25. X-RAY MINERALOGY DATA, EASTERN INDIAN OCEAN—LEG 27 DEEP SEA DRILLING PROJECT[1]

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METHODS

Semiquantitative determinations of the mineral composition of bulk samples, 2-20μ, and $<2\mu$ fractions were performed according to the methods described in the reports of Legs 1 and 2 and in Appendix III of Volume IV. The mineral analyses of the 2-20μ and $<2\mu$ fractions were performed on $CaCO_3$-free residues.

The X-ray mineralogy results of this study are summarized in Tables 1-5. The mineralogy data are presented in Tables 6-10. Sediment ages, lithologic units, and nomenclature of the sediment types in Tables 1-5 are from the DSDP Leg 27 hole summaries and from a subsequent update supplied by Dr. P. T. Robinson, U.C. Riverside. The stratigraphic position of samples submitted for X-ray diffraction analysis from Leg 27 are listed in Tables 1-5. The sample depth (in m) below the sea floor in Tables 1-5 identifies the samples as they are reported in Tables 6-10.

Several unidentified minerals were detected in Leg 27 samples. Their abundances were determined on a semiquantitative basis using a hypothetical mineral intensity factor of 3.0. Unidentified minerals are reported on a ranked, semiquantitative scale outlined as follows: trace, <5%; present, 5% to 25%; abundant 25% to 65%; major, >65%. Although a certain quantity of the unidentified minerals is implied, their concentration is not included in the concentrations of the identified minerals, which are summed to 100%.

DRILLING MUD USAGE

Drilling mud, containing montmorillonite and barite, was used on Leg 27 as follows:

No mud was used at Sites 259 and 261. At Site 260 drilling mud was used between Cores 7 and 8; at Site 262 while retrieving Core 46; and at Site 263 between Cores 23 and 24 and between Cores 25 and 26. 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.

MINERAL NOTES

Dolomite, with the most intense peak shifting from 2.886Å to 2.909Å, was detected in several samples at the base at Site 262. All the peaks of dolomite are present and have the proper peak intensities. The shift was attributed to the presence of excess calcium in the dolomite lattice, and the mineral was termed calcium dolomite (abbreviated CaDo.). Quartz and low-magnesium calcite present in the samples were used to check the alignment of the diffraction pattern.

Magnesium calcite (abbreviated MgCa) was detected in small amounts at several sites. Its presence was manifested as a bump on the low d-spacing side of the (211) calcite peak. The concentration of magnesium calcite was quantified by deconvoluting the contribution to the calcite peak. The magnesian calcite peak was not sufficiently well resolved to permit an accurate determination of the $MgCO_3$ content.

Halite reported in several $<2\mu$ samples has been traced to an impurity introduced in the laboratory. The presence of halite does not interfere with the identification or the quantification of any sedimentary minerals, and the relative percentages of the reported minerals is correct.

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TABLE 1
Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 259

Sample (Interval in cm)	Subbottom Depth (m)	Lithology	Age	Bulk Sample Major Constituent			2–20μ Fraction Major Constituent			<2μ Fraction Major Constituent		
1-3, 26-28	3.3	Unit 1	Quaternary	Calc.			Quar.	K-Fe	Mica	Kaol.	Quar.	Mica
4-3, 26-28	30.3	Clay-rich nanno	to	Calc.	Clin.	Quar.	Clin.	Quar.		Mont.	Paly.	Mica
5-3, 26-28	39.8	ooze and	upper	Calc.	Clin.		Clin.	Quar.	Mica	Mont.	Clin.	Paly.
6-3, 26-28	49.3	zeolite clay	Paleocene	Calc.			Clin.	Quar.	Mica	Mont.	Clin.	Quar.
7-3, 26-28	58.8			Calc.			Clin.	Quar.	Mica	Clin.	Mont.	Quar.
7-4, 94-96	61.0	Unit 2		Quar.	Clin.	Mica	Clin.	Quar.	Phil.	Mont.	Clin.	Mica
8-3, 26-28	68.3	Brown zeolite		Paly.	Clin.	Mica	Clin.	Quar.	Mica	Paly.	Clin.	Mont.
9-3, 26-28	77.8	Clay	Cretaceous	Paly.	Clin.	Mont.	Clin.	Quar.		Mont.	Paly.	Mica
10-3, 26-28	87.3			Clin.	Paly.	Mont.	Clin.	Quar.		Mont.	Clin.	Mica
11-3, 26-28	96.8			Clin.	Cris.	Paly.	Clin.	Quar.	Cris.	Mont.	Cris.	Paly
12-3, 26-28	106.3	Unit 3		Cris.	Clin.	Calc.	Clin.	Quar.	Mica	Cris.	Mont.	Clin
13-3, 26-28	115.8	Zeolite-rich	Lower	Calc.	Cris.	Clin.	Clin.	Quar.		Mont.	Cris.	
14-3, 26-28	125.3	nanno clay	Cretaceous	Calc.	Cris.	Paly.	Clin.	Quar.		Mont.	Paly.	Cris.
15-3, 26-28	134.8	and clayey	(Albian)	Calc.	Clin.	Cris.	Clin.	Quar.		Mont.	Cris.	Paly.
16-3, 26-28	144.3	nanno ooze		Calc.	Cris.		Clin.	Quar.		Cris.	Mont.	Paly.
17-3, 26-28	153.8			Calc.	Mont.	Clin.	Clin.	Quar.		Mont.	Mica	Paly.
18-3, 26-18	163.3	Unit 4		Mont.	Cris.	Quar.	Mica	Mont.	Quar.	Mont.	Cris.	Mica
19-3, 26-28	172.8	Greenish-gray		Mont.	Cris.	Quar.	Mica	Mont.	Quar.	Mont.	Cris.	
20-3, 26-28	182.3	Zeolitic clay		Mont.	Cris.	Quar.	Quar.	Mica	K-Fe.	Mont.	Cris.	Mica
21-3, 26-28	191.8			Mont.	Cris.	Quar.	Mica	Quar.	Mont.	Mont.	Cris.	Quar.
23-3, 26-28	210.8		Lower	Mont.	Cris.	Quar.	Mica	Quar.	Mont.	Mont.	Cris.	Mica
24-3, 26-28	220.3		Creta-	Mont.	Cris.	Quar.	Mica	Quar.	K-Fe.	Cris.	Mont.	
25-3, 26-28	229.8		ceous	Mont.	Cris.	Quar.	Mica	Quar.	Mont.	Cris.	Mont.	
26-3, 26-28	239.3		(Aptian)	Cris.	Mont.	Quar.	Mica	Quar.	K-Fe.	Mont.	Cris.	
27-3, 26-28	248.8			Mont.	Cris.	Quar.	Mont.	Mica	Quar.	Mont.	Cris.	Quar.
28-3, 26-28	258.3			Mont.	Cris.	Quar.	Mica	K-Fe.	Quar.	Mont.	Cris.	Quar.
29-3, 26-28	267.8			Mont.	Quar.	Cris.	Mica	Quar.	Mont.	Mont.	Quar.	Cris.
30-3, 59-61	277.6			Mont.	Quar.		Quar.	Mica	K-Fe.	Mont.	Quar.	
31-3, 26-28	286.8			Quar.	Mont.		Quar.	Mica	Mont.	Quar.	Mont.	
33-1, 92-94	303.4			Dolo.	Quar.		Quar.	Dolo.	K-Fe.	Quar.	Mont.	
33-2, 29-94	304.9			Dolo.	Mont.							

TABLE 2

Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 260

Sample (Interval in cm)	Subbottom Depth (m)	Lithology	Age	Bulk Sample Major Constituent			2–20μ Fraction Major Constituent			<2μ Fraction Major Constituent		
1-3, 26-28	3.3	Unit 1 Nanno ooze and brown clay	Quat. to middle Oligocene	Gyps.	Quar.	Mica	Quar.	Mica	Plag.	Kaol.	Mont.	Mica
3-1, 135-137	92.8			Quar.	Kaol.	Paly.	Quar.	Mica	Phil.	Kaol.	Mont.	Quar.
3-3, 26-28	94.8			Quar.	Kaol.	Mont.	Quar.	Phil.	Mica	Mont.	Kaol.	Mica
7-3, 26-28	199.3	Unit 2 Zeolitic clay	Cretaceous s.l.	Paly.	Clin.	Quar.	Clin.	Quar.	Mica	Paly.	Clin.	Mica
15-3, 16-18	294.3	Unit 3 Nanno ooze and brown clay	Middle Albian	Quar.	Mont.		Quar.	Mica	K-Fe.	Quar.	Mont.	

[a]Cores 5 and 6 in Unit 2 are Upper Cretaceous in age; Cores 7 and 8 are Cretaceous s.l. (stratigraphic update finished by P.T. Robinson)

TABLE 3

Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 261

Sample (Interval in cm)	Subbottom Depth (m)	Lithology	Age	Bulk Sample Major Constituent			2–20μ Fraction Major Constituent			<2μ Fraction Major Constituent		
3-3, 26-28	50.8	Unit 2 Nanno ooze and clay	Quaternary	Calc.	Mica	Mont.	Quar.	Mica	K-Fe.	Kaol.	Mica	Mont.
6-3, 74-76	174.8	Unit 3A Zeolite-bearing clay	Upper Miocene or younger	Paly.	Mont.	Quar.	Mica	K-Fe.	Quar.	Paly.	Mica	Mont.
7-3, 84-86	184.4			K-Fe.	Paly.	Mica	K-Fe.	Quar.	Mica	Paly.	Mont.	K-Fe.
8-3, 84-86	193.9			Paly.	Mont.	Gyps.	Quar.	K-Fe.	Mica	Paly.	Mont.	Mica
9-3, 84-86	203.4			Mica	Paly.	Mont.	Clin.	Mica	Plag.	Mont.	Cris.	Mica
12-3, 67-69	232.7	Unit 3B Gray claystone	Upper Creta-ceous	Rhod.	Cris.	Mont.	Cris.	Mont.	Rhod.	Cris.	Mont.	
19-3, 33-36	307.3			Quar.	Mont.	Mica	Quar.	Mont.	Mica	Quar.	Mont.	
20-2, 28-32	315.3			Quar.	Mont.	Mica	Quar.	Mont.	K-Fe.	Quar.	Mont.	
21-3, 142-144	336.9			Quar.	Mont.		Quar.	K-Fe.	Mica	Quar.	Mont.	
21, CC	342.1			Quar.	Mont.		Quar.	Mica	K-Fe.	Quar.	Mont.	
22-3, 26-28	345.3			Quar.	Mont.		Quar.	Mont.		Quar.	Mont.	
23-3, 26-28	364.3			Quar.	Mont.	Mica	Quar.	Mica	K-Fe.	Quar.	Paly.	Mont.
25-2, 45-48	401.0			Quar.			Quar.	Mica		Quar.		
26-1, 28-30	418.3			Quar.			Quar.	Mica		Quar.	Mont.	
27-1, 27-29	437.3	Unit 4 Calcareous claystone	Lower Creta-ceous to Upper Jurassic	Quar.			Quar.	Mica	K-Fe.	Quar.	Mont.	
28-2, 92-95	448.9			Mont.			Mont.			Mont.		
28-3, 26-28	449.8			Quar.	Mont.		Quar.	Mica		Quar.	Mont.	
29-3, 26-28	468.9			Quar.	Mont.		Quar.	Mica	K-Fe.	Quar.	Mont.	
30-3, 26-28	487.8			Calc.	Quar.		Quar.	Mica	K-Fe.	Quar.	Mont.	
31-3, 26-28	506.8			Quar.	Calc.	Mont.	Quar.	Mica	K-Fe.	Quar.	Mont.	
31-4, 53-54	508.5			Mont.			Mont.			Mont.		
32-3, 26-28	525.8			Quar.	Mont.	Calc.	Quar.	Mica	K-Fe.	Mont.	Quar.	Mica
32-4, 41-46	528.4			Calc.	Quar.	K-Fe.	K-Fe.	Quar.	Mica	Quar.	Hema.	Mont.

