

DEPARTMENT OF THE INTERIOR
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Pliocene planktic foraminifer census data from Deep Sea Drilling Project Holes 502A,B,C

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INTRODUCTION

The U. S. Geological Survey's PRISM Project is investigating the climatic and oceanographic conditions of the Pliocene. One of the major elements of the study involves the use of the quantitative composition of planktic foraminifer assemblages in conjunction with stable isotope analysis of planktic and benthic foraminifers to estimate sea-surface temperatures and identify major oceanographic boundaries and water masses within the North Atlantic Basin. We anticipate analyzing many samples during the project which will result in a large volume of raw census data. In addition, it is likely that all or some of the census data from individual cores will be incorporated into analyses for more than one report over the course of the project. Therefore, the raw census data are being published in a series of open-file reports that will provide basic data for future work. This report includes counting categories and raw census data for planktic foraminifer assemblages in 171 samples from DSDP Site 502 (Fig. 1).

A variety of statistical techniques are being developed to transform census data of foraminifers in Pliocene deep-sea cores into

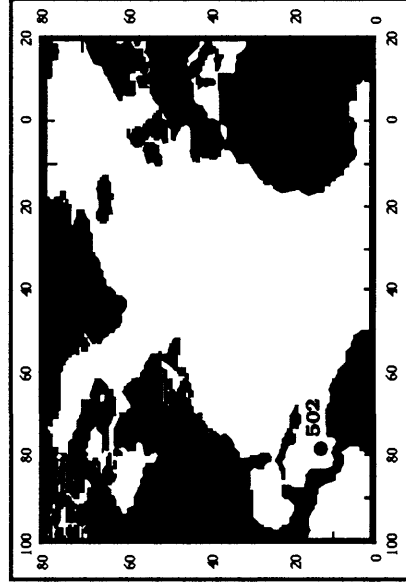


Figure 1 - Location of DSDP Site 502

quantitative estimates of Pliocene sea-surface temperatures. Details of current statistical techniques, taxonomic groupings, and oceanographic interpretations are in Dowsett (1991) and Dowsett and Poore (1990;1991).

Table 1 - Latitude, longitude, and water depth (in corrected meters) for DSDP Site 502

Site	Latitude	Longitude	Water Depth
502	11°29'N	79°22'W	3,051.5m

Latitude, longitude, and water depth of DSDP Site 502 are included in Table 1.

METHODS

The samples used in this study were disaggregated and wet sieved at 63 μ at Brown University.

A split of 300-350 planktic foraminifer specimens was obtained from the $\geq 149\mu$ size fraction using a Carpco sample splitter. Specimens were identified, sorted, and glued to a standard 60 square micropaleontological slide.

Samples were examined from Holes 502A, B, and C. The recovered sections from the adjacent holes were correlated to each other and incorporated into a composite section by Start and Prell (personal communication). Depths for each sample are given in terms of the composite section. In general, sample depths in the composite section differ only slightly from depths determined within individual Holes (see also Dowsett, 1989). Counts of variables tabulated in each sample are given by Hole in Tables 2 (Hole A), 3 (Hole B), and 4 (Hole C).

COUNTING CATEGORIES

Taxa included in counting categories and codes used for headings of Tables 2-4 are summarized below. In general, our taxonomic concepts follow Parker (1962; 1967), and Blow (1969). Exceptions to their practices are noted below.

In Tables 2-4, DSDP sample designations are abbreviated as core-section, depth within section in centimeters (eg. 10-5, 34 = core 10, section 5, 34 cm below top of section 5). The depth column lists depth of sample below sea floor in meters referenced to composite section (Start and Prell, personal communication).

Code Taxon (taxa) comments

acost	<i>Neogloboboaquadrina acostaensis</i> (Blow) and <i>N. continua</i> (Blow)	datac	<i>Neogloboboaquadrina atlantica</i> (Berggren) right-coiling	incis	<i>Globigerina incisa</i> (Bronnemann and Resig)
aequi	<i>Globigerinella aequilateralis</i> (Brady)	decor	<i>Globigerina decoraperta</i> Takayanagi and Saito	marga	<i>Globorotalia margaritae</i> Bolli and Bermudez
altis	<i>Globoboaquadrina altispira</i> (Cushman and Jarvis)	digit	<i>Globigerina digitata</i> Brady	menar	<i>Globorotalia menardii</i> (Parker, Jones, and Brady) s.l. This category includes various members of the <i>G. menardii</i> lineage such as <i>G. limbata</i> (Fornasini) and <i>G. miocenica</i> Palmer.
bform	benthic foraminifers	dpach	<i>Neogloboboaquadrina pachyderma</i> (Ehrenberg) right-coiling. This category is restricted to specimens with 4 chambers in the ultimate whorl. Right-coiling specimens close to <i>N. pachyderma</i> that have more than 4 chambers in the ultimate whorl are tabulated as "dupac."	Neogl	This category includes <i>Neogloboboaquadrina</i> that were not identified to specific level but generally does not include representatives of <i>N. atlantica</i> .
bulls	<i>Globigerina bulloides</i> (d'Orbigny) and <i>G. praebulloides</i> Blow	dupac	This category is used for specimens of right-coiling <i>Neogloboboaquadrina</i> with more than four chambers in the ultimate whorl that are transitional between <i>N. pachyderma</i> and <i>N. acostaensis</i> or <i>N. atlantica</i> .	obliq	<i>Globigerinoides obliquus</i> Bolli and G. <i>extremus</i> Bolli and Bermudez
Cande	<i>Candeina</i>	falco	<i>Globigerina falconensis</i> Blow	Orbul	<i>Orbulina universa</i> d'Orbigny
congl	<i>Globigerinoides conglobatus</i> (Brady)	frags	fragments of planktic foraminifers	OTHER	This category includes unidentified specimens and taxa that are rare within assemblages.
crass	<i>Globorotalia crassaformis</i> (Galloway and Wissler). This category includes <i>G. ronda</i> Blow and <i>G. oceanica</i> Cushman and Bermudez. Specimens with a distinct keel on the entire ultimate whorl are tabulated separately under "kcras".	Gltal	This category includes <i>Globorotalia</i> that could not be confidently identified to specific level.	plata	<i>Globorotalia inflata</i> (d'Orbigny) and <i>G. punctulata</i> (Deshayes)
		gluti	<i>Globigerinita glutinata</i> (Egger) s.l.	praed	<i>Globigerina praedigitata</i> Parker
		Gnoid	<i>Globigerinoides</i> spp. Representatives of <i>Globigerinoides</i> (usually small) that could not be confidently assigned to <i>G. ruber</i> , <i>G. obliquus</i> (s.l.) or <i>G. conglobatus</i> .	Prote	<i>Protentella</i>
		hexag	<i>Globorotaloides hexagona</i> (Noland)	pseud	<i>Globigerina pseudobesa</i> (Salvatorini)
		hirsu	<i>Globorotalia hirsuta</i> (d'Orbigny) and <i>Globorotalia praehirsuta</i> Blow	Pulle	<i>Pulleniatina</i>
		humer	<i>Neogloboboaquadrina humerosa</i> (Takayanagi and Saito)	pumil	This category includes small forms with 5-7 chambers in the ultimate whorl that are similar to <i>Globorotalia pumilio</i> Parker, <i>G. praepumilio</i> (Parker) and <i>G. pseudopumilio</i> Bronnemann and Resig.
				quinq	<i>Turborotalia quinqueloba</i> (Natland)

