III. X-RAY MINERALOGY DATA, AUSTRAL-ANTARCTIC REGION, LEG 28, DEEP SEA DRILLING PROJECT[1]

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METHODS

Semiquantitative determinations of the mineral composition of bulk samples, 2-20μm, and <2μm fractions were performed according to the methods described in the appendix of this volume.

The X-ray mineralogy results of this study are summarized in Tables 1 through 11. The mineralogy data are presented in Tables 12 through 26. Sediment ages, lithologic units, and nomenclature of the sediment types in Tables 1 through 11 are from the DSDP Leg 28 Hole Summaries and from a subsequent update supplied by Dr. Ansis Kaneps, DSDP. The stratigraphic position of samples submitted for X-ray diffraction analysis from Leg 28 are listed in Tables 1 through 11. The sample depth (in m) below the sea floor in Tables 1 through 11 identifies the samples as they are reported in Tables 12 through 26.

The method of sample preparation, in brief, is as follows: Bulk samples are washed to remove seawater salts and are ground to less than 10μm under butanol. A portion of the sediment is decalcified in a sodium-acetate-buffered, acetic-acid solution (pH 4.5). The residue is fractionated into 2-20μm and <2μm samples by wet sieving and centrifugation. The 2-20μm samples are ground to less than 10μm. These three preparations are treated with trihexylamine acetate to expand the smectities. All samples are X-rayed as random powders.

The amorphous content (largely consisting of biogenous silica, volcanic glass, allophane, and organic matter) is computed from the diffuse scatter of a sample. This method assumes that the diffuse scatter in excess of the diffuse scatter from the crystalline materials is a measure of the amorphous content. The diffuse scatter of the crystalline minerals is determined from the mineral calibration standards. Ideally the amorphous content varies between 0 and 100%, but, in cases where the minerals in the sample have a higher degree of crystallinity than the calibration standards, negative values can result. The negative values are reported as blanks; these samples can be assumed to contain little or no amorphous material.

The crystalline minerals are quantified by the method of mutual ratios using peak heights and concentration factors derived from ratioing the diagnostic peaks of minerals with the major peak of quartz. Unquantifiable minerals, i.e., unidentified minerals and minerals for which standards are not available, are tentatively quantified using a hypothetical concentration factor of 3.0 which is applied to the major peak of the mineral. The concentrations of the quantifiable minerals is summed to 100%. The amorphous content and the unquantifiable minerals are not included in the total. The unquantifiable minerals are reported on a qualitative scale as trace (less than 5%), present (5-25%), abundant (25-65%), and major (greater than 65%).

The precision of the mineral determination is approximately ±1 weight percent of the amount present. Because of differences in the crystallinity between the mineral calibration standards and the minerals in the samples, the accuracy of the reported concentrations is often less than the precision of the method allows. In terms of the reported concentration, smectites may vary ±50%; micas, chlorites, cristobalite, tridymite, goethite may vary ±20%; kaolinite, amphibole, augite, the feldspars, the zeolites, palygorskite, sepiolite, apatite may vary ±10%; the minerals which have stable crystal lattices and are not members of solid-solution series or typically have limited crystal-lattice substitution in the sedimentary environment such as quartz, low-magnesium calcite, aragonite, dolomite, rhodochrosite, siderite, gibbsite, talc, barite, anatase, gypsum, anhydrite, halite, pyrite, hematite, magnetite will vary less than ±5%.

The user of the X-ray mineralogy data should bear in mind that (1) the reported values are not absolute concentrations and some adjustment has to be made for the amorphous content and the unquantifiable minerals, (2) in a homogeneous system of minerals, the mineral concentration trends are reliable because of the precision, but when comparing mineral concentrations between different geographic regions or lithologic units additional information regarding the crystallinity of the minerals is required, (3) the representativeness of the samples selected for X-ray diffraction analysis is the responsibility of the shipboard scientists, and any questions pertaining to this aspect should be directed to them.

DRILLING MUD USAGE

Drilling mud, containing montmorillonite and barite, was used as follows:

Mud was used at Site 270 between Cores 39 and 40; at Site 272 between Cores 19 and 20, after Core 36, after Core 41, and after Core 43; in Hole 273A after Core 10; and at Site 274 after Core 43 and after Core 44. Most samples submitted for X-ray diffraction analysis do not occur close to intervals in which drilling mud was used. Barite does not occur in samples potentially contaminated by drilling mud and montmorillonite abundances are not inordinate in any of these samples.

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TABLE 1
Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 264

Sample (Interval in cm)	Sample Depth Below Sea Floor (m)	Lithology	Age	Bulk Sample Major Constituent			2-20μm Fraction Major Constituent			<2μm Fraction Major Constituent		
				1	2	3	1	2	3	1	2	3
8-3, 55-59	105.1	Unit 2 Nanno ooze to nanno chalk	Eocene	Calc.			Clin.	Mont.	Quar.	Mont.		
10-2, 109-112	161.1	Unit 3 Clay-rich nanno chalk	Eocene and Paleocene	Calc.			Clin.	Quar.	Mica	Mont.		
10-3, 30-32	161.8			Calc.			Clin.	Quar.		Mont.	Paly.	Mica
10-3, 142-144	162.9			Calc.			Clin.			Apat.	Paly.	Mont.
11-2, 17-20	169.7	Unit 4 Altered volcaniclastic rocks	Campenian or Santanian	Calc.			Clin.	Quar.	Bari.	Paly.	Mont.	Clin.

TABLE 2
Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 265

Sample (Interval in cm)	Sample Depth Below Sea Floor (m)	Lithology	Age	Bulk Sample Major Constituent			2-20μm Fraction Major Constituent			<2μm Fraction Major Constituent		
				1	2	3	1	2	3	1	2	3
2-6, 100-102	27.0	Unit 1 Clay-bearing diatom ooze	Pleistocene	Calc.			Insufficient residue			Insufficient residue		
2-6, 122-124	27.0			Plag.	Mont.	K-Fe.	Plag.	Augi.	K-Fe.	Mont.	Plag.	K-Fe.
5-5, 130-132	111.3	Unit 2 Micarb-bearing diatom ooze, with forams and nanno	Pleistocene	Mont.	Plag.	K-Fe.	Plag.	Augi.	K-Fe.	Mont.	Plag.	K-Fe.
7-4, 120-122	166.7			Calc.			Insufficient residue			Insufficient residue		
14-6, 130-132	369.3	Unit 3 Clay-bearing diatom ooze	Pliocene	Mica	Plag.	Quar.	K-Fe.	Plag.	Quar.	Mont.	K-Fe.	Mica
15-4, 78-80	403.8	Unit 4 Clay and diatom-bearing nanno ooze to chalk	Middle Miocene	Calc.			Quar.	Plag.	K-Fe.	Quar.	Mont.	Mica

TABLE 3
Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 266

Sample (Interval in cm)	Sample Depth Below Sea Floor (m)	Lithology	Age	Bulk Sample Major Constituent			2-20μm Fraction Major Constituent			<2μm Fraction Major Constituent		
				1	2	3	1	2	3	1	2	3
2-3, 95-97	29.0	Unit 1		Plag.	K-Fe.	Mica	Plag.	K-Fe.	Augi.	Mont.	Plag.	K-Fe.
5-5, 101-103	89.0	Diatom ooze;	Pliocene	Mica	Plag.	Quar.	Plag.	Quar.	K-Fe.	Mont.	Mica	Quar.
6-4, 70-72	106.2	minor micarb-bearing	and	Mica	Quar.	Plag.	Quar.	Plag.	K-Fe.	Mica	Mont.	Quar.
8-3, 60-62	133.1	and clay diatom	Pleistocene	Mica	Plag.	Quar.	Plag.	Quar.	K-Fe.	Mont.	Quar.	Mica
9-3, 54-56	142.5	oozes		Calc.	Mica	Quar.	Quar.	Plag.	K-Fe.	Quar.	Mica	Plag.
		Unit 2										
10-4, 82-84	153.8	Mixed nanno oozes,	Middle	Calc.			Quar.	Plag.	Mica	Quar.	Mica	Plag.
10-5, 110-112	155.6	nanno clay, diatom	and	Calc.	Mica	Quar.	Quar.	Plag.	Mica	Quar.	Mica	Plag.
15-3, 92-94	237.9	ooze, and diatom-	upper	Calc.	Quar.	Mica	Quar.	Mica	Plag.	Quar.	Mica	Plag.
16-2, 120-122	246.2	rich clay	Miocene	Quar.	Mica	Calc.	Quar.	Plag.	Mica	Quar.	Mica	Plag.
		Unit 3										
17-5, 85-87	259.9	Nanno chalk,	Early	Calc.			Quar.	Plag.	K-Fe.	Mica	Quar.	Plag.
21-3, 110-112	333.1	minor ooze, and	Miocene	Calc.	Mica	Quar.	Quar.	Mica	K-Fe.	Quar.	Mica	Plag.
		nanno claystone										

TABLE 4
Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 267

Sample (Interval in cm)	Sample Depth Below Sea Floor (m)	Lithology	Age	Bulk Sample Major Constituent			2-20μm Fraction Major Constituent			<2μm Fraction Major Constituent		
				1	2	3	1	2	3	1	2	3
Hole 267												
3-4, 78-80	94.8	Unit 1[a]	a	Mica	Quar.	Plag.	Quar.	Mica	Plag.	Quar.	Mica	Plag.
4-4, 77-79	132.8	Unit 2[b]	b	Calc.	Quar.	Mica	Quar.	Mica	Plag.	Quar.	Mica	Plag.
Hole 267A												
1-6, 30-32	11.8	Unit 1[a]	a	Mica	Quar.	Plag.	Quar.	Plag.	K-Fe.	Mica	Quar.	K-Fe.
3-2, 100-102	63.5			Mica	Quar.	Plag.	Quar.	Mica	Plag.	Quar.	Mica	Plag.
Hole 267B												
1-1, 105-107	106.1			Mica	Quar.	Plag.	Quar.	Plag.	K-Fe.	Mica	Quar.	Plag.
3-2, 146-148	146.0	Unit 1	Early	Mica	Quar.	Plag.	Quar.	Mica	Plag.	Quar.	Mica	Plag.
4-2, 102-104	164.5	Clay and silty	Miocene	Mica	Quar.	Plag.	Quar.	Mica	Plag.	Mica	Quar.	Plag.
6-6, 40-42	217.4	clay diatom ooze,	through	Mica	Quar.	Plag.	Quar.	Mica	Plag.	Mica	Quar.	Plag.
7-6, 56-58	246.1	and mixed clay	Early	Mica	Quar.	Plag.	Quar.	Mica	Plag.	Mica	Quar.	Mont.
8-5, 78-80	273.3	diatom sediments	Pliocene	Quar.	Mica	Plag.	Quar.	Plag.	Mica	Mica	Quar.	Plag.
9-5, 110-112	302.1			Quar.	Mica	Plag.	Quar.	Mica	Plag.	Quar.	Mica	Plag.