[a]Unit 3A is probably Coniacian or younger (stratigraphic update furnished by P. T. Robinson)

TABLE 4
Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 262

Sample (Interval in cm)	Subbottom Depth (m)	Lithology	Age	Bulk Sample Major Constituent			$2-20\mu$ Fraction Major Constituent			$<2\mu$ Fraction Major Constituent		
2-3, 26-28	8.3	Unit 1		Calc.	Quar.	Mont.	Quar.	Mica	Kaol.	Mont.	Quar.	Mica
3-3, 26-28	17.8	Radiolarian		Calc.	Quar.	Mica	Quar.	Mica	Plag.	Mont.	Quar.	Mica
4-3, 26-28	27.3	and clay-rich		Calc.	Quar.	Mica	Quar.	Mica	Plag.	Mont.	Quar.	Mica
5-3, 26-28	36.8	nanno ooze		Calc.	Quar.	Mont.	Quar.	Mica	Plag.	Mont.	Mica	Quar.
7-3, 26-28	56.3			Calc.	Quar.	Arag.	Quar.	Mica	Plag.	Mont.	Mica	Quar.
8-3, 26-28	65.3			Calc.	Quar.	Arag.	Quar.	Mica	Plag.	Mont.	Mica	Quar
9-3, 26-28	74.8			Calc.	Quar.	Arag.	Quar.	Mica	Plag.	Mont.	Mica	Quar.
10-3, 26-28	84.3			Calc.	Quar.	Mica	Quar.	Mica	Plag.	Mont.	Quar.	Mica
11-3, 26-28	93.8			Calc.	Quar.	Mont.	Quar.	Mica	Plag.	Mont.	Mica	Quar.
12-3, 26-28	103.3			Arag.	Calc.	MgCa.	Quar.	Mica	CaDo.	Mont.	Mica	Quar.
13-3, 26-28	112.8			Calc.	Quar.	Mica	Quar.	Mica	Plag.	Mont.	Mica	Quar.
14-3, 26-28	122.3			Calc.	Quar.	Mica	Quar.	Mica	Plag.	Mont.	Mica	Quar.
15-3, 26-28	131.8			Calc.	Quar.	Mica	Quar.	Mica	Plag.	Mont.	Mica	Quar.
16-3, 26-28	141.3		Quaternary	Calc.	Quar.	Mica	Quar.	Mica	Plag.	Mont.	Mica	Quar.
17-3, 26-28	150.8			Calc.	Quar.	Mica	Quar.	Mica	Plag.	Mont.	Quar.	Mica
18-3, 26-28	160.3			Calc.	Quar.	Mont.	Quar.	Mica	Plag.	Mont.	Mica	Quar.
19-3, 26-28	169.8			Calc.	Quar.	Mica	Quar.	Mica	Plag.	Mica	Quar.	Mont.
20-3, 38-40	179.4			Calc.	Quar.	Mica	Quar.	Mica	Plag.	Quar.	Mica	Mont.
21-3, 26-28	188.8			Calc.	Quar.	Mica	Quar.	Mica	Plag.	Mont.	Mica	Quar.
22-3, 26-28	198.3			Calc.	Quar.	Mont.	Quar.	Mica	Plag.	Mont.	Mica	Quar.
23-3, 26-28	207.8			Calc.	Quar.	Mica	Quar.	Mica	Plag.	Mont.	Mica	Quar.
24-3, 26-28	217.3			Calc.	Quar.	Mica	Quar.	Mica	Plag.	Mont.	Mica	Quar.
25-3, 26-28	226.8			Calc.	Quar.	Mont.	Quar.	Mica	Plag.	Mont.	Mica	Quar.
26-3, 26-28	236.3			Calc.	Quar.	Arag.	Quar.	Mica	Plag.	Mont.	Mica	Quar.
27-3, 26-28	245.8			Calc.	Quar.	Mica	Quar.	Mica	Plag.	Mont.	Mica	Quar.
28-3, 38-40	255.4			Calc.	Quar.	Arag.	Quar.	Mica	Plag.	Mont.	Mica	Quar.
29-3, 18-20	264.7	Unit 2		Calc.	Arag.		Quar.	Mica	Plag.	Mont.	Mica	Kaol.
30-3, 39-41	274.4	Micarb and		Calc.	Arag.		Quar.	Mica	Plag.	Mont.	Mica	Kaol.
31-3, 13-15	283.6	clay-rich		Calc.	Arag.		Quar.	Mica	Plag.	Mont.	Mica	Kaol.
32-3, 26-28	293.3	nanno ooze	Pleistocene	Calc.	Arag.		Quar.	Mica	Plag.	Mont.	Mica	Quar.
33-3, 20-22	302.7			Calc.	Arag.		Quar.	Mica	Plag.	Mica	Mont.	Kaol.
34-3, 26-28	312.3			Calc.	Arag.		Quar.	Mica	Plag.	Mica	Mont.	Kaol.
35-3, 26-28	321.8			Calc.	Arag.		Quar.	Mica	Plag.	Mica	Mont.	Kaol.
36-3, 26-28	331.3			Calc.	Arag.	Quar.	Quar.	Mica	Plag.	Mont.	Mica	Kaol.
37-3, 31-33	340.8	Unit 3		Calc.	Arag.	Quar.	Quar.	Plag.	K-Fe.	Mont.	Mica	Kaol.
38-3, 16-18	350.2	Nanno-rich		Calc.	Arag.		Quar.	Plag.	Mica	Mica	Mont.	Kaol.
39-3, 58-60	360.1	foram ooze		Calc.	Arag.	CaDo.	Quar.	CaDo.	Pyri.	Mica	Mont.	Quar.
40-3, 5-7	369.0		Pliocene	Calc.	Arag.	Quar.	Quar.	Mica	Plag.	Mica	Mont.	Kaol.
41-3, 49-51	379.0			Calc.	Arag.	CaDo.	Quar.	CaDo.	Mica	Mont.	Mica	Kaol.
42-5, 63-65	391.6			Calc.	Arag.	Quar.	Quar.	Plag.	Mica	Mont.	Mica	Kaol.
44-3, 29-31	407.3			Calc.	CaDo.	Arag.	Quar.	CaDo.	Plag.	Mont.	Mica	Kaol.
45-3, 129-131	417.8	Unit 4 Foram-rich dolomitic mud	Pliocene	Calc.	CaDo.		CaDo.			Mica	CaDo.	Apat.

TABLE 5
Summary of X-Ray Mineralogy Samples, Sample Depths, Lithology, Age, and X-Ray Diffraction Results, Site 263

Sample (Interval in cm)	Subbottom Depth (m)	Lithology	Age	Bulk Sample Major Constituent			$2–20\mu$ Fraction Major Constituent			$<2\mu$ Fraction Major Constituent		
1-3, 29-31	3.3	Unit 1	Quaternary	Calc.			Quar.	K-Fe.		Mont.	Mica	Kaol.
2-3, 20-22	55.7	Micarb and clay-	to upper	Calc.			Quar.	Mica	Plag.	Mont.	Kaol.	Paly.
3-3, 26-28	93.8	bearing foram	Pliocene	Calc.			Quar.	Mica		Mont.	Kaol.	Mica
		nanno ooze										
4-3, 26-28	112.8	Unit 2	L. Paleocene	Mont.	Calc.	Quar.	Mont.	Quar.	Mica	Mont.	Cris.	Mica
6-3, 26-28	150.8	Clay-nanno ooze	to	Mont.	Quar.	Mica	Quar.	Mica	Mont.	Mont.	Mica	Quar.
7-3, 32-34	179.3	and nanno clay	L. Cretaceous	Mont.	Quar.	Mica	Quar.	Mica	K-Fe.	Mont.	Quar.	
9-3, 30-32	226.8	Unit 3		Quar.	Mont.	Mica	Quar.	Mica	K-Fe.	Quar.	Mont.	
10-3, 9-10	245.6	Claystone		Mont.	Quar.	Mica	Quar.	Mica	K-Fe.	Quar.	Mont.	Mica
11-3, 28-30	264.8			Quar.	Mont.	Mica	Quar.	Mica	K-Fe.	Quar.	Mont.	Mica
12-3, 58-60	284.1		Lower	Quar.	Mont.	Mica	Quar.	Mica	K-Fe.	Quar.	Mont.	Mica
13-3, 48-50	303.0		Creta-	Quar.	Mica	Mont.	Quar.	Mica	K-Fe.	Quar.	Mont.	
14-3, 95-100	322.5		ceous	Quar.	Mont.	Mica	Quar.	Mica	K-Fe.	Quar.	Mont.	Mica
15-3, 27-30	340.8			Quar.	Mont.	Mica	Quar.	Mica	K-Fe.	Quar.	Mont.	
17-3, 10-12	388.1			Quar.	Mont.	Mica	Quar.	Mica	K-Fe.	Quar.	Mont.	
18-3, 33-37	416.8			Quar.	Mont.	Mica	Quar.	Mica	Pyri.	Mont.	Quar.	Mica
19-3, 50-52	455.0			Quar.	K-Fe.	Mont.	Quar.	Mica	K-Fe.	Mont.	Quar.	
20-1, 30-34	480.3	Unit 4		Side			In sufficient residue			In sufficient residue		
20-3, 80-85	483.8	Claystone		Quar.	Mica	Kaol.	Quar.	Mica	Kaol.	Mont.	Quar.	Kaol.
21-3, 97-101	522.0			Quar.	Kaol.	Mica	Quar.	Mica	Kaol.	Mont.	Kaol.	Quar.
22-3, 70-72	559.7		Lower	Quar.	Kaol.	Mica	Quar.	Mica	Kaol.	Kaol.	Mont.	Mica
23-3, 20-23	597.2		Creta-	Quar.	Kaol.	Mica	Quar.	Kaol.	Mica	Kaol.	Mont.	Quar.
24-3, 13-17	635.1		ceous	Quar.	Kaol.	Mica	Quar.	Kaol.	Mica	Kaol.	Mont.	Quar.
25-3, 71-72	673.7			Kaol.			Kaol.			Kaol.	Mont.	
28-3, 141-145	731.4			Kaol.	Quar.	Mont.	Quar.	Kaol.	Mont.	Mont.	Quar.	Kaol.
29-3, 6-8	739.6			Quar.	Mica	Kaol.	Quar.	Kaol.	Mica	Mont.	Quar.	Kaol.

