



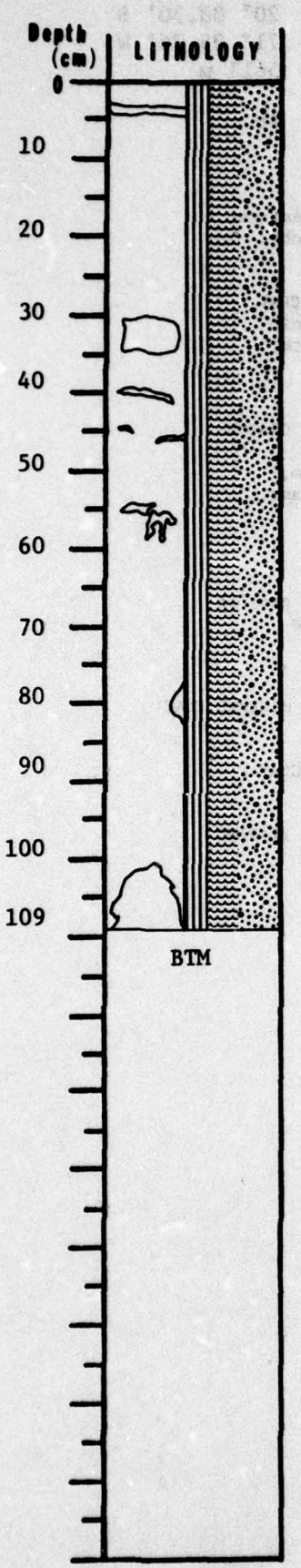
MINERAL CLAY

NANNO

LITHOLOGIC DESCRIPTION

Peru-Chile Trench

Core ID	KK74-01-09 Sta. 45
	FFC 63
Lat., Long.	20° 08.22' S
	71° 30.64' W
Water Depth	5661 m
Logged By	Patterson and Lineberger



0-52 cm gray (5Y5/1) through brown (10YR5/3)
VOLCANIC GLASS-SILICEOUS BIOCLASTIC BEARING DIATOM-MINERAL RICH CLAY
40-45% clay, 20-26% aniso min, 9-15% diatom, 8-12% siliceous bioclastics, 6-8% volcanic glass, 1-2% opaque min, 1-2% sponge, tr-2% iso min,

52-109 cm gray (5Y5/1) to grayish brown (2.5Y5/2)
VOLCANIC GLASS-SILICEOUS BIOCLASTIC-DIATOM BEARING MINERAL CLAY
34-40% clay, 28-35% aniso min, 8-13% diatom, 8-13% siliceous bioclastics, 5-7% volcanic glass, 1-2% opaque min, 1-2% sponge, tr-1% iso min, 1% rad

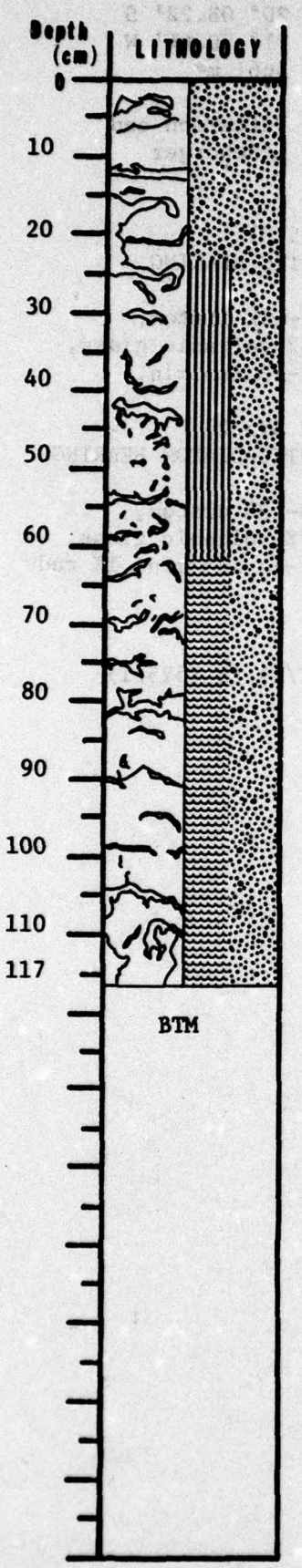
Mottling

Very slight to medium mottling; of gray (2.5Y/1) to (5Y5/1) to greenish gray (5GY5/1).



LITHOLOGIC DESCRIPTION

Core ID	KK74-01-09 Sta. 45 FFC 65
Lat., Long.	20° 08.30' S 71° 35.76' W
Water Depth	5611 m
Logged By	Au



0-24 cm — brown (10YR4/3)
VOLCANIC GLASS-BIOGENIC SILICA BEARING CLAY MINERAL SAND
50% aniso min, 35% clay, 8% siliceous bioclastics, 4% volcanic glass, 4% diatom, 1% rad, 1% sponge

24-60 cm — olive gray (5Y5/2) to olive (5Y5/3)
DIATOM BEARING VOLCANIC GLASS RICH MINERAL CLAY
36-40% clay, 29-39% aniso min, 10-15% volcanic glass, 9-10% diatom, 8% siliceous bioclastics, 1-2% opaque min, tr-1% sponge

60-117 cm — dark gray (5Y4.5/1)
VOLCANIC GLASS-SILICEOUS BIOCLASTIC BEARING DIATOM-MINERAL RICH CLAY
47-55% clay, 10-15% aniso min, 10-12% diatom, 8-10% siliceous bioclastics, 7% volcanic glass, 1% opaque min

Mottling

Very slight to heavy mottling throughout core; very dark grayish brown through dark greenish gray (10YR3/2) to (2.5Y5/2) to (5Y4/1, 5/2) to (5GY4/1).

3-24 cm — very dark grayish brown (10YR3/2)
VOLCANIC GLASS-SILICEOUS BIOCLASTIC BEARING MINERAL CLAY

24-31 cm — olive gray (5Y5/2)
DIATOM-VOLCANIC GLASS BEARING MINERAL RICH CLAY

52 cm — dark greenish gray (5GY4/1)
VOLCANIC GLASS-SILICEOUS BIOCLASTIC-MINERAL BEARING DIATOM RICH CLAY

104 cm — dark gray (5Y4/1)
VOLCANIC GLASS-MINERAL-DIATOM BEARING CLAY

Layering

77-89 cm — dark greenish gray (5GY4/1)
79-83 cm
98-99 cm
104-108 cm

Minerals Identified

quartz present throughout core.

28 cm — chert
43 cm — chert

KEY



CLAY MINERAL SAND

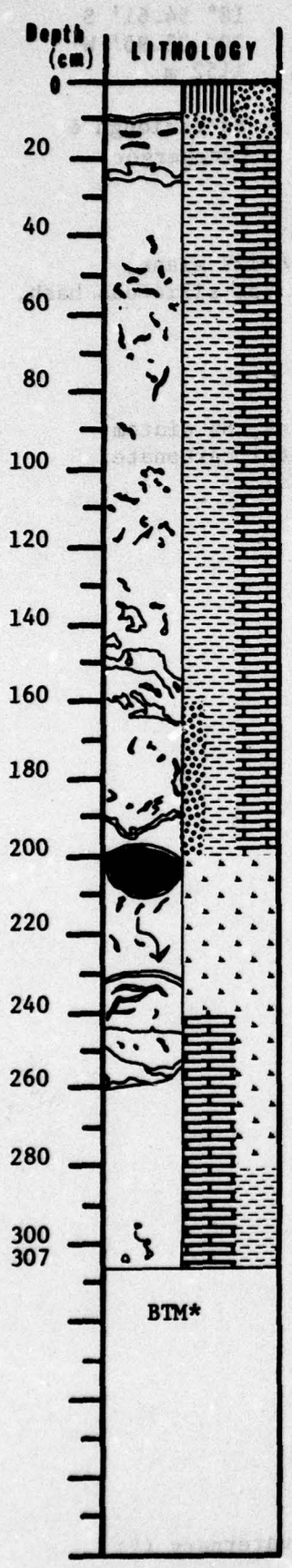
DIATOM

VOLCANIC GLASS

LITHOLOGIC DESCRIPTION

Peru-Chile Trench

Core ID	KK74-01-09 Sta. 45
	PCOD 23
Lat., Long.	20° 04.98' S
	71° 39.34' W
Water Depth	5280 m
Logged By	Au & Lineberger



0-7 cm — light yellowish brown (10YR6/2)
VOLCANIC GLASS RICH MINERAL CLAY
40% clay, 33% aniso min, 15% volcanic glass, 7% opaque min, 2% iso min

7-12 cm — light yellowish brown (10YR6/2)
VOLCANIC GLASS-NANNO BEARING MINERAL RICH CLAY
79% clay, 12% aniso min, 4% discoaster, 2% nanno, 2% volcanic glass

12-160 cm — very pale brown (10YR7/3, 7/2)
MINERAL BEARING NANNO CLAY
40-58% clay, 20-30% nanno, 10-20% discoaster, 3-5% aniso min, 0-5% volcanic glass, tr-1% opaque min

160-200 cm — very pale brown (10YR7/4)
VOLCANIC GLASS BEARING MINERAL RICH CLAY NANNO OOZE
38-49% clay, 15-35% nanno, 15-20% discoaster, 9% aniso min, 7% zeolite, 7% opaque min, 3% volcanic glass

200-240 cm — very dark grayish brown (10YR3/2)
VOLCANIC GLASS-MINERAL BEARING ZEOLITIC CLAY
50% clay, 37% zeolite, 8% aniso min, 2% volcanic glass, 1% nanno, 1% discoster

240-280 cm — light yellowish brown (10YR6/4)
MINERAL BEARING ZEOLITE RICH NANNO CLAY
55% clay, 20% zeolite, 20% nanno, 20% discoaster, 4% aniso min

280-307 cm — very pale brown (10YR7/3)
ZEOLITE-MINERAL BEARING CLAY RICH NANNO OOZE
50% discoaster, 25% clay, 20% nanno, 3% aniso min, 2% zeolite

Mottling

Very slight to heavy mottling scattered densely throughout core; very dark gray (10YR3/1, 3/2, 6/2, 6/3, 6/5, 7/3, 8/2) through pinkish white (7.5YR8/2).

133-140 cm — pale brown (10YR6/3)
ZEOLITE-MINERAL BEARING NANNO CLAY

Layering

10-12 cm — brown (10YR5/3)

230-231 cm — very dark grayish brown (10YR3/2) layering

240-250 cm — yellowish brown (10YR5/4)
ZEOLITE RICH CLAY NANNO OOZE

196-203 cm — Mn nodule

28-40 cm — disturbed

Minerals Identified

5 cm — quartz, feldspar

KEY



MINERAL CLAY
VOLCANIC GLASS
NANNO
CLAY
MINERAL
ZEOLITIC CLAY

*Oligocene (?)

