Table 1. Distribution chart of diatom species at Site 1018.

| Core, section, interval (cm) | Depth (mbsf) | Centropsis depth (mmf) | Teretrumion | Diatom valves (no./g) | Chaetoceros spp. resting spores | Achnanthes lanceolata | Achnanthes spp. | Actinocyclus curvatulus | Actinocyclus ingens | Actinocyclus octochoras | Actinocyclus octonarius | Actinocyclus ocellatus | Actinocyclus spp. | Aerosphaeria senarius | Aerosphaeria vulgaris | Amphora spp. | Amphora vas | Asteromphalus marylandica | Asteromphalus spp. | Asteromphalus flabellatus | Asteromphalus robustus | Auliscoseira gomesiana | Auliscoseira italica | Auliscoseira spp. | Aulacoseira spp. | Azpeitia africana | Azpeitia nodulifera | Azpeitia tabularia | Azpeitia spp. | Bacteriastrum elongatum | Bacteriastrum spp. | Bacterosira fragilis | Biddulphia spp. | Chaetoceros brevis | Chaetoceros decipiens | Chaetoceros diflatus | Cocconeis costata | Cocconeis diculus | Cocconeis placentula | Cocconeis scutellum | Cocconeis spp. | Coscinodiscus asteromphalus | Coscinodiscus denarius | Coscinodiscus nitidus | Coscinodiscus marginatus | Coscinodiscus obsculus | Coscinodiscus oculus iridis | Coscinodiscus perforatus | Coscinodiscus radiatus | Cyclotella bodanica | Cyclotella comta | Cyclotella ocellata | Cyclotella stylorum | Cyclotella spp. | Cymatosira immatis | Cymbella spp. | Delphineis radiosa | Delphineis surirella | Delphineis spp. | Denticula spp. | Denticula sp. | Diploneis spp. | Diploneis sp. | Dimeregramma minor | Dimeregramma spp. | Ellipsoidenia spp. | Epithemia spp. | Eunotia spp. | Fragilaria brevistriata | Fragilaria capucina | Fragilaria construens | Fragilaria spp. | Fragilariopsis doliolus | Gomphonema spp. | Gomphonephora spp. | Hemiaulus ovalis | Hemiaulus sinensis | Hyalodiscus spp. | Lyrella hennedyi | Maryna murpi | Maryna schwabii | Melosira arcticochrysalis | Melosira spp. | Meridion spp. | Navicula spp. | Nondelphineis pelagica | Nondelphineis kamchatica | Nondelphineis kozlovii | Nozzlea diagrammatica | Nozzlea hungarica | Nozzlea spp. | Nozzlea sp. | Nitzschia bicapitata | Nitzschia grunowii | Nitzschia interspaginata | Nitzschia marina | Nitzschia pelagica | Nitzschia reinholdii | Nitzschia rolandii | Nitzschia spp. | Odontella aurita | Odontella sinensis | Pinnularia boreo | Pinnularia spp. | Pinnularia sp. | Plankton | Pseudosolenia calcar-avis | Pseudosolenia spp. | Porosira glacialis | Probosciia alata | Probosciia barboi | Probosciia cornuvaccaria | Pseudopelphilneis pelagica | Pseudopelphilneis spp. | Pseudosolenia elegans | Rhizosolenia spp. | Rhizosolenia antennata | Rhizosolenia antennata var. semispina | Rhizosolenia hebetata | Rhizosolenia setigera | Rhizosolenia styliformis | Rhizosolenia spp. | Rhizosolenia setolus var. setolus | Rhizosolenia bergonii | Rhizosolenia hebetata | Rhizosolenia setigera | Rhizosolenia styliformis | Rhizosolenia spp. | Rhizosolenia setolus var. setolus | Rhizosolenia spp. | Rhizosolenia spp. | Rhizosolenia spp.

Table 2. Distribution chart of diatom species at Site 1020.

| Core, section, interval (cm) | Depth (mbsf) | Depth (mcd) | Preservation | Diatom valves (no./g) | Chaetoceros spp. resting spores | Achnanthes spp. | Actinocyclus ingens | Actinocyclus octonarius | Actinocyclus spp. | Actinoptychus senarius | Actinoptychus vulgaris | Amphora spp. | Asteralampra marylandica | Asteromphalus flabellatus | Asteromphalus hepnotis | Asteromphalus imbricatus | Aulacoseira spp. | Azpeitia endolifera | Azpeitia sp. | Azpeitia tabularia | Azpeitia vetustissima | Bacterialina pazsiffer | Bacteriastrum elongatum | Biddulphia spp. | Coscinodiscus asteromphalus | Coscinodiscus marginatus | Coscinodiscus nitidus | Coscinodiscus perforatus | Coscinodiscus radiatus | Cyclotella spp. | Cymatosira belgica | Cymatosira immunis | Cymbella spp. | Delphineis surirella | Dimmerogramma fulvum | Diploneis bombus | Diploneis eudoxia | Diploneis papula | Diploneis smithii | Delphineis spp. | Epithemia spp. | Eunotia spp. | Fragilaria spp. | Fragilariopsis doliolus | Gomphonema spp. | Glyphodesmis spp. | Grammatophora oceanica | Grammatophora hamulifera | Hantzschia sp. | Hemidiscus cuneiformis | Hyalodiscus spp. | Koizumia tatsunokuchiensis | Lyrella hennedyi | Meridia ornatum | Navicula spp. | Neodelphineis pelagica | Neodenticula seminae | Nitzschia bicapitata | Nitzschia braunii | Nitzschia calida | Nitzschia cephalopolae | Nitzschia dairichii | Nitzschia grunlata | Nitzschia kolaczekii | Nitzschia lanceolata | Nitzschia palea | Nitzschia palacea | Nitzschia reinholdii | Nitzschia sicula | Nitzschia sigma | Nitzschia spp. | Opephora martyi | Paralia sulcata | Pinnularia spp. | Plagogramma spp. | Planktoniella sol | Porosira glacialis | Proboscia alata | Pseudopodosira elegans | Rhaphoneis amphiceros | Rhaphoneis parallis | Rhizosolenia bergonii | Rhizosolenia hebetata | Rhizosolenia styliformis | Rhopalodia gibba | Roperia tessulata | Roxania spp. | Simonseniella curvirostris | Stauroneis spp. | Stephanodiscus spp. | Stephanopyxis turris | Synedra spp. | Tetracyclus grunlii | Thalassioira anguste lineata | Thalassioira antiqua | Thalassioira decipiens | Thalassioira eccentrica | Thalassioira gravida | Thalassioira jacksonii | Thalassioira jouseae | Thalassioira lepromis | Thalassioira lineata | Thalassioira oestrupii | Thalassioira cf. oestrupii | Thalassioira simonsenii | Thalassioira symbolophora | Thalassioira trifulta | Thalassioira spp. | Thalassionema bacilaris | Thalassionema nitzschioides | Thalassionema nitzschioides var. parva | Thalassiothrix fraunfeldii | Thalassiothrix longissima | Trachyneis aspera | Trigonium spp. | Thalassiothrix acuta | Total counts |
|---|---|---

Table 4. Distribution chart of diatom species from 3.00 to 0.78 Ma at Site 1018.

| Core, section, interval (cm) | Depth (mbsf) | Depth (mcd) | Preservation | Diatom valves (no./g) | Chaetoceros spp. resting spores | Achnanthes spp. | Actinocyclus curvatulus | Actinocyclus ochroniensis | Actinocyclus octonarius | Actinocyclus oculatus | Actinoptychus senarius | Actinoptychus vulgaris | Actinoptychus spp. | Asterolampra fluhelfiana | Asterolampra robustus | Asteromphalus spp. | Aulacoseira granulata | Aulacoseira italica | Aulacoseira subarctica | Azpeitia nodulifera | Azpeitia tabulata | Azpeitia vanheurckii | Azpeitia spp. | Bacteriastrum elongatum | Bacteriastrum spp. | Bacterosira fragilis | Biddulphia spp. | Chaetoceros decipiens | Coscinodiscus californica | Coscinodiscus costata | Coscinodiscus dimorphus | Coscinodiscus pinnulatus | Coscinodiscus plicatulus | Coscinodiscus radiatus | Coscinodiscus scutellum | Coscinodiscus spp. | Coscinodiscus stellaris | Coscinodiscus stelldiscus | Coscinodiscus marginatus | Coscinodiscus radiatus | Cyclotella bodanica | Cyclotella comta | Cyclotella ocellata | Cyclotella sp. | Cymatosira immutis | Cymbella spp. | Delphineis ischaboensis | Delphineis suchiensis | Delphineis surirella | Dictyopsis spp. | Diploneis spp. | Diploneis vacha | Diploneis spp. | Dorcadia spp. | Dimeregramma minor | Diploneis spp. | Epithemia spp. | Eunotia spp. | Fragilaria brevistriata | Fragilaria capucina | Fragilaria construens | Fragilaria spp. | Fragilariopsis doliolus | Genophoema spp. | Grammatophora hamulifera | Grammatophora oceanica | Grammatophora spp. | Hemiaulus cuneiformis | Hemiaulus ovalis | Martyana martyi | Martyana schadii | Melosira architectalis | Melosira varians | Melosira spp. | Meridion spp. | Navicula spp. | Neodenticula kamtschatica | Neodenticula koizumii | Neodenticula seminae | Neodenticula spp. A, cornu Akiba and Yanagisawa | Nitzschia bicapitata | Nitzschia denticula | Nitzschia fossilis | Nitzschia granulata | Nitzschia interruptestriata | Nitzschia kolaczekii | Nitzschia marina | Nitzschia pelta | Nitzschia pelagica | Nitzschia reinholdii | Nitzschia rolandii | Nitzschia sicula | Nitzschia spp. | Odontella aurita | Ophiobyrsa martyi | Ophiobyrsa schadii | Paralia sulcata | Pinnularia spp. | Plankonisia sol | Podosira pseudodenticulata | Porosira glacialis | Proboscia alata | Proboscia barbus | Proboscia curvirostris | Pseudosolenia calyptra | Pseudosolenia eremiotoma | Rhabdonema spp. | Rhaphoneis amphiceros | Rhaphoneis margaritalinoea | Rhizosolenia calcar avis | Rhizosolenia bergonii | Rhizosolenia hebetata | Rhizosolenia matuyamai | Rhizosolenia setigera | Rhizosolenia styliformis | Rhizosolenia spp. | Rhizosiphonia spp. | Rhizosolenia spp. | Rhizosolenia spp. | Rhizosolen