TABLE 6
Results of X-Ray Diffraction Analyses from Site 259

Core	Core Interval	Depth Below Sea Floor (m)	Diff.	Amor.	Calc.	Dolo.	Side.	Quar.	Cris.	K-Fe.	Plag.	Kaol.	Mica	Chlo.	Mont.	Paly.	Trid.	Clin.	Phil.	Anal.	Pyri.	Gyps.	Bari.	Hali.	U-1[a]
Bulk Samples																									
1	0.0-8.0	3.30	55.5	30.4	96.1	–	–	2.5	–	–	–	–	1.4	–	–	–	–	–	–		–	–		–	–
4	27.0-36.5	30.30	69.2	51.9	51.4	–	–	17.3	–	–	–	–	3.2	–	2.5	–	–	21.5	3.9		–	–		–	–
5	36.5-46.0	39.80	60.9	39.0	75.7	–	–	4.6	–	–	–	–	2.0	–	1.7	–	–	16.0	–		–	–		–	–
6	46.0-55.5	49.30	52.1	25.1	93.2	–	–	2.2	–	–	–	–	–	–	–	–	–	4.6	–		–	–		–	–
7	55.5-65.0	58.80	60.7	38.6	86.9	–	–	3.3	–	–	–	–	1.5	–	1.5	–	–	6.8	–		–	–		–	–
		61.00	85.1	76.7	–	–	–	43.5	–	–	–	–	9.2	–	8.1	–	–	31.7	6.5		–	0.9		–	–
8	65.0-74.5	68.30	79.5	68.0	–	–	–	11.2	11.6	–	–	–	12.9	–	9.3	32.8	–	20.9	–		–	1.2		–	–
9	74.5-84.0	77.80	78.4	66.2	–	–	–	11.3	–	–	2.0	–	7.7	–	17.8	31.3	–	27.5	–		–	2.5		–	–
10	84.0-93.5	87.30	81.0	70.2	–	–	–	11.3	–	–	–	–	12.0	–	17.3	17.4	–	39.8	–		–	2.2		–	–
11	93.5-103.0	96.80	83.3	73.9	–	–	–	12.6	18.9	1.4	1.1	–	3.8	–	15.3	16.4	1.9	28.7	–		–	–		–	–
12	103.0-112.5	106.30	81.8	71.6	15.3	–	–	9.3	25.8	1.1	0.9	–	2.9	–	12.0	9.1	1.5	22.0	–		–	–		–	–
13	112.5-122.0	115.80	76.0	62.5	34.5	–	–	6.7	21.3	2.1	1.3	–	3.2	–	8.4	4.9	1.4	16.2	–		–	–		–	–
14	122.0-131.5	125.30	76.7	63.5	53.4	–	–	6.8	17.8	1.7	1.4	–	3.3	–	7.4	8.2	–	–	–		–	–		–	–
15	131.5-141.0	134.80	73.4	58.4	51.4	–	–	4.7	13.8	1.4	1.7	–	4.5	–	6.3	–	1.2	15.1	–		–	–		–	–
16	141.0-150.5	144.30	70.7	54.2	65.1	–	–	3.5	8.8	–	–	–	2.7	–	6.1	5.3	–	8.4	–		–	–		–	–
17	150.5-160.0	153.80	71.4	55.3	67.1	–	–	5.1	–	–	2.1	–	3.2	–	7.9	7.1	–	7.5	–		–	–		–	–
18	160.0-169.5	163.30	82.2	72.2	–	–	–	8.2	33.3	4.2	1.1	–	5.0	–	46.2	–	–	–	–		2.0	–		–	–
19	169.5-179.0	172.80	77.8	65.4	–	–	–	9.8	27.4	3.5	1.9	–	5.6	1.2	49.8	–	–	–	–		0.9	–		–	–
20	179.0-188.5	182.30	79.4	67.8	–	–	–	16.9	22.5	6.9	3.1	1.7	8.5	1.0	38.2	–	–	–	–		1.3	–		–	–
21	188.5-198.0	191.80	79.0	67.2	–	–	–	12.0	28.0	4.7	3.1	1.3	7.2	0.9	42.9	–	–	–	–		–	–		–	–
23	207.5-217.0	210.80	79.5	67.9	–	–	–	13.8	25.1	5.2	2.9	–	7.6	2.5	41.7	–	–	–	–		1.0	–		–	–
24	217.0-226.5	220.30	80.8	70.1	–	–	–	11.0	34.3	4.4	4.2	2.4	6.0	–	37.8	–	–	–	–		–	–		–	–
25	226.5-236.0	229.80	80.3	69.3	–	–	–	8.9	37.8	3.5	2.4	1.0	5.1	–	38.4	–	–	–	–		–	2.6		0.3	–
26	236.0-245.5	239.30	83.9	74.9	–	–	–	12.8	37.0	6.2	2.0	1.3	8.0	0.9	31.8	–	–	–	–		–	–		–	–
27	245.5-255.0	248.80	81.0	70.4	–	–	–	11.2	38.8	4.2	–	–	7.0	–	38.8	–	–	–	–		–	–		–	–
28	255.0-264.5	258.30	80.2	69.0	–	–	–	14.9	33.5	4.3	–	–	7.0	–	40.3	–	–	–	–		–	–		–	T
29	264.5-274.0	267.80	81.9	71.8	–	–	–	20.3	14.0	2.9	–	–	10.8	–	51.9	–	–	–	–		–	–		–	–
30	274.0-283.5	277.60	75.0	61.0	–	–	–	42.1	–	3.5	–	–	4.2	–	50.2	–	–	–	–		–	–		–	–
31	283.5-293.0	286.80	74.7	60.5	–	–	–	52.3	–	4.2	–	–	4.4	–	39.1	–	–	–	–		–	–		–	–
33	302.5-312.0	303.40	71.8	56.0	–	51.7	3.3	27.5	–	4.3	–	–	1.8	–	10.1	–	–	–	–		1.3	–		–	–
		304.90	61.4	39.7	–	83.5	5.3	1.1	–	–	2.6	–	–	–	7.6	–	–	–	–		–	–		–	–
2-20µ Fraction																									
1	0.0-8.0	3.30	88.9	82.7		–	–	50.6	–	10.7	9.8	8.3	18.2	2.3	–	–		–	–	–	–		–		
4	27.0-36.5	30.30	55.5	30.5		–	–	10.1	–	–	–	–	6.6	–	–	–		76.0	6.3	0.9	–		–		
5	36.5-46.0	39.80	52.8	26.3		–	–	8.7	–	–	–	–	8.0	–	–	–		82.7	–	0.6	–		–		
6	46.0-55.5	49.30	53.7	27.6		–	–	15.5	–	–	–	–	7.9	–	–	–		75.6	–	1.0	–		–		
7	55.5-65.0	58.80	59.7	37.0		–	–	19.3	–	–	–	–	8.2	–	–	–		71.7	–	0.8	–		–		
		61.00	66.7	47.9		–	–	25.8	–	–	–	–	8.5	–	–	–		55.5	10.2	–	–		–		
8	65.0-74.5	68.30	57.6	33.8		–	–	16.1	6.9	6.2	–	–	9.8	–	–	7.4		53.5	–	–	–		–		
9	74.5-84.0	77.80	59.1	36.1		–	–	14.2	–	3.4	4.0	–	6.4	–	–	4.6		67.4	–	–	–		–		
10	84.0-93.5	87.30	57.3	33.2		–	–	12.1	–	3.6	3.5	–	5.6	–	–	4.3		70.0	–	1.0	–		–		
11	93.5-103.0	96.80	59.1	36.1		–	–	14.1	8.7	4.1	2.7	–	7.5	–	–	–		62.8	–	–	–		–		
12	103.0-112.5	106.30	60.9	38.9		–	–	12.8	4.9	4.6	2.5	–	7.6	–	–	–		67.6	–	–	–		–		

