Core, section, interval (cm)	Top depth (mbsf)	Bottom depth (mbsf)	Geologic age	Zone	Group abundance	Preservation	Dissolution	Overgrowth	Bathymetry	Sample preparation	Beella digitata Globigerina bulloides Globigerina bulloides umbilicata	Globigerina clarkei Globigerinita glutinata	Globigerinita iota Globigerinita uvula minuta Globigerinita uvula uvula	Globigerinoides ruber Globorotalia inflata	Globorotalia scitula Globorotaloides hexagonus	Neogloboquarina pachyderma (egr-coling) Neogloboquadrina pachyderma (right-colling) Orbulina bilobata	Orbulina suturalis Orbulina universa Trakvacalita animalaka	I urborotalita quinqueloba	Environment	Description of sand-sized fraction
169-1038A- 8R-CC, 17–19	67.57	67.59	_	Not assignable	Few	Poor	Strong	Brown tint	Neritic	Sieve	R				R	R	I	R S	Semi-lithified turbiditic mud	Abundant lithified silt lumps with mica, pyritized organic matter, few radiolarians, planktonic and benthic foraminifers that are brown and often flattened and/or distorted in shape.
9R-CC, 10–12 11R-CC, 11–13 12R-CC, 17–19		76.95 95.53 105.09	_	Not assignable	Few Barren Rare	Poor Poor	Strong — Strong	Brown tint — Brown tint		Sieve Sieve Sieve	R — — —				:	R 		_ (Semi-lithified turbiditic mud Cemented turbiditic sand Turbiditic sand	Cemented silt lumps, mica, strongly altered foraminifer assemblage. Mineral sand frosted with white cement. Mineral sand frosted with white cement, deeply colored, shapeless foraminifers.
169-1038B- IR-1, 0-2 2R-CC, 16-18 3R-CC, 17-19 4R-CC, 36-38 5R-CC, 13-15 6R-1, 73-75 7R-CC, 14-16 8R-CC, 17-19 9R-CC, 11-13 11R-CC, 11-13 12R-1, 34-36 13R-CC, 17-19	0.00 10.56 14.57 24.56 34.54 44.33 54.90 64.26 73.03 91.94 101.54	0.02 10.58 14.59 24.58 34.56 44.35 54.92 64.28 73.05 91.96 101.56			Barren Barren Barren Barren Barren Barren Barren Barren Barren Barren					Sieve Sieve Sieve Sieve Sieve Sieve Sieve Sieve Sieve Sieve Sieve Sieve Sieve Sieve								_ I	Hydrothermal sediment sand-sized drilling rubble Semi-lithified turbiditic mud Turbidite sand Turbidite sand LIthfied turbiditic silt	Tar balls, pyrrhotite, brown volcanic glass, micas, anhydrite crystals, white mud lumps, and bladed crystal masses of pink, lavender, yellow, and clear. Coarse sand of drilling pebbles made of sulfides including pyrrhotite, gypsum or anhydrite, lithified lumps of khaki and white silt and clay. Sulfide and anhydrite chunks, khaki-colored semi-lithified lumps of silt and clay. Lithified chunks of clay with pyrite crystals and gypsum(?), pyrrhotite?, and khaki-colored lumps of silt and clay. White semi-lithified silt and clay lumps. White semi-lithified clay and silt lumps, trace of pyrite. White semi-lithified clay and silt lumps. White semi-lithified lumps of silt and clay, with minor mica, orange earthy flakes, and sulfide. White semi-lithified silt lumps with mica flakes and pyritized organic matter. White very fine mineral sand frosted with white material and mica. White mineral silty sand, grains frosted with white. Some mica and earthy white lumps. Lithified silt lumps, some are white, and some are khaki colored.
1R-1, 0–2 2R-CC, 11–13 3R-CC, 12–14 4R-CC, 5–7	0.00 14.71 23.67 32.86	0.02 14.73 23.69 32.88	_	_ _ _	Barren Barren Barren Barren			_ _ _	_	Sieve Sieve Sieve								_	Sulfide cap rock Semi-lithified turbiditic mud Semi-lithified turbiditic mud Turbiditic sand	Mineral sand, sulfides including pyrrhotite, tar balls, unusual minerals, and radiolarians. Semi-lithified white silt lumps with grains of sulfide. White semi-lithified silt lumps with sulfide grains and anhydrite? Very fine white sand with brown mica and a little sulfide.
169-1038D- 1R-1, 0-2 1R-CC, 15-17 2R-CC, 12-14 3R-CC, 17-19 4R-CC, 22-24 169-1038E- 4R-CC, 16-18	0.00 1.61 15.35 25.17 34.42	0.02 1.63 15.37 25.19 34.44	= = = = = = = = = = = = = = = = = = = =		Barren Barren Barren Barren Barren			— — — — Brown tint	_ _ _ _	Sieve Sieve Sieve Sieve Sieve						 		_	Semi-lithified turbiditic mud Semi-lithified turbiditic mud Semi-lithified turbiditic mud Semi-lithified turbiditic mud Semi-lithified turbiditic mud	Semi-lithified silt and clay lumps with minor mica and sulfide grains. Semi-lithified silt and clay lumps with minor sulfide and anhydrite. Semi-lithified silt and clay lumps. Semi-lithified silt and clay lumps with minor anhydrite and sulfide. Semi-lithified silt and clay lumps with minor sulfide (pyrrhotite) and anhydrite. Semi-lithified silt lumps with minor sulfide, rare planktonic foraminifers, and few benthic foraminifers both of which are chalky and some are
169-1038F-									_											discolored. Light orange pollen, black stuff that looks like vascular plant matter, and framboidal pyrite.