Core, section, interval (cm)	Depth (mbsf)	Composite depth (mcd)	Preservation	Diatom valves (no./g)	*Chaetoceros* spp. resting spores	*Achnanthes lanceolata*	*Achnanthes* spp.	*Actinocyclus curvatulus*	*Actinocyclus ingens*	*Actinocyclus ochotensis*	*Actinocyclus octonarius*	*Actinocyclus oculatus*	*Actinocyclus* spp.	*Actinoptychus senarius*	*Actinoptychus vulgaris*	*Actinoptychus* spp.	*Amphora* spp.	*Asterolampra marylandica*	*Asteromphalus arachme*	*Asteromphalus flabellatus*	*Asteromphalus robustus*	*Aulacoseira granulata*	*Aulacoseira italica*	*Aulacoseira* spp.	*Azpeitia africana*	*Azpeitia nodulifera*	*Azpeitia tabularia*	*Azpeitia* spp.	*Bacteriastrum elongatum*	*Bacteriastrum* spp.	*Bacterosira fragilis*	*Biddulphia* spp.	*Chaetoceros breve*	*Chaetoceros decipiens*	*Chaetoceros didymus*	*Cocconeis costata*	*Cocconeis discsulus*	*Cocconeis placentula*	*Cocconeis scutellum*	*Cocconeis* spp.	*Coscinodiscus asteromphalus*	*Coscinodiscus denarius*
167-1018A-																																											
1H-1, 70-72	0.70	0.58	M	2.27E+06	222			7						1				1						1			1								2	1	2				1	
1H-1, 140-142	1.40	1.28	M	1.31E+06	116			4				1		2	1								2													2		1		1			
1H-2, 70-72	2.20	2.08	M	9.26E+05	83			1						1	1								20	3	1		1									1						
1H-2, 140-142	2.90	2.78	M	4.93E+05	11									1									13	2			1															
1H-3, 70-72	3.70	3.58	M	6.85E+05	58									2									6				5					1				1							
2H-1, 117-119	6.07	7.11	M	2.92E+05	11									3									2	2																			
2H-1, 140-142	6.30	7.34	M	1.04E+06	26		1							10									2	1			1										2				1	
2H-2, 70-72	7.10	8.14	M	8.96E+05	16									4									1				1															
2H-2, 140-142	7.80	8.84	P	1.28E+06	26									1									7				3									1	1				1	
2H-3, 56-58	8.60	9.64	P	1.14E+06	16			1				1		5								2	1	2												1		1				
2H-3, 140-142	9.30	10.34	M	1.70E+06	39			2						5													1															
2H-4, 70-72	10.10	11.14	G	3.84E+06	140		1	5					1	6			1										3									1					1	
2H-4, 140-142	10.80	11.84	M	1.75E+06	62									1									1													1						
2H-5, 70-72	11.60	12.64	M	2.38E+06	129		1	10					1	12	2								4	2			2		1							1			1		1	
2H-5, 140-142	12.30	13.34	M	2.16E+06	98			9						3									3				1												1	1		
2H-6, 70-72	13.10	14.14	P	2.89E+06	176			19						1	1							3	5				1										1					
2H-6, 140-142	13.80	14.84	M	2.82E+06	23			11						2								7	3													1		1				
3H-1, 70-72	15.10	18.15	P	1.72E+06	46		1	5	1			1	1	2								3	1									1					1					
3H-1, 140-142	15.80	18.85	G	2.48E+06	48			28						11	2							1		1			1										2				2	
3H-2, 70-72	16.60	19.65	M	5.87E+06	54			47						3																						2	1	1	1			
3H-2, 140-142	17.30	20.35	M	5.73E+06	140			10							4												1									2		1	1			
3H-3, 70-72	18.10	21.15	M	1.44E+06	94			10																												1	1					
3H-3, 140-142	18.80	21.85	M	3.76E+06	120		1	19							3																	1				1						
3H-4, 70-72	19.60	22.65	M	4.61E+06	144			5						1	8								2			1	1									1	2	1			1	
3H-4, 140-142	20.30	23.35	M	3.76E+06	74			8						1	7												1									1	1	1				
3H-5, 70-72	21.10	24.15	M	5.02E+06	66			14						2	7								1				2															
3H-5, 140-142	21.80	24.85	M	1.98E+06	129			8	1					1	3							1	1	1			3															
3H-6, 70-72	22.60	25.65	P	9.06E+04	5																															1						
3H-6, 140-142	23.30	26.35	M	2.82E+05	5			1				3										3																				
3H-7, 70-72	24.10	27.15	M	6.34E+05	20									2									1				2										1					
4H-1, 70-72	24.60	29.01	M	1.19E+06	20			1			1											1	1													1			1			
4H-1, 140-142	25.30	29.71	M	1.72E+06	275			1														1	2	1			4												1			
4H-2, 70-72	26.10	30.51	M	9.16E+05	122									1									2																			
4H-2, 140-142	26.80	31.21	M	7.65E+05	15						1												7													2	1		1	1		
4H-3, 70-72	27.60	32.01	M	1.32E+06	20			1				1										2	1				4										1		2			
4H-3, 140-142	28.30	32.71	M	1.76E+06	60			1						3								2					4					1				1		1				
4H-4, 70-72	29.10	33.51	M	9.46E+05	23			2						1									1				2									1						
4H-4, 140-142	29.80	34.21	M	1.61E+06	86									4	1							1	3				5										1					
4H-5, 70-72	30.60	35.01	M	2.14E+06	180			5						2									2				1									1	1	1				
4H-5, 140-142	31.30	35.71	P	2.10E+06	402			1						4										1							1						1	1				
4H-6, 70-72	32.13	36.54	M	6.52E+06	491			1	1						1							1	2																1			
4H-6, 140-142	32.83	37.24	M	5.44E+06	246			11						2									2				1									1	1					
5H-1, 70-72	34.10	39.09	M	2.40E+06	119			1							1								3									1							2		1	
5H-1, 140-142	34.80	39.79	M	2.38E+06	393			7						1								2	4									1							3			
5H-2, 70-72	35.60	40.59	M	5.65E+06	172			9			1			2								2	2													5	2		1			
5H-2, 140-142	36.30	41.29	P	1.35E+06	86									1								1	6	2													1					
5H-3, 70-72	37.10	42.09	M	8.56E+05	153									4									4																			
5H-3, 140-142	37.80	42.79	M	2.73E+06	353			5						4	1							2	5													1	1					
5H-4, 70-72	38.66	43.65	M	2.67E+06	343		1	24		1		1		2	1							1	1	1												2	1				1	
5H-4, 140-142	39.66	44.65	M	1.31E+06	175		1	3						1								7	3	1													2		1			
5H-5, 70-72	40.16	45.15	P	1.43E+06	157			4	1					1	3								1													1	1	1		1		
5H-5, 140-142	40.86	45.85	M	4.43E+05	39			2						1													1									1				1		