13	112.5-122.0	115.80	57.3	33.3	–	–	12.4	–	5.2	3.8	–	5.5	–	–	–		71.7	–	1.3	–		–	
14	122.0-131.5	125.30	58.8	35.6	–	–	10.8	–	2.2	2.9	–	6.4	–	–	–		77.7	–	–	–		–	
15	131.5-141.0	134.80	59.1	36.1	–	–	11.4	5.8	1.7	2.9	–	6.2	–	–	–		71.3	–	0.8	–		–	
16	141.0-150.5	144.30	59.0	36.0	–	–	13.1	5.2	3.7	2.4	–	6.9	–	–	–		67.7	–	1.1	–		–	
17	150.5-160.0	153.80	63.3	42.6	–	–	18.8	–	5.5	9.9	–	12.2	–	–	–		52.7	–	1.0	–		–	
18	160.0-169.5	163.30	73.2	58.2	–	–	18.0	6.7	11.9	4.4	–	26.7	1.3	26.6	–		0.7	–	–	3.6		–	
19	169.5-179.0	172.80	73.2	58.2	–	–	20.3	5.4	12.2	5.0	–	27.0	1.6	25.9	–		0.9	–	–	1.7		–	
20	179.0-188.5	182.30	71.3	55.2	–	–	29.1	3.4	17.9	7.3	1.1	28.3	1.9	11.0	–		–	–	–	–		–	
21	188.5-198.0	191.80	74.1	59.6	–	–	23.2	7.1	11.9	5.7	2.7	28.0	1.2	20.1	–		–	–	–	–		–	
23	207.5-217.0	210.80	74.1	59.5	–	–	23.3	4.8	13.2	7.1	3.3	26.3	1.1	18.4	–		–	–	–	2.4		–	
24	217.0-226.5	220.30	72.4	56.9	–	–	27.3	3.7	15.5	8.2	5.3	29.3	1.3	7.9	–		–	–	–	1.5		–	
25	226.5-236.0	229.80	74.4	60.0	–	–	22.5	11.2	10.7	6.1	–	25.8	1.1	21.2	–		–	–	–	1.4		–	
26	236.0-245.5	239.30	74.2	59.7	–	–	25.9	7.7	19.6	7.2	1.6	28.1	1.1	8.7	–		–	–	–	–		–	
27	245.5-255.0	248.80	77.8	65.4	–	–	22.3	–	15.6	5.0	–	24.0	0.6	31.0	–		–	–	–	–		1.4	
28	255.0-264.5	258.30	71.9	56.1	–	–	23.2	7.8	24.1	4.8	–	24.4	0.6	15.1	–		–	–	–	–		–	
29	264.5-274.0	267.80	74.3	59.8	–	–	28.5	–	14.3	3.1	–	32.5	0.6	19.4	–		–	–	–	1.6		–	
30	274.0-283.5	277.60	68.3	50.4	–	–	43.8	–	22.1	2.5	–	23.1	–	6.8	–		–	–	–	–		1.6	
31	283.5-293.0	286.80	69.3	52.0	–	–	37.9	–	15.9	–	–	21.6	–	17.8	–		–	–	–	4.2		2.7	
33	302.5-312.0	303.40	71.3	55.2	22.9	7.2	37.3	–	16.7	–	–	11.3	–	–	–		–	–	–	4.6		–	
<2μ Fraction																							
1	0.0-8.0	3.30	93.7	90.2			20.7	–	7.5	8.5	28.7	19.3	–	15.4	–	–	–	–		–	–	–	–
4	27.0-36.5	30.30	90.9	85.8			10.2	–	–	–	–	15.6	–	34.9	22.5	–	9.3	5.2		–	–	–	2.2
5	36.5-46.0	39.80	90.7	85.5			10.5	–	–	–	–	10.2	–	38.5	14.2	–	20.5	–		–	–	–	6.1
6	46.0-55.5	49.30	88.4	81.9			12.6	–	–	–	–	10.6	–	54.2	–	–	17.3	–		–	–	–	5.3
7	55.5-65.0	58.80	84.7	76.1			21.5	–	–	–	–	5.9	–	31.3	–	–	34.3	–		–	–	–	7.0
		61.00	89.0	82.8			7.9	–	–	–	–	9.0	–	67.1	–	–	9.5	4.8		–	–	–	1.8
8	65.0-74.5	68.30	84.1	75.2			7.7	7.6	–	–	–	11.5	–	13.6	40.0	0.9	16.8	–		–	–	–	2.0
9	74.5-84.0	77.80	83.2	73.8			7.4	–	–	–	–	10.7	–	53.2	18.8	–	9.9	–		–	–	–	–
10	84.0-93.5	87.30	82.6	72.8			8.5	–	1.5	2.3	–	11.4	–	36.2	9.7	–	27.6	–		–	–	–	2.9
11	93.5-103.0	96.80	88.2	81.6			6.5	28.9	2.4	–	–	6.2	–	30.9	15.3	3.1	5.3	–		–	–	–	1.4
12	103.0-112.5	106.30	87.3	80.1			6.6	34.7	2.0	2.5		5.1	–	24.4	10.7	1.7	12.2	–		–	–	–	–
13	112.5-122.0	115.80	86.3	78.6			5.5	37.0	–	–	–	3.4	–	38.6	7.4	2.2	4.8	–		–	–	–	1.0
14	122.0-131.5	125.30	84.7	76.2			5.7	14.5	–	–	–	7.4	–	45.5	18.4	2.1	6.5	–		–	–	–	–
15	131.5-141.0	134.80	86.6	79.0			4.7	34.6	–	–	–	2.6	–	39.1	11.6	2.6	3.8	–		–	–	–	0.9
16	141.0-150.5	144.30	86.8	79.4			4.2	44.3	–	–	–	4.0	–	30.3	11.2	2.1	4.0	–		–	–	–	–
17	150.5-160.0	153.80	83.6	74.4			8.9	2.0	–	3.5	–	10.8	–	57.8	10.5	–	6.4	–		–	–	–	–
18	160.0-169.5	163.30	81.5	71.1			6.0	23.7	1.7	2.4	–	9.6	1.3	50.8	–	–	–	–		1.6	–	–	2.8
19	169.5-179.0	172.80	83.3	73.8			5.4	30.2	0.8	1.2	–	5.5	1.1	51.1	–	–	–	–		1.4	–	–	3.3
20	179.0-188.5	182.30	85.0	76.5			8.0	27.1	2.5	2.2	3.1	9.3	1.5	44.1	–	–	–	–		–	–	–	2.1
21	188.5-198.0	191.80	81.9	71.8			8.0	25.2	3.3	2.8	1.2	7.9	1.3	47.6	–	–	–	–		–	–	–	2.7
23	207.5-217.0	210.80	80.6	69.7			7.8	17.0	1.0	–	3.0	11.7	0.9	52.6	–	–	–	–		–	–	–	6.1
24	217.0-226.5	220.30	88.9	82.6			4.3	42.0	2.1	–	3.6	6.2	–	38.9	–	–	–	–		–	1.0	–	2.0
25	226.5-236.0	229.80	86.6	79.0			6.5	41.1	0.3	–	1.8	5.5	–	40.7	–	–	–	–		–	–	–	4.0
26	236.0-245.5	239.30	87.2	80.0			6.6	33.5	2.7	–	2.6	3.9	–	48.8	–	–	–	–		–	0.9	–	1.1
27	245.5-255.0	248.80	84.2	75.3			8.8	33.5	1.1	–	–	6.8	–	46.1	–	–	–	–		–	–	–	3.7
28	255.0-264.5	258.30	85.7	77.7			7.8	36.9	1.7	–	–	3.8	–	46.4	–	–	–	–		–	–	–	3.4
29	264.5-274.0	267.80	85.5	77.3			17.2	14.2	–	–	–	8.4	–	56.0	–	–	–	–		–	–	–	4.2
30	274.0-283.5	277.60	81.1	70.4			35.2	–	2.4	–	–	3.6	–	54.3	–	–	–	–		–	–	1.3	3.2
31	283.5-293.0	286.80	78.4	66.2			46.1	–	3.4	–	–	3.6	–	39.5	–	–	–	–		–	–	–	7.4
33	302.5-312.0	303.40	83.3	73.9			59.1	–	2.7	–	–	5.3	–	29.8	–	–	–	–		–	–	–	3.1

[a]Peaks at 3.15Å, 1.851Å, and 1.587Å. T = trace

TABLE 7
Results of X-Ray Diffraction Analyses from Site 260

Core	Core Interval	Depth Below Sea Floor (m)	Diff.	Amor.	Calc.	Quar.	K-Fe.	Plag.	Kaol.	Mica	Chlo.	Mont.	Paly.	Clin.	Phil.	Anal.	Gyps.	Bari.	Hali.	U-1[a]
Bulk Samples																				
1	0.0-6.0	3.30	82.7	73.0	–	23.2	5.3	6.9	12.6	23.1		5.5	–	–	–		23.5			–
3	91.5-101.0	92.80	86.7	79.3	–	22.6	6.4	–	20.8	7.5		14.3	14.9	–	10.9		2.7			–
		94.80	83.1	73.5	–	21.4	7.0	–	19.1	13.8		18.5	10.1	–	5.5		4.5			–
7	196.0-205.5	199.30	82.5	72.6	–	14.5	5.1	4.3	–	11.2		7.2	31.0	22.6	–		4.0			–
15	291.0-300.5	294.30	71.4	55.2	2.5	74.0	3.2	–	–	6.2		14.1	–	–	–		–			T
2-20μ Fraction																				
1	0.0-6.0	3.30	84.6	75.9		47.5	11.2	11.3	2.5	24.8	2.6	–		–	–	–		–		
3	91.5-101.0	92.80	76.7	63.6		40.9	13.2	–	13.2	15.5	–	–		3.0	14.1	–		–		
		94.80	74.0	59.4		45.6	8.0	–	9.1	17.0	–	–		2.1	18.3	–		–		
7	196.0-205.5	199.30	64.1	43.9		18.4	7.7	9.5	–	15.6	–	–		48.1	–	0.7		–		
15	291.0-300.5	294.30	76.6	63.5		64.6	12.5	–	–	13.9	1.0	5.7		–	–	–		2.3		
<2μ Fraction																				
1	0.0-6.0	3.30	88.9	82.7		15.1	2.8	4.5	30.5	19.6		26.3	–	–	–		1.1		–	
3	91.5-101.0	92.80	87.4	80.4		16.3	3.4	–	29.4	10.9		20.4	12.3	–	7.3		–		–	
		94.80	87.6	80.7		12.7	2.0	–	26.2	15.2		27.1	13.2	–	3.6		–		–	
7	196.0-205.5	199.30	84.6	75.9		12.4	1.3	5.1	–	14.2		11.2	28.7	27.1	–		–		–	
15	291.0-300.5	294.30	77.9	65.4		68.7	–	–	–	2.9		24.0	–	–	–		–		4.4	