[a]Unit 1 in Hole 267 and Hole 267A consists of clay and silty clay, clay diatom ooze, and intermediate mixed clay diatom sediments. Unit 1 is early Miocene through Quaternary in age.

[b]Unit 2 in Hole 267 consists of nanno ooze and chalk and micritic limestone. Unit 2 is middle Oligocene through early Miocene in age.

TABLE 5
Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 268

Sample (Interval in cm)	Sample Depth Below Sea Floor (m)	Lithology	Age	Bulk Sample Major Constituent			2-20μm Fraction Major Constituent			<2μm Fraction Major Constituent		
				1	2	3	1	2	3	1	2	3
		Unit 1	Late									
2-4, 57-59	33.1	Clay, silty clay,	Miocene	Quar.	Mica	K-Fe.	Quar.	K-Fe.	Plag.	Mica	Quar.	K-Fe.
2-4, 73-75	33.2	sand, and diatom	through	Quar.	Mica	Plag.	Quar.	Plag.	K-Fe.	Mica	Quar.	Plag.
		ooze	Pleistocene									
		Unit 2										
8-1, 45-47	170.9	Clay, silty clay,	Late	Quar.	Mica	Plag.	Quar.	Plag.	K-Fe.	Mica	Quar.	Plag.
8-1, 71-73	171.2	and clay nanno ooze	Miocene	Quar.	Mica	Plag.	Quar.	Plag.	Mica	Mica	Quar.	Plag.
10-2, 40-42	229.4	Unit 3		Quar.	Mica	K-Fe.	Quar.	Plag.	K-Fe.	Mica	Quar.	Plag.
13-1, 80-82	304.3	Silty clay,	Late	Cris.	Quar.	Mica	Insufficient residue			Insufficient residue		
13-1, 75-77	304.3	laminated silty clay	Miocene	Mica	Quar.	Plag.	Quar.	Mica	Plag.	Mica	Quar.	Plag.
13-1, 98-100	304.5	and clayey silt,	or	Quar.	K-Fe.	Plag.	Quar.	Plag.	K-Fe.	Mica	Quar.	Plag.
17-1, 140-142	380.9	and chert	older	Quar.	Mica	K-Fe.	Quar.	K-Fe.	Plag.	Quar.	Mica	K-Fe.
20-2, 83-84	467.3			Quar.	Mica	K-Fe.	Quar.	K-Fe.	Plag.	Quar.	Mica	K-Fe.

TABLE 6
Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 269

Sample (Interval in cm)	Sample Depth Below Sea Floor (m)	Lithology	Age	Bulk Sample Major Constituent			2-20μm Fraction Major Constituent			<2μm Fraction Major Constituent		
				1	2	3	1	2	3	1	2	3
Hole 269												
2-2, 12-14	47.6	Unit 2 Clay and silty clay, some diatom-bearing; silt and fine sand beds and laminae	Late Miocene through Pliocene	Mica	Quar.	Plag.	Mica	Quar.	Plag.	Mica	Quar.	Mont.
3-2, 55-57	95.6			Quar.	Mica	Plag.	Quar.	Mica	Plag.	Mica	Quar.	Plag.
6-4, 75-79	203.3			Quar.	Mica	Plag.	Quar.	Mica	Plag.	Quar.	Mica	Plag.
9-1, 68-70	331.7	Unit 4 Clay and silty clay, some diatom-bearing; some chert and very fine sand beds and laminae	Middle and Early Miocene or older	Quar.	Plag.	K-Fe.	Quar.	Plag.	K-Fe.	Quar.	Plag.	Mica
9-2, 67-69	333.2			Quar.	Mica	Plag.	Quar.	Plag.	Mica	Quar.	Plag.	Mica
11-2, 13-15	389.6			Quar.	Mica	Plag.	Quar.	Plag.	Mica	Quar.	Plag.	Mica
Hole 269A												
2-2, 86-88	428.4	Unit 4[a]	a	Quar.	Plag.	Mica	Quar.	Plag.	Mica	Quar.	Plag.	Mica
3-2, 20-22	475.2	Unit 5 Clay and silty clay with silt laminae; beds (some graded) of clayey silt, silt, and very fine sand; some carbonate cementation	Early Miocene or older	Cris.	Quar.	Mica	Quar.	Plag.	Mica	Cris.	Quar.	Plag.
3-2, 114-115	476.1			Quar.	Mica	Plag.	Insufficient residue			Insufficient residue		
4-2, 54-56	523.0			Quar.	Cris.	Mica	Quar.	Plag.	Mica	Cris.	Quar.	Mica
4-2, 103-105	523.5			Quar.	Mica	Plag.	Quar.	Mica	Plag.	Quar.	Plag.	K-Fe.
8-1, 101-103	702.5			Quar.	Mont.	Mica	Quar.	Mont.	Mica	Quar.	Mont.	Plag.
8-2, 46-48	703.5			Quar.	Plag.	Mica	Quar.	Plag.	Mica	Quar.	Plag.	Mica
8-2, 60-63	703.6			Quar.	Mont.	Plag.	Quar.	Mica	Plag.	Quar.	Mont.	Mica
10-2, 77-82	808.3			Quar.	Plag.	Mica	Quar.	Plag.	Mica	Quar.	Plag.	Mica
12-4, 148-150	907.0			Quar.	Mica	Plag.	Quar.	Mont.	Mica	Quar.	Mont.	Plag.
13-4, 135-139	954.3			Mica	Quar.	Plag.	Mica	Quar.	Plag.	Mica	Mont.	Quar.

[a]Unit 4 in Hole 269A is identical to Unit 4 in Hole 269, and is middle and early Miocene or older.

TABLE 7
Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 270

Sample (Interval in cm)	Sample Depth Below Sea Floor (m)	Lithology	Age	Bulk Sample Major Constituent			2-20μm Fraction Major Constituent			<2μm Fraction Major Constituent		
				1	2	3	1	2	3	1	2	3
		Unit 1										
1-1, 90-92	0.9	Diatom-bearing to		Mica	Quar.	Plag.	Quar.	Plag.	Mica	Mica	Quar.	Plag.
1-2, 26-28	1.8	diatom silty clay	Holocene	Quar.	Mica	Plag.	Quar.	Plag.	Mica	Mica	Quar.	Plag.
1-2, 121-123	2.7	with scattered gran-ules and pebbles		Quar.	Mica	Plag.	Quar.	Mica	Plag.	Mica	Mont.	Quar.
6-1, 147-150	36.0			Cris.	Quar.	Plag.	Cris.	Quar.	Plag.	Cris.	Mica	Plag.
9-2, 135-137	65.8			Cris.	Quar.	Plag.	Quar.	Cris.	Plag.	Cris.	Mica	Plag.
14-2, 98-100	113.0			Quar.	Plag.	Mica	Quar.	Mica	Plag.	Cris.	Mica	Plag.
15-2, 128-133	122.8			Quar.	Plag.	Cris.	Quar.	Plag.	Mica	Cris.	Mica	Plag.
19-2, 92-94	160.4			Quar.	Plag.	Mica	Quar.	Plag.	Mica	Cris.	Mica	Quar.
19-4, 77-79	163.3	Unit 2		Quar.	Plag.	Mica	Quar.	Mica	Plag.	Cris.	Mica	Plag.
22-1, 148-150	188.0	Silty claystone	Oligocene	Plag.	Quar.	K-Fe.	Plag.	Quar.	K-Fe.	Plag.	Quar.	Mont.
24-2, 14-17	207.1	and clayey	through	Quar.	Mica	Plag.	Quar.	Plag.	Mica	Mica	Quar.	Plag.
28-4, 20-23	248.2	siltstone with	?	Quar.	Plag.	Mica	Quar.	Plag.	Mica	Mica	Quar.	Plag.
31-3, 7-10	275.1	scattered granules	Pliocene	Quar.	Plag.	Mica	Quar.	Plag.	Mica	Mica	Quar.	Plag.
33-3, 0-3	294.0	and pebbles		Quar.	Plag.	Mica	Quar.	Plag.	Mica	Mica	Quar.	Plag.
35-4, 60-64	315.1			Mont.	Quar.	Chlo.	Quar.	Plag.	Mica	Quar.	Mica	Plag.
37-3, 54-55	332.5			Quar.	Mica	Plag.	Quar.	Mica	Plag.	Quar.	Mica	Plag.
40-5, 11-13	363.6			Quar.	Mica	Plag.	Quar.	Mica	Plag.	Mica	Quar.	Mont.
41-2, 120-121	369.7			Quar.	Mica	Plag.	Quar.	Mica	Plag.	Mica	Quar.	Mont.
43-2, 66-68	378.7			Quar.	K-Fe.	Plag.	Quar.	Plag.	Mica	Quar.	Kaol.	Mica
43-5, 123-126	383.7			Quar.	Mica	Kaol.	Quar.	Mica	Kaol.	Mica	Quar.	Kaol.
		Unit 5										
44-1, 134-136	387.3	Sedimentary breccia with well-developed regolith	Oligocene or older ?	Quar.	K-Fe.	Mont.	Mica	Kaol.	K-Fe.	Mont.	Mica	Kaol.