- ruber *Globigerinoides ruber* (d'Orbigny)
- saccu *Globigerinoides sacculifer* (Brady),
G. quadrilobatus (d'Orbigny) and *G. trilobus* (Reuss)
- scitu *Globorotalia scitula* (Brady) s.l. This category includes various members of the *G. scitula* group, for example *G. subscitula* Conato.
- sp. 1 *Globigerina* sp. 1. Taxon resembles *G. falconensis* but has reticulate surface texture similar to *G. woodi* group.
- spach *Neoglobobiquadrina pachyderma* (Ehrenberg) left-coiling. Relatively small, compact *Neoglobobiquadrina* with 4-5 chambers in the ultimate whorl, kummerform ultimate chamber, and a slightly to distinct oval equatorial outline are included here. Separating small left-coiling *N. atlantica* from large left-coiling *N. pachyderma* is arbitrary in many North Atlantic high-latitude sites.
- Sphae *Sphaeroidinella* and *Sphaeroidinella lopsis*
- toat *Globorotalia tosaensis* Takayanagi and Saito and *G. truncatulinoides* (d'Orbigny)
- TOTAL PLANK tumid venez woodi
- Total number of planktic forams in the counting split.
- Globorotalia tumida* (Brady) s.l. and *G. plesiotumida* Blow and Banner.
- Globoquadrina venezuelana* (Hedberg)
- Globigerina woodi* Jenkins and G. *apertura* Cushman
- ACKNOWLEDGEMENTS**
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SAMPLE	DEPTH	other	rub	obliq	saccu	bulls	falco	spach	dupac	acost	humer	gluti	Orbul	Gnoid	quinq	hexag	datca	pumil	aequi	congl	woodi	decor	pseud
19-1, 19.5	72.21	1	36	22	59	3	0	0	2	12	59	12	8	4	0	1	0	0	1	1	20	1	3
19-1, 49.5	72.51	3	61	17	24	14	0	0	6	52	51	12	3	11	0	0	0	0	0	3	14	3	0
19-1, 79.5	72.81	4	41	19	24	11	0	0	1	17	83	10	8	6	0	0	0	7	1	1	22	0	4
19-1, 111.5	73.13	1	53	17	8	9	0	0	3	27	91	31	13	10	0	0	0	2	0	5	20	3	3
19-1, 139.5	73.41	3	53	14	32	6	0	0	2	15	33	27	4	7	0	0	0	1	0	0	79	2	2
19-2, 19.5	73.71	0	42	15	41	8	1	0	7	21	78	12	3	8	0	0	0	0	1	0	40	4	0
19-2, 49.5	74.01	0	25	16	11	8	0	0	5	33	68	14	7	6	0	0	0	2	1	0	27	2	2
19-2, 79.5	74.31	1	23	18	46	2	0	0	9	15	66	27	4	6	0	6	0	2	1	2	16	1	0
19-2, 111.5	74.63	1	42	12	18	5	0	0	15	44	39	21	3	2	0	0	0	6	0	0	32	2	0
19-2, 139.5	74.91	2	29	16	90	7	0	0	8	32	25	21	9	5	0	2	0	0	2	0	32	3	0
19-3, 19.5	75.23	1	45	13	32	19	0	0	3	16	18	33	6	1	0	2	0	2	3	2	40	2	4
19-3, 49.5	75.53	2	30	22	6	13	10	0	10	48	33	34	5	3	0	0	0	8	2	0	25	3	2
19-3, 79.5	75.83	3	41	24	64	15	3	0	5	22	0	42	8	2	0	1	0	1	3	2	27	8	0
19-3, 95.5	75.99	6	24	22	26	17	1	0	8	56	14	32	4	13	0	0	0	1	0	2	40	6	1
20-1, 20.5	76.74	3	28	30	52	31	1	0	9	34	5	13	6	1	0	0	0	6	1	0	32	0	1
20-1, 50.5	77.04	7	34	26	48	31	1	0	6	13	14	29	9	7	0	3	0	8	0	2	40	0	0
20-1, 80.5	77.34	2	43	23	32	23	3	0	1	1	12	22	9	4	0	5	0	3	0	8	43	1	0
20-1, 110.5	77.64	2	46	21	30	26	6	0	1	20	8	26	7	3	0	8	0	12	4	0	23	2	2
20-1, 140.5	77.94	4	21	32	38	44	1	0	8	19	35	24	9	3	0	2	0	2	0	8	14	1	3
20-2, 20.5	78.26	2	14	21	27	28	3	0	6	27	54	28	18	6	0	0	0	4	0	4	7	0	0
20-2, 50.5	78.56	5	24	12	30	31	0	0	1	39	49	26	4	8	0	3	0	6	3	2	14	0	2
20-2, 80.5	78.86	2	26	10	51	41	2	0	6	11	50	17	4	2	0	4	0	1	2	5	22	0	2
20-2, 110.5	79.16	4	16	8	37	28	0	0	2	15	50	21	15	4	0	1	0	6	4	7	28	0	0
20-2, 140.5	79.46	0	19	39	25	8	0	0	2	22	62	24	6	5	0	3	0	2	1	5	29	0	0
20-3, 20.5	79.77	2	48	21	39	30	2	0	5	20	42	35	3	3	0	0	0	5	5	2	31	2	3
20-3, 50.5	80.07	3	38	22	40	14	2	0	0	10	33	19	6	1	0	0	0	7	5	6	30	2	0
20-3, 80.5	80.37	2	28	5	25	40	1	0	0	32	24	33	9	5	0	1	0	12	3	10	44	18	11
20-3, 110.5	80.67	1	15	18	26	17	3	0	0	42	31	29	4	5	0	0	0	4	1	4	33	4	3
20-3, 140.5	80.97	3	58	21	44	14	3	0	0	10	21	17	8	3	0	0	0	2	3	3	44	6	4
21-1, 19.5	81.24	2	49	21	24	20	0	0	10	20	32	23	10	2	0	1	0	1	8	3	48	5	0
21-1, 50.5	81.55	1	17	30	58	18	2	1	6	32	43	40	4	1	0	1	0	0	4	12	23	0	0
21-1, 80.5	81.85	4	26	42	22	26	6	1	12	38	69	34	8	3	0	2	0	4	5	1	24	0	0
21-1, 110.5	82.15	2	49	50	21	22	2	0	5	6	34	16	5	9	0	2	0	3	2	2	13	7	6
21-1, 140.5	82.45	1	24	20	33	40	0	0	2	4	66	17	8	0	0	0	0	13	4	5	36	0	7
21-2, 19.5	82.74	0	29	30	61	30	1	0	3	1	38	12	9	3	0	0	0	2	4	2	46	0	4