LITHOLOGIC DESCRIPTION

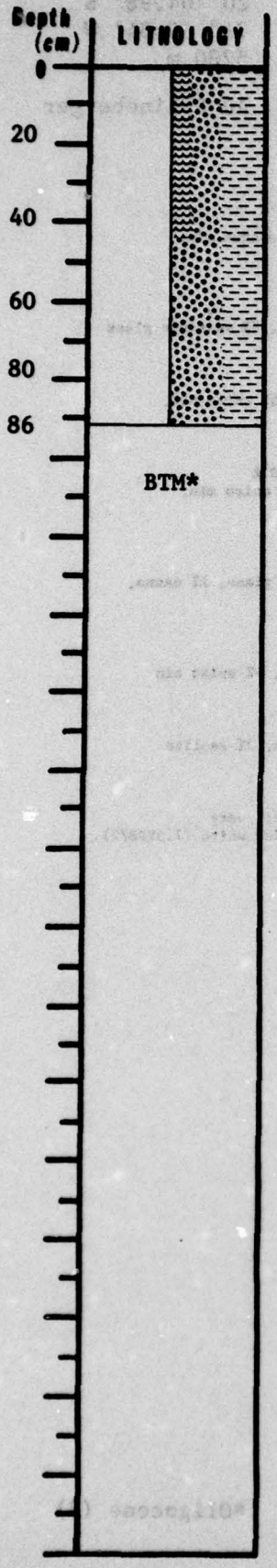
KK74-01-09 Sta. 46

Core ID FFC 70

Lat., Long. 18° 54.61' S, 70° 33.95' W

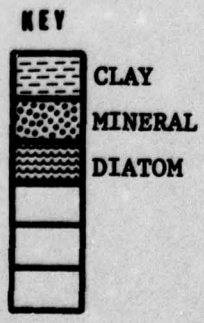
Water Depth 1152 m

Logged By Barraclough & Lineberger



0–46 cm black (5Y2.5/2)
DIATOM BEARING MINERAL RICH CLAY
51–56% clay, 15–25% aniso min, 8–12% glass, 5–12% diatom, 2–5% opaque min, 1–5% siliceous hash, 1% iso min.

46–86 cm dark olive gray (5Y3/2)
CLAY RICH MINERAL SAND
40% aniso min, 25% clay, 8% glass, 8% diatom, 5% siliceous hash, 5% non-skeletal carbonate, 3% opaque min, 3% sponge, 1% rad



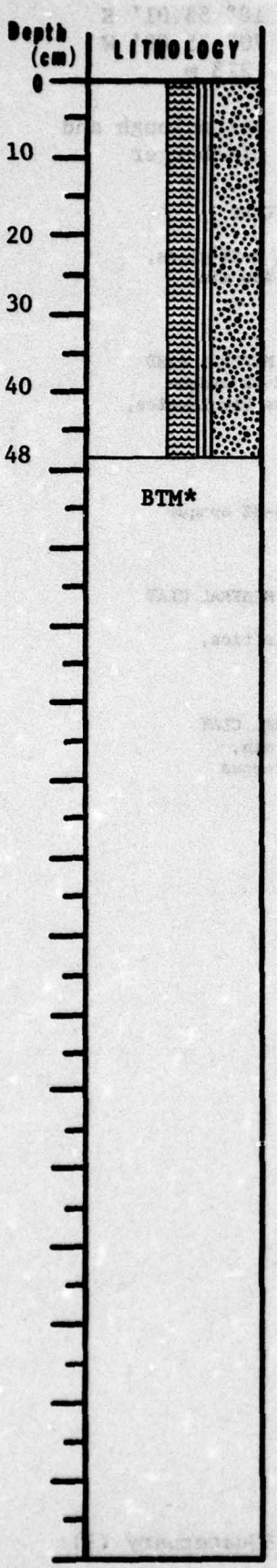
*Quaternary (?)

LITHOLOGIC DESCRIPTION

Slope off North Chile

KK74-01-09 Sta. 46

Core ID	FFC 71
Lat., Long.	18° 54.94' S 70° 34.56' W
Water Depth	1174 m
Logged By	Barraclough & Lineberger



0-18 cm — black (5Y2.5/2) to dark olive gray (5Y3/2)
ASH-DIATOM-MINERAL RICH CLAY
33% clay, 20% aniso min, 12% ash, 12% diatom, 10% siliceous hash, 8% opaque min, 3% sponge, 1% rad, 1% iso min

18-48 cm — dark olive gray (5Y3/2)
DIATOM-ASH BEARING CLAY RICH MINERAL SAND
39-49% aniso min, 20-30% clay, 6-10% ash, 3-8% diatom, 2-8% siliceous hash, 5-8% opaque min, 1% iso min, tr-1% sponge



*Quaternary (?)

LITHOLOGIC DESCRIPTION

Slope off North Chile

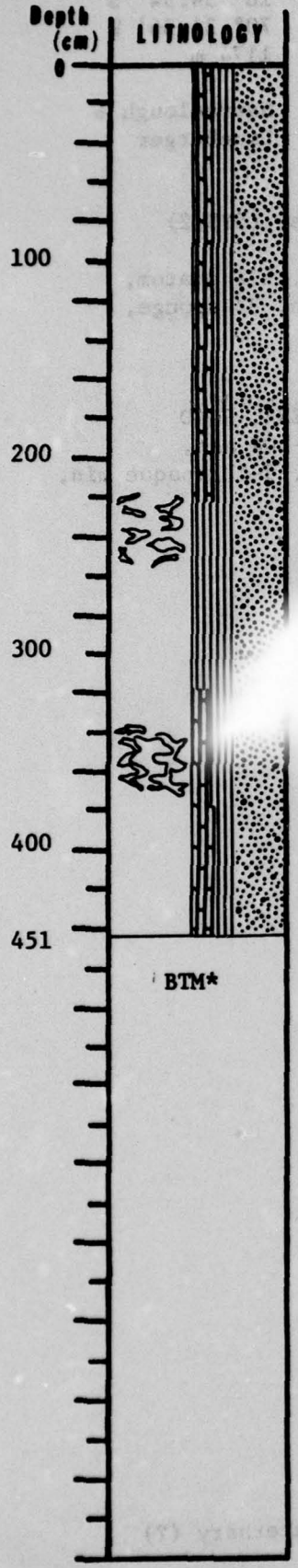
KK74-01-09 Sta. 46

Core ID PCOD 24

Lat., Long. 18° 55.01' S, 70° 35.88' W

Water Depth 1223 m

Logged By Barraclough and Lineberger



0-180 cm dark olive gray (5Y3/2)
VOLCANIC GLASS BEARING BIOGENIC SILICA RICH CLAY MINERAL SAND
38-40% clay, 30-35% aniso min, 6-12% diatom, 5-8% glass, 6% opaque min, 5% siliceous bioclastics, 1% iso min, tr-1% rad, tr-1% sponge

180-245 cm olive gray (5Y3.5/2)
VOLCANIC GLASS-BIOGENIC SILICA BEARING CLAY MINERAL SAND
35-45% clay, 35-45% aniso min, 5-8% glass, 3-8% opaque min, 3-7% diatom, 1-3% sponge, 1-5% siliceous bioclastics, tr-1% iso min

245-335 cm very dark gray (5Y3/1)
VOLCANIC GLASS BEARING MINERAL CLAY
44-51% clay, 30-42% aniso min, 5-7% glass, 4-8% opaque min, 1-2% diatom, tr-1% iso min

320-385 cm very dark gray (5Y3/1)
BIOGENIC SILICA BEARING VOLCANIC GLASS RICH MINERAL CLAY
45% clay, 28% aniso min, 12% volcanic glass, 8% opaque min, 4% diatom, 2% siliceous bioclastics, 1% iso min

385-451 cm very dark gray (5Y3/1)
BIOGENIC SILICA-VOLCANIC GLASS BEARING MINERAL CLAY
40-54% clay, 25-35% aniso min, 8-12% opaque min, 5-8% volcanic glass, 1-4% diatom, tr-2% siliceous bioclastics, tr-1% iso min

Mottling

Slight to heavy mottling.

225-250 cm dark olive gray (5Y3/2)

337-360 cm olive gray (5Y4/2)
VOLCANIC GLASS RICH MINERAL CLAY

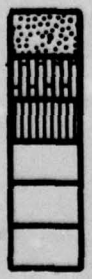
420-445 cm dark olive gray (5Y3/2)
MINERAL RICH VOLCANIC GLASS CLAY

Minerals Identified

quartz, feldspar, Mn micronodules present throughout core.

2 cm glauconite
145 cm glauconite
210-245 cm biotite, glauconite
290 cm biotite
400 cm glauconite

KEY



CLAY MINERAL SAND

BIOGENIC SILICA

VOLCANIC GLASS

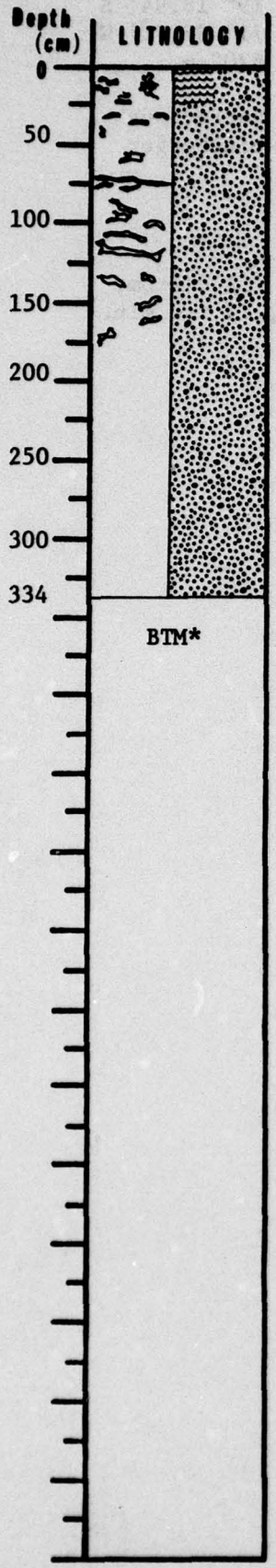
*Quaternary (?)

LITHOLOGIC DESCRIPTION

Slope off North Chile

KK74-01-09 Sta. 46

Core ID	PCOD 25
Lat., Long.	18° 52.93' S 70° 35.67' W
Water Depth	1228 m
Logged By	Barraclough and Lineberger



0-23 cm — dark olive gray (5Y3/2)
NANNO-SILICEOUS BIOCLASTIC BEARING DIATOM RICH MINERAL CLAY
38% clay, 30% aniso min, 10% diatom, 5% siliceous bioclastics, 2% nanno, 2% opaque min, 1% foram, 1% iso min

23-33 cm — black (5Y2.5/2)
VOLCANIC GLASS BEARING MINERAL RICH CLAY
64% clay, 25% aniso min, 6% opaque min, 2% volcanic glass, 1% iso min

33-52 cm — black (5Y2.5/2)
VOLCANIC GLASS BEARING CLAY MINERAL SAND
44% clay, 40% aniso min, 8% opaque min, 3% volcanic galss, 2% iso min

52-69 cm — dark olive gray (5Y3/2)
VOLCANIC GLASS BEARING CLAY RICH MINERAL SAND
58% aniso min, 25% clay, 10% opaque min, 3% volcanic glass, 2% iso min

69-334 cm — black (5Y2.5/2)
VOLCANIC GLASS BEARING CLAY MINERAL SAND
40-54% aniso min, 28-40% clay, 10-15% opaque min, 2-6% volcanic glass, 1-3% iso min

Mottling

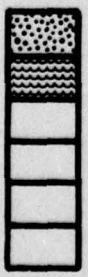
Moderate mottling scattered rather sparsely throughout upper 175 cm of core; black (5Y2.5/1) VOLCANIC GLASS BEARING CLAY RICH MINERAL SAND

Minerals Identified

quartz present throughout core.