TABLE 8
Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 271

Sample (Interval in cm)	Sample Depth Below Sea Floor (m)	Lithology	Age	Bulk Sample Major Constituent			2-20μm Fraction Major Constituent			<2μm Fraction Major Constituent		
				1	2	3	1	2	3	1	2	3
		Unit 1										
5-1, 107-109	69.6	Clayey silt and		Quar.	Mica	Plag.	Quar.	Plag.	Mica	Chlo.	Mica	Quar.
24-2, 128-130	158.3	silty clays with scattered granules and larger clasts	Pliocene	Mica	Quar.	Plag.	Quar.	Plag.	Mica	Mica	Plag.	Mont.

TABLE 9
Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 272

Sample (Interval in cm)	Sample Depth Below Sea Floor (m)	Lithology	Age	Bulk Sample Major Constituent			2-20μm Fraction Major Constituent			<2μm Fraction Major Constituent		
				1	2	3	1	2	3	1	2	3
1-1, 60-62	4.6	Unit 1B Diatom-bearing silty clay with scattered granules and larger clasts	Pleistocene	Mica	Quar.	Plag.	Quar.	Mica	Plag.	Mica	Quar.	Plag.
1-3, 79-81	7.8			Quar.	Mica	Plag.	Quar.	Plag.	Mica	Mica	Mont.	Quar.
9-3, 134-136	84.3	Unit 2A Silty claystone with scattered clasts	Late Miocene?	Quar.	Mica	Plag.	Quar.	Mica	Plag.	Mica	Plag.	Quar.
12-1, 107-109	109.6			Quar.	Mica	Plag.	Quar.	Mica	Plag.	Mica	Plag.	Quar.
15-2, 103-105	139.5			Quar.	Mica	Plag.	Quar.	Plag.	Mica	Mica	Plag.	Quar.
19-6, 76-78	183.3	Unit 2B Diatom silty claystone with silty clay diatomite rare clasts	Middle Miocene	Quar.	Plag.	Mica	Quar.	Plag.	Mica	Mica	Plag.	Quar.
22-3, 58-60	207.1			Quar.	Plag.	Mica	Quar.	Plag.	Mica	Mica	Plag.	Quar.
30-2, 24-26	281.2			Quar.	Plag.	K-Fe.	Quar.	Plag.	Mica	Plag.	Mica	Quar.
38-2, 83-85	357.8			Quar.	Plag.	Mica	Quar.	Plag.	Mica	Cris.	Mica	Plag.
41-1, 50-51	384.5	Unit 2C Silty claystone with rare clasts	Middle and early	Cris.	Quar.	Plag.	Quar.	Plag.	Mica	Cris.	Mica	Plag.
41-1, 146-148	385.5			Cris.	Quar.	Plag.	Insufficient residue			Insufficient residue		

TABLE 10
Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 273

Sample (Interval in cm)	Sample Depth Below Sea Floor (m)	Lithology	Age	Bulk Sample Major Constituent			2-20μm Fraction Major Constituent			<2μm Fraction Major Constituent		
				1	2	3	1	2	3	1	2	3
Hole 273		Unit 1B Diatom-bearing pebbly silty clay, unbedded	Pliocene									
2-4, 90-92	9.9			Quar.	Mica	Plag.	Insufficient residue			Mica	Quar.	Plag.
4-2, 110-112	26.1			Quar.	Plag.	Mica	Quar.	Plag.	Mica	Mica	Quar.	Plag.
6-2, 55-57	44.5	Unit 2A[a]	a	Quar.	Plag.	Mica	Quar.	Plag.	Mica	Mica	Quar.	Plag.
Hole 273A												
6-2, 85-87	139.9	Unit 2A[a]	a	Quar.	Mica	Plag.	Quar.	Plag.	K-Fe.	Quar.	Mica	Plag.
7-2, 51-55	149.0			Dolo.	Quar.	Plag.	Quar.	Plag.	K-Fe.	Quar.	Plag.	Mica
7-2, 104-108	149.5			Quar.	Plag.	Mica	Quar.	Plag.	Mica	Plag.	Quar.	Mica
9-1, 91-95	166.9			Quar.	Plag.	K-Fe.	Quar.	Plag.	K-Fe.	Mica	Quar.	Plag.
13-3, 127-130	198.8	Unit 2B Pebbly silty clay, some diatom-bearing, unbedded		Quar.	Plag.	Mica	Quar.	Plag.	Mica	Mica	Quar.	Plag.
17-2, 79-82	234.8			Quar.	Plag.	Mica	Quar.	Plag.	Mica	Mica	Quar.	Plag.
22-1, 78-81	273.3			Quar.	K-Fe.	Plag.	Quar.	Plag.	Mica	Mica	Plag.	Quar.
25-2, 112-115	301.6			Quar.	Plag.	Mica	Quar.	Plag.	Mica	Mica	Plag.	Quar.

[a]Unit 2A in Hole 273 and Hole 273A consists of pebbly silty clay, diatom-bearing, sparsely bedded. Unit 2A is middle and late Miocene in age.

TABLE 11
Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 274

Sample (Interval in cm)	Sample Depth Below Sea Floor (m)	Lithology	Age	Bulk Sample Major Constituent			2-20μm Fraction Major Constituent			<2μm Fraction Major Constituent		
				1	2	3	1	2	3	1	2	3
1-4, 120-122	5.7	Unit 1	Early	Mica	Quar.	Plag.	Quar.	Plag.	Mica	Mica	Mont.	Quar.
2-3, 68-70	13.2	Diatom-rich silty	Pliocene	Mica	Quar.	Plag.	Quar.	Plag.	Mica	Mica	Mont.	Quar.
5-3, 130-132	42.3	clay with pebbles	through	Mica	Quar.	Plag.	Quar.	Plag.	Mica	Mica	Mont.	Quar.
6-2, 130-132	50.3		Pleistocene	Mica	Quar.	Plag.	Quar.	Plag.	Mica	Mica	Mont.	Quar.
		Unit 2	Middle									
10-3, 90-92	89.4	Diatom detrital silty	Miocene	Quar.	Mica	Plag.	Quar.	Mica	Plag.	Mica	Mont.	Quar.
13-2, 110-112	116.6	clay with pebbles and	and early	Mica	Quar.	Plag.	Quar.	Plag.	Mica	Mica	Mont.	Quar.
13-6, 110-112	122.6	manganese nodules	Pliocene	Quar.	Mica	Plag.	Quar.	Plag.	Mica	Mont.	Mica	Quar.
		Unit 3	? Early									
14-2, 90-92	125.9	Diatom-rich	and middle	Quar.	Mica	Plag.	Quar.	Plag.	Mica	Mica	Plag.	Quar.
17-2, 82-84	154.3	silty clay	Miocene	Mica	Quar.	Plag.	Quar.	Plag.	Mica	Mica	Quar.	Plag.
20-3, 90-92	184.4	Unit 4		Mica	Quar.	Plag.	Quar.	Plag.	Mica	Mica	Mont.	Quar.
21-6, 70-72	198.2	Diatom-detrital	Early	Quar.	Mica	Plag.	Quar.	Plag.	Mica	Quar.	Mica	Plag.
23-2, 140-142	211.9	silty clay and minor	and	Quar.	Mica	Plag.	Quar.	Plag.	Mica	Quar.	Mica	Plag.
26-3, 90-92	241.4	silty clay diatom	middle	Quar.	Mica	Plag.	Quar.	Plag.	K-Fe.	Mica	Quar.	Plag.
29-2, 33-35	267.8	ooze, mostly	Oligocene	Quar.	Mica	Plag.	Quar.	Plag.	K-Fe.	Mica	Quar.	Plag.
32-4, 140-142	300.4	non-bedded		Quar.	Mica	Plag.	Quar.	Plag.	Mica	Mica	Mont.	Quar.
		Unit 5	?Cretaceous									
39-2, 107-110	363.6	Silty claystone	through	Quar.	Mica	Cris.	Quar.	Plag.	Mica	Cris.	Quar.	Mica
42-2, 137-139	392.4	locally chert-bearing	Eocene	Cris.	Mica	Mont.	Cris.	Quar.	Mica	Cris.	Mont.	

TABLE 12
Results of X-Ray Diffraction Analysis From Site 264

Core	Cored Interval Below Sea Floor (m)	Sample Depth Below Sea Floor (m)	Amor.	Calc.	Quar.	Plag.	Mica	Mont.	Paly.	Clin.	Apat.	Bari.	Hali.
Bulk Samples													
8	101.5-111.0	105.1	–	97.6	0.3		–	1.6	–	0.5	–	–	
10	158.5-168.0	161.1	–	98.2	0.4		–	–	–	1.4	–	–	
		161.8	–	98.5	0.4		–	–	–	1.1	–	–	
		162.9	2.3	77.6	0.8		1.3	–	1.4	11.6	5.7	1.7	
11	168.0-177.5	169.7	–	98.0	0.2		–	–	–	1.3	–	0.5	
2-20μm Fractions													
8	101.5-111.0	105.1	20.7		18.9	–	17.0	24.6		39.5		–	
10	158.5-168.0	161.1	4.7		12.8	–	11.8	11.0		64.3		–	
		161.8	19.6		11.4	–	6.4	–		82.2		–	
		162.9	7.2		6.4	–	3.6	–		85.3		4.7	
11	168.0-177.5	169.7	17.1		15.0	3.3	6.4	–		62.5		12.8	
<2μm Fractions													
8	101.5-111.0	105.1	60.5		5.2		3.6	80.7	5.5	2.7	–		2.2
10	158.5-168.0	161.1	49.3		4.1		5.6	86.2	–	1.9	–		2.3
		161.8	41.8		3.8		8.8	73.9	10.0	2.1	–		1.4
		162.9	65.6		2.8		–	12.4	14.3	6.5	56.6		7.3
11	168.0-177.5	169.7	57.4		5.1		–	36.2	40.7	14.3	–		3.6