[a]Peaks at 3.15Å, 1.851Å, and 1.587Å. T = trace

TABLE 8
Results of X-Ray Diffraction Analyses from Site 261

Core	Core Interval	Depth Below Sea Floor (m)	Diff.	Amor.	Calc.	Rhod.	Quar.	Cris.	K-Fe.	Plag.	Kaol.	Mica	Chlo.	Mont.	Paly.	Trid.	Clin.	Hema.	Pyri.	Gyps.	Bari.	Hali.	U-1[a]	U-2[b]
Bulk Samples																								
3	47.5-57.0	50.80	66.0	46.9	67.6	–	5.4	–	–	–	7.3	10.2	–	9.5	–		–	–	–	–	–		T	–
6	171.0-180.5	174.80	85.1	76.8	–	–	15.9	–	11.4	1.5	1.3	12.3	1.6	18.0	35.4		–	–	–	2.5	–		–	–
7	180.5-190.0	184.40	84.8	76.2	–	–	14.5	–	25.2	–	3.7	14.8	–	14.4	22.8		–	–	–	4.6	–		–	–
8	190.0-199.5	193.90	75.5	61.7	–	–	11.5	–	8.3	–	2.0	11.2	–	23.5	29.1		–	–	–	14.2	–		–	–
9	199.5-209.0	203.40	82.9	73.3	–	–	7.5	11.2	3.6	5.0	–	19.6	–	16.3	18.4		13.5	–	–	4.4	–		–	–
12	228.0-237.5	232.70	76.2	62.7	–	58.9	2.1	25.1	–	–	–	2.4	–	8.3	–		–	–	–	3.2	–		–	–
19	304.0-313.5	307.30	77.9	65.4	–	–	55.5	–	4.4	–	–	8.6	–	28.3	–		–	–	–	3.3	–		–	–
20	313.5-323.0	315.30	78.2	65.9	–	–	54.9	–	6.5	–	–	8.3	–	27.4	–		–	–	–	2.9	–		–	–
21	332.5-342.0	336.90	73.7	58.9	–	–	74.4	–	5.9	–	–	5.0	–	14.7	–		–	–	–	–	–		–	–
		342.10	67.8	49.8	–	–	88.7	–	–	–	–	3.6	–	7.7	–		–	–	–	–	–		–	–
22	342.0-351.5	345.30	69.5	52.4	–	–	81.5	–	1.9	–	–	4.4	–	10.5	–		–	–	–	1.7	–		–	–
23	361.0-370.5	364.30	80.6	69.6	–	–	41.3	–	6.3	–	–	12.2	–	20.4	9.2		–	–	1.3	–	9.4		P	–
25	399.0-408.5	401.00	63.6	43.2	–	–	86.2	–	3.9	–	–	3.9	–	4.7	–		–	–	–	–	1.3		–	–
26	418.0-427.5	418.30	65.4	45.9	–	–	90.6	–	–	–	–	2.3	–	4.6	–		–	–	1.2	–	1.4		–	–
27	437.0-446.5	437.30	65.2	45.6	–	–	83.1	–	1.2	–	–	3.9	–	6.1	–		–	3.9	–	–	1.8		–	–
28	446.5-456.0	448.90	72.7	57.4	1.5	–	5.8	–	–	–	–	–	–	92.7	–		–	–	–	–	–		T	–
		449.80	61.4	39.8	–	–	85.6	–	1.0	–	–	3.5	–	8.4	–		–	–	–	–	1.5		–	–
29	465.5-475.0	468.90	68.3	50.4	–	–	79.5	–	–	–	–	2.3	–	13.3	–		–	3.3	–	–	1.6		–	–
30	484.5-494.0	487.80	67.3	48.9	65.3	–	20.8	–	1.7	–	–	3.4	–	6.2	–		–	2.6	–	–	–		T	T
31	503.5-513.0	506.80	74.4	59.9	24.2	–	47.4	–	5.0	–	–	6.8	–	14.0	–		–	–	–	–	2.7		T	–
		508.50	73.3	58.3	–	–	2.1	–	–	–	–	–	–	97.9	–		–	–	–	–	–		–	–
32	522.5-532.0	525.80	81.3	70.8	12.3	–	35.1	–	7.1	–	–	10.7	–	27.0	–		–	7.9	–	–	–		T	–
		528.40	74.8	60.7	52.6	–	17.6	–	8.5	–	–	6.0	–	7.1	–		–	8.1	–	–	–		T	–
2-20μ Fraction																								
3	47.5-57.0	50.80	66.3	47.4		–	46.2	–	10.7	8.3	6.0	28.3	0.5	–		–	–	–	–		–			
6	171.0-180.5	174.80	73.1	58.0		–	29.4	–	29.7	8.3	–	30.2	2.4	–		–	–	–	–		–			
7	180.5-190.0	184.40	73.7	58.9		–	32.3	–	37.9	8.4	–	21.4	–	–		–	–	–	–		–			
8	190.0-199.5	193.90	71.5	55.4		–	34.1	–	32.4	8.6	–	23.0	0.8	–		–	1.0	–	–		–			
9	199.5-209.0	203.40	75.4	61.5		–	12.3	–	10.2	14.9	–	20.0	–	–		–	42.5	–	–		–			
12	228.0-237.5	232.70	87.2	79.9		7.7	7.4	46.5	7.1	5.8	–	7.6	1.3	9.2		6.6	0.9	–	–		–			
19	304.0-313.5	307.30	79.6	68.2		–	65.3	–	8.2	–	–	9.2	–	17.2		–	–	–	–		–			
20	313.5-323.0	315.30	81.5	71.0		–	55.5	–	13.3	5.0	–	11.3	–	14.9		–	–	–	–		–			
21	332.5-342.0	336.90	77.3	64.5		–	66.9	–	13.8	4.1	–	8.4	1.1	5.9		–	–	–	–		–			
		342.10	68.8	51.3		–	75.3	–	8.0	4.1	–	10.2	–	–		–	–	–	2.3		–			

TABLE 8 – *Continued*

22	342.0-351.5	345.30	73.7	58.9	–	56.5	–	5.0	–	–	5.8	0.6	32.1		–	–	–	–		–	
23	361.0-370.5	364.30	81.9	71.7	–	40.6	–	18.1	6.6	–	21.4	2.3	–		–	–	–	2.0		9.1	
25	399.0-408.5	401.00	67.1	48.5	–	80.6	–	6.5	3.7	–	7.9	–	–		–	–	–	–		1.3	
26	418.0-427.5	418.30	66.2	47.2	–	80.0	–	5.5	2.3	–	7.5	–	–		–	–	–	2.9		1.7	
27	437.0-446.5	437.30	68.3	50.5	–	62.7	–	10.1	4.7	–	14.5	–	–		–	–	3.7	–		4.3	
28	446.5-456.0	448.90	76.2	62.7	–	1.8	–	–	–	–	–	–	98.2		–	–	–	–		–	
		449.80	66.2	47.2	–	77.8	–	6.4	2.8	–	9.7	–	–		–	–	–	–		3.4	
29	465.5-475.0	468.90	73.3	58.3	–	66.2	–	7.7	–	–	17.8	–	–		–	–	4.6	–		3.7	
30	484.5-494.0	487.80	78.2	66.0	–	42.0	–	17.1	4.9	–	31.0	2.5	–		–	–	2.5	–		–	
31	503.5-513.0	506.80	74.3	59.8	–	39.7	–	16.4	4.2	–	26.7	2.2	–		–	–	3.7	–		7.0	
		508.50	73.7	58.8	–	0.8	–	–	–	–	1.5	–	97.7		–	–	–	–		–	
32	522.5-532.0	525.80	80.0	68.7	–	37.4	–	27.6	–	–	30.3	–	–		–	–	4.7	–		–	
		528.40	67.8	49.6	–	30.9	–	37.9	–	–	26.4	1.6	–		–	–	3.2	–		–	
$<2\mu$ Fraction																					
3	47.5-57.0	50.80	82.4	72.6		7.1	–	2.0	1.0	36.5	27.5	–	25.8	–	–	–	–		–	–	–
6	171.0-180.5	174.80	89.4	83.4		9.5	–	3.6	–	3.2	17.3	1.3	15.0	50.2	–	–	–		–	–	–
7	180.5-190.0	184.40	87.8	81.0		14.7	–	16.4	6.6	4.8	14.5	–	20.0	23.0	–	–	–		–	–	–
8	190.0-199.5	193.90	88.5	82.0		14.6	–	6.6	–	4.6	18.2	–	24.2	31.8	–	–	–		–	–	–
9	199.5-209.0	203.40	86.6	79.1		5.8	15.6	1.8	4.9	–	11.6	–	35.7	11.2	–	7.3	–		–	–	6.1
12	228.0-237.5	232.70	89.0	82.8		4.5	44.0	2.4	3.5	–	6.4	–	33.0	–	2.5	–	–		1.0	–	2.7
19	304.0-313.5	307.30	83.2	73.8		49.2	–	2.0	–	–	3.5	–	31.0	7.2	–	–	–		–	–	7.1
20	313.5-323.0	315.30	84.5	75.9		53.2	–	0.9	–	–	7.3	–	32.0	–	–	–	–		1.3	–	5.4
21	332.5-342.0	336.90	77.8	65.4		77.2	–	–	–	–	3.6	–	19.1	–	–	–	–		–	–	–
		342.10	71.2	55.0		90.4	–	–	–	–	–	–	9.6	–	–	–	–		–	–	–
22	342.0-351.5	345.30	74.6	60.4		81.3	–	–	–	–	4.7	–	14.0	–	–	–	–		–	–	–
23	361.0-370.5	364.30	86.2	78.4		40.7	–	3.2	–	–	11.8	–	19.9	20.6	–	–	–		–	1.9	1.9
25	399.0-408.5	401.00	67.7	49.6		91.3	–	–	–	–	1.7	–	7.0	–	–	–	–		–	–	–
26	418.0-427.5	418.30	69.0	51.6		91.2	–	–	–	–	–	–	8.8	–	–	–	–		–	–	–
27	437.0-446.5	437.30	67.8	49.7		83.8	–	–	–	–	2.5	–	8.6	–	–	–	4.0		–	1.2	–
28	446.5-456.0	448.90	70.0	53.1		2.3	–	–	–	–	–	–	97.7	–	–	–	–		–	–	–
		449.80	63.5	42.9		89.1	–	–	–	–	1.8	–	9.0	–	–	–	–		–	–	–
29	465.5-475.0	468.90	68.2	50.3		72.5	–	–	–	–	3.5	–	22.8	–	–	–	–		–	1.3	–
30	484.5-494.0	487.80	76.6	63.5		50.6	–	1.7	–	–	6.2	–	36.7	–	–	–	4.7		–	–	–
31	503.5-513.0	506.80	75.5	61.7		59.0	–	3.4	–	–	4.4	–	30.3	–	–	–	2.9		–	–	–
		508.50	68.6	51.0		0.8	–	–	–	–	–	–	99.2	–	–	–	–		–	–	–
32	522.5-532.0	525.80	83.1	73.6		29.5	–	5.0	–	–	19.5	–	39.0	–	–	–	7.0		–	–	–
		528.40	83.7	74.6		31.0	–	13.2	–	–	8.9	–	22.3	–	–	–	24.6		–	–	–

[a]Peaks at 3.15Å, 1.851Å, and 1.587Å. P = present, T = trace
[b]Peaks at 5.75Å, 3.63Å, and 8.02Å. T = trace