2 cm — chert
2-334 cm — glauconite, feldspar, Mn micronodules

KEY



MINERAL CLAY

DIATOM

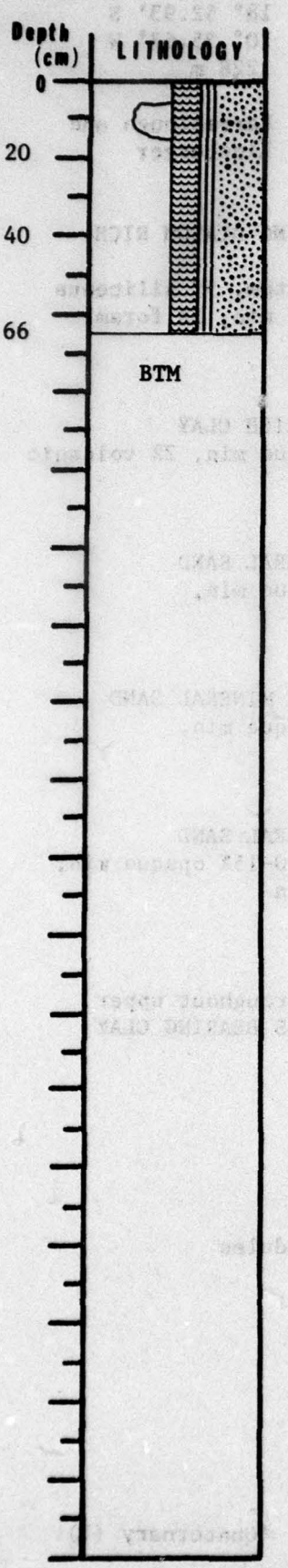
*Quaternary (?)

LITHOLOGIC DESCRIPTION

Peru-Chile Trench

KK74-01-09 Sta. 47

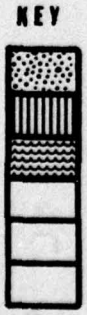
Core ID	FFC 72
Lat., Long.	19° 18.94' S 71° 37.71' W
Water Depth	6702 m
Logged By	Barraclough & Lineberger



0-66 cm dark olive gray (5Y3/2)
DIATOM-ASH-CLAY RICH MINERAL SAND
35% aniso min, 18% clay, 15% ash, 15% diatom,
12% siliceous hash, 3% opaque min, 1% iso min.

Mottling

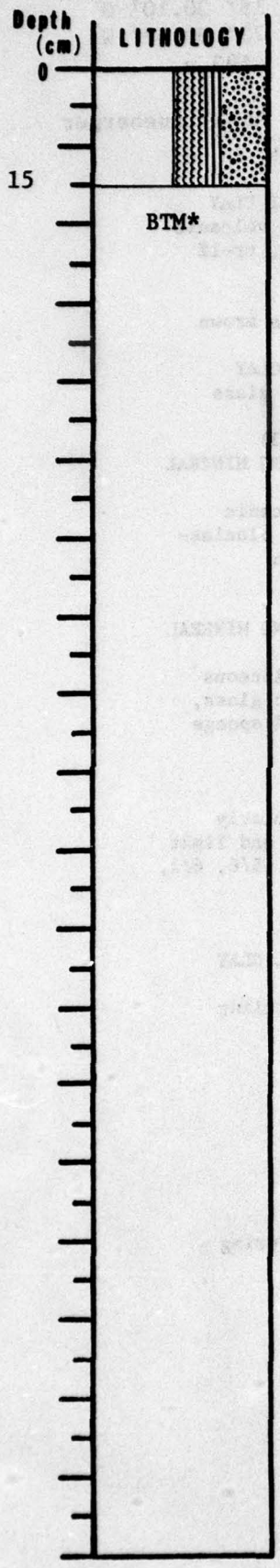
8-18 cm black (5Y2.5/2) large mottle



LITHOLOGIC DESCRIPTION

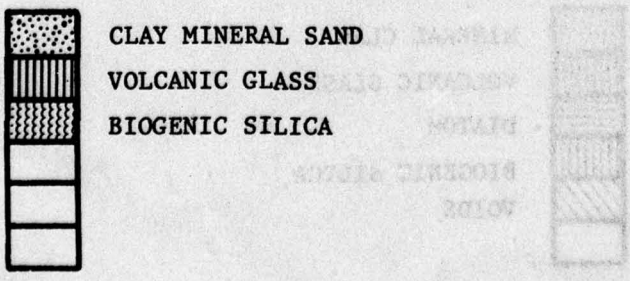
Peru-Chile Trench

Core ID	KK74-01-09 Sta. 47
	FFC 73
Lat., Long.	19° 20.62' S
	71° 39.94' W
Water Depth	7396 m
Logged By	Barraclough and Lineberger



0-15 cm dark olive gray (5Y3/2)
VOLCANIC GLASS BEARING BIOGENIC SILICA RICH CLAY MINERAL SAND
30% aniso min, 26% clay, 15% siliceous bioclastics, 10% diatom, 8% volcanic glass, 5% opaque min, 2% sponge, 1% iso min, 1% rad

quartz present throughout core

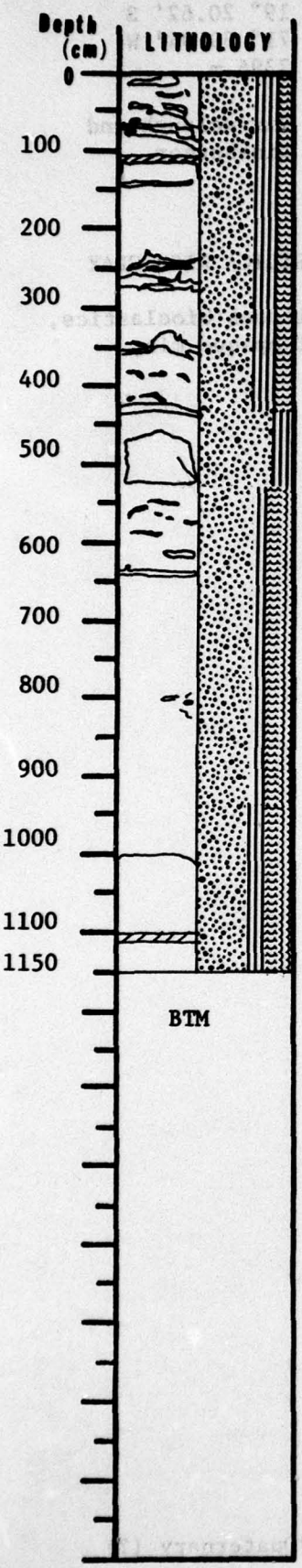


*Quaternary (?)

LITHOLOGIC DESCRIPTION

Nazca Plate

Core ID	KK74-01-09 Sta. 48
	PCOD 26
Lat., Long.	19° 30.10' S
	73° 30.42' W
Water Depth	4593 m
Logged By	Au & Lineberger



0-425 cm — light brownish gray (10YR6/2) through dark brown (10YR3.5/3)
DIATOM-VOLCANIC GLASS BEARING MINERAL CLAY
47-66% clay, 30-40% aniso min, 5-11% volcanic glass, tr-8% diatom, 1-3% opaque min, tr-1% iso min

425-522 cm — light brownish gray (10YR6/2) to pale brown (10YR6/3)
VOLCANIC GLASS BEARING MINERAL RICH CLAY
68% clay, 25% aniso min, 5% volcanic glass

522-925 cm — gray (10YR6/1) to pale brown (10YR6/3)
BIOGENIC SILICA-VOLCANIC GLASS BEARING MINERAL CLAY
50-60% clay, 35% aniso min, 1-7% volcanic glass, tr-7% diatom, tr-4% siliceous bioclastics, tr-2% opaque min, tr-1% iso min

925-1150 cm — pale brown (10YR6/3)
VOLCANIC GLASS-BIOGENIC SILICA BEARING MINERAL CLAY
46-50% clay, 35% aniso min, 5-10% siliceous bioclastics, 5% diatom, 2-3% volcanic glass, 1-2% opaque min, tr-1% iso min, tr-1% sponge

Mottling

Very slight to heavy mottling clumped rather irregularly throughout core; very dark gray through olive gray and light yellowish brown (5Y3/1, 5/2) to (10YR3/2, 4/2, 5/2, 5/6, 6/1, 6/2, 6/3, 6/4).

328-335 cm — light brownish gray (10YR6/2) mottle
DIATOM-VOLCANIC GLASS BEARING MINERAL CLAY

808-819 cm — very dark grayish brown (10YR3/2) mottling
DIATOM BEARING MINERAL CLAY

Layering

420-430 cm — very dark gray (5Y3/1)
VOLCANIC GLASS RICH MINERAL CLAY

Quartz present throughout core

624-1150 cm — partially disturbed, liners cracked during coring operations

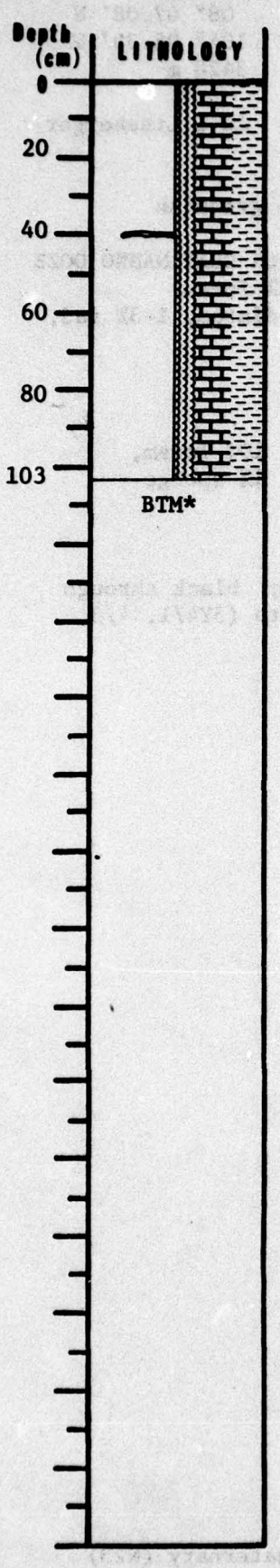
KEY



MINERAL CLAY
VOLCANIC GLASS
DIATOM
BIOGENIC SILICA
VOIDS

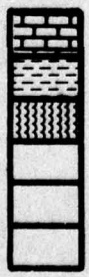
LITHOLOGIC DESCRIPTION

Core ID	KK74-01-09 Sta. 50 FFC 76
Lat., Long.	06° 32.86' N 104° 53.79' W
Water Depth	3535 m
Logged By	Au & Lineberger



0-55 cm — brown (7.5YR5/2) to (10YR4/3)
SILICEOUS BEARING FORAM RICH CLAY NANNO OOZE
40-43% nanno, 28-30% clay, 15% foram,
3-5% diatom, 2-7% rad, 2-4% biogenic silica hash

55-103 cm — brown (7.5YR5/2) and (10YR4/3)
SILICEOUS BEARING FORAM RICH NANNO CLAY
43-45% clay, 35-42% nanno, 12-15% foram,
tr-3% diatom, tr-2% biogenic silica hash,
tr-1% rad



*Quaternary

LITHOLOGIC DESCRIPTION

Sequeiros Fracture Zone

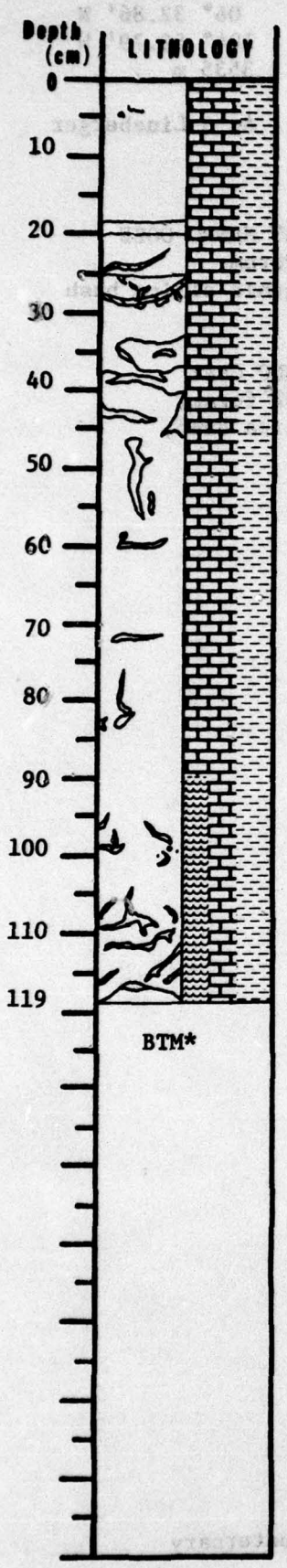
KK74-01-09 Sta. 55

Core ID FFC 77

Lat., Long. 08° 07.08' N, 104° 08.39' W

Water Depth 3428 m

Logged By Au & Lineberger



0-90 cm dark reddish brown (5YR2.5/2) to greenish gray (5GY5/1)
BIOGENIC SILICA BEARING FORAM RICH CLAY NANNO OOZE
35-45% nanno, 35-42% clay, 10-12% foram, 2-4% biogenic silica hash, 2-3% diatom, 1-3% rad, 1% aniso min, 0-2% glass

90-119 cm greenish gray (5GY5/1)
FORAM-DIATOM RICH NANNO CLAY
35% clay, 30% nanno, 12% diatom, 10% foram, 8% rad, 5% biogenic silica hash, 1% sponge

Mottling

Very slight to slight mottling throughout core; black through brown and dark greenish gray (10YR2.5/1, 4/3) to (5Y4/1, 4/3, 5/3) to (5G3/1, 4/1).