TABLE 13
Results of X-Ray Diffraction Analysis From Site 265

Core	Cored Interval Below Sea Floor (m)	Sample Depth Below Sea Floor (m)	Amor.	Calc.	Quar.	K-Fe.	Plag.	Kaol.	Mica	Mont.	Pyri.	Bari.	Augi.	U-1[a]
Bulk Samples														
2	18.5-28.0	27.0	51.4	92.4	0.5	1.3	1.4	1.3	1.8	–	–	1.4	–	P
		27.2	92.0	–	16.9	17.7	28.6	5.5	11.5	19.7	–	–	–	–
5	104.0-113.5	111.3	82.6	–	11.0	11.7	24.5	3.8	10.3	25.4	1.9	–	11.4	–
7	161.0-170.5	166.7	65.3	99.0	1.0	–	–	–	–	–	–	–	–	T
14	360.5-370.0	369.3	92.9	–	19.4	17.6	21.2	3.5	27.3	11.1	–	–	–	–
15	398.5-408.0	403.8	19.8	98.7	1.3	–	–	–	–	–	–	–	–	T
2-20μm Fractions														
2	18.5-28.0	27.2	89.0		13.6	19.1	26.9	3.1	7.0	10.1	–		20.3	
5	104.0-113.5	111.3	82.8		11.6	16.5	30.4	3.0	5.3	8.7	3.6		20.9	
14	360.5-370.0	369.3	94.1		23.3	38.2	27.7	2.0	8.8	–	–		–	
15	398.5-408.0	403.8	92.2		38.4	18.5	33.1	3.3	6.7	–	–		–	
<2μm Fractions														
2	18.5-28.0	27.2	87.7		10.5	12.0	17.5	4.7	9.0	46.3	–		–	
5	104.0-113.5	111.3	79.4		8.5	9.6	13.3	4.6	6.4	50.6	1.3		5.7	
14	360.5-370.0	369.3	92.0		16.1	19.0	16.8	5.6	18.6	23.9	–		–	

[a]U-1 peaks at 5.76Å, 3.63Å, 2.357Å, among others.

TABLE 14
Results of X-Ray Diffraction Analysis From Site 266

Core	Cored Interval Below Sea Floor (m)	Sample Depth Below Sea Floor (m)	Amor.	Calc.	Quar.	K-Fe.	Plag.	Kaol.	Mica	Chlo.	Mont.	Paly.	Hema.	Bari.	Amph.	Augi.
Bulk Samples																
2	25.0-34.5	29.0	94.5	–	14.4	22.0	28.4	–	16.3	–	9.8		–		–	9.2
5	82.0-91.5	89.0	79.4	–	17.7	15.3	17.8	4.5	28.8	–	11.0		–		1.4	3.4
6	101.0-110.5	106.2	88.3	–	22.7	15.4	15.5	3.7	33.5	–	9.2		–		–	–
8	129.5-139.0	133.1	84.3	–	18.2	15.0	19.6	3.2	26.6	–	15.8		–		1.5	–
9	139.0-148.5	142.5	76.2	29.5	18.1	9.8	11.5	–	23.1	1.7	5.0		–		1.3	–
10	148.5-158.0	153.8	16.2	94.1	2.3	–	1.2	–	2.5	–	–		–		–	–
		155.6	61.7	47.6	13.4	6.8	8.2	–	14.5	2.1	2.2		5.2		–	–
15	234.0-243.5	237.9	49.0	52.8	16.4	4.7	8.3	–	14.8	1.5	1.4		–		–	–
16	243.5-253.0	246.2	64.1	20.3	29.1	7.8	12.0	–	26.6	2.1	2.1		–		–	–
17	253.0-262.5	259.9	9.4	96.7	1.9	–	–	–	1.4	–	–		–		–	–
21	329.0-338.5	333.1	46.6	62.8	13.2	2.9	5.7	–	13.6	0.8	1.0		–		–	–
2-20μm Fractions																
2	25.0-34.5	29.0	95.0		18.4	24.5	32.9	–	5.0	–	–			–	–	19.2
5	82.0-91.5	89.0	77.5		26.3	19.9	30.2	2.3	11.4	–	–			–	2.1	7.8
6	101.0-110.5	106.2	92.6		38.2	17.9	27.7	5.3	10.9	–	–			–	–	–
8	129.5-139.0	133.1	83.7		28.0	21.3	29.8	2.2	11.1	–	4.8			–	2.7	–
9	139.0-148.5	142.5	80.8		34.8	20.2	25.1	–	15.4	2.0	–			–	2.5	–
10	148.5-158.0	153.8	82.9		38.8	12.2	22.6	–	19.8	4.7	–			–	1.9	–
		155.6	77.5		39.6	12.1	26.0	–	17.7	2.6	–			–	2.1	–
15	234.0-243.5	237.9	51.5		44.7	14.2	17.2	–	17.9	2.0	–			2.3	1.8	–
16	243.5-253.0	246.2	56.4		46.1	12.5	17.4	–	16.3	2.2	–			4.2	1.2	–
17	253.0-262.5	259.9	71.7		51.9	13.5	19.7	–	10.8	1.3	–			1.9	1.1	–
21	329.0-338.5	333.1	57.9		46.2	15.5	17.1	0.4	17.3	1.4	–			–	2.2	–
<2μm Fractions																
2	25.0-34.5	29.0	89.0		11.5	18.7	19.6	4.3	11.4	–	27.1	–			–	7.6
5	82.0-91.5	89.0	80.7		18.3	14.3	14.5	7.0	20.6	–	25.3	–			–	–
6	101.0-110.5	106.2	87.1		19.7	12.7	19.3	3.3	23.1	–	21.9	–			–	–
8	129.5-139.0	133.1	86.4		22.8	13.6	14.8	4.1	20.9	–	23.8	–			–	–
9	139.0-148.5	142.5	82.6		26.0	13.6	19.9	–	24.0	3.7	12.9	–			–	–
10	148.5-158.0	153.8	76.2		31.8	7.9	16.5	–	28.7	4.6	10.5	–			–	–
		155.6	75.0		28.0	6.2	17.0	–	24.2	3.4	9.0	12.3			–	–
15	234.0-243.5	237.9	69.7		31.6	11.1	17.8	–	25.0	3.7	9.7	–			1.0	–
16	243.5-253.0	246.2	72.3		33.4	10.2	16.0	–	28.2	3.9	8.2	–			–	–
17	253.0-262.5	259.9	76.3		31.6	8.8	15.3	–	32.5	4.5	7.4	–			–	–
21	329.0-338.5	333.1	69.5		31.6	11.0	17.9	–	25.8	2.3	10.1	–			1.4	–

TABLE 15
Results of X-Ray Diffraction Analysis From Hole 267

Core	Cored Interval Below Sea Floor (m)	Sample Depth Below Sea Floor (m)	Amor.	Calc.	Quar.	K-Fe.	Plag.	Mica	Chlo.	Mont.	Amph.
Bulk Samples											
3	89.5-99.0	94.8	59.8	–	30.8	8.9	17.1	32.9	2.1	7.3	0.9
4	127.5-137.0	132.8	37.5	68.1	12.4	3.2	5.3	10.3	0.8	–	–
2-20μm Fractions											
3	89.5-99.0	94.8	39.5		42.4	12.7	20.7	20.7	1.8		1.6
4	127.5-137.0	132.8	48.2		47.2	9.7	17.2	21.9	1.9		2.0
<2μm Fractions											
3	89.5-99.0	94.8	62.7		30.9	10.9	17.6	30.6	2.5	7.4	
4	127.5-137.0	132.8	65.3		36.5	9.9	18.4	26.7	3.2	5.2	

TABLE 16
Results of X-Ray Diffraction Analysis From Hole 267A

Core	Cored Interval Below Sea Floor (m)	Sample Depth Below Sea Floor (m)	Amor.	Quar.	K-Fe.	Plag.	Kaol.	Mica	Chlo.	Mont.	Amph.
Bulk Samples											
1	4.0-13.5	11.8	76.4	29.5	14.8	16.5	–	32.3	0.5	4.3	2.2
3	61.0-70.5	63.5	59.4	37.6	–	17.1	3.3	42.0	–	–	–
2-20μm Fractions											
1	4.0-13.5	11.8	73.3	45.8	18.6	25.2		10.5	–		–
3	61.0-70.5	63.5	45.1	41.3	12.8	19.5		22.8	1.6		2.0
<2μm Fractions											
1	4.0-13.5	11.8	81.4	27.6	17.8	16.6	–	30.7	1.3	6.1	
3	61.0-70.5	63.5	68.8	29.6	11.3	15.9	1.8	29.2	1.1	11.0	