Table 2 - DSDP Hole 502A

	incis	dpach	Neogl	Sphae	Cande	altis	Prote	praed	plata	crass	tocat	Pulle	venez	sp.1	marga	scitu	hirsu	Gital	tumid	menar	frags	bform	TOTAL	SAMPLE
1	1	0	3	0	10	0	2	1	1	0	0	0	0	0	0	2	0	0	0	30	250	3	296	19 - 1, 19.5
0	2	2	4	0	0	0	1	0	8	0	0	0	0	0	0	2	0	0	0	14	430	6	307	19 - 1, 49.5
0	2	6	2	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	29	175	9	302	19 - 1, 79.5
0	1	7	1	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	23	271	2	334	19 - 1, 111.5
3	0	4	1	0	11	0	1	0	1	0	0	0	0	0	0	0	3	0	0	16	176	3	320	19 - 1, 139.5
2	0	5	4	0	4	0	1	0	4	0	0	0	0	0	0	1	2	0	0	25	339	5	329	19 - 2, 19.5
1	0	10	4	0	6	0	0	1	1	0	0	0	0	0	0	0	10	0	0	47	417	10	307	19 - 2, 49.5
0	0	4	5	0	18	0	2	0	8	0	0	0	1	0	0	3	0	0	0	55	181	5	341	19 - 2, 79.5
1	2	25	0	0	6	0	0	0	5	0	0	0	1	0	0	2	0	0	0	25	213	20	309	19 - 2, 111.5
0	0	0	4	0	10	0	5	0	6	0	0	0	0	0	0	0	0	0	0	16	652	6	324	19 - 2, 139.5
0	0	9	5	0	28	0	1	0	7	0	0	0	0	0	0	1	0	0	0	14	175	4	307	19 - 3, 19.5
0	0	13	8	0	39	0	0	0	0	0	0	1	0	0	0	1	9	0	0	27	113	8	354	19 - 3, 49.5
0	0	0	5	0	34	0	2	0	0	0	0	0	0	0	0	3	3	0	0	16	292	8	334	19 - 3, 79.5
0	0	10	4	0	27	0	1	0	0	0	0	0	0	0	0	2	9	0	0	17	300	7	343	19 - 3, 95.5
1	0	12	24	0	15	0	3	0	2	0	0	0	1	0	0	1	7	0	0	5	318	9	324	20 - 1, 20.5
0	0	16	19	0	31	0	1	0	0	0	0	0	3	1	0	2	0	5	0	19	302	32	375	20 - 1, 50.5
0	0	12	0	0	25	0	2	0	0	0	0	2	2	0	0	0	4	0	0	33	268	10	315	20 - 1, 80.5
2	0	17	0	0	12	0	0	0	0	0	0	0	0	0	0	0	5	0	0	36	263	17	319	20 - 1, 110.5
0	0	13	0	0	14	0	0	0	0	17	0	0	6	0	0	0	2	0	0	28	358	12	348	20 - 1, 140.5
0	1	6	0	0	12	0	2	0	1	0	0	0	1	0	0	2	25	0	0	22	532	7	321	20 - 2, 20.5
0	0	4	0	0	21	0	1	0	1	0	0	0	1	0	0	0	14	0	0	18	397	8	319	20 - 2, 50.5
0	0	8	0	0	12	0	0	0	5	0	0	0	0	0	0	0	14	0	0	18	347	11	315	20 - 2, 80.5
0	0	9	2	0	32	0	0	0	3	0	0	0	0	0	0	0	7	0	0	45	420	8	344	20 - 2, 110.5
1	2	9	1	0	7	0	1	0	5	0	0	0	0	0	0	0	9	0	0	42	321	2	329	20 - 2, 140.5
0	0	6	3	0	4	0	2	0	4	0	0	0	0	0	0	1	2	0	0	18	286	7	338	20 - 3, 20.5
0	0	2	11	0	7	0	0	0	6	0	0	0	0	0	0	0	11	0	0	41	278	3	316	20 - 3, 50.5
0	1	3	7	3	14	0	0	0	5	0	0	0	5	0	0	0	0	0	0	25	417	11	366	20 - 3, 80.5
0	0	5	2	2	6	0	0	0	2	0	0	0	0	0	0	1	1	0	0	29	231	1	288	20 - 3, 110.5
0	0	1	13	0	0	0	0	3	0	0	0	0	1	1	0	1	0	0	0	34	149	3	318	20 - 3, 140.5
1	0	0	11	2	21	0	1	0	1	0	0	0	0	0	0	0	1	0	0	38	300	8	355	21 - 1, 19.5
0	0	0	8	0	5	0	2	2	0	0	0	0	0	0	0	0	3	0	0	38	256	13	351	21 - 1, 50.5
0	0	0	7	1	7	0	1	0	0	0	0	0	0	0	0	0	8	0	0	18	386	15	369	21 - 1, 80.5
0	0	7	14	3	13	0	0	1	0	0	0	0	0	1	0	0	2	0	0	37	220	9	334	21 - 1, 110.5
0	0	6	4	0	1	0	0	4	1	0	0	1	0	0	0	2	14	0	0	26	230	5	339	21 - 1, 140.5
0	0	1	3	0	6	0	0	2	0	0	0	0	2	0	0	3	6	0	0	43	175	15	341	21 - 2, 19.5

Table 2 - DSDP Hole 502A

SAMPLE	DEPTH	other	ruber	obliq	sacou	bulls	falco	spach	dupac	acost	humer	gluti	Orbul	Gnoid	quinq	hexag	datca	pumil	aequi	congl	woodi	decor	pseud
21 - 2, 50.5	83.05	3	41	14	15	24	2	0	2	1	64	18	8	3	0	0	0	0	5	1	37	0	3
21 - 2, 80.5	83.55	4	46	9	50	14	0	0	0	6	40	17	11	5	0	6	0	0	2	10	41	3	6
21 - 2, 110.2	83.65	0	28	28	2	35	0	0	4	13	59	28	12	5	0	4	0	2	3	0	33	5	7
21 - 2, 140.5	83.95	3	36	19	34	18	3	0	2	5	28	34	14	4	0	2	0	7	2	31	18	4	1
21 - 3, 19.5	84.24	1	44	24	32	24	0	0	6	5	60	38	5	7	0	4	0	3	1	1	29	2	1
21 - 3, 80.5	84.53	3	48	27	120	5	2	0	3	8	33	21	8	3	0	3	0	3	1	6	27	0	1
21 - 3, 110.5	84.83	4	64	25	31	34	3	0	3	7	16	10	7	5	0	1	0	4	0	2	59	2	6
21 - 3, 140.5	85.13	2	42	14	76	12	2	0	1	5	15	23	16	9	0	4	0	2	5	4	65	5	2
22 - 1, 5.5	85.54	0	31	19	55	16	1	0	6	12	38	22	12	5	0	4	1	0	3	0	2	0	0
22 - 1, 35.5	85.84	3	25	16	21	17	2	0	7	13	70	20	3	1	0	4	0	0	1	5	3	0	0
22 - 1, 65.5	86.14	1	54	12	51	15	2	0	1	5	42	22	10	1	0	3	0	0	4	5	16	1	0
22 - 1, 95.5	86.44	1	47	29	52	22	2	0	2	13	54	17	7	0	0	2	0	0	2	1	4	1	0
22 - 1, 125.5	86.74	1	17	43	67	14	0	0	3	2	37	10	6	0	0	1	0	0	2	1	61	0	0
22 - 2, 5.5	87.05	3	40	25	25	20	1	0	2	18	43	14	2	13	0	2	0	2	1	3	37	0	0
22 - 2, 35.5	87.35	2	27	32	37	17	1	0	0	17	32	16	0	11	0	1	0	1	1	3	34	3	0
22 - 2, 65.5	87.65	10	38	52	24	26	1	0	0	5	42	15	4	1	0	0	0	0	5	2	10	0	0
22 - 2, 110.5	88.10	1	6	25	51	9	2	0	3	40	54	13	4	4	0	0	0	0	2	12	4	0	0
22 - 3, 5.5	88.53	2	27	23	26	15	1	0	5	25	41	29	3	3	0	0	0	2	6	2	16	0	0
22 - 3, 50.5	88.92	4	31	35	34	17	0	0	0	3	44	13	8	4	0	2	0	2	2	3	18	0	0
22 - 3, 95.5	89.35	5	27	30	30	34	2	0	0	8	74	23	0	0	4	0	0	4	3	0	9	0	1
22 - 3, 140.5	89.80	2	21	42	40	23	1	0	3	8	44	20	8	2	0	0	0	1	3	1	1	0	4
23 - 1, 35.5	90.20	1	17	40	28	17	2	0	3	4	40	29	10	6	0	3	0	0	1	17	10	0	5
23 - 1, 65.5	90.50	2	0	62	20	43	6	0	6	3	65	26	5	3	0	3	0	0	0	3	6	0	5
23 - 1, 110.5	90.95	2	8	72	5	33	1	0	4	13	52	42	5	3	0	0	0	2	1	1	19	0	5
23 - 2, 5.5	91.40	3	6	48	37	32	1	0	2	11	36	6	5	0	0	0	0	1	9	0	45	5	0
23 - 2, 50.5	91.85	3	4	62	46	6	0	0	2	9	28	9	19	4	0	3	0	0	0	1	42	1	0
23 - 2, 95.5	92.30	2	4	60	11	48	3	0	5	4	40	25	5	0	0	2	0	0	2	3	27	1	5
23 - 2, 125.5	92.60	1	2	47	84	25	0	0	2	4	20	10	19	5	0	0	0	0	5	0	32	0	2
23 - 3, 5.5	92.91	2	3	45	74	20	0	0	4	6	25	9	17	2	0	0	0	0	4	2	23	1	2
23 - 3, 50.5	93.36	5	3	43	22	28	0	0	5	5	49	18	9	4	0	1	0	1	1	12	31	0	3
23 - 3, 95.5	93.81	2	2	76	24	17	2	0	1	17	59	13	13	6	0	0	0	2	4	4	24	0	4
23 - 3, 140.5	94.26	4	2	75	7	30	4	0	2	8	28	28	5	1	0	0	0	0	6	0	32	1	2
24 - 1, 35.5	94.64	4	6	56	34	37	0	0	4	15	44	34	3	2	0	0	0	0	3	0	42	5	4
24 - 1, 80.5	95.09	0	0	55	50	27	0	0	4	5	50	30	10	0	0	0	0	0	0	0	19	0	0
24 - 1, 125.5	95.54	0	5	61	17	42	7	0	3	27	73	35	1	0	0	0	0	0	2	1	8	0	0