Table 1. Distribution chart of diatom species at Si

	Chaetoceros breve	*Chaetoceros decipiens*	*Chaetoceros didymus*	*Cocconeis costata*	*Cocconeis disculus*	*Cocconeis placentula*	*Cocconeis scutellum*	*Cocconeis* spp.	*Coscinodiscus asteromphalus*	*Coscinodiscus denarius*	*Coscinodiscus nitidus*	*Coscinodiscus marginatus*	*Coscinodiscus obsculus*	*Coscinodiscus oculus iridis*	*Coscinodiscus perforatus*	*Coscinodiscus radiatus*	*Cyclotella bodanica*	*Cyclotella caspia*	*Cyclotella striata*	*Cyclotella stylorum*	*Cyclotella* spp.	*Cymatosira immunis*	*Cymbella* spp.	*Delphineis ischaboensis*	*Delphineis sachalinensis*	*Delphineis surirella*	*Delphineis* spp.	*Denticula* spp.	*Denticulopsis* spp.	*Diatoma* spp.	*Dimerogramma minor*	*Diploneis* spp.	*Epithemia* spp.	*Eunotia* spp.	*Fragilaria brevistriata*	*Fragilaria capucina*	*Fragilaria construens*	*Fragilaria* spp.	*Fragilariopsis doliolus*	*Gomphonema* spp.	*Grammatophora* spp.	*Hemidiscus cuneiformis*	*Hemidiscus ovalis*	*Hyalodiscus* spp.	*Lyrella hennedyi*	*Martyana martyi*	*Martyana schwalzii*	*Melosira architectualis*	*Melosira* spp.	*Meridion* spp.	*Navicula* spp.	*Neodelphineis pelagica*	*Neodenticula kamchatica*	*Neodenticula koizumii*	*Neodenticula seminae*
			2	1	2				1			1				9			13							1													23		1	1		1												1
				2		1		1								2			6							2										1		1																			2
				1												3	3		1				1			1								1	2																						
												1											1												2			8	1																		3
				1												5					1					1									2					1																
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					2				1							1						1	3			2		1				1	1			1																			1
																8										1														2															1
				1	1				1																	1									1				1																
				1		1										5							1			1								1	1																1				2
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				1					1							4							1			3						1					1									1									7
				1												2										1						1																								2
				1			1		1			1				6	1						1			4							1		2					1															
							1	1								6										1							1		3			1	7		1	1												1
					1											7	1									1						1			1					2															
				1		1						1				2							1			3												1								1					1				2
					1											1					1		1		1	15									2																				3
					2				2		1	1				7					1		1			9														1	1					1									6
				2	1	1	1									4										3									2						1						1								4
				2		1	1									8							1			6							2																						14
				1	1											8			1							1					1									1															1
				1							1					4	1									6						2					1	1																		10
				1	2	1			1			1		1	1	12										9								1		1																			7
				1	1	1										2										5											3																		7
																4	1		1							1																													2
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				1															1							1									1																					2
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				1			1																			3												1															1	3
							1										1							1		3												1														1		5
												1														2						1				1		2																	
				2	1		1	1																		2								1						1													
					1		2														1					2						2			3					1														1
				1		1						1							1							4							1							1														1
				1														1			2					3																									1			
					1																1		1		2	9							1							1													3
				1	1	1																				6					1									1													2
					1	1						1			1	1	1									5											1	1		2													2		6
							1																		1	14							1		3			1		2													1	1	3
				1	1																					3									1	1																		10
							2		1									1																1		3																	1		3
							3									3	1						1			2													1	1	1												1		2
				5	2		1					2														2														1															2
					1														1	1						4						1			1																			2
																		1	1	1						3						1																					1	2
				1	1							2				2								1		2																										1		2
				2	1				1			1				5			1					2	1	2													1										1				1	17
					2		1									2																						4												1					5
				1	1	1		1								1		1		1					1							1						1																15
								1								3										1													1																

chart of diatom species at Site 1018.

Meridion spp.	*Navicula* spp.	*Neodelphineis pelagica*	*Neodenticula kamchatica*	*Neodenticula koizumii*	*Neodenticula seminae*	*Neidium* spp.	*Nephroneis* spp.	*Nitzschia bicapitata*	*Nitzschia dietrichii*	*Nitzschia granulata*	*Nitzschia interruptestriata*	*Nitzschia marina*	*Nitzschia palea*	*Nitzschia reinholdii*	*Nitzschia rolandii*	*Nitzschia* spp.	*Odontella aurita*	*Paralia sulcata*	*Pinnularia bolearis*	*Pinnularia* spp.	*Planktoniella sol*	*Podosira pseudodenticulata*	*Porosira glacilis*	*Proboscia alata*	*Proboscia barboi*	*Proboscia curvirostris*	*Pseudodelphineis pelagica*	*Pseudopodosira elegans*	*Rhabdonema* spp.	*Rhaphoneis amphiceros*	*Rhaphoneis margaritalimbata*	*Rhaphoneis* spp.	*Rhizosolenia calcar avis*	*Rhizosolenia bergonii*	*Rhizosolenia hebetata*	*Rhizosolenia setigera*	*Rhizosolenia styliformis*	*Rhizosolenia* spp.	*Rhoicosphenia abbreviata*	*Rhopalodia gibba*	*Rhopalodia* sp.	*Roperia tesselata*	*Stephanodiscus astreae*	*Stephanodiscus astreae* var. *minutula*	*Stephanodiscus rhombus*	*Stephanodiscus* spp.	*Stauroneis* spp.	*Stephanopyxis turris*	*Stephanopyxis* sp. A	*Stephanopyxis* sp. B	*Stephanopyxis* spp.	*Surirella* spp.	*Synedra arcus*	*Synedra indica*
					1				1		1							6																				2						1															
					2				2		4	1				1		2																				2								1	1							1				
									1		2	1	1																1							1										12	2		1	1							
					3													1											1																	2	1										
									1							2		2																		2										1				1		1					
					2																																																					
					1								1								3																												1	39	1	3			1	
					1											1																																	56						
									1									1			1																						1						83	3		1			
	1				2				2									2				1																												32						
					1				4									4																										1			2		119	2					
					7				4									4													4		2				1												35	1					
					2				4				1					4												1	1															1					42	4			1		
									3									3				1			1						1						2								1	1				35	2	1				2
					1				3							1		3																		2														123	3	1			1	
									1			1	1					1																		2										1				115	7					
	1				2				3									3													1														2					119	8					
					3				2				1			1		2													4					1									2					67	1					
					6				9		1		1					9													1					2													38	3	1				
					4				1									1				1									2								1					2					3						
					14						1																				1					4								2					50	1					
					1						1	2						4													1					2										1				42	2					
					10											1		2				1									1					2								2		1				37	3					
					7													5													1					10	1							1					42	2					
					7												2	2													1		1	1		1													27	2	1				
					2						1		1																		1					3									1					19	3					
					2													1					1								1					4													66	9					
										2								1																																							
					1															1																														2	1					
			1		2				1			1						5																																9						
			1		3						1																									2											1	2	2					
	1				5						1		2					1						2					1	2															1				33	4	1				
												1																																	2				33	4					
													2					3																											1			1	22	11					
					1												1	3	1												1														1		1		60	7					
					1																																												113	14					
	1												1																																1				16	2					
					3																										3				1	1						1				3				39	5					
					2													1																		1								1		2				43	10					
			2		6													2													2	2													1		1			1	73	6					
			1	1	3						1		1			1															1	4							1							1				55	8	2				
					10												3	2													1							1	1						1	1				41	10					
	1				3								1				1															2					1							1	2				131	22					
	1				2								1			1															1									1							1			76	15			1		
					2							1						7	1		3															1									1	2				58	6					
					2													3	1																			1				1		1	1				49	8	1				
			1		2													1													1					1									1				38	2		1			2
	1				2			2										2													1																		53	2					
1				1	17						1		1				6	3																													1	20					
					5			1			1		2					3				1			1						1	2				1			2						1	1				31	3	1				
1					15				1									4				1									2	2				1			1									1		48	2					
																		3																															8						