Layering

18-20 cm brown (7.5YR5/4) layer

20-24 cm yellowish brown (10YR5/4)
FORAM RICH NANNO CLAY

24-32 cm olive (5Y5/3)

KEY



CLAY

FORAM-NANNO DIATOM

*Quaternary (N23)

LITHOLOGIC DESCRIPTION

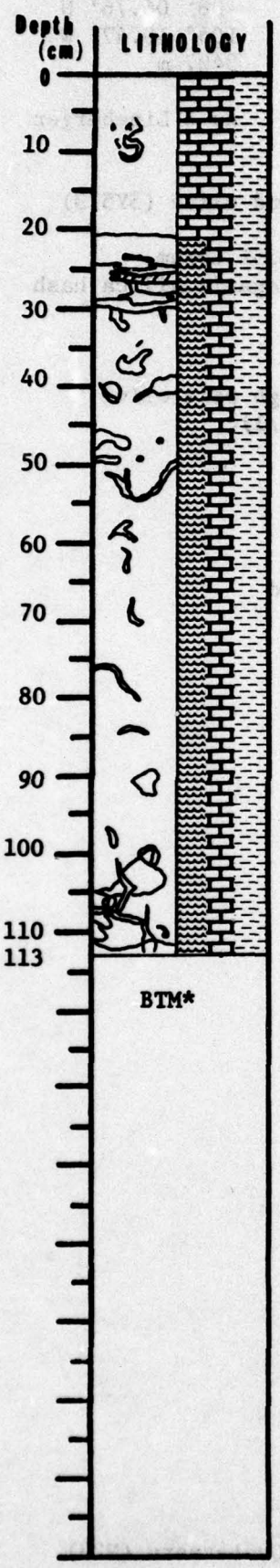
KK74-01-09 Sta. 55

Core ID FFC 78

Lat., Long. 08° 6.90' N, 104° 09.55' W

Water Depth 3421 m

Logged By Au & Lineberger



0-21 cm — dark reddish brown (5YR2.5/2)
SILICEOUS-FORAM BEARING NANNO CLAY
50% clay, 38% nanno, 7% foram, 2% diatom,
2% biogenic silica hash, 1% rad, 1% sponge

21-113 cm — greenish gray (5GY5/1)
DIATOM-FORAM RICH NANNO CLAY
36-40% clay, 30% nanno, 12-15% forams, 10% diatom,
3-4% biogenic silica hash, 2-3% rad, tr-1% glass

Mottling

Very slight to slight mottling, abundant in lower part of core; dark reddish brown through black and pale olive (5YR2.5/2) to (10YR2.5/1, 4/3) to (5Y5/3, 6/3) to (5G3/1, 4/1).

Layering

21-24 cm — brown (7.5YR5/4) layer
FORAM RICH NANNO CLAY

24-27 cm — olive (5Y5/3)

27-29 cm — dark greenish gray (5G4/1)

Chunk of gray (5Y6/1) sandstone found at 112-113 cm.

KEY



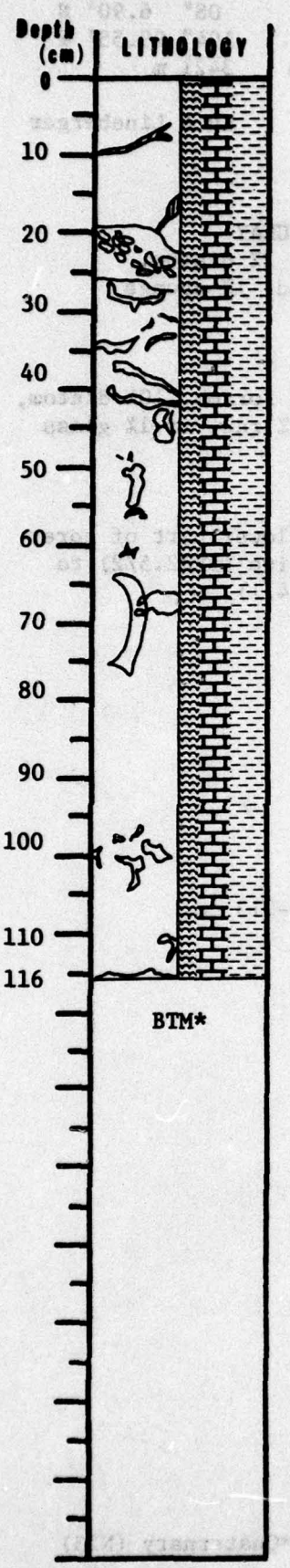
FORAM-NANNO CLAY

DIATOM

*Quaternary (N23)

LITHOLOGIC DESCRIPTION

	KK74-01-09 Sta. 55
Core ID	FFC 79
Lat., Long.	08° 06.76' N 104° 10.47' W
Water Depth	3427 m
Logged By	Au & Lineberger



0-116 cm dark reddish brown (5YR2.5/2) and olive (5Y5/3) DIATOM-FORAM RICH NANNO CLAY
37-45% clay, 20-30% nannos, 10-15% foram, 8-12% diatom, 2-5% rad, 5-8% biogenic silica hash

Mottling

Slight mottling throughout core; black through pale olive (10YR2.5/1) to (5Y4/2, 4/3, 5/3, 6/3) to (5G4/1).

Layering

19-26 cm brown (7.5YR5/4) layering
FORAM BEARING NANNO RICH CLAY
contains chunks of overlying bed

KEY



CLAY
FORAM-NANNO
DIATOM

*Quaternary (N23)

LITHOLOGIC DESCRIPTION

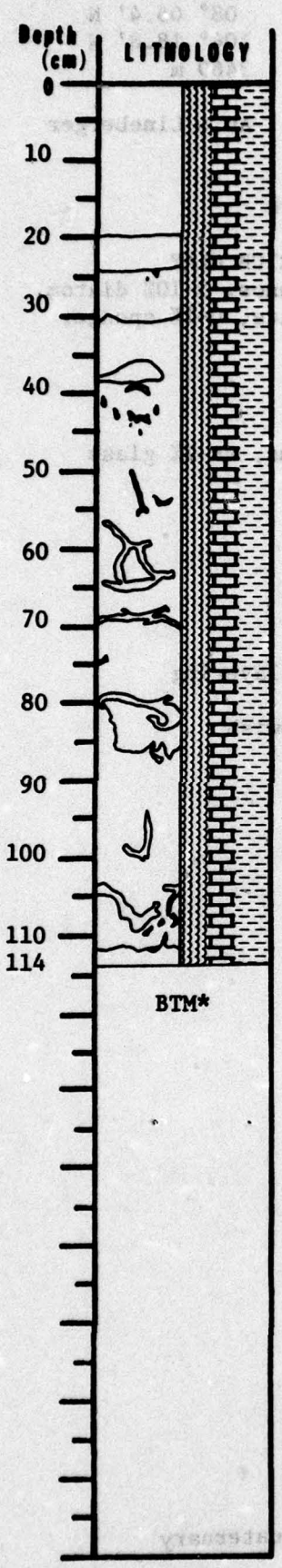
KK74-01-09 Sta. 55

Core ID FFC 80

Lat., Long. 08° 06.61' N, 104° 11.39' W

Water Depth 3431 m

Logged By Au & Lineberger



0-44 cm dark reddish brown (5YR2.5/2) and olive (5Y5/3) SILICEOUS BEARING FORAM-NANNO RICH CLAY
38-43% clay, 22-23% nanno, 15% foram, 7-10% rad, 4-8% diatom, 5-6% siliceous bioclastics

44-114 cm greenish gray (5GY5/1)
SILICEOUS BEARING FORAM-DIATOM-NANNO RICH CLAY
42% clay, 20% nanno, 20% diatom, 15% foram, 5% rad, 4% siliceous bioclastics, 2% sponge, 1% benthic foram

Mottling

Very slight to slight mottling throughout core; black through olive and greenish gray (10YR2.5/1) to (5Y4/1, 4/3, 5/3) to (5GY5/1) to (5G4/1).

Layering

20-23 cm brown (7.5YR5/4) layering

23-27 cm yellowish brown (10YR5/4) FORAM-NANNO RICH CLAY

27-31 cm olive (5Y4/3)

KEY



FORAM-NANNO CLAY

SILICEOUS

*Quaternary (N23)

LITHOLOGIC DESCRIPTION

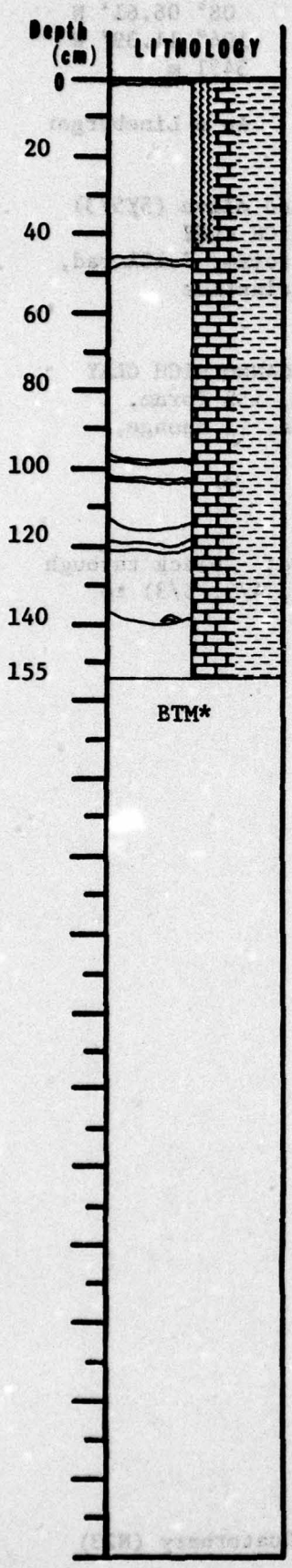
KK74-01-09 Sta. 61

Core ID GCTG 01

Lat., Long. 08° 05.4' N
104° 18.8' W

Water Depth 3469 m

Logged By Au & Lineberger



0-40 cm reddish yellow (7.5YR6/5) to dark brown (7.5YR3/2)
RAD-DIATOM-NANNO BEARING FORAM RICH CLAY
56-59% clay, 15% forams, 10% nannos, 5-10% diatom, 3-5% rad, 3% siliceous bioclastics, 0-1% sponge, 1% opaque min, 1% iso min

40-155 cm brown (7.5YR4/3)
FORAM-NANNO BEARING CLAY
82-83% clay, 10% nanno, 5% forams, tr-1% glass

Mottling

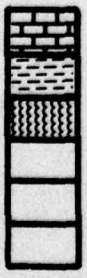
137-138 cm white (10YR8/2)

Layering

0-1 cm light yellowish brown (2.5Y6/3) layering

44-48, 98-100, 115-119, 121-138 cm light yellowish brown (10YR6/4).