TABLE 17
Results of X-Ray Diffraction Analysis From Hole 267B

Core	Cored Interval Below Sea Floor (m)	Sample Depth Below Sea Floor (m)	Amor.	Rhod.	Quar.	K-Fe.	Plag.	Kaol.	Mica	Chlo.	Mont.	Clin.	Amph.
Bulk Samples													
1	105.0-114.5	106.1	71.1	–	22.8	15.2	18.1	1.2	34.5	0.6	5.4	–	2.2
3	143.0-152.5	146.0	71.3	–	26.5	12.2	17.1	2.1	32.4	1.5	6.6	–	1.6
4	162.0-171.5	164.5	70.5	12.1	23.6	9.3	12.5	1.5	33.2	2.1	1.1	3.6	1.0
6	209.5-219.0	217.4	66.9	–	29.7	9.8	16.1	2.7	33.1	2.2	5.3	–	1.0
7	238.0-147.5	246.1	63.0	–	31.1	10.6	16.6	1.4	33.5	1.2	5.5	–	–
8	266.5-276.0	273.3	59.5	–	33.1	10.8	16.9	–	31.8	1.6	4.7	–	1.0
9	295.0-304.5	302.1	58.2	–	34.5	11.4	17.1	–	30.4	1.6	3.7	–	1.4
2-20μm Fractions													
1	105.0-114.5	106.1	60.9		35.6	22.9	27.0		11.0	–			3.5
3	143.0-152.5	146.0	61.0		36.8	16.2	20.2		21.5	3.4			1.9
4	162.0-171.5	164.5	64.5		39.5	15.6	19.6		21.1	2.3			1.8
6	209.5-219.0	217.4	51.5		41.0	12.9	20.1		22.2	1.7			2.2
7	238.0-247.5	246.1	48.4		42.3	12.9	19.4		22.6	0.8			1.9
8	266.5-276.0	273.3	36.3		48.5	14.9	18.5		15.0	0.9			2.2
9	295.0-304.5	302.1	29.9		39.3	11.3	18.3		27.2	1.6			2.3
<2μm Fractions													
1	105.0-114.5	106.1	78.6		21.9	14.2	21.0	2.7	19.0	0.6	8.3		2.2
3	143.0-152.5	146.0	76.1		24.8	13.3	17.8	4.7	24.3	1.7	13.3		–
4	162.0-171.5	164.5	74.2		24.3	10.3	15.4	4.6	31.0	2.3	12.3		–
6	209.5-219.0	217.4	71.7		29.9	9.3	16.1	2.4	32.3	2.1	7.9		–
7	238.0-247.5	246.1	67.8		26.0	10.9	15.2	4.4	26.0	–	17.6		–
8	266.5-276.0	273.3	64.4		29.2	10.0	16.7	1.5	30.6	1.2	10.9		–
9	295.0-304.5	302.1	62.5		30.5	11.4	18.6	1.0	29.8	2.1	6.7		–

TABLE 18
Results of X-Ray Diffraction Analysis From Site 268

Core	Cored Interval Below Sea Floor (m)	Sample Depth Below Sea Floor (m)	Amor.	Calc.	Quar.	Cris.	K-Fe.	Plag.	Kaol.	Mica	Chlo.	Mont.	Trid.	Hema.	Pyri.	Amph.
Bulk Samples																
2	28.0-37.5	33.1	42.1	–	36.8	–	19.8	17.5	1.3	21.3	2.1	–		–	–	1.1
		33.2	53.7	–	29.7	–	16.7	18.8	1.5	26.9	1.7	2.7		–	–	2.0
8	170.5-180.0	170.9	47.8	–	44.4	–	12.6	14.1	–	24.7	3.0	–		–	–	1.2
		171.2	47.9	–	36.2	–	9.8	12.6	–	33.6	3.9	–		2.7	–	1.2
10	227.5-237.0	229.4	48.3	–	40.4	–	16.7	15.1	–	22.4	2.6	–		1.7	–	1.0
13	303.5-313.0	304.3	48.9	–	21.1	48.7	6.8	9.6	–	10.6	1.6	–		1.6	–	–
		304.3	50.2	6.1	26.6	–	10.1	17.3	–	30.7	5.0	4.2		–	–	–
		304.5	22.8	–	48.6	3.6	15.8	15.4	–	13.6	1.8	–		–	–	1.2
17	379.5-389.0	380.9	33.6	–	50.5	–	15.4	12.4	–	18.6	2.0	–		–	–	1.1
20	465.0-474.5	467.3	41.2	–	45.8	–	14.9	10.8	–	17.4	2.4	–		–	8.7	–
2-20μm Fractions																
2	28.0-37.5	33.1	11.8		45.9		19.6	18.4		12.0	0.5	–	–	–	–	3.6
		33.2	32.5		39.9		17.9	21.4		15.6	1.3	–	–	–	–	3.8
8	170.4-180.0	170.9	19.0		55.2		15.1	17.5		8.8	1.4	–	–	–	–	2.0
		171.2	13.4		55.4		9.5	16.5		12.2	2.4	–	–	2.1	–	1.9
10	227.5-237.0	229.4	17.2		49.9		13.3	17.3		11.3	1.5	–	5.4	1.2	–	–
13	303.5-313.0	304.3	22.1		42.2		9.9	18.3		22.3	5.3	0.9	–	–	–	1.1
		304.5	–		56.8		13.9	17.5		8.1	1.2	–	–	–	–	2.5
17	379.5-389.0	380.9	2.2		57.7		15.2	12.7		11.0	1.7	–	–	–	–	1.7
20	465.0-474.5	467.3	15.8		53.1		13.7	13.1		11.1	1.7	–	–	–	7.4	–
<2μm Fractions																
2	28.0-37.5	33.1	59.2		27.7	–	16.5	15.2	5.7	30.5	1.7	2.7		–	–	–
		33.2	70.5		24.3	–	11.9	17.1	4.5	31.8	2.9	6.2		–	–	1.4
8	170.5-180.0	170.9	55.8		33.4	–	9.4	13.0	–	36.5	6.7	–		–	–	1.0
		171.2	56.4		30.9	–	10.5	15.2	–	34.6	4.7	1.2		3.0	–	–
10	227.5-237.0	229.4	65.3		29.7	–	11.3	15.7	–	33.2	5.0	3.4		1.6	–	–
13	303.5-313.0	304.3	59.1		26.6	–	8.7	21.7	–	28.6	6.0	8.6		–	–	–
		304.5	55.1		27.2	7.7	12.0	14.8	–	30.9	4.3	3.1		–	–	–
17	379.5-389.0	380.9	54.2		40.3	–	14.3	12.8	–	27.5	5.1	–		–	–	–
20	465.0-474.5	467.3	64.2		33.7	–	13.2	11.9	–	30.4	4.5	2.1		–	4.2	–

TABLE 19
Results of X-Ray Diffraction Analysis From Hole 269

Core	Cored Interval Below Sea Floor (m)	Sample Depth Below Sea Floor (m)	Amor.	Quar.	K-Fe.	Plag.	Kaol.	Mica	Chlo.	Mont.	Pyri.	Amph.	U-2[a]
Bulk Samples													
2	46.0-55.5	47.6	49.5	23.0	3.2	9.7		52.9	4.4	6.7	–	–	
3	93.5-103.0	95.6	54.1	35.2	8.7	15.8		33.8	3.6	2.9	–	–	
6	198.0-207.5	203.3	52.8	32.6	11.9	18.4		31.6	4.5	–	–	1.0	
9	331.0-340.5	331.7	45.1	45.5	15.8	23.2		10.6	1.9	1.8	1.3	–	
		333.2	59.8	35.1	13.5	21.2		21.9	4.3	4.1	–	–	
11	388.0-397.5	389.6	53.1	35.1	7.1	20.7		27.8	4.6	3.8	–	0.9	
2-20μm Fractions													
2	46.0-55.5	47.6	16.2	32.1	4.6	14.9		42.3	6.2		–	–	T
3	93.5-103.0	95.6	32.3	40.2	8.4	18.5		28.3	4.6		–	–	T
6	198.0-207.5	203.3	38.2	38.9	12.4	20.9		22.7	3.8		–	1.4	T
9	331.0-340.5	331.7	28.2	46.6	16.6	22.8		9.0	1.9		1.2	2.0	–
		333.2	48.1	43.7	12.9	21.2		17.8	2.7		–	1.7	T
11	388.0-397.5	389.6	27.8	46.6	11.5	21.6		16.2	2.3		–	1.8	T
<2μm Fractions													
2	46.0-55.5	47.6	65.1	26.2	5.9	10.0	4.1	35.8	3.1	14.8			
3	93.5-103.0	95.6	69.9	28.1	7.4	15.2	–	32.7	5.3	11.3			
6	198.0-207.5	203.3	73.3	29.6	14.1	19.1	–	24.2	5.9	7.1			
9	331.0-340.5	331.7	68.8	31.1	12.8	22.7	–	17.3	4.6	11.5			
		333.2	66.2	32.7	15.5	23.5	–	16.5	4.5	7.4			
11	388.0-397.5	389.6	67.4	36.4	10.0	24.5	–	15.8	3.6	9.8			

[a]U-2 peak at 12.1Å.