TABLE 9
Results of X-Ray Diffraction Analyses from Site 262

Core	Core Interval	Depth Below Sea Floor (m)	Diff.	Amor.	Calc.	CaDo[a]	Arag.	Side.	Quar.	K-Fe.	Plag.	Kaol.	Mica	Chlo.	Mont.	Clin.	Pyri.	Gyps.	Apat.	Amph.	Hali.	Mgca.	U-2[d]	
Bulk Samples																								
2	5.0-14.5	8.30	73.0	57.9	41.8	–	6.2	–	18.6	–	2.7	2.9	8.9	1.1	12.8	–	0.7					4.2	–	–
3	14.5-24.0	17.80	73.2	58.1	43.0	–	6.7	–	19.8	–	3.1	2.8	10.3	1.3	9.5	–	0.7					2.8	T	–
4	24.0-33.5	27.30	74.9	60.7	40.5	–	9.0	–	19.7	–	3.3	4.5	9.9	1.1	9.0	–	0.7					2.4	T	T
5	33.5-43.0	36.80	73.1	58.0	40.5	–	7.0	–	19.0	–	2.8	4.4	9.6	1.1	12.8	–	–					2.9	T	T
7	52.5-62.0	56.30	76.1	62.7	42.7	–	12.5	–	15.7	–	2.8	3.5	9.4	1.7	5.9	–	0.8					5.1	–	T
8	62.0-71.5	65.30	75.8	62.2	38.7	–	14.7	–	18.4	–	2.4	3.9	8.6	1.8	6.7	–	1.4					3.4	T	–
9	71.5-81.0	74.80	72.9	57.7	39.3	–	13.8	–	16.7	–	1.9	4.5	8.9	1.3	8.6	–	1.1					3.9	–	–
10	81.0-90.5	84.30	74.0	59.4	42.3	–	7.5	–	21.5	–	3.1	3.3	9.4	1.4	8.8	–	–					2.8	T	–
11	90.5-100.0	93.80	74.4	60.0	37.5	–	3.7	–	22.3	–	2.8	4.3	10.7	1.4	15.1	–	–					2.2	–	T
12	100.0-109.5	103.30	66.2	47.2	36.8	–	42.3	0.4	5.5	–	–	0.6	1.9	0.6	2.6	0.6	0.9					7.9	–	–
13	109.5-119.0	112.80	71.6	55.7	38.1	–	2.0	–	20.7	–	3.5	4.3	15.0	2.5	12.7	–	–					1.0	–	T
14	119.0-128.5	122.30	72.6	57.2	44.1	–	2.0	–	25.6	–	–	3.5	11.8	2.0	10.0	–	–					1.1	–	T
15	128.5-138.0	131.80	70.9	54.5	47.8	–	1.9	–	22.4	–	4.9	4.4	9.4	1.4	7.9	–	–					–	–	T
16	138.0-147.5	141.30	70.5	53.9	44.4	–	5.4	–	20.8	–	4.2	6.7	9.6	1.1	7.9	–	–					–	–	T
17	147.5-157.0	150.80	71.6	55.6	43.7	–	3.2	–	23.9	–	5.1	3.2	11.1	2.0	4.6	–	0.7					2.6	T	–
18	157.0-166.5	160.30	74.2	59.7	42.3	–	7.7	–	19.9	–	2.6	3.5	9.8	1.4	9.9	–	–					2.9	T	T
19	166.5-176.0	169.80	79.9	68.5	42.3	–	1.7	–	22.1	2.0	3.8	5.0	16.3	2.0	4.7	–	–					–	T	P
20	176.0-185.5	179.40	70.2	53.4	47.5	–	4.1	–	18.8	–	4.8	2.6	11.6	2.3	8.4	–	–					–	T	–
21	185.5-195.0	188.80	75.8	62.2	54.5	–	6.0	–	16.4	–	3.4	3.2	8.7	1.0	6.8	–	–					–	T	T
22	195.0-204.5	198.30	73.5	58.6	43.1	–	2.0	–	19.8	–	3.0	4.6	13.0	1.2	13.3	–	–					–	T	–
23	204.5-214.0	207.80	68.9	51.4	57.7	–	3.2	–	12.6	–	2.2	2.3	10.6	1.5	9.8	–	–					–	–	–
24	214.0-223.5	217.30	73.5	58.7	55.1	–	6.7	–	16.3	–	3.1	2.0	9.2	1.8	5.9	–	–					–	–	–
25	223.5-233.0	226.80	72.1	56.4	54.3	–	7.0	–	14.5	–	2.0	2.9	8.2	1.2	9.8	–	–					–	T	–
26	233.0-242.5	236.30	70.9	54.5	57.7	–	8.3	–	12.9	–	2.5	1.8	7.8	1.1	7.9	–	–					–	T	–
27	242.5-252.0	245.80	69.4	52.1	51.3	–	7.4	–	12.4	–	2.5	3.2	11.1	1.0	10.6	0.4	–					–	T	–
28	252.0-261.5	255.40	73.9	59.3	61.7	–	10.7	–	12.9	–	3.0	2.2	7.9	0.9	–	0.6	–					–	–	–
29	261.5-271.0	264.70	62.4	41.2	71.5	2.5	9.0	–	5.5	2.2	–	2.3	4.2	–	3.0	–	–					–	–	–
30	271.0-280.5	274.40	63.4	42.8	63.3	–	20.1	–	4.9	–	1.1	1.0	6.0	0.8	2.7	–	–					–	T	–
31	280.5-290.0	283.60	–	–	56.6	–	23.2	–	6.3	–	–	2.9	5.3	0.8	4.9	–	–					–	–	–
32	290.0-299.5	293.30	71.1	54.8	52.4	1.1	28.6	–	7.0	–	–	1.8	6.2	1.1	1.7	–	–					–	T	–
33	299.5-309.0	302.70	70.7	54.2	58.6	3.5	23.7	–	6.4	–	–	2.0	5.2	0.5	–	–	–					–	T	–
34	309.0-318.5	312.30	70.5	53.9	46.1	6.2	33.3	–	6.0	–	1.1	1.3	4.7	0.6	–	–	0.7					–	–	–
35	318.5-328.0	321.80	69.9	53.0	50.9	4.0	33.6	–	5.5	–	–	1.6	3.8	0.7	–	–	–					–	–	–
36	328.0-337.5	331.30	72.3	56.8	45.9	7.8	27.8	–	9.5	–	1.0	1.6	6.4	–	–	–	–					–	–	–
37	337.5-347.0	340.80	69.8	52.7	54.9	6.3	22.7	–	10.5	–	–	1.7	3.9	–	–	–	–					–	–	–
38	347.0-356.5	350.20	63.7	43.2	63.6	6.2	24.1	–	4.0	–	–	–	2.1	–	–	–	–					–	–	–
39	356.5-366.0	360.10	59.6	36.9	64.8	10.1	15.9	–	7.6	–	–	–	1.6	–	–	–	–					–	–	–
40	366.0-375.5	369.00	72.7	57.3	48.5	6.4	19.5	–	11.9	1.7	2.7	0.3	6.6	1.4	–	–	1.0					–	–	–
41	375.5-385.0	379.00	62.3	41.1	75.0	10.0	10.8	–	4.2	–	–	–	–	–	–	–	–					–	–	–
42	385.0-394.5	391.60	66.3	47.4	54.8	5.2	24.7	–	11.7	–	–	1.5	2.1	–	–	–	–					–	–	–
44	404.0-413.5	407.30	64.1	44.0	69.8	13.7	10.0	–	6.5	–	–	–	–	–	–	–	–					–	–	–
45	413.5-423.0	417.80	60.1	37.7	52.9	45.1	0.9	–	1.1	–	–	–	–	–	–	–	–					–	–	–
2-20μ Fraction																								
2	5.0-14.5	8.30	76.4	63.1		–		–	44.0	–	10.4	11.0	26.2	2.8	–	2.8	2.8			–				
3	14.5-24.0	17.80	76.7	63.6		–		–	49.1	–	12.3	8.4	24.8	4.0	–	1.4	–			–				
4	24.0-33.5	27.30	71.2	55.0		–		–	43.8	3.7	10.7	6.5	23.9	3.6	5.6	1.1	1.2			–				
5	33.5-43.0	36.80	72.3	56.8		–		–	45.9	4.0	8.9	6.7	23.2	2.6	5.8	1.3	1.6			–				
7	52.5-62.0	56.30	72.9	57.6		–		–	43.8	2.6	10.2	7.2	24.7	2.4	6.0	1.2	1.8			–				
8	62.0-71.5	65.30	72.9	57.6		–		–	46.5	3.2	9.7	7.7	20.9	1.9	6.4	1.1	2.5			–				
9	71.5-81.0	74.80	73.0	57.8		–		–	49.8	3.0	11.2	7.4	22.7	2.5	–	1.1	2.3			–				
10	81.0-90.5	84.30	71.1	54.8		–		–	48.4	3.9	10.1	7.4	23.9	3.0	–	1.6	1.5			–				
11	90.5-100.0	93.80	71.6	55.7		–		–	45.1	4.1	9.3	7.7	21.0	2.1	7.5	2.2	1.0			–				
12	100.0-109.5	103.30	73.1	58.0		9.7		2.3	42.5	3.9	8.6	5.2	18.9	2.2	–	4.0	2.7			–				
13	109.5-119.0	112.80	69.3	52.1		–		–	49.9	–	11.2	8.8	23.7	2.9	–	1.3	1.0			1.3				
14	119.0-128.5	122.30	68.3	50.4		–		–	45.4	–	12.4	7.7	26.5	3.7	–	1.4	1.4			1.3				
15	128.5-138.0	131.80	68.9	51.5		–		–	41.7	2.7	11.6	9.1	27.7	3.5	–	1.3	1.1			1.3				
16	138.0-147.5	141.30	69.8	52.8		–		–	45.1	3.3	12.4	8.2	24.5	3.8	–	1.0	0.9			0.9				
17	147.5-157.0	150.80	71.7	55.7		–		–	45.7	3.5	11.3	7.2	24.3	2.9	–	1.4	2.2			1.3				
18	157.0-166.5	160.30	72.0	56.3		–		–	46.8	3.0	11.2	7.9	23.9	3.2	–	1.5	1.1			1.4				
19	166.5-176.0	169.80	70.9	54.5		–		–	44.0	3.0	12.1	9.0	26.0	2.5	–	1.2	1.2			1.0				
20	176.0-185.5	179.40	68.2	50.3		–		–	43.8	2.6	12.7	7.5	26.7	4.0	–	1.2	–			1.5				
21	185.5-195.0	188.80	72.9	57.6		–		–	47.3	3.0	11.9	6.8	23.0	3.4	–	1.6	3.1			–				