KEY



FORAM-NANNO CLAY

RAD-DIATOM

*Quaternary

LITHOLOGIC DESCRIPTION

Core ID	KK74-01-09 Sta. 62 GCTG 02
Lat., Long.	07° 52.4' N 104° 14.6' W
Water Depth	3319 m
Logged By	Au & Lineberger



0-23 cm — dark brown (7.5YR3/2)
RAD-DIATOM-FORAM BEARING NANNO CLAY
39% clay, 28% nanno, 20% calcareous bioclastics, 8% foram, 5% siliceous bioclastics, 3% diatom, 2% rad

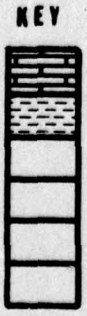
23-111 cm — light olive brown (2.5Y7/2) to light gray (2.5Y5/4)
RAD-DIATOM-FORAM BEARING CLAY RICH NANNO OOZE
62-62% nanno, 15-25% clay, 10% foram, tr-4% diatom, 2-3% siliceous bioclastics, 3% rad

Mottling

104-108 cm — light gray (2.5Y7/2)

Layering

23-24 cm — light olive brown (2.5Y5/4)

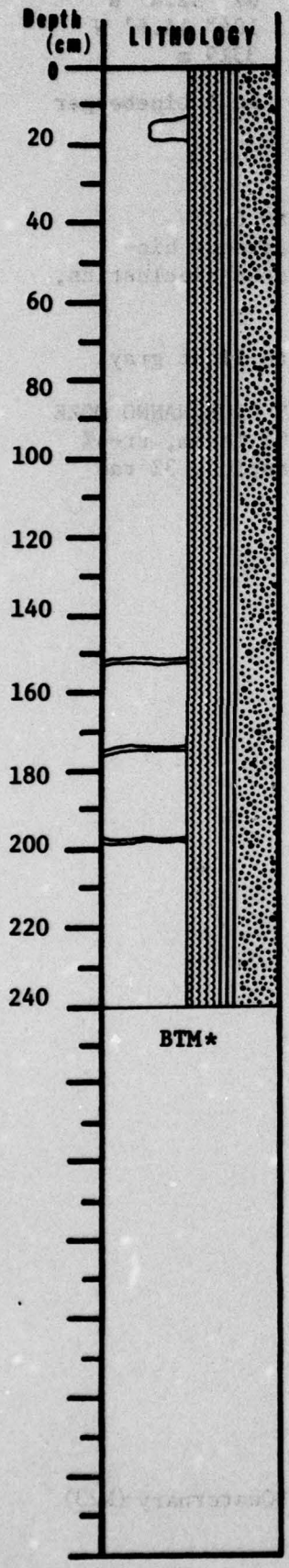


*Quaternary (N23)

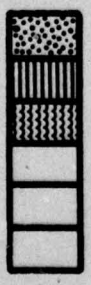
LITHOLOGIC DESCRIPTION

KK74-01-09 Sta. 66

Core ID	GCTG 04
Lat., Long.	17° 52.1' N 104° 13.0' W
Water Depth	3935 m
Logged By	Au & Lineberger



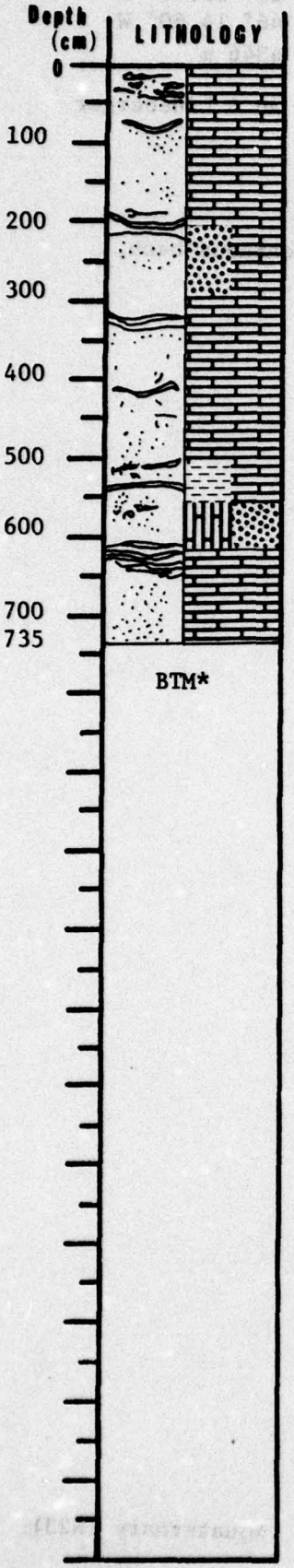
0-240 cm dark gray (5Y4/1)
BIOGENIC SILICA-GLASS BEARING CLAY MINERAL SAND
34-45% aniso min, 33-38% clay, 6-10% glass, 2-8% opaque min, 2-6% diatom, 3-5% siliceous bioclastics, 1-3% iso min, tr-1% rad
Min Identified: quartz, feldspar, glauconite



*Quaternary (?)

LITHOLOGIC DESCRIPTION

Core ID	KK74 IPOD Leg 7 PC 02 Sta. 02
Lat., Long.	22° 51.3' N 46° 13.5' W
Water Depth	4221 m
Logged By	Au & Mato



0-207 cm very pale brown (10YR7/4) to pink (7.5YR7/4)
MINERAL BEARING NANNO OOZE
86-98% nanno, 2-3% aniso min, tr-5% foram, 0-2% opaque min, 0-2% calcareous bioclastics

207-284 cm yellowish brown (10YR5.5/4)
FORAM BEARING MINERAL-NANNO OOZE
48% nanno, 40% aniso min, 5% opaque min, 5% discoaster, 2% foram

284-325 cm very pale brown (10YR7/4) to light yellowish brown (10YR6/4)
MINERAL BEARING NANNO OOZE
48% nanno, 30% discoaster, 10% aniso min, 1% foram, 1% opaque min

325-415 cm light yellowish brown (10YR6/4)
FORAM-MINERAL BEARING CLAY RICH NANNO OOZE
45-69% nanno, 20-25% clay, 5-10% aniso min, 4-10% forams, 0-6% ceratolith, 0-4% discoaster, 0-2% opaque min

415-484 cm very pale brown (10YR6/4) to yellowish brown (10YR5/5)
MINERAL-FORAM BEARING CALCAREOUS BIOCLASTIC RICH CLAY NANNO OOZE
43% nanno, 35% clay, 15% calcareous bioclastics, 4% forams, 3% aniso min

484-525 cm light yellowish brown (10YR6/4) to yellowish brown (10YR5/5)
CLAY RICH CALCAREOUS BIOCLASTIC NANNO OOZE
42-50% nanno, 25-30% calcareous bioclastics, 15-25% clay, 2% aniso min, 1-3% opaque min, tr-3% foram

525-552 cm light yellowish brown (10YR6/4)
CALCAREOUS BIOCLASTIC RICH NANNO CLAY
41% clay, 30% nanno, 15% calcareous bioclastics, 5% discoaster, 3% opaque min, 2% iso min, 2% foram

552-610 cm very pale brown (10YR7/4)
FORAM BEARING NANNO-CLAY RICH CALCAREOUS BIOCLASTIC MINERAL SAND
30-40% aniso min, 30% calcareous bioclastics, 15-25% clay, 15-23% nanno, 2-5% foram

610-735 cm light yellowish brown (10YR6/4) to brown (7.5YR5/4)
MINERAL-FORAM-CALCAREOUS BIOCLASTIC BEARING CLAY RICH NANNO OOZE
63-77% nanno, 10-15% clay, 3-20% calcareous bioclastics, 2-6% foram, 2-7% aniso min

Mottling

Very slight to slight mottling scattered sparsely throughout core; dark brown through very pale brown (10YR3/3, 4/4, 6/4, 7/4, 8/3, 8/4) to (7.5YR5/4).

619-625 cm very pale brown (10YR7/4) mottles
MINERAL-CALCAREOUS BIOCLASTIC RICH NANNO OOZE

Layering

193-196 cm very pale brown (10YR7/3) layers

196-207 cm pink (7.5YR7/4) layers
NANNO MINERAL SAND

317-320 cm very pale brown (10YR7/3) layers
NANNO MINERAL SAND

320-325 cm very pale brown (10YR7/4) layers

518-523 cm light yellowish brown (10YR6/4) layers
CALCAREOUS BIOCLASTIC-CLAY RICH NANNO-MINERAL SAND

Sandy layers at 193-207 cm, 575-600 cm.

KEY



NANNOS

CALCAREOUS BIOCLASTICS

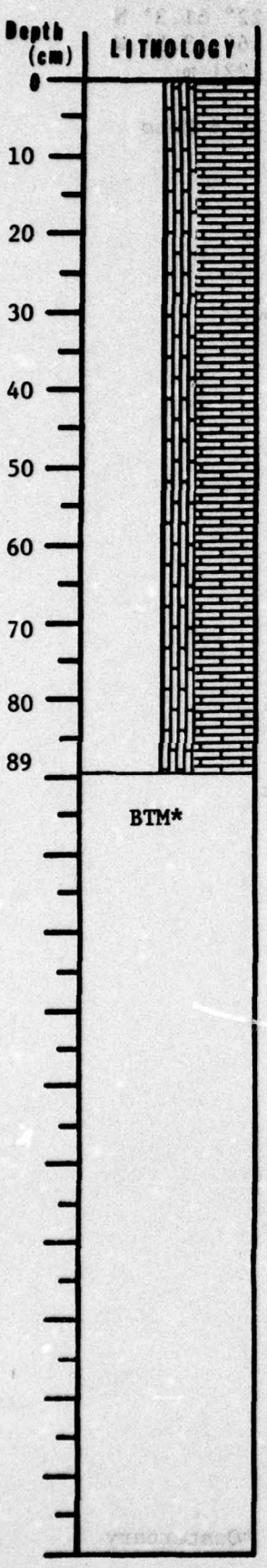
MINERAL

CLAY

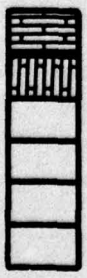
*Quaternary

LITHOLOGIC DESCRIPTION

Core ID	KK74 IPOD Leg 7 FFC 02 Sta. 03
Lat., Long.	22° 51.40' N 46° 14.60' W
Water Depth	4346 m
Logged By	Au & Lineberger



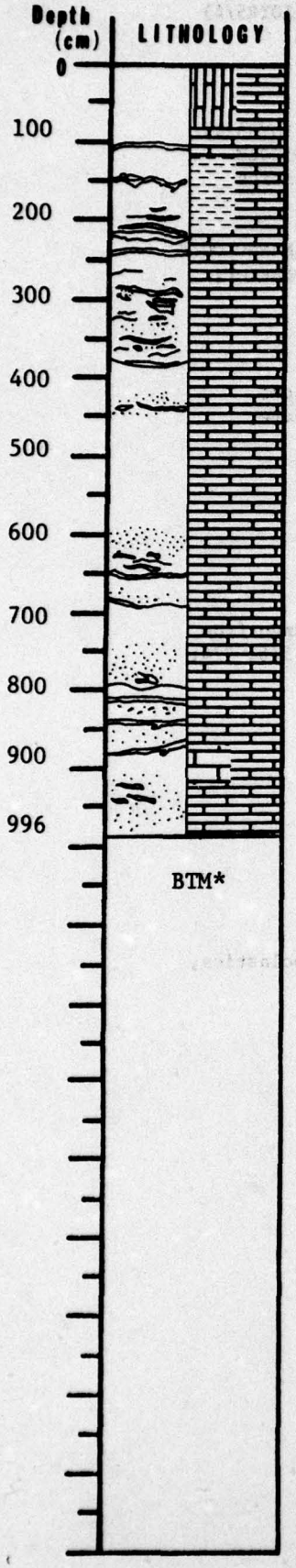
0-89 cm light yellowish brown (10YR6/4)
CALCAREOUS HASH BEARING NANNO OOZE
70% nanno, 10% discoaster, 10% calcareous hash,
5% foram, 3% clay, 1% ceratolith