Table 2 - DSDP Hole 502A continued

TOTAL																							
incis	dpach	Neogl	Sphae	Cande	altis	Prote	praed	plata	crass	tocat	Pulle	venez	sp.1	marga	scitu	hirsu	Gltal	tumid	menar	frags	bform	PLANK	SAMPLE
0	0	0	0	0	9	0	0	1	0	0	0	0	2	0	2	9	0	0	30	90	9	294	21 - 2, 50.5
0	0	6	5	0	24	0	0	0	0	0	0	0	1	1	0	0	0	0	49	240	12	356	21 - 2, 80.5
0	0	6	5	0	13	0	1	0	0	0	1	0	0	0	1	5	0	0	37	130	15	337	21 - 2, 110.2
0	0	7	29	4	17	0	0	0	0	0	0	0	0	0	2	0	0	0	50	420	17	374	21 - 2, 140.5
1	0	0	6	1	6	0	0	1	4	0	0	0	0	0	1	0	0	0	36	305	22	343	21 - 3, 19.5
3	0	5	6	0	29	0	0	0	0	0	0	0	6	0	0	0	0	0	28	455	8	399	21 - 3, 80.5
1	0	9	1	0	4	0	0	5	3	0	0	0	0	0	0	1	0	0	46	190	15	353	21 - 3, 110.5
3	0	16	13	1	5	0	0	0	2	0	0	0	0	0	3	0	0	0	0	395	20	347	21 - 3, 140.5
0	0	13	2	0	10	0	2	0	7	0	0	1	0	0	0	0	0	0	74	295	9	336	22 - 1, 5.5
1	0	4	8	2	11	0	0	0	4	0	0	2	0	0	0	0	2	0	68	315	4	313	22 - 1, 35.5
0	0	0	13	3	14	0	2	0	0	0	0	0	0	0	2	0	0	0	57	530	12	336	22 - 1, 65.5
0	0	0	0	0	11	0	0	0	4	0	0	0	0	0	0	0	0	0	43	255	4	314	22 - 1, 95.5
0	2	1	4	1	23	0	1	1	6	0	0	1	0	0	0	0	0	0	12	638	6	317	22 - 1, 125.5
0	0	0	0	0	6	0	1	0	4	0	0	0	0	0	1	0	0	0	21	198	8	284	22 - 2, 5.5
2	0	0	3	0	7	0	0	0	1	0	0	1	0	0	1	0	0	0	30	293	9	280	22 - 2, 35.5
0	0	3	27	0	21	0	0	0	4	0	0	0	3	0	1	0	0	0	40	210	3	334	22 - 2, 65.5
0	0	2	9	2	23	0	1	0	2	0	0	1	0	0	0	0	0	0	42	348	10	312	22 - 2, 110.5
1	0	0	11	4	47	0	0	0	8	0	0	0	0	0	0	0	0	0	21	235	13	318	22 - 3, 5.5
0	0	1	23	1	21	0	0	0	5	0	1	11	0	0	0	0	0	0	49	315	8	332	22 - 3, 50.5
2	0	20	3	1	13	0	0	0	1	0	0	9	0	0	1	0	1	0	32	155	6	337	22 - 3, 95.5
1	0	18	2	2	12	0	0	0	5	0	1	1	0	0	0	0	0	0	38	155	7	304	22 - 3, 140.5
2	0	17	7	6	11	0	0	0	1	0	0	3	0	0	0	0	0	0	24	365	8	304	23 - 1, 35.5
3	0	13	2	2	21	0	1	0	6	0	0	4	2	0	0	0	0	0	15	215	13	327	23 - 1, 65.5
1	0	10	3	0	24	0	0	0	5	0	0	1	0	0	0	0	0	17	220	18	329	23 - 1, 110.5	
0	0	0	1	1	13	0	0	0	5	0	0	0	1	0	1	0	0	0	47	288	6	316	23 - 2, 5.5
2	0	0	10	3	15	0	0	0	1	0	0	2	0	0	0	0	0	0	26	358	5	298	23 - 2, 50.5
1	0	26	1	1	17	0	0	0	10	0	2	0	1	0	0	0	0	0	29	225	7	335	23 - 2, 95.5
3	0	3	5	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	27	265	4	326	23 - 2, 125.5
1	0	10	12	1	12	0	0	0	3	0	0	0	0	0	0	0	0	0	25	220	3	303	23 - 3, 5.5
1	0	16	17	1	12	0	2	0	4	0	0	2	0	0	1	0	0	0	50	365	9	346	23 - 3, 50.5
1	0	3	8	0	25	0	3	0	5	0	0	2	0	0	0	0	0	0	9	165	4	326	23 - 3, 95.5
3	0	23	5	1	34	0	1	0	12	0	0	4	0	0	0	0	0	0	0	305	20	318	23 - 3, 140.5
0	0	10	4	0	16	0	0	0	4	0	0	1	0	0	3	0	0	0	8	240	13	339	24 - 1, 35.5
0	0	0	15	0	26	0	2	0	10	0	0	4	0	4	0	0	0	0	15	395	16	326	24 - 1, 80.5
4	0	0	11	0	13	0	0	0	5	0	0	0	0	2	1	0	0	0	9	253	22	327	24 - 1, 125.5