TABLE 20
Results of X-Ray Diffraction Analysis From Hole 269A

Core	Cored Interval Below Sea Floor (m)	Sample Depth Below Sea Floor (m)	Amor.	Calc.	Quar.	Cris.	K-Fe.	Plag.	Mica	Chlo.	Mont.	Trid.	Clin.	Amph.	U-2[a]	U-3[b]
Bulk Samples																
2	426.0-435.5	428.4	52.7	10.4	35.7	–	13.7	19.4	16.4	2.2	1.2	–		1.1		
3	473.5-483.0	475.2	51.9	–	28.1	29.3	7.0	13.5	15.3	1.9	4.9	–		–		
		476.1	51.5	–	32.2	11.9	10.6	15.8	19.6	2.6	5.2	2.1		–		
4	521.0-530.5	523.0	33.8	–	29.9	23.3	8.5	15.3	15.3	2.1	1.6	3.0		0.9		
		523.5	52.5	–	35.4	10.5	11.0	16.4	17.3	3.0	6.3	–		–		
8	701.5-711.0	702.5	32.9	–	38.6	–	7.9	13.1	16.8	3.2	20.3	–		–		
		703.5	28.2	–	43.9	–	11.8	18.6	18.1	2.4	5.2	–		–		
		703.6	23.5	–	38.8	–	8.7	16.4	16.0	2.2	18.0	–		–		
10	806.0-815.5	808.3	33.0	–	45.7	–	12.0	18.6	13.8	2.3	7.6	–		–		
12	901.0-910.5	907.0	39.5	–	42.4	–	5.8	16.1	17.2	3.0	15.5	–		–		
13	948.5-958.0	954.3	33.2	–	29.2	–	5.3	17.2	36.8	6.8	4.7	–		–		
2-20μm Fractions																
2	426.0-435.5	428.4	33.1		40.9	–	15.3	21.7	18.1	2.7	–	–	–	1.3	P	–
3	473.5-483.0	475.2	32.9		41.5	13.8	9.3	17.5	14.3	1.9	–	0.8	–	0.8	–	–
4	521.0-530.5	523.0	19.9		38.0	10.8	10.2	18.8	17.0	2.5	–	1.4	–	1.3	T	–
		523.5	28.0		48.6	–	10.2	18.2	19.6	3.4	–	–	–	–	P	–
8	701.5-711.0	702.5	7.5		36.2	–	6.4	13.0	13.0	2.8	28.7	–	–	–	T	–
		703.5	2.8		51.5	–	11.3	19.2	14.5	2.5	–	–	–	1.2	T	–
		703.6	4.1		43.8	–	10.5	17.0	17.2	3.1	8.4	–	–	–	T	T
10	806.0-815.5	808.3	4.8		50.1	–	11.5	17.2	12.7	1.9	5.7	–	–	0.9	–	P
12	901.0-910.5	907.0	7.0		34.5	–	5.8	13.4	17.0	3.1	25.4	–	0.8	–	T	–
13	948.5-958.0	954.3	4.9		29.1	–	5.1	15.9	31.4	7.1	11.3	–	–	–	T	–
<2μm Fractions																
2	426.0-435.5	428.4	71.7		28.9	–	12.4	22.0	17.8	3.1	15.8	–				
3	473.5-483.0	475.2	59.3		26.3	33.3	8.8	15.2	6.3	1.6	7.3	1.2				
4	521.0-530.5	523.0	51.2		11.1	56.0	4.6	7.9	10.3	1.3	5.4	3.4				
		523.5	61.3		36.1	10.9	12.5	16.8	10.4	2.9	10.3	–				
8	701.5-711.0	702.5	50.0		34.0	–	6.5	12.5	11.0	3.3	32.8	–				
		703.5	50.4		37.8	–	9.0	17.8	17.7	3.6	14.1	–				
		703.6	51.7		34.4	–	7.3	14.6	18.6	3.2	21.8	–				
10	806.0-815.5	808.3	49.6		34.7	–	10.6	19.4	16.2	3.1	15.9	–				
12	901.0-910.5	907.0	46.0		31.8	–	6.0	15.5	13.4	2.9	30.5	–				
13	948.5-958.0	954.3	45.2		18.4	–	4.0	16.2	29.3	5.3	26.8	–				

[a]U-2 peak at 12.1Å.

[b]U-3 peaks at 22.2Å and 11.25Å.

TABLE 21
Results of X-Ray Diffraction Analysis From Site 270

Core	Cored Interval Below Sea Floor (m)	Sample Depth Below Sea Floor (m)	Amor.	Calc.	Cado.[a]	Side.	Quar.	Cris.	K-Fe.	Plag.	Kaol.	Mica	Chlo.	Mont.	Trid.	Hema.	Pyri.	Gyps.	Amph.	U-2[a]
Bulk Samples																				
1	0.0-6.0	0.9	49.6	–	–	–	33.0	–	9.3	17.3	–	37.6	2.8	–	–		–	–	–	
		1.8	33.2	–	–	–	35.8	–	14.3	21.3	–	24.4	1.9	2.4	–		–	–	–	
		2.7	26.1	–	–	–	36.9	–	13.1	21.4	–	27.5	1.2	–	–		–	–	–	
6	34.5-44.0	36.0	29.7	–	–	–	25.7	28.4	11.8	18.8	–	10.8	1.3	–	2.4		0.7	–	–	
9	63.0-72.5	65.8	28.7	–	–	–	26.7	29.5	8.5	19.3	–	10.8	1.5	–	2.5		0.6	–	0.7	
14	110.5-120.0	113.0	35.4	–	–	–	28.7	15.1	7.9	23.3	–	18.2	3.3	0.8	–		0.6	2.1	–	
15	120.0-129.5	122.8	32.2	–	–	–	29.5	16.4	11.0	25.3	–	14.2	3.0	–	–		0.7	–	–	
19	158.0-167.5	160.4	29.6	–	–	–	31.4	11.9	9.2	23.4	–	19.4	3.6	1.2	–		–	–	–	
		163.3	30.9	–	–	–	28.4	10.8	8.4	22.3	–	21.7	4.6	2.8	–		0.9	–	–	
22	186.5-196.0	188.0	35.4	–	–	–	29.9	–	15.1	36.2	–	12.7	3.6	–	–		1.4	–	1.2	
24	205.5-215.0	207.1	18.9	–	–	–	41.0	–	12.7	20.5	0.4	21.1	3.4	–	–		0.9	–	–	
28	243.5-253.0	248.2	20.2	–	–	–	43.0	–	14.9	22.8	–	16.6	2.7	–	–		–	–	–	
31	272.0-281.5	275.1	28.5	–	–	–	38.6	–	11.1	22.6	–	20.8	3.4	3.5	–		–	–	–	
33	291.0-300.5	294.0	26.5	–	–	–	39.4	–	13.6	21.8	–	19.1	3.1	2.9	–		–	–	–	
35	310.0-319.5	315.1	30.0	–	–	–	20.2	–	9.3	12.6	–	12.6	20.0	25.3	–		–	–	–	
37	329.0-338.5	332.5	28.4	–	–	–	33.7	–	7.6	19.6	–	30.2	5.2	3.6	–		–	–	–	
40	357.5-367.0	363.6	19.9	–	–	–	41.2	–	14.4	18.8	–	19.4	3.7	2.5	–		–	–	–	
41	367.0-370.0	369.7	25.8	–	–	–	41.4	–	9.9	16.1	1.3	23.5	3.6	4.2	–		–	–	–	
43	376.5-386.0	378.7	12.8	8.0	3.2	2.2	48.7	–	16.6	13.9	3.1	4.3	–	–	–		–	–	–	
		383.7	26.8	–	–	3.5	42.5	–	8.7	7.4	11.3	23.2	–	2.2	–		1.2	–	–	
44	386.0-395.5	387.3	9.4	–	–	–	46.9	–	26.8	–	6.4	7.1	–	10.6	–		2.1	–	–	
2-20μm Fractions																				
1	0.0-6.0	0.9	33.6		–	–	40.8	–	8.6	25.5	–	20.4	3.4	–	–		–		1.3	–
		1.8	22.1		–	–	41.5	–	12.1	26.1	–	16.8	2.3	–	–		–		1.3	–
		2.7	16.8		–	–	37.3	–	9.1	22.4	–	26.3	3.4	–	–		–		1.4	T
6	34.5-44.0	36.0	18.9		–	–	24.0	27.9	6.5	19.6	–	16.7	2.2	–	1.7		1.3		–	T
9	63.0-72.5	65.8	15.9		–	–	29.1	20.3	7.2	19.9	–	17.4	2.7	–	1.5		0.8		1.2	–
14	110.5-120.0	113.0	15.0		–	–	30.4	9.1	8.5	22.5	–	22.8	3.9	–	0.9		0.6		1.2	–
15	120.0-129.5	122.8	20.0		–	–	35.9	–	9.6	26.0	–	23.3	4.4	–	–		0.8		–	–
19	158.0-167.5	160.4	9.7		–	–	32.2	5.4	15.8	21.2	–	19.7	4.0	–	–		0.8		1.0	–
		163.3	6.1		–	–	29.9	3.6	9.3	23.3	–	26.4	5.2	–	–		1.3		1.1	–
22	186.5-196.0	188.0	13.2		–	–	35.6	–	11.1	37.2	–	9.7	2.3	–	–		1.9		2.1	–
24	205.5-215.0	207.1	3.5		–	–	46.2	–	8.1	21.1	–	19.0	4.1	–	–		1.4		–	–
28	243.5-253.0	248.2	7.8		–	–	45.5	–	9.4	22.5	–	18.1	3.5	–	–		1.0		–	–
31	272.0-281.5	275.1	6.8		–	–	44.4	–	7.8	24.5	–	18.5	3.6	–	–		1.1		–	–
33	291.0-300.5	294.0	2.9		–	–	45.5	–	9.0	22.3	–	19.2	4.0	–	–		–		–	–
35	310.0-319.5	315.1	8.2		–	–	43.0	–	7.6	24.7	–	19.7	3.9	–	–		1.0		–	–
37	329.0-338.5	332.5	5.2		–	–	41.6	–	8.0	21.5	–	24.7	4.1	–	–		–		–	–
40	357.5-367.0	363.6	–		–	–	43.4	–	8.7	18.3	–	24.5	4.3	–	–		0.8		–	–
41	367.0-370.0	369.7	1.4		–	–	45.5	–	8.8	16.9	1.9	22.1	4.0	–	–		0.9		–	–
43	376.5-386.0	378.7	6.1		1.0	2.7	39.8	–	8.6	15.4	14.3	14.9	1.0	–	–		2.4		–	–
		383.7	–		–	1.3	46.3	–	8.5	10.6	12.5	18.7	–	–	–		2.1		–	–
44	386.0-395.5	387.3	8.2		–	–	12.8	–	15.5	1.1	27.1	28.9	–	8.7	–		5.9		–	–
<2μm Fractions																				
1	0.0-6.0	0.9	73.7				17.7	–	9.2	15.6	–	44.0	6.5	6.9	–	–	–	–		
		1.8	62.9				16.8	–	6.1	16.2	–	42.1	6.8	12.0	–	–	–	–		
		2.7	63.6				15.5	–	4.8	14.5	–	43.3	5.2	16.6	–	–	–	–		
6	34.5-44.0	36.0	41.6				7.8	62.7	2.7	8.1	–	11.0	2.1	1.8	3.7	–	–	–		
9	63.0-72.5	65.8	36.5				8.0	60.8	2.6	8.4	–	11.8	2.0	2.2	4.3	–	–	–		
14	110.5-120.0	113.0	40.5				10.5	45.5	3.5	10.8	–	19.1	3.3	5.5	1.9	–	–	–		
15	120.0-129.5	122.8	45.4				13.7	29.6	6.3	15.4	–	22.6	4.2	5.9	1.0	–	1.4	–		
19	158.0-167.5	160.4	45.5				14.2	32.4	5.0	14.1	–	23.3	4.4	5.7	0.9	–	–	–		
		163.3	43.1				14.4	27.4	6.2	16.3	–	20.6	4.5	9.3	0.7	–	0.7	–		
22	186.5-196.0	188.0	55.7				20.1	–	10.7	33.6	–	14.9	4.8	14.3	–	–	1.5	–		
24	205.5-215.0	207.1	49.5				21.1	–	6.7	14.4	–	38.7	7.2	11.2	–	–	0.7	–		
28	243.5-253.0	248.2	52.2				23.6	–	6.3	18.5	–	34.4	6.8	10.5	–	–	–	–		
31	272.0-281.5	275.1	49.0				23.0	–	7.7	16.1	–	35.0	6.5	10.2	–	–	–	1.4		
33	291.0-300.5	294.0	45.9				24.2	–	5.8	14.4	–	38.2	7.2	10.2	–	–	–	–		
35	310.0-319.5	315.1	33.8				36.7	–	11.2	19.2	–	21.4	3.7	7.8	–	–	–	–		
37	329.0-338.5	332.5	33.5				33.3	–	8.6	17.6	–	28.1	5.3	7.1	–	–	–	–		
40	357.5-367.0	363.6	49.7				20.0	–	7.3	11.0	2.2	39.8	6.9	12.8	–	–	–	–		
41	367.0-370.0	369.7	49.1				19.5	–	5.4	8.2	3.4	43.1	7.3	13.0	–	–	–	–		
43	376.5-386.0	378.7	45.1				28.1	–	3.0	2.9	26.2	25.5	–	7.5	–	5.1	1.7	–		
		383.7	43.0				24.4	–	4.9	2.8	20.3	36.2	–	7.9	–	2.7	0.8	–		
44	386.0-395.5	387.3	12.9				3.5	–	–	–	36.3	15.1	–	44.0	–	–	1.1	–		