*Quaternary (N23)

LITHOLOGIC DESCRIPTION

Core ID	KK74 IPOD Leg 7 PC 03 Sta. 03
Lat., Long.	22° 48.00' N 46° 06.60' W
Water Depth	4378 m
Logged By	Patterson & Lineberger



0-75 cm yellowish brown (10YR5.5/4)
MINERAL-FORAM BEARING CLAY RICH CALCAREOUS BIOCLASTIC NANNO OOZE
50% nanno, 29% calcareous bioclastics, 12% clay, 9% foram, 2% aniso min

75-115 cm light yellowish brown (10YR6/4)
MINERAL-CLAY-CALCAREOUS BIOCLASTIC BEARING NANNO OOZE
87% nanno, 8% calcareous bioclastic, 2% clay, 2% aniso min

115-210 cm yellowish brown (10YR5.5/4, 5/4)
CALCAREOUS BIOCLASTIC BEARING FORAM RICH CLAY NANNO OOZE
52-72% nanno, 12-35% clay, 5-15% foram, 3-5% calcareous bioclastics, 2% aniso min, tr-1% ceratolith

210-275 cm yellowish brown (10YR5.5/4)
CLAY-CALCAREOUS BIOCLASTIC BEARING NANNO OOZE
84-98% nanno, 2-4% calcareous bioclastics, 1-9% clay, 1% foram

275-305 cm yellowish brown (10YR5.5/4)
FORAM BEARING VOLCANIC GLASS-CLAY RICH NANNO OOZE
59% nanno, 24% clay, 15% volcanic glass, 5% foram, 3% calcareous bioclastics, 3% aniso min

305-316 cm yellowish brown (10YR5/4)
FORAM BEARING NANNO OOZE
91% nanno, 4% foram, 2% clay, 2% calcareous bioclastics

316-360 cm dark yellowish brown (10YR4.5/4)
CLAY RICH NANNO OOZE
75% nanno, 20% clay, 4% calcareous bioclastics, 1% foram

360-580 cm very pale brown (10YR7/4) through dark yellowish brown (10YR4.5/4)
CALCAREOUS BIOCLASTIC BEARING NANNO OOZE
61-94% nannos, tr-25% discoaster, 3-10% calcareous bioclastics, tr-3% foram

580-792 cm light yellowish brown (10YR6/4) to yellowish brown (10YR5/4)
FORAM BEARING CLAY RICH NANNO OOZE
65-78% nanno, 15% clay, 1-7% foram, 0-5% calcareous bioclastics, 2-3% discoaster

KEY



NANNO

FORAM

CLAY

CALCAREOUS BIOCLASTIC

*Quaternary

KK74 IPOD Leg 7
PC 03 Sta. 03
(continued)

792-827 cm — very pale brown (10YR7/4) to yellowish brown (10YR5/4)
CALCAREOUS BIOCLASTIC-FORAM BEARING NANNO OOZE
88% nanno, 5% foram, 4% calcareous bioclastics,
1% discoasters

827-877 cm — very pale brown (10YR7/4) to yellowish brown (10YR5/4)
CALCAREOUS BIOCLASTICS BEARING CLAY RICH NANNO OOZE
70-75% nanno, 20% clay, 4-5% calcareous bioclastics

877-895 cm — light yellowish brown (10YR6/4)
CLAY-FORAM BEARING CALCAREOUS BIOCLASTIC RICH NANNO OOZE
72% nanno, 12% calcareous bioclastic, 10% discoaster,
7% foram, 2% clay

895-910 cm — very pale brown (10YR7/4)
MINERAL BEARING FORAM NANNO OOZE
60% nanno, 30% foram, 4% aniso min, 2% calcareous
bioclastics, 2% opaque min, 1% clay, 1% discoaster

910-996 cm — light yellowish brown (10YR6/4) to yellowish
brown (10YR5/4)
CLAY BEARING NANNO OOZE
87-92% nanno, tr-10% clay, tr-1% foram

Mottling

Very slight to moderate mottling throughout core; colors range from black through yellowish brown and white (10YR4/3, 4/4, 5/4, 5/6, 7/4, 8/0, 8/4).

Layering

210-217 cm — light yellowish brown (10YR6/4) layer

231-233 cm — yellow brown (10YR5/4) layer

372-374 cm — dark yellowish brown (10YR4/4) layer

110-115 cm — very pale brown (10YR7/4)
643-645 cm — CLAY-FORAM BEARING NANNO OOZE
673-677 cm — 75-81% nanno, 5-10% foram, 4-8% calcareous bioclastics,
824-827 cm — 2-5% clay

210-217 cm — light yellowish brown (10YR6/4) layer

231-233 cm — yellow brown (10YR5/4) layer

372-374 cm — dark yellow brown (10YR4/4) layer

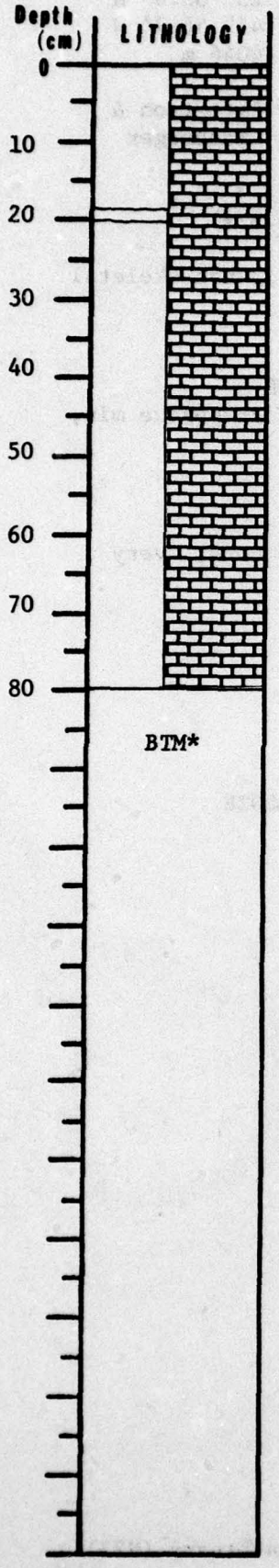
570-580 cm — very pale brown (10YR7/4)
FORAM NANNO OOZE

690-718 cm — very pale brown (10YR7/4)
NANNO FORAM OOZE

824-827 cm — very pale brown (10YR7/4)
FORAM RICH NANNO OOZE

LITHOLOGIC DESCRIPTION

KK74 IPOD Leg 7
Core ID FFC 07 Sta 06
Lat., Long. 23° 02.90' N
45° 57.30' W
Water Depth 4043 m
Logged By Au

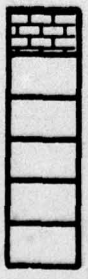


0-20 cm light yellowish brown (10YR6/4)
FORAM-NANNO OOZE
50% nannos, 46% forams, 2% clay, 2% zeolites

20-80 cm light yellowish brown (10YR5.5/4)
FORAM-RICH NANNO OOZE
73% nannos, 20% forams, 4% clay, 2% zeolites

Layering

18-20 cm very pale brown (10YR7.5/4)
FORAM-NANNO OOZE
49% nannos, 49% forams, 1% zeolites, 1% aniso min



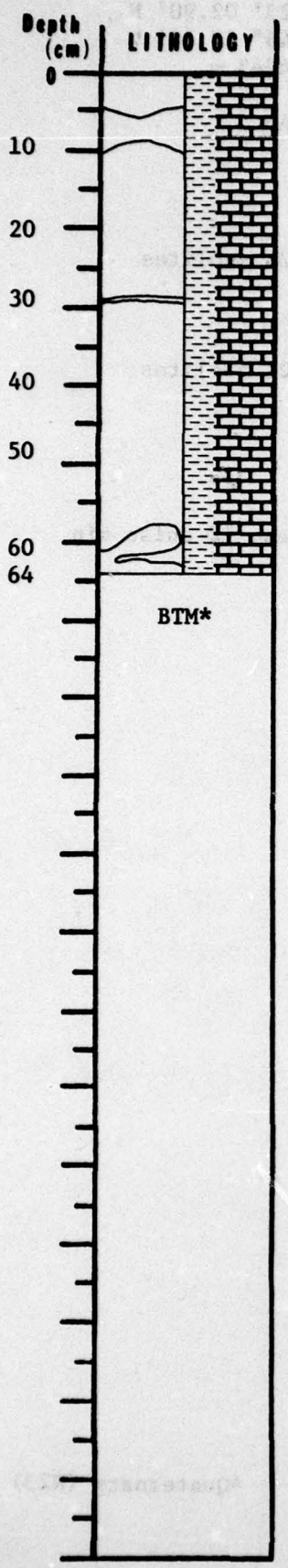
FORAM-NANNO

*Quaternary (N23)

LITHOLOGIC DESCRIPTION

KK74 IPOD Leg 7 Sta. 06

Core ID	FFC 08
Lat., Long.	23° 02.6' N 45° 56.7' W
Water Depth	4046 m
Logged By	Patterson & Lineberger



0-36 cm — light yellowish brown (10YR6/4, 6.5/4)
CLAY BEARING FORAM NANNO OOZE
47% nannos, 47% forams, 2% clay, 1% non-skeletal carbonate, 1% benthic foram

36-64 cm — light yellowish brown (10YR6/4)
CLAY BEARING FORAM RICH NANNO OOZE
66% nannos, 20% forams, 10% clay, 2% opaque min, 1% aniso min

Mottling

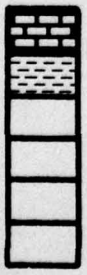
Moderate to heavy mottling at top and bottom of core; very pale brown (10YR7/4).