Table 2 - DSDP Hole 502A continued

SAMPLE	DEPTH	other	ruber	oblq	saccu	bulls	falco	spach	dupac	acost	humer	gluti	Orbul	Gnoid	quinq	hexag	datca	purnil	aequi	congl	woodi	decor	pseud
11-1, 21.0	41.05	3	71	2	54	16	1	0	20	0	70	39	3	6	0	0	0	16	0	1	10	4	3
11-1, 41.0	41.25	5	37	2	41	16	1	2	39	2	107	19	8	13	0	0	0	14	2	1	0	0	0
11-1, 61.0	41.45	4	99	4	61	12	0	0	9	0	28	27	4	9	0	0	0	14	1	0	13	5	0
11-1, 83.0	41.67	3	95	3	23	21	1	1	19	0	26	36	5	10	0	0	0	2	2	3	9	3	3
11-1, 101.0	41.85	5	71	3	22	18	2	0	24	0	93	48	7	1	0	0	0	1	2	3	5	1	1
11-1, 141.0	42.25	3	72	2	40	19	0	0	0	0	77	30	14	4	0	0	0	14	1	2	9	6	1
11-2, 31.0	42.65	2	114	6	48	10	1	0	2	0	59	21	15	5	0	0	0	16	0	0	10	2	2
11-2, 72.0	43.06	2	85	4	64	9	0	0	0	0	54	26	10	5	0	0	0	4	2	4	3	0	1
11-2, 91.0	43.25	2	94	3	60	19	0	0	2	0	81	17	12	9	0	1	0	1	3	7	3	0	1
11-2, 131.0	43.65	4	97	4	62	19	0	0	3	0	50	30	6	11	0	0	0	0	3	3	15	3	1
11-3, 21.0	44.07	5	72	4	49	21	0	0	4	2	52	45	12	7	0	0	0	10	0	1	10	3	0
11-3, 41.0	44.26	4	126	6	44	7	0	0	2	3	22	39	7	11	0	0	0	5	3	0	10	5	7
11-3, 61.0	44.46	3	114	4	70	17	1	0	1	1	34	25	19	9	0	0	0	0	4	1	9	3	5
11-3, 99.5	44.84	1	60	6	35	36	0	0	6	0	76	30	7	4	0	0	0	0	0	0	2	1	0
11-3, 121.0	45.06	0	68	4	60	18	0	0	3	0	50	42	18	3	0	0	0	30	0	0	5	2	3
13-1, 22.0	50.37	1	92	2	64	23	0	0	8	19	50	19	12	0	0	2	0	1	2	0	25	0	0
13-1, 41.0	50.56	3	87	7	33	20	0	0	10	0	91	42	6	7	0	8	0	10	0	1	22	5	1
13-1, 83.0	50.98	2	56	3	72	21	1	0	5	0	44	60	9	4	0	2	0	29	2	4	28	4	0
13-1, 121.0	51.36	3	70	2	100	8	1	0	3	0	50	37	7	0	0	5	0	16	2	1	15	1	4
13-2, 11.0	51.76	0	75	7	61	14	0	1	7	1	114	30	10	9	0	0	0	0	1	6	10	0	0
13-2, 50.0	52.15	0	88	3	51	9	0	1	10	1	64	25	10	4	0	0	0	33	1	0	20	0	3
13-2, 91.0	52.56	1	56	0	72	18	1	0	3	0	82	23	11	3	0	0	1	14	4	0	19	0	2
13-2, 131.0	52.96	2	74	4	45	8	2	0	2	3	88	26	6	6	0	0	3	5	5	0	23	0	1
13-3, 22.0	53.37	4	100	1	1	18	0	0	17	0	109	23	13	1	0	0	1	4	2	2	22	0	0
13-3, 61.0	53.77	4	94	1	45	18	0	0	1	0	63	33	7	5	0	0	0	3	10	1	20	0	2
13-3, 101.0	54.17	2	73	0	38	9	1	0	4	2	62	38	12	5	0	0	0	13	1	0	23	0	1
13-3, 121.0	54.37	2	52	1	103	17	0	0	1	0	52	30	9	2	0	0	0	7	7	1	13	0	1
14-1, 22.0	54.67	1	75	3	23	22	2	0	1	0	56	31	1	2	0	0	0	0	2	2	35	1	1
14-1, 61.0	55.06	1	114	1	89	7	0	0	0	0	37	15	8	4	0	0	0	2	1	3	20	4	2
14-1, 101.0	55.46	2	94	0	40	16	0	0	0	0	71	37	9	4	0	0	1	7	1	3	26	0	0
14-1, 141.0	55.86	1	90	3	46	14	2	0	2	1	35	36	6	7	0	4	0	0	10	0	25	0	3
14-2, 11.0	56.06	1	81	30	8	19	9	0	1	2	61	35	11	5	0	0	0	0	6	5	20	0	6
14-2, 49.0	56.44	1	92	15	47	5	1	0	0	0	52	26	7	6	0	0	0	4	3	0	31	0	0
14-2, 91.0	56.84	1	87	13	29	11	0	0	0	0	19	27	18	7	0	0	0	3	4	3	49	0	0
14-2, 131.0	57.24	2	104	31	17	11	0	0	1	0	24	19	13	6	0	0	0	4	2	1	30	2	1