[a]Cado = calcium dolomite.
[b]U-2 peak at 12.1Å.

TABLE 22
Results of X-Ray Diffraction Analysis From Site 271

Core	Cored Interval Below Sea Floor (m)	Sample Depth Below Sea Floor (m)	Amor.	Quar.	K-Fe.	Plag.	Mica	Chlo.	Pyri.	Mont.	Amph.
Bulk Samples											
5	68.5-78.0	69.6	34.1	33.0	18.1	22.5	23.0	2.3			1.1
24	255.5-265.0	258.3	39.2	23.8	10.5	21.8	31.1	2.2			10.5
2-20μm Fractions											
5	68.5-78.0	69.6	24.3	38.5	13.1	25.1	19.1	2.6	–		1.7
24	255.5-265.0	258.3	36.2	40.2	10.0	28.9	13.5	2.6	1.7		3.1
<2μm Fractions											
5	68.5-78.0	69.6	76.9	8.3	3.5	7.5	25.8	54.9		–	
24	255.5-265.0	258.3	80.9	17.4	6.9	20.5	27.7	9.8		17.7	

TABLE 23
Results of X-Ray Diffraction Analysis From Site 272

Core	Cored Interval Below Sea Floor (m)	Sample Depth Below Sea Floor (m)	Amor.	Quar.	Cris.	K-Fe.	Plag.	Kaol.	Mica	Chlo.	Mont.	Trid.	Pyri.	Gyps.	Amph.	U-2[a]
Bulk Samples																
1	4.0-13.5	4.6	56.0	31.1	–	9.0	16.9		39.5	3.4	–	–	–	–	–	
		7.8	32.5	39.4	–	15.0	16.4		25.1	1.9	2.2	–	–	–	–	
9	80.0-89.5	84.3	38.8	36.7	–	13.2	22.4		22.4	3.0	–	–	–	2.2	–	
12	108.5-118.0	109.6	37.6	34.0	–	17.2	22.1		23.8	3.0	–	–	–	–	–	
15	137.0-146.5	139.5	48.4	34.5	–	14.2	20.8		25.8	3.6	–	–	–	–	1.0	
19	175.0-184.5	183.3	62.6	36.6	–	13.9	28.0		17.6	2.7	–	–	1.2	–	–	
22	203.5-213.0	207.1	70.1	41.4	–	–	32.5		20.3	3.6	–	–	2.2	–	–	
30	279.5-289.0	281.2	64.1	38.3	–	12.9	32.2		12.3	2.2	–	–	2.0	–	–	
38	355.5-365.0	357.8	61.3	36.5	7.3	12.1	24.1		17.4	2.6	–	–	–	–	–	
41	384.0-393.5	384.5	31.8	24.6	32.5	8.5	16.5		14.0	1.9	–	0.8	1.2	–	–	
		385.5	33.5	15.8	57.2	8.9	9.9		6.1	1.2	–	–	0.9	–	–	
2-20μm Fractions																
1	4.0-13.5	4.6	31.9	41.3	–	8.7	22.8		23.2	2.9			–		1.2	T
		7.8	19.7	38.9	–	9.6	26.0		21.9	1.9			–		1.7	T
9	80.0-89.5	84.3	21.1	37.8	–	8.4	21.3		26.5	3.9			–		2.1	T
12	108.5-118.0	109.6	19.9	33.6	–	12.1	22.9		25.5	4.2			–		1.8	–
15	137.0-146.5	139.5	39.9	42.8	–	9.7	25.3		16.7	3.1			1.3		1.2	–
19	175.0-184.5	183.3	55.7	41.2	–	10.5	28.3		15.3	3.2			1.6		–	–
22	203.5-213.0	207.1	67.6	41.9	–	9.3	27.6		14.4	3.0			2.4		1.4	–
30	279.5-289.0	281.2	67.3	38.3	–	11.1	31.4		11.9	2.6			4.7		–	–
38	355.5-365.0	357.8	59.2	38.2	–	9.9	26.7		19.6	3.5			2.0		–	–
41	384.0-393.5	384.5	20.8	35.5	11.6	8.4	23.1		15.4	2.5			2.5		1.0	–
<2μm Fractions																
1	4.0-13.5	4.6	72.8	15.3	–	5.1	12.3	3.8	47.7	6.7	9.0	–	–			
		7.8	63.2	14.3	–	4.4	12.0	4.0	40.0	8.1	17.2	–	–			
9	80.0-89.5	84.3	66.3	16.4	–	6.6	15.6	–	43.2	8.1	10.2	–	–			
12	108.5-118.0	109.6	66.3	17.1	–	6.0	16.4	–	46.6	8.8	5.2	–	–			
15	137.0-146.5	139.5	70.1	18.0	–	6.3	17.0	–	43.2	8.3	7.3	–	–			
19	175.0-184.5	183.3	79.0	18.6	–	11.3	23.7	–	31.2	6.7	8.5	–	–			
22	203.5-213.0	207.1	86.3	20.3	–	9.3	26.1	–	32.3	6.9	5.0	–	–			
30	279.5-289.0	281.2	83.4	18.9	–	7.0	28.6	–	23.5	6.1	9.3	–	6.6			
38	355.5-365.0	357.8	75.3	15.5	26.9	4.7	18.9	–	22.0	4.9	6.1	0.9	–			
41	384.0-393.5	384.5	41.1	6.9	65.3	2.6	8.3	–	8.6	2.1	3.7	1.8	0.7			

[a]U-2 peak at 12.1Å.

TABLE 24
Results of X-Ray Diffraction Analysis From Hole 273

Core	Cored Interval Below Sea Floor (m)	Sample Depth Below Sea Floor (m)	Amor.	Quar.	K-Fe.	Plag.	Kaol.	Mica	Chlo.	Mont.	Pyri.	Amph.	Gyps.
Bulk Samples													
2	4.5-14.0	9.9	51.6	38.2	16.0	20.6		23.2	2.0	–	–		–
4	23.5-33.0	26.1	49.9	39.7	11.9	21.8		20.1	1.9	1.1	–		3.5
6	42.5-52.0	44.5	56.8	41.1	10.9	21.6		19.1	2.5	1.3	1.1		2.4
2-20μm Fractions													
4	23.5-33.0	26.1	40.8	44.9	10.8	25.9		13.6	2.4		0.9	1.5	
6	42.5-52.0	44.5	39.0	42.9	12.6	24.3		13.5	3.1		2.2	1.4	
<2μm Fractions													
2	4.5-14.0	9.9	77.0	22.6	6.7	19.3	1.1	31.6	5.5	13.3	–		
4	23.5-33.0	26.1	79.6	22.3	7.5	17.9	–	30.7	6.0	15.5	–		
6	42.5-52.0	44.5	75.7	22.0	8.0	21.0	–	28.6	6.2	10.6	3.5		