5-15 cm — very pale brown (10YR7/4) mottle
CLAY BEARING FORAM-NANNO OOZE

Layering

27-29 cm — very pale brown (10YR7/4) layer
CLAY-MINERAL-FORAM BEARING NANNO OOZE

KEY

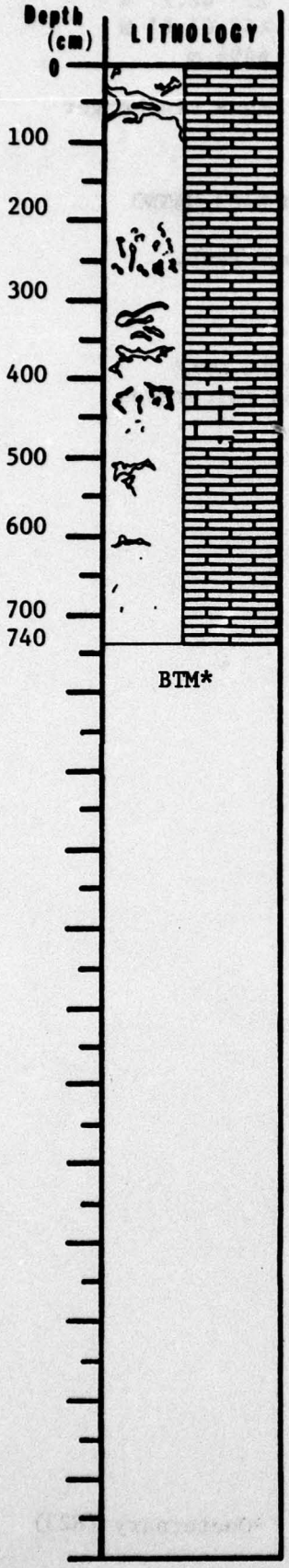


FORAM-NANNO CLAY

*Quaternary (N23)

LITHOLOGIC DESCRIPTION

Core ID	KK74 IPOD Leg 7 PC 04 Sta. 06
Lat., Long.	23° 01.10' N 45° 53.20' W
Water Depth	4024 m
Logged By	Au & Linberger



0-344 cm very pale brown (10YR8/4) to yellowish brown (10YR5.5/4)
MINERAL-FORAM BEARING NANNO OOZE
83-97% nanno, 2-10% foram, 1-2% aniso min, tr-8% discoaster

344-404 cm very pale brown (10YR7/4) to light yellowish brown (10YR6/4)
CLAY BEARING NANNO OOZE
74% nanno, 20% discoaster, 3% clay, 1% aniso min, 1% foram

404-465 cm light yellowish brown (10YR6/4)
CLAY-MINERAL BEARING FORAM RICH NANNO OOZE
71% nanno, 20% foram, 3% clay, 3% opaque min, 1% aniso min

465-564 cm very pale brown (10YR7/4) to light yellowish brown (10YR6/4)
CLAY-MINERAL-FORAM BEARING NANNO OOZE
85-90% nanno, 8-10% foram, 1-2% aniso min, 1-2% clay

564-740 cm very pale brown (10YR7/4) and light yellowish brown (10YR6/4)
FORAM BEARING DISCOASTER NANNO OOZE
61-72% nanno, 25-35% disocaster, 1-2% foram, 1% aniso min, tr-2% clay, tr-1% ceratolith

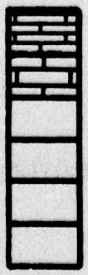
Mottling

Slight mottling throughout core of light yellowish brown (10YR5/3) to very pale brown (10YR7/4).

Layering

96-100 cm very pale brown (10YR7/4) layers
314-324 cm NANNO-FORAM OOZE

KEY



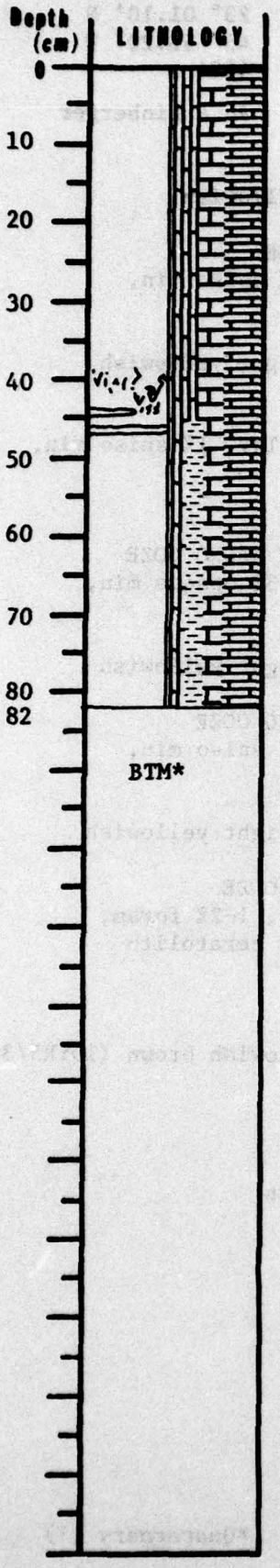
NANNOS

FORAMS

*Quaternary (?)

LITHOLOGIC DESCRIPTION

KK74 IPOD Leg 7
Core ID FFC 12 Sta. 13
Lat., Long. 22° 46.1' N
46° 07.6' W
Water Depth 4494 m
Logged By Au & Lineberger



0-45 cm light yellowish brown (10YR6/4)
CLAY BEARING CALCAREOUS HASH-FORAM RICH NANNO OOZE
46% nanno, 25% foram, 20% calcareous hash, 7% clay, 1% discoaster

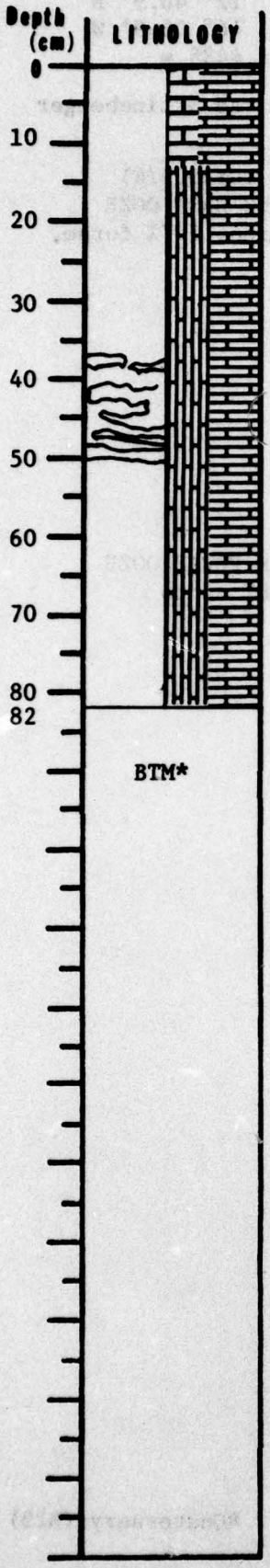
45-82 cm yellowish brown (10YR5/4)
CALCAREOUS HASH-CLAY-FORAM RICH NANNO OOZE
45% nanno, 20% foram, 20% clay, 15% calcareous hash



*Quaternary (N23)

LITHOLOGIC DESCRIPTION

Core ID	KK74 IPOD Leg 7 FFC 13 Sta. 13
Lat., Long.	22° 46.6' N 46° 07.2' W
Water Depth	4491 m
Logged By	Au & Lineberger



0-13 cm light yellowish brown (10YR6/4)
CLAY-CALCAREOUS HASH BEARING FORAM RICH NANNO OOZE
75% nanno, 11% foram, 10% calcareous hash, 2% clay, 2% discoaster

13-82 cm light yellowish brown (10YR5.5/4)
FORAM-CLAY BEARING CALCAREOUS HASH-NANNO OOZE
50% nanno, 39% calcareous hash, 6% clay, 5% foram

Mottling

Slight mottling

36-48 cm dark brown (7.5YR4/4)

Layering

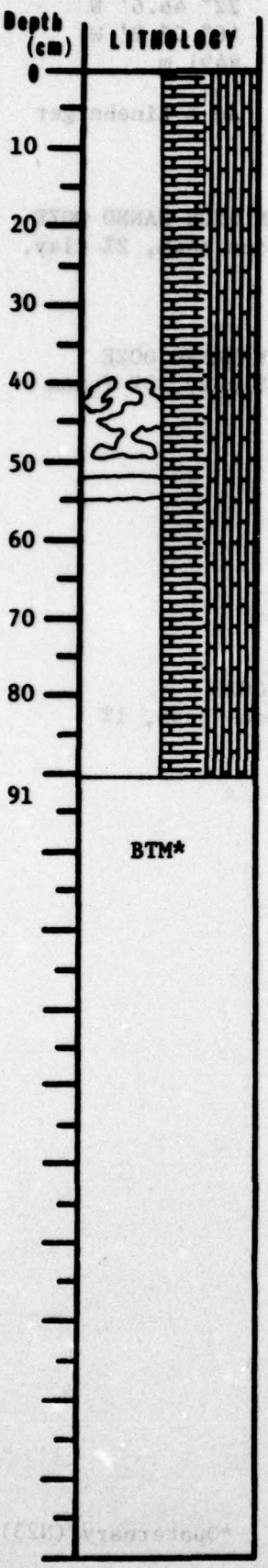
48-50 cm pink (7.5YR7/4)
CALCAREOUS HASH-NANNO RICH FORAM OOZE
55% foram, 25% nanno, 19% calcareous hash, 1% clay



*Quaternary (N23)

LITHOLOGIC DESCRIPTION

	KK74 IPOD Leg 7
Core ID	FFC 14 Sta. 13
Lat., Long.	22° 46.9' N 46° 06.9' W
Water Depth	4485 m
Logged By	Au & Lineberger



0-91 cm light yellowish brown (10YR6/4 to 10YR5.5/4)
FORAM BEARING NANNO RICH CALCAREOUS HASH OOZE
50-68% calcareous hash, 25-38% nanno, 5-7% foram, tr-3% clay

Mottling

Slight mottling in middle of core.

40-50 cm dark brown (7.5YR4/4)

Layering

52-55 cm pink (7.5YR7/4)
NANNO BEARING CALCAREOUS HASH RICH FORAM OOZE
69% foram, 20% calcareous hash, 10% nanno

KEY



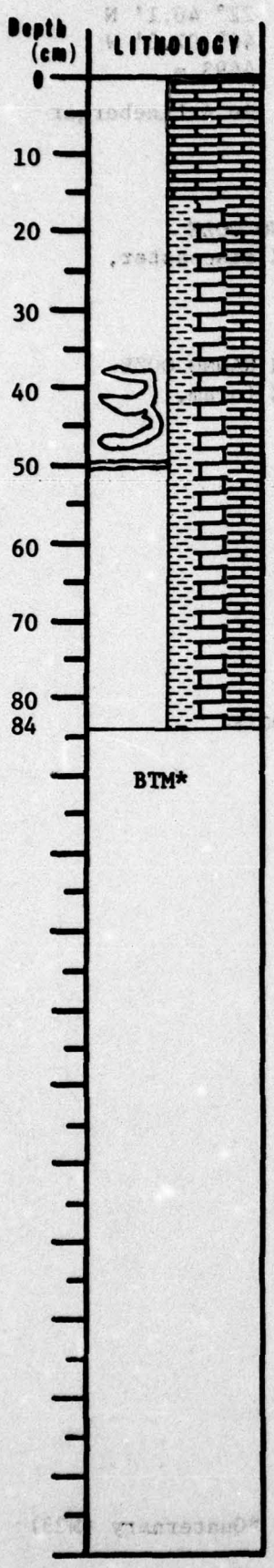
CALCAREOUS HASH

NANNO

*Quaternary (N23)

LITHOLOGIC DESCRIPTION

Core ID	KK74 IPOD Leg 7 FFC 15 Sta. 13
Lat., Long.	22° 46.8' N 46° 07.1' W
Water Depth	4482 m
Logged By	Au & Lineberger



0-15 cm light yellowish brown (10YR6/4)
NANNO OOZE
71% nanno, 10% calcareous hash, 8% discoaster, 4% foram, 3% clay

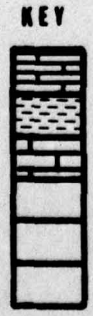
15-84 cm light yellowish brown (10YR5.5/4)
CLAY-FORAM RICH NANNO OOZE
61% nanno, 15% foram, 11% clay, 10% calcareous hash, 2% aniso min, 1% opaque min

Mottling

37-47 cm dark brown (7.5YR4/4); slight mottling

Layering

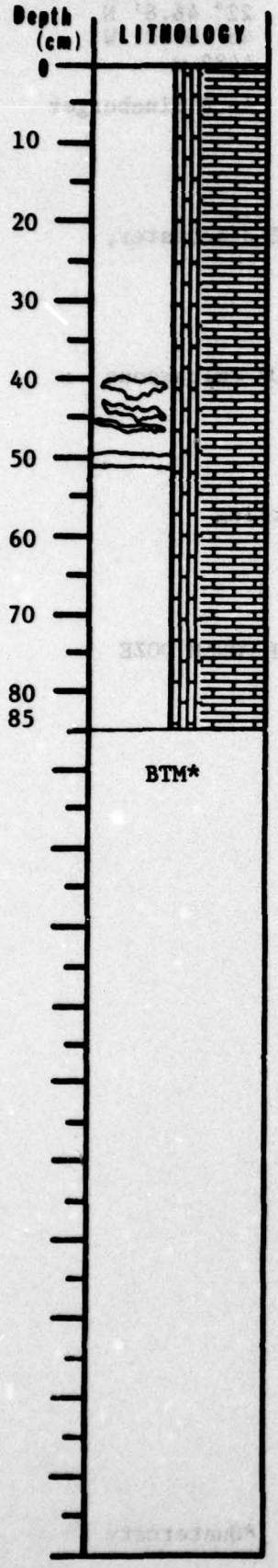
49-50 cm pink (7.5YR7/4)
CALCAREOUS HASH BEARING NANNO RICH FORAM OOZE



*Quaternary

LITHOLOGIC DESCRIPTION

Core ID	KK74 IPOD Leg 7 FFC 16 Sta. 13
Lat., Long.	22° 46.1' N 46° 07.0' W
Water Depth	4493 m
Logged By	Au & Lineberger



0-18 cm light yellowish brown (10YR6/4)
FORAM BEARING CALCAREOUS HASH NANNO OOZE
51% nanno, 30% calcareous hash, 8% discoaster, 7% foram, 3% clay

18-85 cm yellowish brown (10YR5.5/4)
FORAM BEARING CALCAREOUS HASH RICH NANNO OOZE
73% nanno, 20% calcareous hash, 5% foram, 1% discoaster, 1% clay

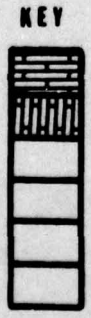
Mottling

Slight mottling concentrated in middle of core.