TABLE 9 – *Continued*

22	195.0-204.5	198.30	70.8	54.4	–	–	48.6	–	12.3	7.6	25.5	3.3	–	1.8	1.0	–
23	204.5-214.0	207.80	69.1	51.7	–	–	43.3	2.0	12.7	8.9	29.2	3.9	–	–	–	–
24	214.0-223.5	217.30	69.6	52.5	–	–	36.6	4.0	10.6	7.8	28.6	3.5	4.1	1.6	2.0	1.2
25	223.5-233.0	226.80	72.6	57.1	–	–	47.4	4.3	9.0	7.7	27.0	2.5	–	–	2.0	–
26	233.0-242.5	236.30	72.5	57.0	–	–	42.9	4.9	11.2	7.9	29.5	1.8	–	–	1.8	–
27	242.5-252.0	245.80	71.1	54.9	–	–	42.0	5.4	11.2	7.4	29.7	2.4	–	1.8	–	–
28	252.0-261.5	255.40	68.6	50.9	–	–	45.4	4.7	10.3	5.2	23.8	1.7	4.4	2.2	2.2	–
29	261.5-271.0	264.70	70.3	53.6	–	–	42.5	3.9	11.7	5.8	30.2	3.8	–	–	2.1	–
30	271.0-280.5	274.40	71.3	55.2	–	–	39.0	4.6	12.6	5.9	32.9	3.8	–	–	1.1	–
31	280.5-290.0	283.60	68.2	50.4	–	–	50.0	6.8	13.5	1.7	21.5	4.2	–	–	2.4	–
32	290.0-299.5	293.30	68.9	51.4	–	–	48.3	5.6	11.1	5.0	25.0	2.7	–	–	2.3	–
33	299.5-309.0	302.70	66.5	47.6	–	–	48.4	7.6	11.3	4.5	22.7	1.7	–	–	3.9	–
34	309.0-318.5	312.30	67.1	48.6	–	–	51.2	5.7	10.7	4.4	21.9	1.8	–	–	4.3	–
35	318.5-328.0	321.80	65.4	45.9	–	–	57.1	7.7	12.0	1.7	15.8	1.0	–	–	4.8	–
36	328.0-337.5	331.30	60.3	38.0	–	–	63.4	8.0	10.3	–	13.3	1.3	–	–	3.7	–
37	337.5-347.0	340.80	56.6	32.2	–	–	67.8	9.3	10.0	–	8.4	0.6	–	–	3.9	–
38	347.0-356.5	350.20	60.1	37.7	–	–	64.0	8.3	10.8	–	10.3	1.0	–	–	5.7	–
39	356.5-366.0	360.10	63.4	42.7	21.3	–	49.9	6.2	7.8	–	4.7	0.6	–	–	9.6	–
40	366.0-375.5	369.00	62.0	40.6	2.5	–	58.3	6.2	10.7	3.5	13.2	0.9	–	–	4.7	–
41	375.5-385.0	379.00	64.2	44.1	36.1	–	39.5	3.5	6.4	–	8.8	0.7	–	–	5.1	–
42	385.0-394.5	391.60	58.0	34.3	6.2	–	68.2	–	10.5	1.0	9.3	0.7	–	–	4.1	–
44	404.0-413.5	407.30	61.4	39.7	19.0	–	56.4	5.5	7.8	–	6.0	0.6	–	–	4.6	–
45	413.5-423.0	417.80	62.1	40.8	97.0	–	3.0	–	–	–	–	–	–	–	–	–

<2μ Fraction

2	5.0-14.5	8.30	81.6	71.2	–	24.2	–	3.1	12.5	17.0	3.0	40.2	–	–	–	–
3	14.5-24.0	17.80	81.6	71.2	–	25.1	–	3.0	11.1	21.8	3.2	34.7	1.1	–	–	–
4	24.0-33.5	27.30	83.8	74.6	–	24.2	–	1.6	11.1	22.0	4.3	36.8	–	–	–	–
5	33.5-43.0	36.80	84.2	75.3	–	24.7	2.2	1.6	9.4	24.9	5.1	30.6	1.6	–	–	–
7	52.5-62.0	56.30	85.2	76.9	–	21.0	2.4	1.6	11.3	24.0	3.4	35.3	1.0	–	–	–
8	62.0-71.5	65.30	84.0	75.0	–	20.7	–	1.7	12.4	24.9	3.7	35.3	1.4	–	–	–
9	71.5-81.0	74.80	85.1	76.7	–	22.2	–	2.0	12.7	23.5	4.3	34.1	1.2	–	–	–
10	81.0-90.5	84.30	82.6	72.7	–	21.5	–	1.7	13.1	18.5	3.1	40.3	1.8	–	–	–
11	90.5-100.0	93.80	80.4	69.5	–	20.0	–	1.7	12.0	21.7	2.7	42.0	–	–	–	–
12	100.0-109.5	103.30	87.4	80.4	–	22.3	–	–	12.6	23.5	2.3	38.0	1.3	–	–	–
13	109.5-119.0	112.80	81.1	70.5	–	22.4	–	1.7	11.5	25.2	3.2	36.1	–	–	–	–
14	119.0-128.5	122.30	78.9	67.1	–	20.5	–	1.3	11.8	26.2	2.8	37.4	–	–	–	–
15	128.5-138.0	131.80	84.1	75.2	–	23.0	–	2.7	12.5	28.1	2.9	29.5	1.3	–	–	–
16	138.0-147.5	141.30	81.8	71.6	–	20.5	–	2.6	12.5	29.1	2.8	31.3	1.3	–	–	–
17	147.5-157.0	150.80	85.2	77.0	–	26.4	–	2.5	13.5	23.0	3.0	31.5	–	–	–	–
18	157.0-166.5	160.30	82.7	72.9	–	23.1	–	2.7	11.0	25.0	2.9	34.4	0.9	–	–	–
19	166.5-176.0	169.80	85.7	77.7	–	28.0	–	3.9	16.0	28.7	2.3	21.1	–	–	–	–
20	176.0-185.5	179.40	85.7	77.6	–	28.6	–	3.1	13.8	26.7	3.3	24.6	–	–	–	–
21	185.5-195.0	188.80	82.5	72.7	–	20.3	–	2.3	11.3	24.7	4.4	35.8	1.3	–	–	–
22	195.0-204.5	198.30	81.6	71.3	–	21.6	–	2.4	14.4	22.4	2.6	35.6	1.0	–	–	–
23	204.5-214.0	207.80	80.2	69.0	–	18.0	–	1.9	12.6	21.4	3.1	42.9	–	–	–	–
24	214.0-223.5	217.30	83.9	74.8	–	19.9	–	2.2	15.5	22.3	2.3	36.7	1.2	–	–	–
25	223.5-233.0	226.80	84.3	75.5	–	16.6	–	1.2	15.4	27.2	2.4	37.2	–	–	–	–
26	233.0-242.5	236.30	83.6	74.4	–	18.9	–	3.4	12.3	19.7	2.9	42.8	–	–	–	–
27	242.5-252.0	245.80	82.8	73.1	–	16.3	–	1.4	14.6	24.0	2.4	41.4	–	–	–	–
28	252.0-261.5	255.40	83.6	74.4	–	19.2	–	2.2	14.1	25.0	3.0	35.4	1.1	–	–	–
29	261.5-271.0	264.70	84.5	75.7	–	15.4	–	1.8	16.4	26.6	4.0	35.8	–	–	–	–
30	271.0-280.5	274.40	85.6	77.4	–	13.2	–	1.7	18.6	31.2	2.2	33.2	–	–	–	–
31	280.5-290.0	283.60	82.8	73.1	–	13.4	2.1	2.7	21.2	26.9	1.5	32.2	–	–	–	–
32	290.0-299.5	293.30	88.7	82.3	–	22.5	2.0	3.2	13.8	26.5	2.8	29.1	–	–	–	–
33	299.5-309.0	302.70	88.3	81.8	–	16.3	2.5	2.2	22.8	31.3	1.4	23.5	–	–	–	–
34	309.0-318.5	312.30	88.6	82.2	–	17.9	–	3.4	20.0	29.3	2.2	27.2	–	–	–	–
35	318.5-328.0	321.80	88.5	82.0	–	17.8	4.0	4.0	17.9	27.6	1.8	26.9	–	–	–	–
36	328.0-337.5	331.30	87.6	80.6	–	14.1	2.6	1.7	17.0	29.7	1.7	33.1	–	–	–	–
37	337.5-347.0	340.80	89.6	83.8	–	16.1	4.7	3.1	18.9	25.1	2.0	30.1	–	–	–	–
38	347.0-356.5	350.20	90.2	84.6	–	16.2	–	–	22.2	33.6	–	28.0	–	–	–	–
39	356.5-366.0	360.10	92.7	88.5	1.4	18.4	–	–	16.3	31.5	2.6	27.9	1.9	–	–	–
40	366.0-375.5	369.00	86.9	79.5	–	13.1	–	1.4	17.0	42.4	1.9	24.2	–	–	–	–
41	375.5-385.0	379.00	88.5	82.1	–	15.3	–	1.8	17.2	30.8	2.3	31.3	1.4	–	–	–
42	385.0-394.5	391.60	88.2	81.6	–	14.7	–	–	17.2	31.0	2.5	34.5	–	–	–	–
44	404.0-413.5	407.30	89.6	83.8	–	13.3	–	–	14.5	26.1	–	44.8	1.3	–	–	–
45	413.5-423.0	417.80[e]	96.2	94.1	20.1	4.0	–	–	11.1	31.7	–	8.1	3.6	1.6	18.8	0.9

[a]Highest Intensity at 2.909Å; [b]Highest Intensity at 2.988Å; [c]Peaks at 3.15Å, 1.851Å, and 1.587Å. T = Trace
[d]Peaks at 5.75Å, 3.63Å, and 8.02Å. P = present, T = trace.; [e]Identification of mica and apatite is not positive.