TABLE 25
Results of X-Ray Diffraction Analysis From Hole 273A

Core	Cored Interval Below Sea Floor (m)	Sample Depth Below Sea Floor (m)	Amor.	Calc.	Dolo.	Quar.	K-Fe.	Plag.	Kaol.	Mica	Chlo.	Mont.	Pyri.	Gyps.	Amph.	U-3[a]
Bulk Samples																
6	137.5-147.0	139.9	72.8	–	–	32.8	11.5	23.9	–	25.1	2.6	–	2.8	1.4	–	
7	147.0-156.5	149.0	53.7	4.4	30.3	28.2	10.5	18.8	–	6.9	0.9	–	–	–	–	
		149.5	55.1	–	–	40.4	14.0	26.7	–	14.6	1.6	–	1.7	–	1.0	
9	166.0-175.5	166.9	53.7	–	–	38.1	18.6	25.6	1.0	13.9	1.6	1.2	–	–	–	
13	194.5-204.0	198.8	53.1	–	–	38.5	14.2	24.4	–	15.2	2.2	3.6	–	1.9	–	
17	232.5-242.0	234.8	57.7	–	–	37.8	17.7	22.3	–	18.5	2.7	1.0	–	–	–	
22	272.5-280.0	273.3	30.3	–	–	31.5	25.0	22.5	–	19.6	1.4	–	–	–	–	
25	299.0-308.5	301.6	51.7	1.6	0.8	40.2	10.2	23.9	–	20.2	1.9	–	–	–	1.1	
2-20μm Fractions																
6	137.5-147.0	139.9	65.3		–	37.3	17.0	22.5		12.7	2.4		5.9		2.1	–
7	147.0-156.5	149.0	43.1		3.5	42.7	14.3	26.8		7.1	1.6		2.9		1.2	–
		149.5	40.2		–	38.4	12.3	26.0		14.0	2.2		5.4		1.8	–
9	166.0-175.5	166.9	45.7		–	36.0	19.5	25.3		14.0	2.7		1.2		1.4	–
13	194.5-204.0	198.8	45.9		–	39.0	12.6	27.4		15.8	2.1		1.4		1.7	P
17	232.5-242.0	234.8	56.2		–	44.0	11.3	25.8		12.6	1.8		3.2		1.3	P
22	272.5-280.0	273.3	22.2		–	34.4	13.2	27.1		18.6	2.5		1.8		2.2	P
25	299.0-308.5	301.6	42.0		–	38.3	12.2	24.9		18.9	3.0		0.9		1.8	P
<2μm Fractions																
6	137.5-147.0	139.9	85.1		–	24.8	9.3	22.4	–	24.5	5.6	9.8	3.6			
7	147.0-156.5	149.0	83.3		3.0	27.5	8.1	25.8	–	18.0	5.5	9.7	2.4			
		149.5	76.3		–	23.0	8.9	23.4	–	21.2	5.3	16.8	1.3			
9	166.0-175.5	166.9	76.9		–	22.8	9.6	22.0	3.1	24.2	5.4	12.9	–			
13	194.5-204.0	198.8	75.4		–	21.8	8.7	21.1	2.3	26.8	5.8	13.5	–			
17	232.5-242.0	234.8	78.0		–	20.6	10.7	19.3	–	30.3	6.8	10.9	1.4			
22	272.5-280.0	273.3	73.5		–	21.3	6.4	23.0	–	34.0	6.9	8.3	–			
25	299.0-308.5	301.6	66.8		–	16.3	6.9	21.7	–	41.0	5.5	8.6	–			

[a]U-3 peaks at 22.2Å and 11.25Å.

TABLE 26
Results of X-Ray Diffraction Analysis From Site 274

Core	Cored Interval Below Sea Floor (m)	Sample Depth Below Sea Floor (m)	Amor.	Dolo.	Side.	Quar.	Cris.	K-Fe.	Plag.	Kaol.	Mica	Chlo.	Mont.	Trid.	Clin.	Pyri.	Gyps.	Amph.	U-2[a]	U-3[b]
Bulk Samples																				
1	0.0-9.5	5.7	54.3	–	–	28.1	–	15.3	18.1	–	29.8	2.5	4.8	–	–	–	–	1.4		
2	9.5-19.0	13.2	53.9	–	–	30.1	–	11.3	19.5	1.6	30.8	3.0	3.8	–	–	–	–	–		
5	38.0-47.5	42.3	67.0	–	–	28.3	–	11.2	21.2	–	35.2	2.3	1.9	–	–	–	–	–		
6	47.5-57.0	50.3	60.6	–	–	28.6	–	12.6	21.9	–	33.1	2.0	1.8	–	–	–	–	–		
10	85.5-95.0	89.4	69.1	–	–	30.7	–	10.5	22.1	–	30.3	1.5	4.8	–	–	–	–	–		
13	114.0-123.5	116.6	56.4	–	–	30.7	–	11.6	21.6	–	30.9	1.2	2.9	–	–	–	–	1.1		
		122.6	58.5	–	–	32.7	–	11.4	21.9	–	28.3	0.7	3.6	–	–	–	–	1.2		
14	123.5-133.0	125.9	60.7	–	–	32.0	–	9.2	22.9	–	30.2	3.5	1.1	–	–	–	–	1.0		
17	152.0-161.5	154.3	57.1	–	–	29.4	–	8.4	21.5	–	35.2	4.2	–	–	–	–	–	1.3		
20	180.5-190.0	184.4	58.0	–	–	26.1	–	7.7	18.4	–	29.0	2.0	16.9	–	–	–	–	–		
21	190.0-199.5	198.2	77.5	–	–	35.7	–	9.9	19.5	–	27.2	3.7	2.0	–	–	2.0	–	–		
23	209.0-218.5	211.9	81.0	–	–	36.6	–	7.8	21.7	–	27.7	3.8	–	–	–	2.5	–	–		
26	237.5-247.0	241.4	80.4	–	1.6	34.9	–	11.0	20.4	–	26.7	3.3	–	–	–	2.1	–	–		
29	266.0-275.5	267.8	83.7	–	1.5	33.5	–	8.9	19.8	–	27.7	3.0	2.3	–	–	3.3	–	–		
32	294.5-304.0	300.4	78.0	–	–	31.4	–	9.3	18.6	–	29.1	2.5	7.3	–	–	1.8	–	–		
39	361.0-370.5	363.6	44.0	4.1	3.3	26.2	12.0	8.5	11.6	–	21.9	2.2	6.4	0.8	0.9	2.1	–	–		
42	389.5-399.0	392.4	29.6	–	–	12.7	39.9	3.7	6.0	–	15.9	1.0	13.2	2.1	2.0	–	3.4	–		
2-20μm Fractions																				
1	0.0-9.5	5.7	33.6		–	37.7	–	10.2	24.3		23.1	2.7		–	–	–		2.0	–	–
2	9.5-19.0	13.2	27.9		–	40.2	–	9.9	24.9		20.7	2.6		–	–	–		1.7	–	P
5	38.0-47.5	42.3	55.9		–	35.5	–	10.8	24.9		24.3	2.9		–	–	–		1.5	–	P
6	47.5-57.0	50.3	42.9		–	41.6	–	10.4	25.9		18.4	2.1		–	–	–		1.5	–	–
10	85.5-95.0	89.4	49.0		–	35.3	–	10.6	25.3		26.1	1.0		–	–	–		1.7	–	–
13	114.0-123.5	116.6	30.4		–	40.2	–	11.8	24.7		19.7	1.3		–	–	–		2.3	–	–
		122.6	40.9		–	40.0	–	10.9	27.4		19.0	1.3		–	–	–		1.4	–	–
14	123.5-133.0	125.9	35.4		–	39.8	–	11.8	26.1		16.1	3.1		–	–	0.9		2.1	–	P
17	152.0-161.5	154.3	32.5		–	34.2	–	12.2	25.9		21.4	4.9		–	–	–		1.4	T	–
20	180.5-190.0	184.4	56.8		–	44.6	–	9.3	26.8		17.5	1.7		–	–	–		–	–	T
21	190.0-199.5	198.2	72.4		–	46.6	–	10.5	22.8		12.9	3.2		–	–	4.0		–	–	–
23	209.0-218.5	211.9	76.5		–	49.2	–	9.7	22.6		11.2	3.8		–	–	3.5		–	–	P
26	237.5-247.0	241.4	78.3		–	47.1	–	11.7	22.9		10.9	3.6		–	–	3.8		–	–	–
29	266.0-275.5	267.8	82.2		–	43.8	–	12.5	25.7		11.0	2.4		–	–	4.6		–	–	T
32	294.5-304.0	300.4	71.7		–	49.3	–	10.7	22.8		12.0	1.7		–	–	3.4		–	–	P
39	361.0-370.5	363.6	21.6		1.8	37.6	4.9	10.9	19.4		16.5	2.6		0.6	0.9	4.7		–	–	P
42	389.5-399.0	392.4	22.1		–	20.3	37.1	7.0	10.4		15.7	2.0		3.2	2.5	1.9		–	–	–
<2μm Fractions																				
1	0.0-9.5	5.7	64.7			12.5	–	6.1	11.9	3.1	35.9	6.1	24.3	–	–	–				
2	9.5-19.0	13.2	66.5			12.7	–	6.5	12.0	4.5	34.8	6.2	23.2	–	–	–				
5	38.0-47.5	42.3	79.8			16.2	–	4.7	15.2	5.9	32.2	1.9	23.9	–	–	–				
6	47.5-57.0	50.3	73.9			15.7	–	7.6	15.5	3.8	30.3	2.1	25.0	–	–	–				
10	85.5-95.0	89.4	78.9			15.2	–	8.2	14.4	5.1	29.7	–	27.4	–	–	–				
13	114.0-123.5	116.6	72.8			19.2	–	7.5	18.3	3.1	28.2	1.5	22.3	–	–	–				
		122.6	70.7			17.5	–	10.9	16.7	3.2	24.3	1.3	26.2	–	–	–				
14	123.5-133.0	125.9	74.9			20.3	–	9.1	21.4	–	31.0	6.0	12.2	–	–	–				
17	152.0-161.5	154.3	72.8			21.4	–	7.8	21.1	–	37.6	7.2	4.9	–	–	–				
20	180.5-190.0	184.4	52.7			15.0	–	5.7	9.6	1.0	33.4	1.8	33.3	–	–	–				
21	190.0-199.5	198.2	80.0			31.2	–	7.8	20.8	–	25.3	4.7	9.1	–	–	1.2				
23	209.0-218.5	211.9	81.6			27.9	–	7.5	18.0	–	26.3	7.2	11.5	–	–	1.6				
26	237.5-247.0	241.4	80.9			26.6	–	6.6	17.3	–	28.3	4.6	15.2	–	–	1.4				
29	266.0-275.5	267.8	79.6			23.5	–	8.3	18.1	–	30.3	4.8	13.2	–	–	1.8				
32	294.5-304.0	300.4	76.2			22.1	–	5.1	15.6	–	28.0	2.9	24.9	–	–	1.5				
39	361.0-370.5	363.6	47.9			21.6	23.8	5.1	10.5	–	18.1	2.4	14.8	0.7	1.3	1.8				
42	389.5-399.0	392.4	39.5			7.0	60.7	2.2	5.2	–	7.6	0.6	11.2	4.8	–	0.7				

[a]U-2 peak at 12.1Å.
[b]U-3 peaks at 22.2Å and 11.25Å.