Stephanodiscus astreae	*Stephanodiscus astreae* var. *minutula*	*Stephanodiscus rhombus*	*Stephanodiscus* spp.	*Stauroneis* spp.	*Stephanopyxis turris*	*Stephanopyxis* sp. A	*Stephanopyxis* sp. B	*Stephanopyxis* spp.	*Surirella* spp.	*Synedra arcus*	*Synedra indica*	*Synedra jouseae*	*Synedra ulna*	*Synedra* spp.	*Tabelaria* spp.	*Tetracyclus glans*	*Thalassiosira anguste lineata*	*Thalassiosira bramaptrae*	*Thalassiosira decipiens*	*Thalassiosira eccentrica*	*Thalassiosira gravida*	*Thalassiosira jouseae*	*Thalassiosira leptopus*	*Thalassiosira lineata*	*Thalassiosira nidulus*	*Thalassiosira noedensioldii*	*Thalassiosira oestrupii*	*Thalassiosira* cf. *oestrupii*	*Thalassiosira pacifica*	*Thalassiosira plicata*	*Thalassiosira simonsenii*	*Thalassiosira symbolophora*	*Thalassiosira symmetrica*	*Thalassiosira trifulta*	*Thalassiosira* spp.	*Thalassionema bacilaris*	*Thalassionema nitzschioides*	*Thalassionema nitzschioides* var. *parva*	*Thalassiothrix acuta*	*Thalassiothrix frauenfeldii*	*Thalassiothrix longissima*	*Trachyneis aspera*	*Triceratium* sp.	*Trigonium alternans*	*Tryblionella acuminata*	Total counts
																	1			4	1		1				6	2			3			1		1	42	61	1		7					210
	1	1						1			1								4	3	1		1	3			3	1			9				1	2	52	2			4					130
	12	2		1	1						1								1								2				5				1	1	15	1	1							92
	2	1																	1												1						5	3			1					49
	1				1		1											1	2								1	1	1		11						14	2								68
					7														2		1						1										4									29
				1	39	1	3			1	1								4								8										11		1							103
					56														1	2							2								1		8									89
					83	3		1											4	3											2						11									127
					32														1	1							9				7						29	2								113
1	1		2		119	2											1		4								1				1			2			9				1					169
					35	1									1			1	4	3				2			7				8			2	1		98				1					212
	1				42	4			1										3	1				1			7				7			1	1		88									174
	1	1			35	2	1				2								12	7				2				7			4			1	1		69		1		1					210
					123	3	1			1										6							1				2						24									207
1					115	7					1						1		12	2	1			1			3	2									23				1					219
	2				119	8													1	1	1										4						25									202
	2				67	1											1		10	2				3							10				2		23									171
					38	3	1												3	9				1			5	1			5			2			43		1		2					205
					3														31	3	1			1			8	2			7				1		68	2		1	2					207
					50	1											1		14	11				3			4	1	1		1						59			1	3					208
1					42	2													4	3				1			3				1						45		1		5					143
	1				37	3													2	3							9	2			2						87		2	1	2					211
					42	2											1		10					1			5	1	1		3					1	69				1					212
					27	2	1												56	1				3		1	5				4						59	1		3	3					211
	1				19	3													31	4				1			7				5			2			88	3	2		3					210
					66	9													20	2							2							2		1	64	1	2		1					206
																																					2									9
					2	1								1					2																		8	1			1					28
					9																						3				2					2	28									63
			1		2	2													5	1											2					2	83	2			1					118
	1				33	4	1							1			1		5	3							4				16					2	65		1	2	1					171
	2				33	4							1						3																		32	2		1	1					91
	1			1	22	11														2							2										15									76
	1		1		60	7														1														1		1	30				1					131
					113	14													3					1			4	2			2					2	20		1		1					185
	1				16	2													1		2			1			1				2						50	2			1					94
	3				39	5													5	2							3				3			1	1	3	50	3	1	1	1					160
	2				43	10					1								3	4							1	1		1	3			1		1	113	1	1		1					213
	1			1	73	6											2		13	2							2	1			2			1	1	2	60		2	1	2					209
	1				55	8	2				1			1					21	1							3							2			74		2		1					216
	1				41	10								1		1			6	5				2			9										82		2		3					205
	2				131	22													3	1	1			1			3										25		1							214
		1			76	15			1										3	4							14										55	2		1	1					208
1	2				58	6													8	6				4			31							1			41	1			5					208
	1				49	8	1							1					1		1						5										35	2	1		1					134
	1				38	2		1			2								1	3							5									1	9	1								85
					53	2													24	2				2			6				1						80	1			1					206
				1	20												1		6	6				1			25							2			48	2	2		10					204
1	1				31	3	1										2			3	1						3							1			29	5	1	1						130
		1			48	2					1								11	3							1				1			2			23				1					142
					8														3	1				1			1									1	15				1					44

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Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	Preservation	Diatom valves (no./g)	*Chaetoceros* spp. resting spores	*Achnanthes* spp.	*Actinocyclus ingens*	*Actinocyclus octonarius*	*Actinocyclus* spp.	*Actinoptychus senarius*	*Actinoptychus vulgaris*	*Amphora* spp.	*Astrolampra marylandica*	*Asteromphalus flabellatus*	*Asteromphalus hepactis*	*Asteromphalus imbricatus*	*Aulacoseira* spp.	*Azpeitia nodulifera*	*Azpeitia tabularia*	*Azpeitia vetustissima*	*Bacirallia paxilifer*	*Bacteriastrum elongatum*	*Biddulphia* spp.	*Cocconeis* spp.	*Coscinodiscus asteromphalus*	*Coscinodiscus marginatus*	*Coscinodiscus nitidus*	*Coscinodiscus perforatus*	*Coscinodiscus radiatus*	*Cyclotella* spp.	*Cymatosira belgica*	*Cymatosira immunis*	*Cymbella* spp.	*Delphineis surirella*	*Dimmeregramma fulvum*	*Diploneis bombus*	*Diploneis eudoxia*	*Diploneis papula*	*Diploneis smithii*	*Delphineis* spp.
167-1020B-																																								
1H-1, 70-72	0.70	0.78	M	9.53E+06	189					1	1				1				3			2		2					9									1		
1H-1, 140-142	1.40	1.48	M	8.23E+05	42		1										8					2				2			5	1				1						
1H-2, 70-72	2.20	2.28	M	1.31E+06	106					3	1						4		6			1		2		3		1	10				1	6						
1H-2, 140-142	2.90	2.98	G	1.36E+06	48					9							7		10	1				2		6			10					1						
1H-3, 70-72	3.70	3.78	M	4.13E+06	57					1	1						8	1	4					12					32			1	2	3						1
1H-3, 140-142	4.40	4.48	P	2.95E+06	72					3	1						9	2	7	1				12		1			2	1			2	3	1					
1H-4, 70-72	5.20	5.28	G	5.38E+06	58		1	1		6	1								6			1		6	1	2		5						7						
1H-4, 140-142	5.90	5.98	M	6.38E+06	112					1									5		1			1	1				2				1	1						
1H-5, 70-72	6.70	6.78	M	6.28E+06	84		1			3								1	3					4					3					3						
1H-5, 140-142	7.40	7.48	G	1.04E+07	134												1		1					1		3			7											
2H-1, 70-72	8.50	8.36	M	2.19E+06	30	1		1		1							2		1	1				3		2			8	1			1	4			1			
2H-1, 140-142	9.20	9.06	G	3.65E+06	92		1		1	6							7		1				2	16					3					5	1		1			
2H-2, 70-72	10.00	9.86	M	7.98E+06	131	3											3							5					4					3						
2H-2, 140-142	10.70	10.56	M	6.18E+06	82					3							2		3	1					1				4					1						
2H-3, 56-58	11.50	11.36	M	4.74E+06	135						1						3							3					1											
2H-3, 140-142	12.20	12.06	M	4.29E+06	67	1				2	3								17					6		2			3	3			2	2						
2H-4, 70-72	13.00	12.86	M	2.27E+06	44	1											2		5					1					2					2						
2H-4, 140-142	13.70	13.56	M	2.82E+06	109	3	1					1			1		10						2	2						2			5	2						
2H-5, 70-72	14.50	14.36	P	3.60E+06	86				2	4	1						3		5					2		2			8	9	1			8	1					
2H-5, 140-142	15.20	15.06	M	4.23E+05	13						1						2		2											1										
2H-6, 70-72	16.00	15.86	M	3.25E+06	48	1				3							3		14					3									1	3						
3H-1, 70-72	18.00	18.26	P	3.57E+06	242	1	1										10	1						2						5			3	3						
3H-1, 140-142	18.70	18.96	G	3.37E+06	203	4				1							3		1				1							1			4	1						
3H-2, 70-72	19.50	19.76	P	2.42E+06	47		1										5																3							
3H-2, 140-142	20.20	20.46	P	4.80E+06	37	1											8																	1						
3H-3, 70-72	21.00	21.26	P	6.87E+05	33				1								8																3	2						
3H-3, 140-142	21.70	21.96	G	2.92E+06	219					3			2				17		1				2	5					3	3			2	5	1			1		
3H-4, 70-72	22.50	22.76	P	1.92E+06	52												4													1			6							
3H-4, 140-142	23.20	23.46	P	2.94E+05	19	1				1							4							1									1	1						
3H-5, 70-72	24.00	24.26	P	1.98E+06	89												2												2				2	2						
3H-5, 140-142	24.70	24.96	P	4.15E+05	20					1							9							1					1					1						
3H-6, 70-72	25.50	25.76	P	1.36E+06	77			1		1	1						20									3			11	1			2							
3H-6, 140-142	26.20	26.46	P	5.89E+05	30												1												6				1							
4H-1, 70-72	27.50	29.58	P	3.85E+05	9												6							3						1				1						
4H-1, 140-142	28.20	30.28	P	3.78E+05	6			1									12									1				1										
4H-2, 70-72	29.00	31.08	P	4.76E+05	2												14							1						1			1							
4H-2, 140-142	29.70	31.78	M	8.38E+05	59												15							1						1			2							
4H-3, 70-72	30.50	32.58	P	1.21E+05	12												1													1			1							
4H-3, 140-142	31.20	33.28	P	2.19E+05	16																																			
4H-4, 70-72	32.00	34.08	M	3.14E+06	204					2				1			14							3		1			11	3			9	7						
4H-4, 140-142	32.70	34.78	M	4.30E+05	19												4									1			3			1	2							
4H-5, 70-72	33.50	35.58	M	2.05E+06	61												3							4					2					1						
4H-5, 140-142	34.20	36.28	M	1.43E+05	14		1										2																	1						
4H-6, 70-72	35.00	37.08	P	1.89E+05	7												6																							
4H-6, 140-142	35.70	37.78	P	1.59E+05	9				1	1							1																							
5H-1, 70-72	37.00	40.16	P	6.12E+05	30												2																	1						
5H-1, 140-142	37.70	40.86	M	5.50E+06													43						1	4						3			1		2					
5H-2, 70-72	38.50	41.66	M	3.02E+06	156												3		1				1	1						1				5						
5H-2, 140-142	39.20	42.36	P	2.23E+06	62					2							4						1	2		4			8					1						
5H-3, 70-72	40.00	43.16	M	2.22E+06	37			1		1						1	2	1	1							3			10											

Table 2. Distribution chart of diatom species at Site 1020.