Table 3 - DSDP Hole 502B

	incis	dpach	Neogl	Sphae	Cande	altis	Prote	praed	plata	crass	tocat	Pulle	venez	sp.1	marga	scitu	hirsu	Gltal	tumid	menar	frags	bform	PLANK	SAMPLE
4	3	0	2	0	0	0	0	0	0	1	0	1	0	0	0	2	11	0	0	0	360	6	343	11 - 1, 21.0
4	17	23	2	0	0	0	0	1	0	0	1	0	1	0	0	3	6	0	0	0	359	7	367	11 - 1, 41.0
2	6	0	0	1	0	0	0	1	0	0	0	3	0	0	0	1	4	0	0	0	247	3	308	11 - 1, 61.0
2	4	27	3	1	0	0	0	0	0	1	3	2	0	0	0	0	4	0	0	1	146	6	313	11 - 1, 83.0
1	5	1	4	0	0	0	0	0	1	3	0	2	0	0	0	1	6	1	4	13	320	8	349	11 - 1, 101.0
1	0	0	7	0	0	0	0	0	0	0	0	2	0	1	0	0	0	5	1	19	396	7	330	11 - 1, 141.0
0	3	0	8	0	0	0	0	3	0	0	0	0	0	1	0	3	9	1	1	13	166	3	355	11 - 2, 31.0
5	0	0	7	0	0	0	0	2	0	0	2	9	1	0	0	5	4	2	4	27	390	4	341	11 - 2, 72.0
0	0	0	5	0	0	0	0	1	1	0	1	16	0	0	0	1	0	1	5	19	289	3	365	11 - 2, 91.0
2	0	1	4	0	0	0	0	0	5	0	0	5	0	0	0	2	1	1	0	0	128	2	332	11 - 2, 131.0
1	0	5	4	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	17	316	11	328	11 - 3, 21.0
2	3	7	5	0	0	0	0	0	0	2	0	1	0	0	0	0	0	2	0	0	56	4	323	11 - 3, 41.0
4	1	0	5	0	0	0	0	0	0	4	0	1	0	1	0	5	0	1	2	2	74	1	346	11 - 3, 61.0
0	0	4	1	0	0	0	0	1	0	6	0	1	0	0	0	2	0	0	2	35	402	11	316	11 - 3, 99.5
4	0	0	9	0	0	0	0	2	0	1	0	0	0	0	0	4	0	0	0	17	327	17	343	11 - 3, 121.0
2	2	0	9	0	0	0	0	1	0	3	0	0	0	0	0	1	0	0	0	4	314	2	342	13 - 1, 22.0
1	0	1	7	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	5	430	13	371	13 - 1, 41.0
1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2	1	2	0	3	210	1	357	13 - 1, 83.0
2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6	0	2	252	5	339	13 - 1, 121.0
6	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	6	489	7	368	13 - 2, 11.0
4	1	4	1	0	0	0	2	0	0	3	0	0	0	0	0	4	0	0	0	30	315	6	372	13 - 2, 50.0
3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	6	1	2	0	23	216	0	348	13 - 2, 91.0
0	1	0	3	0	0	0	0	1	0	0	0	0	0	0	0	4	2	0	0	42	563	21	356	13 - 2, 131.0
1	4	7	12	0	0	0	0	0	0	2	0	0	0	0	0	1	1	5	0	10	447	11	361	13 - 3, 22.0
3	0	3	5	1	0	0	0	0	0	1	0	0	0	0	0	4	1	0	0	6	318	5	331	13 - 3, 61.0
4	1	0	3	0	0	0	0	0	0	2	0	0	0	0	0	4	0	1	0	30	220	3	329	13 - 3, 101.0
5	0	0	2	0	0	0	0	2	0	2	0	0	0	0	0	2	1	0	0	34	131	2	346	13 - 3, 121.0
7	0	2	0	0	0	0	0	0	1	5	0	0	0	0	0	5	0	0	0	53	65	1	331	14 - 1, 22.0
0	0	4	0	0	0	0	0	0	1	4	0	0	0	0	0	1	1	0	0	29	207	2	348	14 - 1, 61.0
3	0	8	5	0	0	0	0	0	3	5	0	0	0	0	0	0	0	2	0	30	304	1	367	14 - 1, 101.0
0	0	3	0	0	0	0	0	0	6	3	0	0	0	0	0	2	0	1	0	59	116	3	359	14 - 1, 141.0
8	0	1	0	1	0	0	0	0	8	8	0	0	0	0	0	3	0	0	0	37	91	7	366	14 - 2, 11.0
2	0	6	2	0	0	0	0	0	1	5	0	0	0	0	0	0	0	2	0	40	248	4	348	14 - 2, 49.0
0	0	0	3	0	0	0	0	1	6	9	0	0	0	0	0	1	2	0	0	41	32	2	334	14 - 2, 91.0
1	0	2	6	0	0	0	0	1	1	0	3	0	0	0	0	2	1	0	0	54	162	3	339	14 - 2, 131.0

Table 3 - DSDP Hole 502B

SAMPLE	DEPTH	other	ruber	obliq	saccu	bullis	falco	spach	dupac	acost	humer	gluti	Orbul	Gnoid	quinq	hexag	datca	pumil	aequi	congl	woodi	decor	pseud
14 - 3 , 21.0	57.64	2	89	15	0	10	1	0	1	0	69	21	23	5	0	0	0	13	5	4	29	0	3
14 - 3 , 61.0	58.04	0	99	24	41	5	0	0	0	0	52	25	13	6	0	0	0	0	1	1	33	0	0
14 - 3 , 99.0	58.42	4	83	2	2	18	0	0	2	3	52	37	8	3	0	1	0	1	8	2	33	2	7
15 - 1 , 22.0	59.17	0	82	12	30	26	8	0	1	3	54	34	8	1	0	2	0	6	2	1	34	0	1
15 - 1 , 41.0	59.36	1	94	31	48	14	0	0	0	0	5	30	18	6	0	0	0	7	2	2	40	4	2
15 - 1 , 83.0	59.78	1	65	4	0	27	2	0	3	0	25	53	18	2	0	0	0	43	4	5	36	3	3
15 - 1 , 121.0	60.16	2	139	7	44	1	0	0	2	0	34	25	17	6	0	0	0	15	3	4	11	0	3
15 - 1 , 141.0	60.36	3	51	14	108	11	2	0	2	1	65	20	10	1	0	0	0	14	0	2	14	0	0

Table 3 - DSDP Hole 502B continued

incis	dpach	Neogl	Sphae	Cande	altis	Prote	praed	plata	crass	tocat	Pulle	venez	sp.1	marga	scitu	hirsu	Gital	tumid	menar	frags	bform	TOTAL		
																						PLANK	SAMPLE	
1	0	7	1	0	0	0	1	1	16	0	0	0	0	0	0	0	0	1	0	23	306	9	341	14 - 3, 21.0
2	0	4	2	0	0	0	1	3	4	0	0	0	0	0	2	0	0	0	0	28	594	3	346	14 - 3, 61.0
1	0	2	0	1	2	0	2	9	3	0	0	0	0	0	4	7	1	0	50	300	8	350	14 - 3, 99.0	
1	0	0	4	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	22	325	10	337	15 - 1, 22.0	
0	0	0	1	0	0	0	0	1	5	0	0	0	0	0	0	2	5	0	37	170	3	355	15 - 1, 41.0	
0	0	0	8	0	0	0	1	8	6	0	0	0	0	0	2	0	0	0	24	200	10	343	15 - 1, 83.0	
0	0	2	8	2	0	0	0	0	3	0	0	0	0	0	2	2	0	0	53	400	5	385	15 - 1, 121.0	
0	1	1	1	1	0	0	0	0	3	0	0	0	0	0	3	1	0	0	41	250	4	370	15 - 1, 141.0	