39-46 cm dark brown (7.5YR4/4)

Layering

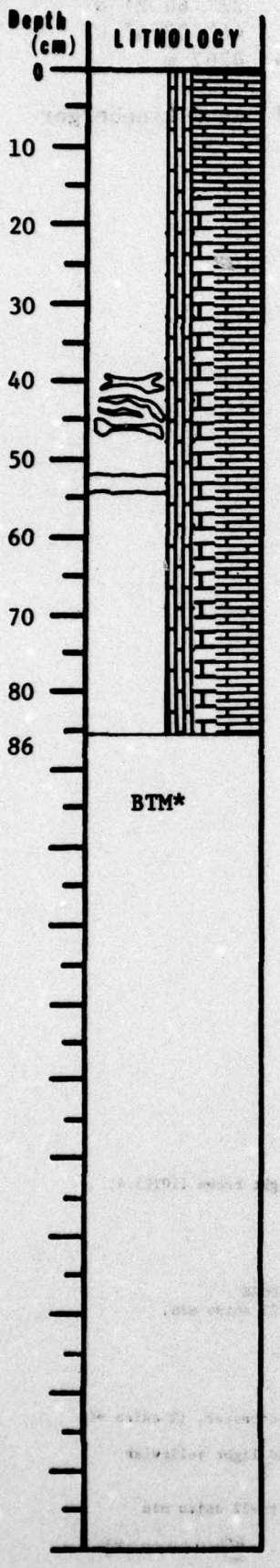
49-51 cm pink (7.5YR7/4)
CALCAREOUS HASH-NANNO RICH FORAM OOZE



*Quaternary (N23)

LITHOLOGIC DESCRIPTION

Core ID	KK74 IPOD Leg 7 FFC 17 Sta. 13
Lat., Long.	22° 45.7' N 46° 07.0' W
Water Depth	4493 m
Logged By	Au & Lineberger



0-15 cm light yellowish brown (10YR6/4)
FORAM BEARING CALCAREOUS HASH RICH NANNO OOZE
69% nanno, 15% calcareous hash, 8% discoaster, 5% foram, 2% clay

15-86 cm yellowish brown (10YR5.5/4)
CLAY BEARING FORAM RICH CALCAREOUS HASH NANNO OOZE
45% nanno, 27% calcareous bioclastic, 16% foram, 7% clay

Mottling

Slight mottling.

39-46 cm dark brown (7.5YR4/4)

Layering

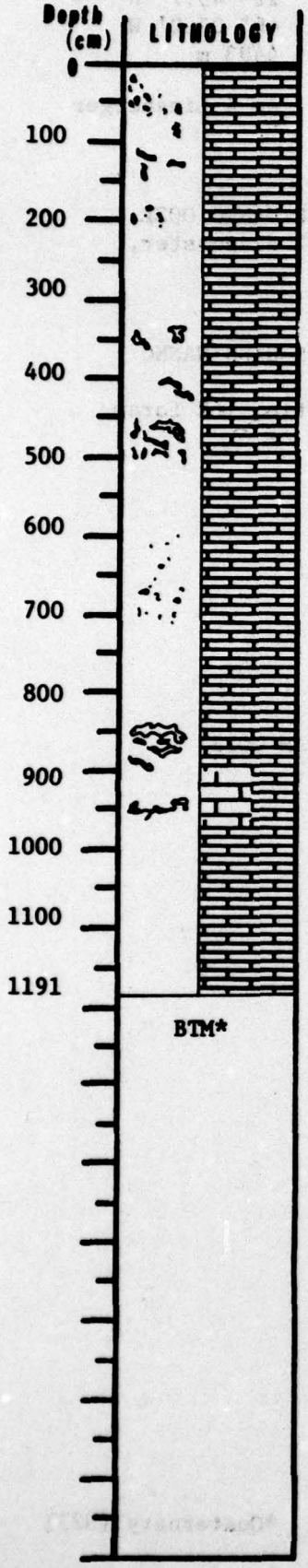
52-54 cm pink (7.5YR7/4)
NANNO BEARING CALCAREOUS HASH FORAM OOZE



*Quaternary (N23)

LITHOLOGIC DESCRIPTION

KK74 IPOD Leg 7
Core ID PCOD 05 Sta. 20
Lat., Long. 22° 44.2' N, 46° 07.4' W
Water Depth 4267 m
Logged By Au & Lineberger



0-154 cm very pale brown (10YR6.5/4) to yellowish brown (10YR5/4)
FORAM BEARING NANNO OOZE
88-95% nanno, 2-5% foram, 1-2% aniso min,
1-2% clay, tr-2% discoaster, tr-1% ceratolith

154-215 cm light yellowish brown (10YR6/4)
MINERAL-FORAM BEARING DISCOASTER RICH NANNO OOZE
70% nanno, 20% discoaster, 3% foram, 3% aniso min,
2% clay

215-545 cm very pale brown (10YR7/4) through brown (7.4YR5/4)
FORAM-CLAY BEARING NANNO OOZE
82-98% nanno, 1-8% clay, tr-7% foram, tr-4% aniso min,
0-1% opaque min

545-595 cm light yellowish brown (10YR6/4) and yellowish brown (10YR5/4)
CLAY BEARING DISCOASTER RICH NANNO OOZE
75% nanno, 20% discoaster, 4% clay, 1% foram,
1% aniso min

595-731 cm very pale brown (10YR7/4) through yellowish brown (10YR5/4)
CLAY-DISCOASTER-FORAM BEARING NANNO OOZE
80-94% nanno, 5% foram, tr-8% discoaster,
tr-7% clay, tr-1% aniso min

731-746 cm light yellowish brown (10YR6/4) and yellowish brown (10YR5/4)
DISCOASTER RICH NANNO OOZE
83% nanno, 15% discoaster, 1% foram, 1% aniso min

746-885 cm very pale brown (10YR7/4) through brown (7.5YR5/4)
FORAM-CLAY BEARING NANNO OOZE
85-95% nanno, 3-8% clay, 1-3% foram, 1-2% aniso min,
tr-10% discoaster

885-916 cm very pale brown (10YR7/4)
DISCOASTER RICH NANNO OOZE
79% nanno, 20% discoaster, 1% aniso min,

916-971 cm very pale brown (10YR7/4) through yellowish
CLAY BEARING FORAM RICH NANNO OOZE
69-76% nanno, 15-30% foram, 3-8% clay, 1% aniso min

971-1020 cm very pale brown (10YR7/4) through yellowish brown (10YR5/4)
FORAM-CLAY BEARING NANNO OOZE
82-96% nanno, 3-8% clay, 2-6% foram, 1% aniso min,
tr-2% discoaster

1020-1191 cm very pale brown (10YR7/4)
CLAY BEARING DISCOASTER RICH NANNO OOZE
71-82% nanno, 15-20% discoaster, 3-5% clay,
1-2% aniso min, 1% foram

Mottling

Slight mottling of brown (7.4YR5/4) and light brown (10YR5/4, 10YR6/4, 7/4, 8/4) throughout core.

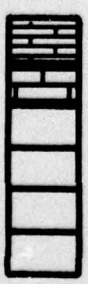
Layering

78-87 cm very pale brown (10YR7/4)
316-317 cm MINERAL BEARING FORAM-NANNO OOZE
753-758 cm 51-58% nanno, 40-45% foram, 2% aniso min,
824-829 cm tr-2% discoaster
900-916 cm

166-168 cm very pale brown (10YR7/4)
FORAM RICH NANNO OOZE
74% nanno, 15% foram, 10% discoaster, 1% aniso min

576-578 cm very pale brown (10YR7/4) and light yellowish
720-731 cm brown (10YR6/4)
NANNO FORAM OOZE
61-70% foram, 28-35% nanno, tr-2% aniso min

KEY



NANNOS

FORAMS

*Quaternary

(14) HIG-77-9, HIG-DATA-33

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE	READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER: HIG Report 77-9: Data Report 33	2. GOVT ACCESSION NO. ✓ / 3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle): (6) Sediment Core Descriptions: R/V Kana Keoki 1973 North Central Pacific Cruise, 1974 Southeastern Pacific Cruise, and a 1974 Mid-Atlantic Ridge IPOD Site-Survey	5. TYPE OF REPORT & PERIOD COVERED
	6. PERFORMING ORG. REPORT NUMBER: HIG Report 77-9
7. AUTHOR(s): (10) Staff of the Sediment Core Laboratory; Fritz Theyer; Chris Mato	8. CONTRACT OR GRANT NUMBER(s): (15) N00014-75-C-0209, N00014-76-A-0016-0001
9. PERFORMING ORGANIZATION NAME AND ADDRESS: Hawaii Institute of Geophysics, 2525 Correa Road, Honolulu, HI 96822	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS: Office of Naval Research, Ocean Science & Technology Division, Bay St. Louis MS 39520	12. REPORT DATE: (11) Sep[redacted]77 / 13. NUMBER OF PAGES: ~~127~~ (12) 132p.
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office): Office of Naval Research Branch Office, 1030 East Green Street, Pasadena, CA 91106	15. SECURITY CLASS. (of this report) / 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

NSF-C482

Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Marine geology
Sediment cores
North Central Pacific
Southeastern Pacific
Mid-Atlantic Ridge

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This report presents generalized descriptions of deep-sea sediment cores collected by personnel of the Hawaii Institute of Geophysics (HIG) during the R/V Kana Keoki's cruise of 1973 in the North Central Pacific, the 1974 cruise in the Southeastern Pacific, and a 1974 IPOD-Site Survey conducted in the Mid-Atlantic Ridge area.

These initial descriptions, in addition to those presented by Andrews et al. (1970, 1973, 1975, 1976) for the Solomon Islands 1968-1969 cruises, Murray Fracture Zone and Western Pacific 1970 cruises, and (continued on back)

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE
S/N 0102-014-6601

Unclassified
SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

16400

Eastern and Western Pacific 1971 and 1972 cruises, serve as a guide to samples available through the Sediment Core Analysis Laboratory of the Hawaii Institute of Geophysics.