	Cymatosira belgica	*Cymatosira immunis*	*Cymbella* spp.	*Delphineis surirella*	*Dimmeregramma fulvum*	*Diploneis bombus*	*Diploneis eudoxia*	*Diploneis papula*	*Diploneis smithii*	*Delphineis* spp.	*Epithemia* spp.	*Eunotia* spp.	*Fragilaria* spp.	*Fragilariopsis doliolus*	*Gomphonema* spp.	*Glyphodesmis* spp.	*Grammatophora oceanica*	*Grammatophora hamurifera*	*Hemiaulus* sp.	*Hemidiscus cuneiformis*	*Hyalodiscus* spp.	*Koizumia tatsunokuchiensis*	*Lyrella hennedyi*	*Merosira architectuaris*	*Navicula* spp.	*Neodelphineis pelagica*	*Neodenticula seminae*	*Nitzschia bicapitata*	*Nitzschia braarudii*	*Nitzschia calida*	*Nitzschia capuluspatae*	*Nitzschia dietrichii*	*Nitzschia granulata*	*Nitzschia kolaczeckii*	*Nitzschia lanceolata*	*Nitzschia palea*	*Nitzschia paleacea*	*Nitzschia reinholdii*	*Nitzschia sicula*	*Nitzschia sigma*	*Nitzschia* spp.	*Opephora martyi*	*Paralia sulcata*	*Pinnularia* spp.	*Plagiogramma* spp.	*Planktoniella sol*	*Porosira glacilis*	*Proboscia alata*	*Pseudopodosira elegans*	*Rhaphoneis amphiceros*	*Rhaphoneis paralis*	*Rhizosolenia bergonii*	*Rhizosolenia hebetata*
								1						40													10	1				1															2						3
1				1																							3																2										
			1	6								1															5						1			1			1							1					1			
				1									1														2																											
		1	2	3					1				4											2			5															1		2			2					1		1
1			2	3	1							1	2		11										1		1									1				1		2		2						1			
				7							1		1		1												5																				1				1	1		1
			1	1											1												8							1			1														1		2
				3									5		4												6									1							3			2							
													1																							1							1							1			
1			1	4			1						1														2																3							4			
				5	1		1								1												5	1					1													2					3		1
				3									5								1						2																1			1							1
				1									2														15																1										4
																																																		1					
3			2	2											1								1				9					1									1		3			1					1		
				2																							13	1															1		1			1					1		
2			5	2							1		5		6												4								2	1							1								2			
9	1			8	1									2						3							9						1									11			1	1							3	2
1														3													1							1																				
			1	3									2	1													9										1						2						1					
5			3	3									3	1	6												2										4					1		1								1		
1			4	1							1		1		3												2																1											
			3												1		1										1			2																									
				1																							2																									1		
			3	2							2		1		2	1											3																4										
3			2	5	1			1			1			1	3												3					1									1	1	3								2			2
1			6											1	1		1								1		16			1		1				1						1												1
			1	1															1								1														1		2											
			2	2																						1	14		1			1											2										
				1									1														5						1							1		1											
1			2								2	1	2		3												8															1												
			1								1																4																1											
1				1									3														3						1																					
1												1	5														2																											
1			1										8														3																											
1			2										6														4										1						2										
1			1																								1											1															1
													1						1								1																								1	1		1
3			9	7							1		1		4										1		14						1				1														4		3
		1	2								1		2		1												2						1					1															1
				1									1														4																1										
				1																							2																										
																											1															1										1
																											2																											1
				1									1														3																								1		
3			1		2						2		7		2												4										1						3								1		
1				5										1													24	1																								2		1
				1							1				1												14																2								1		1
												2	1	17													27						1	1		1		1					5										10

Opephora martyi	*Paralia sulcata*	*Pinnularia* spp.	*Plagiogramma* spp.	*Planktoniella sol*	*Porosira glacilis*	*Proboscia alata*	*Pseudopodosira elegans*	*Rhaphoneis amphiceros*	*Rhaphoneis paralis*	*Rhizosolenia bergonii*	*Rhizosolenia hebetata*	*Rhizosolenia stylíformis*	*Rhopalodia gibba*	*Roperia tesselata*	*Rouxia* spp.	*Simonseniella curvirostris*	*Stauroneis* spp.	*Stephanodiscus* spp.	*Stephanopyxis turris*	*Stephanopyxis* spp.	*Synedra* spp.	*Tetracyclus grands*	*Thalassiosira anguste lineata*	*Thalassiosira antiqua*	*Thalassiosira decipiens*	*Thalassiosira eccentrica*	*Thalassiosira gravida*	*Thalassiosira jacksonii*	*Thalassiosira jouseae*	*Thalassiosira leptopus*	*Thalassiosira lineata*	*Thalassiosira oestrupii*	*Thalassiosira* cf. *oestrupii*	*Thalassiosira simonsenii*	*Thalassiosira symbolophora*	*Thalassiosira trifulta*	*Thalassiosira* spp.	*Thalassionema bacilaris*	*Thalassionema nitzschioides*	*Thalassionema nitzschioides* var. *parva*	*Trachyneis aspera*	*Trigonium* spp.	*Thalassiothrix acuta*	*Thalassiothrix frauenfeldii*	*Thalassiothrix longissima*	Total counts
				2							3			4					2				4			10					4	10	1			1	1	1	44	36				1	6	205
	2																	4	4												1	4	1						1	13						2	55
				1				1										1	13	2			3		1	1				2	1	2		10				1	1				2			87
																	1	1	4				1			2					2	2		5				2	19	1			1	1		90
1		2		2				1			1							2	26	1			5			10					2	6		6		2	2		50		1		1			205
2		2					1											4	63						11	9					2	5	1	2		5	2		26				1			196
				1			1	1			1							2	68						11	5					7	11		3				3	44						1	203
								1			2			1					87	2			1		9	2						14		3		2			49							206
	3			2										2				1	91				2		5	2						7	1	2					51	2				2	2	208
	1						1					1		6					148				3		1	1		1			3	1		1		2			19							210
	3							4						5					67						15	3						2		1					12							145
				2				3			1			2					65						12	3					8	1	2	4					37							196
	1			1							1			2					128		1				26	2					1			3					12					1	1	208
	1										4			11					112	9					5									2			1		23					1	1	205
							1												134	28					19	1							1	1					12							205
	3			1				1						1			1	2	69	8					13	4					1	7	1	1		1	1		33	9						1	213
	1	1		1				1						3					54	10			1		6						2	6		1					31	5			1			151
	1							2					1				3	4	75	15	2				17	2					4	1				1	1		11					1	2	187
	11			1	1					3	2	2		1					22	2	1				2							18							52	6			1		5	196
																										1						3							13	1					1	28
	2					1													35	5	2				2	1						1		9			1	3	99	2	1			8		216
	1							1						1			1	2	68	12	1				6						1	9		2	1			2	46	1					2	201
	1													4				2	109	31					10	1						1				3	1		16	2						203
																			86	41	1											1							17							160
								1						1				2	92	88	1				1										1				5							203
	4																	2	4	1	1				2	3					2	1							5							46
1	3							2			2			1				1	41	24			1		10	4						8			1	2			25	4			1		1	194
1											1							2	50	17					4	1						6							7		1				4	127
	2																		3	1	1											1				1											20
	2																		26	7					1	4					1	21		1		2			31	4					3	131
1																			4													1					1		1							28
1																		1	10	2					1							9					2		5						2	90
	1													1				1	17	2					1							3							1							39
																		2	3	2																			1							26
																		1																					1	1						25
																																							4							32
	2															1		1	6	2		1	1	1		3						3				1		1	4				1			56
											1																					1							2							8
							1	1			1						1	1	2						3														3							15
								4			3						1		28	6	2				7	8	1				2	3				1			55	7					2	208
											1								7							1													1	1						29
	1															1		1	74	14	2		1		1	5					1	2	1						14	2						136
																		1	1													1							1							10
1											1								2															1					1							13
											1							1																					4							11
							1												20	5				1												1			3	1						41
3								1					1					19	87	15	4				1	6																					204
								2			1					17		2	56	6						3						10	1			10	1		16	25				1	4	200
	2							1			1					2			41	5					1	2						2				1			25	19			1		3	148
	5										10			4		6			4							4						6						1	1	10	20					4	147