Table 3 - DSDP Hole 502B continued

SAMPLE	DEPTH	other	ruber	obliq	saccu	bulls	falco	spach	dupac	acost	humer	gluti	Orbul	Gnoid	quinq	hexag	datca	pumil	aequi	congl	woodi	decor	pseud
3-1, 41.0	45.21	2	61	0	26	35	3	0	1	6	83	35	10	2	0	0	0	0	0	2	0	0	1
3-1, 81.0	45.61	3	80	4	34	28	1	0	1	6	77	34	6	0	0	0	0	23	2	2	0	6	0
3-1, 121.0	46.01	3	44	4	74	32	1	0	4	6	91	30	12	0	0	0	0	24	2	21	0	0	0
3-2, 11.0	46.39	2	102	5	100	15	0	0	1	23	27	21	10	0	0	0	0	12	3	0	8	0	0
3-2, 51.0	46.79	2	105	6	63	16	1	0	1	15	27	16	25	1	0	0	0	8	7	4	10	4	0
3-2, 91.0	47.19	0	93	7	53	12	1	0	3	0	77	22	13	0	0	0	0	24	1	4	3	0	0
3-2, 131.0	47.59	1	95	6	45	33	2	0	1	0	78	18	19	2	0	0	0	40	1	0	1	0	0
3-3, 18.0	47.96	1	83	4	58	21	1	0	1	5	73	26	17	3	0	1	0	10	1	1	9	0	0
3-3, 41.0	48.19	2	79	2	69	4	0	0	0	23	50	18	18	1	0	1	0	23	1	4	14	0	0
6-2, 5.5	59.70	3	84	12	32	12	1	0	0	0	63	25	19	2	0	0	0	1	3	2	28	0	2
6-2, 36.5	60.01	3	94	23	35	2	0	0	0	1	49	24	31	4	0	0	0	0	5	2	32	0	1
6-2, 65.5	60.30	0	82	8	0	8	0	0	0	0	70	32	21	5	0	0	0	4	8	1	24	1	2
6-2, 95.5	60.60	0	77	11	28	17	1	0	0	1	37	27	13	2	0	0	0	5	2	1	37	0	0
6-2, 125.5	60.90	4	74	5	17	6	0	0	0	0	55	23	23	1	0	0	0	1	0	0	73	0	0
6-3, 5.5	61.20	0	112	20	0	8	1	0	0	0	3	17	22	1	0	0	0	3	12	2	40	0	0
6-3, 36.5	61.51	0	90	35	1	8	1	0	2	0	8	37	28	3	0	0	0	1	4	4	29	0	1
6-3, 66.5	61.81	3	67	18	52	33	0	0	6	4	57	17	24	3	0	0	0	7	4	0	28	0	0
6-3, 96.5	62.11	2	44	18	71	21	1	0	0	0	7	20	15	2	0	0	0	3	3	1	65	0	0
6-3, 126.5	62.41	2	93	14	40	29	0	0	0	0	15	28	9	1	0	0	0	11	5	2	21	0	1
6-4, 5.5	62.70	0	70	5	110	15	2	0	0	1	17	18	20	4	0	0	0	7	6	8	0	0	0
6-4, 36.5	63.01	1	71	14	71	20	0	0	2	0	0	19	26	3	0	0	0	4	3	11	20	1	0
6-4, 64.5	63.29	1	105	6	31	17	0	0	1	5	17	25	15	3	0	0	0	13	4	1	28	2	0
6-4, 96.5	63.61	0	57	12	83	5	1	0	2	0	16	14	8	0	0	0	0	7	4	1	20	0	0
6-4, 5.5	63.86	2	66	9	37	19	1	0	1	1	23	29	8	3	0	0	0	27	4	3	30	0	0
7-1, 45.5	63.95	0	75	11	25	9	0	0	0	0	10	15	10	2	0	0	0	16	5	2	41	0	0
7-1, 74.5	64.24	4	40	29	39	24	0	0	0	0	13	22	11	1	0	0	0	11	3	3	53	0	0
7-1, 90.5	64.40	3	45	16	8	17	5	1	1	2	25	31	5	1	0	0	0	13	3	2	62	0	0
8-1, 10.5	67.74	1	50	9	40	19	0	0	3	6	79	11	4	2	0	0	0	4	1	1	28	2	0
8-1, 40.5	68.04	6	71	30	20	19	0	0	3	5	36	16	6	1	0	0	0	7	4	0	52	0	0
8-1, 70.5	68.34	3	45	8	16	18	0	0	4	18	88	30	7	2	0	0	0	4	1	1	46	0	0
8-1, 100.5	68.64	2	59	4	34	15	0	0	3	11	49	20	4	3	0	0	0	0	0	2	67	0	1
8-1, 130.5	68.99	1	47	20	30	22	0	0	4	13	78	18	2	2	0	0	0	0	0	1	15	4	0
8-2, 10.5	69.24	1	79	10	35	16	0	0	5	14	51	20	3	0	0	0	0	0	4	0	13	0	0
8-2, 40.5	69.54	1	75	21	39	10	0	0	0	21	59	34	4	1	0	0	0	0	1	2	40	8	0
8-2, 70.5	69.84	1	60	14	42	21	0	0	4	44	49	18	3	0	0	0	0	0	6	0	25	0	0

Table 4 - DSDP Hole 502C

incis	dpach	Neogl	Sphae	Cande	altis	Prote	praed	plata	crass	tocat	Pulle	venez	sp.1	marga	scitu	hirsu	Gital	tumid	menar	frags	bform	TOTAL	
																						PLANK	SAMPLE
2	0	0	2	0	0	0	1	0	12	0	0	0	0	0	1	1	0	0	32	629	13	318	3 - 1, 41.0
3	0	0	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	24	435	12	338	3 - 1, 81.0
0	0	0	4	0	0	0	0	0	6	0	0	0	0	0	2	0	1	0	0	482	4	361	3 - 1, 121.0
0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	1	0	0	0	0	88	4	333	3 - 2, 11.0
3	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	4	321	3 - 2, 51.0
2	0	1	8	0	0	0	0	0	2	0	3	0	0	0	2	0	0	0	0	524	1	331	3 - 2, 91.0
0	0	0	0	0	0	0	1	0	9	0	4	0	0	0	1	0	2	0	0	361	4	359	3 - 2, 131.0
1	0	0	1	0	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	247	1	321	3 - 3, 18.0
3	0	0	0	0	0	0	0	0	9	0	6	0	0	0	3	0	0	0	0	458	4	330	3 - 3, 41.0
1	0	3	0	0	0	0	0	0	7	0	0	0	0	0	3	3	0	0	28	315	6	334	6 - 2, 5.5
4	0	2	2	0	0	0	0	2	4	0	0	0	0	0	2	0	0	0	29	305	4	351	6 - 2, 36.5
4	0	2	1	0	0	0	0	2	3	0	0	0	0	0	4	5	0	0	55	220	5	342	6 - 2, 65.5
3	0	3	2	0	0	0	0	0	9	0	0	0	1	0	0	1	0	0	32	471	6	310	6 - 2, 95.5
1	0	1	1	1	0	0	0	0	8	0	0	0	1	0	0	0	0	0	29	288	4	324	6 - 2, 125.5
2	0	0	3	0	0	0	0	0	3	0	0	0	1	0	0	4	0	0	53	124	3	307	6 - 3, 5.5
1	0	5	7	1	0	0	1	0	6	0	0	0	0	0	2	0	0	0	41	379	5	316	6 - 3, 36.5
2	0	3	0	0	0	0	0	3	1	0	0	0	0	0	0	4	0	0	33	254	3	369	6 - 3, 66.5
3	0	0	0	0	0	0	0	4	7	0	0	0	0	0	1	0	0	0	52	144	1	340	6 - 3, 96.5
0	1	0	3	0	0	0	0	0	10	0	0	0	0	0	3	0	0	0	45	208	13	333	6 - 3, 126.5
0	0	0	4	0	0	0	0	0	7	0	0	0	0	0	4	2	0	0	23	401	6	323	6 - 4, 5.5
0	0	2	1	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	24	208	4	298	6 - 4, 36.5
0	0	2	0	0	0	0	0	11	5	0	0	0	0	0	0	0	0	0	62	173	5	354	6 - 4, 64.5
4	0	2	0	1	0	0	2	0	4	0	0	0	0	0	1	2	0	0	66	337	3	312	6 - 4, 96.5
1	0	1	0	0	0	0	0	5	2	0	0	0	0	0	0	3	0	0	49	281	8	324	6 - 4, 5.5
1	0	0	2	0	0	0	0	2	12	0	0	0	0	0	3	6	0	0	60	120	3	307	7 - 1, 45.5
0	0	0	2	0	0	0	0	21	4	0	0	0	1	0	3	8	0	0	18	195	5	310	7 - 1, 74.5
1	1	0	1	0	0	0	0	5	11	0	0	0	0	0	0	0	0	0	43	145	12	302	7 - 1, 90.5
0	0	4	0	0	0	0	1	4	4	0	0	0	0	0	0	1	1	0	26	190	3	301	8 - 1, 10.5
1	0	2	0	0	0	0	0	0	6	0	0	0	0	0	2	0	0	0	12	188	11	299	8 - 1, 40.5
1	2	4	1	0	0	0	0	3	3	0	0	0	0	0	2	0	0	0	11	393	6	318	8 - 1, 70.5
0	0	1	2	0	0	0	2	5	8	0	0	0	0	0	1	0	0	0	16	297	3	309	8 - 1, 100.5
1	4	6	3	1	0	0	0	0	27	0	0	0	0	0	2	0	0	0	11	464	5	312	8 - 1, 130.5
0	2	0	1	0	0	0	1	16	8	0	0	0	0	0	1	0	0	0	13	439	2	293	8 - 2, 10.5
0	0	1	0	0	0	0	0	10	2	0	0	0	1	0	3	0	1	0	34	189	1	368	8 - 2, 40.5
2	4	0	1	0	0	0	0	0	11	0	0	0	1	0	0	0	0	0	29	153	3	335	8 - 2, 70.5