TABLE 10
Results of X-Ray Diffraction Analyses from Site 263

Core	Core Interval	Depth Below Sea Floor (m)	Diff.	Amor.	Calc.	Arag.	Side.	Quar.	Cris.	K-Fe.	Plag.	Kaol.	Mica	Chlo.	Mont.	Clin.	Pyri.	Gyps.	Hali.	U-1[a]
Bulk Samples																				
1	0.0-5.0	3.30	62.1	40.8	89.9	7.3	–	2.8		–	–	–	–	–	–			–	–	T
2	52.5-62.0	55.70	60.7	38.5	88.1	2.4	–	6.3		–	–	1.3	1.9	–	–			–	–	–
3	90.5-100.0	93.80	59.1	36.1	94.6	–	–	4.3		–	–	–	1.1	–	–			–	–	T
4	109.5-119.0	112.80	79.5	68.0	17.9	–	–	17.0		4.9	–	–	11.7	1.1	46.2			1.1	–	T
6	147.5-157.0	150.80	78.0	65.6	2.7	–	–	19.0		9.5	1.9	–	16.0	2.7	46.5			1.7	–	–
7	176.0-185.5	179.30	77.6	65.1	1.9	–	–	25.4		8.8	1.6	–	15.0	1.9	44.1			1.2	–	–
9	223.5-233.0	226.80	77.5	64.9	–	–	–	43.4		6.1	1.3	2.3	16.9	2.1	26.6			1.2	–	–
10	242.5-252.0	245.60	76.8	63.8	–	–	–	32.4		2.7	–	2.7	15.4	1.4	45.5			–	–	–
11	261.5-271.0	264.80	77.6	65.1	–	–	4.4	48.7		3.9	2.3	3.3	16.2	2.6	16.5			2.2	–	–
12	280.5-290.0	284.10	75.1	61.1	–	–	–	57.9		2.8	–	–	14.9	2.4	19.7			2.3	–	–
13	299.5-309.0	303.00	76.3	62.9	–	–	–	51.2		6.9	3.1	1.7	17.2	2.3	13.5			1.4	2.7	–
14	318.5-328.0	322.50	74.5	60.2	–	–	–	49.9		5.1	2.1	–	15.3	1.6	24.7			1.3	–	–
15	337.5-347.0	340.80	72.4	56.9	–	–	–	56.4		2.5	1.9	5.6	12.3	–	21.3			–	–	–
17	385.0-394.5	388.10	70.3	53.6	–	–	–	67.0		3.7	–	–	8.8	1.5	17.6			1.6	–	–
18	413.5-423.0	416.80	71.9	56.1	–	–	–	57.7		2.6	–	1.7	11.8	1.5	22.4			2.3	–	–
19	451.5-461.0	455.00	72.3	56.6	–	–	–	34.6		21.8	–	5.3	16.3	2.4	16.6			3.1	–	–
20	480.0-489.5	480.30	59.5	36.7	–	–	97.1	2.9		–	–	–	–	–	–			–	–	–
		483.80	76.2	62.8	–	–	–	46.9		5.7	–	12.6	21.8	2.6	8.7			1.6	–	–
21	518.0-527.5	522.00	79.5	68.0	6.9	–	–	37.1		5.2	1.9	22.3	18.1	2.8	1.2			4.6	–	–
22	556.0-565.5	559.70	76.3	63.0	–	–	–	35.6		4.6	1.5	25.1	19.4	3.1	8.9			1.8	–	–
23	594.0-603.5	597.20	73.2	58.1	–	–	–	36.1		3.5	2.3	23.1	22.9	1.8	4.8			5.5	–	–
24	632.0-641.5	635.10	74.4	60.0	–	–	–	37.8		3.7	1.4	26.3	20.7	2.3	4.7			3.1	–	–
25	670.0-679.5	673.70	53.8	27.8	6.2	–	–	3.0		–	–	88.1	0.7	–	2.0			–	–	–
28	727.0-736.5	731.40	64.9	45.2	0.7	–	–	27.8		–	–	47.4	2.4	–	20.4			1.3	–	–
29	736.5-746.0	739.60	78.5	66.4	1.6	–	–	46.0		–	1.4	18.1	18.9	2.3	4.5			7.2	–	–
2-20µ Fraction																				
1	0.0-5.0	3.30	68.9	51.5				77.0		10.4	4.2	–	4.3	–	–		1.1	3.0		
2	52.5-62.0	55.70	72.9	57.7				48.4		7.0	8.3	4.4	19.4	1.2	–		4.2	7.1		
3	90.5-100.0	93.80	70.4	53.7				59.5		6.7	6.8	2.3	16.3	1.4	–		3.6	3.3		
4	109.5-119.0	112.80	71.7	55.7				28.4		12.2	4.8	–	20.6	1.7	29.8		–	2.5		
6	147.5-157.0	150.80	72.3	56.7				31.1		13.4	5.7	–	25.7	2.3	16.6		–	5.2		
7	176.0-185.5	179.30	68.9	51.5				32.9		14.4	4.6	1.7	30.2	2.1	11.0		–	3.2		
9	223.5-233.0	226.80	69.7	52.7				37.7		12.0	3.0	3.9	30.5	2.1	7.4		–	3.4		
10	242.5-252.0	245.60	69.6	52.4				39.1		13.4	2.8	6.1	31.0	2.4	–		–	5.2		
11	261.5-271.0	264.80	65.4	46.0				46.6		8.7	5.0	7.9	27.2	2.7	–		–	1.9		

TABLE 10 – *Continued*

12	280.5-290.0	284.10	67.0	48.4	51.9		8.7	4.4	–	31.9	1.7	–		–	1.3	
13	299.5-309.0	303.00	66.0	46.8	47.9		8.8	4.9	2.7	30.1	3.2	–		–	2.4	
14	318.5-328.0	322.50	67.0	48.5	48.1		8.7	2.7	–	34.1	2.8	–		–	3.5	
15	337.5-347.0	340.80	64.2	44.0	55.4		7.8	3.4	2.4	27.4	2.3	–		–	1.3	
17	385.0-394.5	388.10	63.6	43.1	55.2		9.5	3.5	–	18.4	1.5	4.9		–	6.9	
18	413.5-423.0	416.80	65.2	45.6	46.2		6.9	1.6	–	27.3	1.9	7.4		–	8.8	
19	451.5-461.0	455.00	64.6	44.7	44.5		8.3	2.0	8.0	27.4	2.3	–		–	7.5	
20	480.0-489.5	483.80	60.8	38.7	53.4		7.9	3.4	12.4	18.7	1.2	–		–	3.0	
21	518.0-527.5	522.00	61.8	40.3	48.4		8.0	3.1	16.2	15.9	1.5	–		–	6.9	
22	556.0-565.5	559.70	57.1	32.9	33.2		4.8	0.8	26.5	31.8	1.9	–		–	1.0	
23	594.0-603.5	597.20	59.0	35.9	41.6		–	0.7	24.1	20.5	2.1	–		–	10.9	
24	632.0-641.5	635.10	63.3	42.6	37.0		2.0	1.3	30.4	23.3	1.7	–		–	4.2	
25	670.0-679.5	673.70	40.8	7.5	2.3		–	–	97.3	0.5	–	–		–	–	
28	727.0-736.5	731.40	58.7	35.5	51.6		–	–	33.9	4.5	–	7.8		–	2.3	
29	736.5-746.0	739.60	67.8	49.7	42.9		2.4	2.8	20.4	19.8	1.5	–		–	10.3	
<2μ Fraction																
1	0.0-5.0	3.30	87.6	80.6	9.8	9.1	–	–	10.1	17.0	3.0	43.5	6.4	1.2	–	–
2	52.5-62.0	55.70	87.8	81.0	9.8	–	–	–	21.6	14.0	–	36.5	16.3	–	1.7	–
3	90.5-100.0	93.80	86.9	79.5	8.7	–	–	–	24.1	23.8	2.0	41.4	–	–	–	–
4	109.5-119.0	112.80	79.1	67.3	13.0	17.4	4.1	1.3	–	14.2	1.0	41.7	–	–	1.9	5.4
6	147.5-157.0	150.80	85.3	77.1	11.5	–	6.2	2.9	–	12.6	–	64.2	–	–	2.5	–
7	176.0-185.5	179.30	79.1	67.3	14.8	–	4.9	–	3.1	4.6	0.7	71.9	–	–	–	–
9	223.5-233.0	226.80	76.5	63.2	46.9	–	–	–	2.3	3.9	–	45.7	–	–	1.2	–
10	242.5-252.0	245.60	80.9	70.1	46.0	–	–	–	6.6	11.4	–	35.0	–	–	1.0	–
11	261.5-271.0	264.80	75.4	61.6	50.5	–	4.9	2.4	4.8	12.5	1.5	23.4	–	–	–	–
12	280.5-290.0	284.10	73.9	59.3	52.0	–	–	–	–	7.8	0.7	39.5	–	–	–	–
13	299.5-309.0	303.00	76.1	62.6	54.5	–	–	–	3.8	7.4	0.9	33.4	–	–	–	–
14	318.5-328.0	322.50	74.8	60.7	45.2	–	2.7	–	–	7.8	0.7	42.8	–	–	0.7	–
15	337.5-347.0	340.80	73.2	58.1	61.7	–	–	–	3.2	5.4	–	29.7	–	–	–	–
17	385.0-394.5	388.10	69.8	52.9	69.6	–	2.0	–	–	4.7	0.9	22.8	–	–	–	–
18	413.5-423.0	416.80	80.4	69.3	31.2	–	–	–	–	29.7	4.5	34.6	–	–	–	–
19	451.5-461.0	455.00	79.6	68.0	33.8	–	2.7	–	5.2	6.5	1.9	44.3	–	–	3.9	1.7
20	480.0-489.5	483.80	82.4	72.5	28.4	–	2.2	–	19.1	11.7	2.2	29.3	–	–	2.2	4.8
21	518.0-527.5	522.00	85.9	78.0	23.9	–	–	–	26.3	14.0	3.9	26.5	–	–	5.5	–
22	556.0-565.5	559.70	85.2	76.9	14.2	–	–	–	34.2	14.6	4.3	30.1	–	–	1.3	1.4
23	594.0-603.5	597.20	82.5	72.7	21.3	–	–	1.5	33.8	11.2	4.0	24.1	–	–	4.0	–
24	632.0-641.5	635.10	82.5	72.7	16.9	–	–	–	41.1	9.2	1.5	27.9	–	–	3.5	–
25	670.0-679.5	673.70	64.6	44.7	1.9	–	–	–	89.5	–	–	8.5	–	–	–	–
28	727.0-736.5	731.40	71.1	54.8	31.6	–	–	–	18.4	2.2	–	47.9	–	–	–	–
29	736.5-746.0	739.60	81.6	71.3	38.4	–	–	–	17.5	5.2	–	38.9	–	–	–	–

[a]Peaks at 3.15Å, 1.85Å, and 1.587Å. T = trace.