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Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	Preservation	Diatom valves (no./g)	*Chaetoceros* spp. resting spores	*Achnanthes* spp.	*Actinocyclus curvatulus*	*Actinocyclus ingens*	*Actinocyclus ochotensis*	*Actinocyclus octonarius*	*Actinocyclus oculatus*	*Actinocyclus* spp.	*Actinoptychus senarius*	*Actinoptychus vulgaris*	*Actinoptychus* spp.	*Asteromphalus flabellatus*	*Asteromphalus robustus*	*Asteromphalus* spp.	*Aulacoseira granulata*	*Aulacoseira italica*	*Aulacoseira* spp.	*Azpeitia nodulifera*	*Azpeitia tabularia*	*Azpeitia vetustissima*	*Azpeitia* spp.	*Bacteriastrum elongatum*	*Bacteriastrum* spp.	*Bacterosira fragilis*	*Biddulphia* spp.	*Chaetoceros decipiens*
167-1018A-																														
14X-6, 70-72	126.50	140.55	G	2.15E+07	73		4										1													
15X-3, 140-142	131.42	145.73	M	2.10E+06	238		3		1				1							1			1							
15X-5, 140-142	134.39	148.70	M	9.18E+06	296		8						4	17																
15X-7, 140-142	137.40	151.71	P	3.85E+06	493	1			1			2	4	2						3										
16X-3, 140-142	142.10	156.58	M	2.48E+06	157		1		2				3	1						2										
17X-2, 140-142	150.20	163.59	M	1.70E+06	80		7				1		4							2	2									
17X-4, 140-142	153.20	166.59	M	7.18E+06	605		1						3							2										
17X-6, 140-142	156.20	169.59	M	2.21E+06	305		49		1		1		2	1							2		1							
18X-3, 140-142	160.12	177.53	P	8.66E+05	93		4		2				4							1								1		
18X-5, 140-142	163.12	180.53	G	1.12E+07	104		3		5				3	3					2	3										
18X-7, 140-142	166.12	183.53	M	3.13E+06	412	1	13		2				6	1	4				2	8										
19X-2, 140-142	169.40	186.81	G	9.14E+06	98		5		1				1	1						1										
19X-4, 140-142	172.40	189.81	M	5.60E+06	203		9		3				11	8					1											1
19X-6, 140-142	175.40	192.81	P	1.76E+06	70		5		1					1					1		1									
20X-2, 140-142	179.00	195.97	M	3.14E+06	150		5		3				1	6						1	1		6							
20X-4, 140-142	182.00	198.97	P	1.45E+06	117		1		5				2	2					3	2			3	1						
20X-6, 140-142	185.00	201.97	P	4.23E+05	71								2						2	1										
21X-2, 138-140	188.58	205.55	M	2.26E+06	486		2		3				2	5						4										
21X-4, 138-140	191.58	208.55	M	5.12E+06	305		7		3				2							2		3								
21X-6, 138-140	194.58	211.55	P	2.09E+06	579		7		5		1						1			4										
22X-2, 138-140	198.18	216.65	M	1.88E+06	156		2																	1		1				
22X-4, 138-140	201.18	219.65	M	3.52E+06	378		2						2							1						1				
22X-6, 138-140	204.18	222.65	M	8.08E+06	253		5													4									1	
23X-2, 133-135	207.73	226.20	P	4.15E+06	403		5						1									1				2				
23X-4, 138-140	210.78	229.25	M	1.58E+06	283		1						9				1			5						4	1			
23X-6, 136-138	213.76	232.23	M	6.85E+06	472		3		1			1	1																	
24X-2, 135-137	217.35	235.82	G	9.05E+06	183	1	3	1									1		2	2										
24X-4, 125-127	220.25	238.72	M	4.47E+06	127		4		4		2		1																	
24X-6, 138-140	223.38	241.85	M	5.35E+06	259		1		1				1							1						3				
25X-2, 139-141	227.09	247.32	M	7.47E+06	229		1		1				4																	
25X-4, 138-140	230.08	250.31	M	1.18E+06	91								5							4										
25X-6, 135-137	233.05	253.28	G	8.42E+06	99		1		1				1							2		3	1							
26X-2, 141-143	236.71	256.94	M	4.13E+06	41		1		2		4		3																	
26X-4, 130-132	239.60	259.83	G	8.15E+06	35		3	1			4								2			2								
26X-6, 117-119	242.47	262.70	M	9.51E+06	94		5		4											1										
28X-2, 128-130	255.78	275.49	M	4.15E+06	447		7		2		1		6									1				1				
28X-4, 137-139	258.87	278.58	M	7.19E+06	132		11		2				1							1										
28X-6, 138-140	261.88	281.59	«	1.34E+06	193		4		1																					
29X-2, 138-140	265.38	285.09	M	4.26E+06	137		6		4		2		1							2										
29X-4, 130-132	268.30	288.01	M	7.47E+06	351		13		4											1			2							
29X-6, 141-143	271.41	291.12	M	7.20E+06	229		9		3				5									2								
30X-2, 129-131	274.99	294.68	M	1.35E+06	141		8		2				2							4		1								
30X-4, 138-140	278.08	297.77	M	8.37E+06	182		13	1	7				2							1		3								
30X-6, 138-140	281.08	300.77	M	4.68E+06	667		9		7				8			1				2										
31X-2, 134-136	284.64	304.33	M	7.91E+06	201		12		8				1									2								
31X-4, 133-135	287.63	307.32	M	1.65E+07	179		8		2																					
31X-6, 136-138	290.66	310.35	M	7.27E+06	196	1	14		4		3																			
32X-2, 135-137	294.35	314.04	M	9.00E+06	85		38		8		1									1										
32X-4, 140-142	297.40	317.09	G	1.45E+07	189		13		8		1																			
32X-6, 138-140	300.38	320.07	M	6.75E+06	214		23		8		1		4									3								
33X-2, 139-141	303.99	323.68	M	6.81E+06	103		34		17		3													2						
33X-4, 138-140	306.98	326.67	G	1.75E+07	38		39		16		4					1														
33X-6, 136-138	309.96	329.65	M	1.08E+07	171		10		7		3																			
34X-2, 138-140	313.60	333.29	M	2.83E+06	290		13		10		1		1						1											
34X-4, 136-138	316.56	336.25	M	8.42E+06	415		4		2		1																			
34X-6, 140-142	319.60	339.29	M	5.26E+06	396	1	18		4		1		2							3		2								
35X-2, 139-141	323.19	342.88	M	1.08E+07	177		3															1								
35X-4, 138-140	326.18	345.87	M	8.26E+06	211		6		7																					
35X-6, 137-139	329.17	348.86	M	3.64E+06	206		2		3									1				6								
36X-2, 138-140	332.88	352.57	M	6.59E+06	204		4		4				6									1								
36X-4, 138-140	335.88	355.57	P	3.78E+06	200		1		1				2									4	1							
36X-6, 138-140	338.89	358.58	M	2.59E+06	220	1	1		3	1			2					1				6		1						
37X-2, 138-140	342.58	362.27	P	3.48E+06	84		2		1				2												3					
37X-4, 136-138	345.56	365.25	P	7.68E+06	100		4						1									10		3						
37X-6, 143-145	348.63	368.32	P	4.19E+06	105		6		2		1		1							1				1						
38X-2, 140-142	352.30	371.99	M	2.31E+06	151				6		1		1									17			4					
38X-4, 142-144	355.32	375.01	P	2.95E+06	185		4		1		1		7						1			4			4					
38X-6, 139-141	358.29	377.98	M	4.98E+06	61		3		1		1		12						2			7		1	2					
39X-2, 137-139	361.87	381.56	P	1.51E+06	48		5		2				1							1		6								
39X-4, 138-140	364.88	384.57	M	7.88E+06	65		6																		1					
39X-6, 135-137	367.85	387.54	M	1.03E+07	70	1			4	1		1	1							1		1								

Note: M = moderate, G = good, P = poor.