Table 4 - DSDP Hole 502C

SAMPLE	DEPTH	other	ruber	obliq	saccul	bullis	falco	spach	dupac	acost	humeral	gluti	Orbul	Gnoid	quinq	hexag	datca	pumil	aequi	congl	woodi	decor	pseud
8-2, 100.5	70.14	0	70	14	28	4	0	0	2	20	44	9	5	0	0	0	0	2	7	3	35	2	0
8-2, 130.5	70.44	3	51	7	27	9	0	0	8	43	80	10	5	1	0	0	0	0	0	2	22	1	0
8-3, 10.5	70.74	1	55	12	19	6	0	0	1	19	60	18	7	1	0	0	0	3	1	8	24	2	0
8-3, 40.5	71.04	1	44	25	27	3	0	0	4	37	92	22	10	3	0	0	0	0	0	4	28	0	0
8-3, 70.5	71.34	4	35	17	22	18	0	0	0	33	56	17	11	0	0	1	0	8	0	5	14	0	0
8-3, 115.5	71.64	2	60	31	45	7	0	0	5	20	66	27	7	0	0	0	0	3	0	4	20	0	0
8-3, 130.5	71.79	2	63	44	16	3	0	0	2	21	80	20	5	4	0	0	0	0	3	1	13	3	0
8-3, 145.5	71.94	2	54	37	20	8	0	0	5	23	71	25	9	2	0	0	0	3	0	4	13	3	0
8-4, 20.5	72.19	5	43	17	15	10	0	0	7	34	90	36	5	0	0	0	0	0	0	2	18	5	0
9-1, 25.5	72.35	2	39	13	61	8	0	0	4	19	76	29	12	1	0	0	0	0	0	0	30	0	0
9-1, 55.5	72.65	0	55	7	98	7	0	0	2	29	40	12	5	0	0	0	0	3	4	0	14	0	1
9-1, 85.5	72.95	4	62	18	48	9	0	0	7	19	38	15	8	5	0	1	0	1	1	3	15	0	0
9-1, 116.5	73.26	2	64	21	24	16	0	0	0	47	48	18	0	7	0	0	0	0	0	4	48	1	0
9-1, 145.5	73.55	2	31	21	68	6	0	0	3	48	25	10	5	3	0	0	0	1	1	0	33	0	0
9-2, 25.5	73.85	3	30	18	17	10	0	0	5	60	56	20	5	1	0	0	0	1	5	2	30	0	0
9-2, 55.5	74.15	3	32	19	55	3	0	0	5	34	45	16	8	1	0	9	0	0	0	3	13	0	0
9-2, 85.5	74.45	2	30	23	28	13	0	0	7	48	61	10	3	2	0	3	0	0	1	2	32	3	3
9-2, 115.5	74.75	5	31	20	106	17	0	0	2	25	19	12	3	0	0	0	0	0	0	3	13	7	0
9-2, 145.5	75.05	0	57	15	35	22	1	0	2	0	40	29	8	3	0	3	0	0	3	0	35	4	2
9-3, 25.5	75.35	2	27	11	17	20	2	0	7	64	38	9	4	6	0	0	0	0	4	3	28	0	0
9-3, 55.5	75.65	2	35	33	60	20	0	0	0	24	8	27	7	0	0	0	0	0	1	1	37	7	0
9-3, 85.5	75.95	4	43	19	18	42	0	0	8	37	43	30	5	5	0	0	0	0	0	0	24	3	0
9-3, 115.5	76.25	5	35	27	42	18	0	0	3	35	21	18	6	2	0	0	0	0	2	1	37	2	3

Table 4 - DSDP Hole 502C continued

TOTAL																							
incis	dpach	Neogl	Sphae	Cande	altis	Prote	praed	plata	crass	tocat	Pulle	venez	sp.1	marga	scitu	hirsu	Gital	tumid	menar	frags	bform	PLANK	SAMPLE
2	0	0	2	0	0	0	0	0	5	0	0	0	1	0	3	0	0	0	69	199	5	327	8 - 2, 100.5
1	0	5	10	0	0	0	4	0	8	0	0	0	0	0	0	0	0	0	14	351	11	311	8 - 2, 130.5
0	0	5	7	0	0	0	0	0	6	0	0	0	0	0	1	0	0	0	59	197	1	315	8 - 3, 10.5
0	0	6	1	0	0	0	0	0	3	0	0	0	0	0	1	0	0	0	32	190	1	343	8 - 3, 40.5
0	0	23	2	0	0	0	0	10	3	0	0	0	0	0	2	0	0	0	39	330	8	320	8 - 3, 70.5
2	2	8	6	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	25	575	8	344	8 - 3, 115.5
1	2	6	2	0	0	0	0	2	1	0	0	0	0	0	0	9	0	0	18	285	3	321	8 - 3, 130.5
0	0	10	4	0	0	0	0	1	0	0	0	0	0	0	1	7	0	0	28	326	4	330	8 - 3, 145.5
0	1	6	3	0	0	0	1	0	0	0	0	0	0	0	0	4	0	0	25	271	8	327	8 - 4, 20.5
0	0	3	0	0	0	0	1	1	0	0	0	0	0	0	3	7	0	0	32	317	7	341	9 - 1, 25.5
0	0	6	0	0	14	0	0	0	1	0	0	0	0	0	1	3	0	0	38	221	0	340	9 - 1, 55.5
1	1	2	6	0	21	0	2	0	1	0	0	0	0	0	0	8	0	0	29	364	5	325	9 - 1, 85.5
3	0	3	4	0	9	0	1	0	2	0	0	0	0	0	0	5	0	0	22	177	3	349	9 - 1, 116.5
6	1	2	11	0	13	0	1	0	2	0	0	0	0	0	0	6	0	0	32	522	5	331	9 - 1, 145.5
1	0	14	10	0	10	0	1	0	1	0	0	0	0	0	1	4	0	0	44	425	10	349	9 - 2, 25.5
1	1	7	4	0	15	0	1	1	7	0	0	6	0	0	1	5	0	0	55	345	3	350	9 - 2, 55.5
0	3	5	1	0	12	0	1	0	5	0	0	0	0	0	0	0	0	0	38	210	15	336	9 - 2, 85.5
0	0	1	10	1	16	0	1	0	2	0	0	0	1	0	1	0	0	0	38	310	7	334	9 - 2, 115.5
0	0	14	0	0	34	0	1	0	4	0	0	0	0	0	0	0	0	0	14	302	5	326	9 - 2, 145.5
0	1	0	8	0	38	0	0	0	0	0	1	0	0	0	1	8	0	0	23	410	3	322	9 - 3, 25.5
1	1	0	2	1	45	0	1	0	0	0	0	0	0	0	0	6	0	0	8	322	1	327	9 - 3, 55.5
0	0	0	4	0	27	0	0	0	0	0	0	0	0	0	3	15	0	0	8	172	5	338	9 - 3, 85.5
0	0	0	10	1	23	0	0	0	0	0	0	0	0	0	1	9	0	0	12	252	3	313	9 - 3, 115.5

Table 4 - DSDP Hole 502C continued