Azpeitia nodulifera	Azpeitia tabularia	Azpeitia vetustissima	Azpeitia spp.	Bacteriastrum elongatum	Bacteriastrum spp.	Bacterosira fragilis	Biddulphia spp.	Chaetoceros decipiens	Cocconeis californica	Cocconeis costata	Cocconeis disculus	Cocconeis pellusida	Cocconeis placentula	Cocconeis scutellum	Cocconeis spp.	Coscinodiscus nitidus	Coscinodiscus marginatus	Coscinodiscus radiatus	Cyclotella bodanica	Cyclotella caspia	Cyclotella spp.	Cymatosira immunis	Cymbella spp.	Delphineis ischaboensis	Delphineis sachalinensis	Delphineis surirella	Delphineis spp.	Denticulopsis spp.	Diatoma spp.	Dimerogramma minor	Diploneis spp.	Epithemia spp.	Eunotia spp.	Fragilaria brevistriata	Fragilaria capucina	Fragilaria construens	Fragilaria spp.	Fragilariopsis doliolus	Gomphonema spp.	Grammatophora hamulifera	Grammatophora oceanica	Grammatophora spp.
																	1	1																								
	1									1	1														1	5		1									3	1	1			
										2								3								2						1			3				2			
										3	1			1				4	1	1					2	7														1		
										1			1				1								1	10							1						1			
										3	3														1	4		1		1		1		1	2			1	1			2
												14						4								4													1			
	1										1							7					3		3	5																2
						1												4								2	1	1											1			
										1							5								5	3						1								1	2	
										1					2		1	2							3	4									2			1	1	4		1	
																	5								1	2							1										1
								1		2	1						4								15	6																	
										1	1						3	1					1		1	1																	
	6									1	2						1			1			1			3																	
	3	1								2	1														1	2							2	1									
										1	2														1																		
									1	1	3							2							7	3							1					1		1		1
3											2							3								2		1											2				
										2	3			2			1								2	9							1		2							1	1
		1		1						4	1		2					1		1					1	4						1	1	1					3				
				1						1					2								1		3	9						2			2				1	2		1
							1			3	2					2		1	1						1	7		1		1		1		1						2			
1				2						1	3												1		1	6	1																1
				4	1					1	1			1											4	4	2					1							1	2			
										2					1			2							2										1								
																	2	1	3							2													1				
										1	1						1	1					1			2				2					2							1	
				3						1	1		1												4	11	1				1				1		1		1		1	
										1					14			4							1	1		1											1				1
											1						1	1					2			2							2										
3	1									1	1							1							1	6							1						2			
										2	1						1	1					1		3	2	1									1			1			1	
2													1				1									2		1					4										
												1					1	2								4							1	1	1						1		
1				1						4	1						1	2	1						1	2					3	1	1										
										2															1	1		2							2							1	
										3							1	1	1	1	1					4		1					1			1							
										3									1			1				2						1								1			
	2									1			1	1												3							1											1
2										2			1				2	1					1			2						1										1	
1											1						1									1		3		1		2							2				
3										1															1			1															1
									1	1	4						7	6			5		1	1		1						1										1	
2										1	1		1													2		1				1									1		
										1							2									1																1	
										1					2		2	1							1	1						1								2			
													1				1			1						6																	1
										1		1					4							1							1	1	1		1					1			
3																	8									2		1					1					1					
		2							1	1			1				3									1		1														2	
										1			1				2				1																						
													1	1			4	2								2	1																	
										3	1		1				2									1					1				1		1						1
										1							1				1				1	2																	
2										1			1				4								1	2							1		1			1			1		1
1										1			1				1									3		1															3
										1			1				9									1						1											
6										1				2			10						1		2	2							1										1
1										1	3			2			27																1					1					
4	1									1							21	1					1		1			1					1					2					
6		1							1								9								4	3		3				1										1	
			3							3					1		10								1			1														1	
0		3												1			7	2							1	2	2																
		1									1						12				1				1	1																	1
7			4										1				16						1		3							1									2		
4			4						1	1	1		1		1		14	1					2		2	3		1		1		1				1	1	2				2	
7		1	2							2							11						2		3							1	1										
6									1					2			19	2			1					3		1															
			1														2									1							1			1							
1													1		1		3									1																	

Table 4. Distribution chart of diatom species from 3.00 to 0.78 Ma at Site 1018.

Fragilaria capucina	*Fragilaria construens*	*Fragilaria* spp.	*Fragilariopsis doliolus*	*Gomphonema* spp.	*Grammatophora hamulifera*	*Grammatophora oceanica*	*Grammatophora* spp.	*Hemidiscus cuneiformis*	*Hemidiscus ovalis*	*Martyana martyi*	*Martyana schwalzii*	*Melosira architectualis*	*Melosira varians*	*Melosira* spp.	*Meridion* spp.	*Navicula* spp.	*Neodenticula kamchatica*	*Neodenticula koizumii*	*Neodenticula seminae*	*Neodenticula* sp. A sensu Akiba and Yanagisawa	*Nitzschia bicapitata*	*Nitzschia dietrichii*	*Nitzschia fossilis*	*Nitzschia granulata*	*Nitzschia interruptestriata*	*Nitzschia kolaczekii*	*Nitzschia marina*	*Nitzschia palea*	*Nitzschia paleacea*	*Nitzschia reinholdii*	*Nitzschia rolandii*	*Nitzschia sicula*	*Nitzschia* spp.	*Odontella aurita*	*Opephora martyi*	*Opephora schwalzii*	*Paralia sulcata*	*Pinnularia* spp.	*Planktoniella sol*	*Podosira pseudodenticulata*	*Porosira glacilis*
																			156						1		1							1			3				
		3	1	1												2			46									1					1			2				
			2										1						131	1							1							1							
				1							1			1				1	47								1							1		1					
			1													1			29					1						1							2				
		1	1			2													32		1									1							2				
			1													1			111										1					1							
						2										1			53								1	1						1			3				
			1						1							1			19				3					1		1							3				
					1	2		1										1	108		1		2															1	1		
		1	1	4		1										2			49									1						1			1				
							1											2	136	3								1													
								1										1	83	2																	4				
										1					1	1		1	21														1		1			1			
												1				1		1	41									2				1		1							
																1			62				1					1						4			1				
																			3																		3				
		1		1		1													14		1													7			5	1			
			2															3	83											9				7							
						1	1				1					1	1		53								1	1					1	3		1	1				
			3																75									1		2							2	1			
			1	2		1													55								1	1	1					2			3				
				2						1									37											3			1	4	1		8		1		
							1												83							1	1					1		4							
			1	2				1		1									19								11	1		2			1	1	1						
																			73	2							1			1			1	1			1				
			1							1									121				1									1	1		1						
						1										1		2	90								1	1		1											
	1		1		1														82	2			1				1	1		4				2			1				
			1				1	4		1									102	5										3					1		2				
																1	1	2	40				1							1							3	1			
			2															3	70	2			2				2			3				2					1		
			1			1		1										33	100	4								1													1
																		47	55	9										1											
					1				1									8	115											5											
																		97	11	3								1		1	1						1				
						1										1		55	7	19													1								
1																1		14	2				2				1							1							
				1												1		60	12	9			1																		
							1											87	9	13										1							2	1			
						1												38		10	1						1													
				2														6		1	1	1	2	1			1										1				
							1											34	9	2							1						1								
						1		2										27		3			2		1			1		3							2				
					1													70									1	1													
						1												79	2	5																					1
				2									1					40	10	1										1								1			
							1											35	4																						
				1				1										24	2																						
		1																41		2			2																		
						2												33	5	4			1				1			2											
																		82	1				2																		
																		75	11				3							1							2	1			
	1						1									1		35					1																		
												1						37	2	6			1				1											1			
		1			1		1									1		43			1	1	1				1			2							2				
							3	1										37					1	1				1									2				
																		87		3								1									1				
							1									2		23					2																		
		1						1										55					1	1										1			1				
		2								1								60				1	2				1									1					
						1		3						2				29					4	2			1					1					1				
						1										1		37	1	1	2	1											1			12				
																		42		1	1			1								2					1				
							1									2		41															2								
					2									2			2	47		5			1														9				
1	1	2				2										1		30		1							1										6				
								1								1	3	41		2			1					1				1	1				3				
																	15	14					3														2				
																	3	95					2										1				4				
																	3	93																							

This table also appears on the volume CD-ROM.

Nitzschia reinholdii	*Nitzschia rolandii*	*Nitzschia sicula*	*Nitzschia* spp.	*Odontella aurita*	*Opephora martyi*	*Opephora schwalzii*	*Paralia sulcata*	*Pinnularia* spp.	*Planktoniella sol*	*Podosira pseudodenticulata*	*Porosira glacilis*	*Proboscia alata*	*Proboscia barboi*	*Proboscia curvirostris*	*Pseudopodosira elegans*	*Pseudopyxilla americana*	*Rhabdonema* spp.	*Rhaphoneis amphiceros*	*Rhaphoneis margaritalimbata*	*Rhizosolenia calcar avis*	*Rhizosolenia bergonii*	*Rhizosolenia hebetata*	*Rhizosolenia matuyamai*	*Rhizosolenia setigera*	*Rhizosolenia styliformis*	*Rhizosolenia* spp.	*Rhoicosphenia* spp.	*Rhopalodia gibba*	*Rhopalodia* spp.	*Roperia tesselata*	*Stephanodiscus astreae*	*Stephanodiscus astreae* var. *minutula*	*Stephanodiscus rhombus*	*Stephanodiscus* spp.	*Stauroneis* spp.	*Stephanopyxis turris*	*Stephanopyxis* sp. A	*Stephanopyxis* sp. B	*Stephanopyxis* spp.	*Surirella* spp.	*Synedra indica*	*Synedra jouseae*	*Synedra ulna*	*Synedra* spp.
				1			3						1	1							2	3														11									
			1				2											1	1													1			1	100	8		7						
				1									1						1			1			1											10	1								
				1		1							1		1							1								1						68			1		2				
1							2						1					2	2											1						96	14								
1							2											3	1						1					1					1	62	3				1				
				1								1	2						1			1			2											41	2		2						
				1			3						1	1				2						1						1	1				1	22	2	2	1						
1							3						1	1									2		1														1					1	
								1	1								1		1						2											25			5						
				1			1						1					2	1			2	2		2							1				32			2					1	
														3					1																	19	3								
							4					1		2				2			2				1											20	3								
			1		1			1					6	6					1			5														76	6		2				1		
		1		1									3	2	1			1			1				5						2	1				81	12		2						
				4			1						1	4					2						1											27									
							3						4	3																				1		10									
				7			5	1				1	9						1			1			9			1								75	4		3						
9				7									1									2			1						2		1			6									
			1	3		1	1											1	3			1									3		1			58	2							1	
2							2	1													2					1						1			16									
				2			3						4						2			3										1			37		2			1			1	
3			1	4	1		8		1			1	1					2	1	1					7									1	21	1								
		1		4																1		2			3							2			7		1							
2			1	1	1								6								1	1													12			2					2	
1			1	1			1						1						1		1	5			2				1			2			17									
		1	1		1																										1				11			1						
1																		1	2																12			1						
4				2			1					1	2						2													1			12				1					
3					1		2						2					2	1		1				2						1	1			10									
1							3	1					1						1						2							1	1		10									
3				2					1			1	4					1	1						1							3			9									
											1		6												1						1				10									
1																						1							1		1				41			2					2	
5												1	1							1				1											11		1							
1	1						1						1						1						1										4									
			1																3								1								29									
				1									2					1																	21									
																		1				1			4			1							20	4		1		1			1	
1							2	1					1						1			1													12	1		1						
													1											1	1									2	13									
							1						1											1	1										38								1	
			1									1	4		1			1		1		1			3										30									
3							2						12					1			1	2			1							1			20	1		1	1					
																						2		2										13	1								
										1														1	3									18									
1								1				1	2											2		1								26	3								
													2																						32	1								
													1												1										25		1							
													4					1				1					1								20									
2																																			27									
																						1		1	1										22			2						
1							2	1					3					1				1									3				31	2	1	1			1		1	
													4											1									1	1	57			1						
								1					2									1			2				1	2					52	3		3						
2							2						2									1			2		1								39									
							2						2																						11			1						
							1						2									3									1				20			1						
													5																1						33									
				1			1						3																				1	1	9				1					
					1							1	4									1			1										40									
	1						1					1	4									1			1										39									
			1				12						2					1	3			2		5		2					1				23	1		4					1	
	2						1						2									6		1							3				39			3						
			2									1	4											1											54		1	4		1			1	
							9						11			2		1				3										2			32			2						
							6						5		1	1			1					2	2						1	1			39			1	1					
		1	1				3						4									1		4	1								1	22									
							2						5									2		3	1									23			1						
			1				4						2					2			1			1	1									10									
												1	2			1			2			4		1	1						1				14									

	Stephanopyxis sp. A	*Stephanopyxis* sp. B	*Stephanopyxis* spp.	*Surirella* spp.	*Synedra indica*	*Synedra jouseae*	*Synedra ulna*	*Synedra* spp.	*Thalassiosira anguste lineata*	*Thalassiosira antiqua*	*Thalassiosira convexa*	*Thalassiosira decipiens*	*Thalassiosira eccentrica*	*Thalassiosira jouseae*	*Thalassiosira leptopus*	*Thalassiosira lineata*	*Thalassiosira nidulus*	*Thalassiosira noedensliolldii*	*Thalassiosira oestrupii*	*Thalassiosira* cf. *oestrupii*	*Thalassiosira plicata*	*Thalassiosira* cf. *simonsenii*	*Thalassiosira symbolophora*	*Thalassiosira symmetrica*	*Thalassiosira trifulta*	*Thalassiosira* spp.	*Thalassionema bacilaris*	*Thalassionema nitzschioides*	*Thalassionema nitzschioides* var. *parva*	*Thalassionema* spp.	*Thalassiothrix acuta*	*Thalassiothrix frauenfeldii*	*Thalassiothrix longissima*	*Triceratium barbadens*	*Triceratium* sp.	*Trigonium alternans*	Total counts
1												10							4				1					11	1				4				218
0	8		7							2		2		3		1			4					2				3									209
0	1												1			1			9					2				5					1				211
8			1		2					1		1	2		1	1		1	9						1			10			1		2				191
6	14									1		1	4			1			7						1			6			2		7				205
2	3				1							2	4						3							1		8			2		3				169
1	2		2							1		1						1	14	1					1			3			1						218
2	2	2	1									2	1						11								1	18					3				209
			1					1		1		1	1						5			2		1				11			1		5			1	86
5			5							3		1	5	2			1		11			1				14					1		1				226
2			2					1		1									18			1						9			1		4				193
9	3												1	3					10									1			1		3				206
0	3									1		1	3						3									2	8				10				211
6	6		2				1			3		1	2						8									4			4		5				175
1	12		2							1									7							1		4			1		3				208
7										2		1							3									3					2				144
0																			4						1			3	1								42
5	4		3							2		4	6	1					9									13				1	6				211
6												1	1			4			14	1								37					7				207
8	2							1		2		2	5						6	1								6	2		1		8				208
6										1			4				1		9				1					5			2	1	38				187
7		2			1			1		1			4			3			4									40	2		1	2	14				215
1	1									1									49						1	1		24	1		1	1	4		1		208
7		1								9		10				4			6	1						4	1	23	2		4	2	11				206
2			2					2				2	3	1		2			6									36	3		1	1	3				157
7									1	2		1	2		1	2			50								1	20			1		3				208
1			1							2				1		3			6									35	1				3				208
2			1							4		4	1			5			3					2	3	1		51	4				9				222
2				1						6		2				2			7					1				43				1	3				209
0										2							1								1		1	27	1		1		5				206
0										1		1	2			1			2								1	17	1		1	1	5				117
9										4			4			1			21							1		46	1		1	1	2				209
0										1		1		1		1			9									6	1				2				205
1			2					2		6			3	1		2			7							1		6	1				2				210
1		1														2			4						1			30			2		3				210
4										4		2							7					1				28	1	1	1		4				206
9										26		2	1					1	9						4		1	18			1		2				205
1										7						1			12									43	1				3	1			133
0	4		1		1			1		20			1				1		15						2		1	17	1			1					200
2	1		1							5						1			17									24					1				206
3										4		1		1					13	1					1	1	1	81	5		1	1	3				212
8							1			4			2	1	1	1			5								1	33			1		1				134
0										27		1	4	2		3		1	20						2			23			1						204
0	1		1	1						2			3						12									48					12				215
3	1									9						1			5									69	2				4				211
8										14		1	3		4	1			6						1			56		1		1	1				213
6	3									15		1	2			1	2	1	15								1	44	3		1	2	4				214
2	1									7						1			13	2							1	42	3			1	5				207
5		1								9			2			2		1	10	1								89	4		1	1	4				213
0										4			2						15	1					2			50	1				6				205
7										7		1						1	11						1			40	3				10				213
2			2							1									16									10	4				1				209
1	2	1	1			1		1		1				1	3				5			1				4		19	1				5				209
7			1							2						2			13						1			32	1				12				204
2	3		3							19		2	2						23						1		2	28			2		2				209
9										16			2			3			20									20	2				8				213
1			1							11						3			7									111	3				2				208
0			1							16		1				2			12									29					4				209
3										8					1	1			3									79	3				11				204
9				1						15						3			20						1		1	26	3			1	11				206
0										16			1			3			6	1								20				1	7				205
9										1	1		2						4									55	1		1	1	19				212
3	1		4					1		17		2				1			7		1	1				1		43	1		1	3	4				208
9			3							20			1			1			9						2	1	1	41	2			2	4				219
4		1	4		1			1		25	2								9									27			1	1	2				208
2			2							2		1							12									13	1		2		5				208
9			1	1						16					1	1			9									28	1		2		4				214
2										17									16							1	2	25	1		1	1	3				204
3			1							10						1			12									6	4		1		3				150
0										9			1				1		29									23	1				5				203
4										2	1		1						20						1			36				1	2				203