1R-CC, 10–12 2R-CC, 10–12	0.10		Holocene —	CD1	Rare Rare	Poor Poor	Strong Strong	Brown tint	Abyssal Neritic			R	F	₹		R R R	RI		Turbiditic mud Turbiditic mud	Very little in the sand-sized fraction. Framboidal pyrite dominates, some may be pyritized organic matter, with mineral grains, radiolarians, planktonic and benthic foraminifers. Pyritized material most abundant, chalky benthic foraminifers, some discolored planktonic foraminifers that are very hard to identify due to their poor
3R-CC, 18–20 4R-CC, 14–16		23.39 29.18	— Holocene	CD1	Barren Few	Poor Poor	Strong Strong	Brown tint Brown tint		Sieve Sieve		<u>R</u>							Semi-lithified turbiditic mud Semi-lithified turbiditic mud	condition. Semi-lithified silt and clay lumps with chalky and discolored benthic foraminifers, rare diatoms, and radiolarians. Semi-lithified silt and clay lumps, framboidal pyrite, mica, and discolored foraminifers.
169-1038G- 3H-CC, 15–17	32.75	32.77	_	_	Rare	Poor	Strong	Brown tint	_	Sieve							I	R S	Semi-lithified turbiditic sand	Cemented and recrystallized fine sand lumps, black organic matter, very gassy core! Some foraminifers are clearly recrystallized with crystals growing larger!
4H-CC, 52–54 5H-CC, 49–51		42.26 48.68	_	_	Barren Rare	Poor	- Strong	Brown tint Crust		Sieve Sieve					R	 ?	 1		Semi-lithified turbiditic mud Semi-lithified turbiditic sand	Semi-lithified fine sand and silt lumps with rare brown tinted benthic foraminifers, a few crystal masses, rare framboidal pyrite, and white frosting on some pieces. Cemented and recrystallized silt and fine sand lumps with a trace of mica, clear sand grains, trace of framboidal pyrite, trace of blackened organic
6X-CC, 22–24 7X-CC, 36–38	56.50 66.42	56.52 66.44	=	_	Barren Barren	_	_	_	_	Sieve Sieve	= = =				= = :	===		_ 5	Semi-lithified turbiditic sand Semi-lithified turbiditic sand	matter? recrystallized white planktonic foraminifers in the 63–150 micron fraction. Sand and silt cemented into sand-sized lumps, minor sulfide masses, brown mica, and earthy orange material in very fine sand fraction. Mineral sand and silt cemented into sand-sized lumps with pyrite lumps and pyritized <i>Globobulimina pacifica</i> .
8X-CC, 37–39 9X-CC, 32–34	80.02	71.06	_	Not assignable	Common	Poor —	Strong —	Crust	_	Sieve	A — — –					? 		_ \$	Semi-lithified turbiditic sand Semi-lithified turbiditic sand	Mineral sand cemented into sand-sized lumps, with fine sand as individual grains, brown mica, and highly recrystallized benthic and planktonic foraminifers in very poor condition. Cemented mineral sand with white frosting, brown mica, and green minerals in the very fine sand.
10X-CC, 35–37 11X-CC, 19–21	99.09	90.15	_	_	Barren	_	_	_	_	Sieve								_	Semi-lithified turbiditic sand Semi-lithified turbiditic sand	Semi-lithified very fine sand and silt lumps, pyritized foraminifers in poor condition (<i>G. pacifica</i>), mica, and wood(?) pieces that look pyritized, a sphalerite(?) crystal. Semi-lithified lumps of silt and fine sand, and brown mica.
13X-CC, 18–20 14X-CC, 26–28 15X-CC, 31–33		118.40 128.08 137.73	_	_ _ _	Barren Barren Barren		_	_	_	Sieve Sieve Sieve								- 1	Turbidite sand Turbiditic sand Semi-lithified turbiditic sand	Medium sand. White mineral sand with rare heavy minerals. Semi-lithified sand with white frosting, anhydrite(?) crystals, and pyrite.
169-1038H- 1X-1, 0-2 1X-CC, 8-10 2X-CC, 28-30 3X-CC, 19-21 4X-CC, 33-35 5X-CC, 32-34	0.00 5.03 15.08 25.73 35.75 47.77	0.02 5.05 15.10 25.75 35.77 47.79		Not assignable	Barren Barren Barren Common Rare	— — — — Poor Poor	Strong Strong	Brown tint		Sieve Sieve Sieve Sieve Sieve				 				— S — S R S	Semi-lithified turbiditic mud Semi-lithified turbiditic mud Semi-lithified turbiditic mud Semi-lithified turbiditic silt Semi-lithified turbiditic sand Semi-lithified turbiditic mud	Semi-lithified silt and clay lumps, a worm tube and two organic pieces, rare orange radiolarians, framboidal pyrite, brown mica, orange earthy bits, and black organic matter(?). Lithified silt and clay lumps, trace of sulfide, mica, large 1-cm pieces failed to disaggregate. Recrystallized mud lumps with gypsum or anhydrite(?), and tiny sulfide lumps that are crystalline in form rather than framboidal. Silt semi-lithified into sand-sized lumps and very fine sand-sized pyrite crystals. Mineral sand with white cement and common foraminifers, brown and green micas, and pyrrhotite. Silt and clay lithified into sand-sized lumps, mica, pyritized organic bits, and radiolarians. Some framboidal pyrite looks like molds of planktonic
6X-CC, 12-14 7X-CC, 2-4 8X-CC, 29-31 14X-CC, 36-38 16X-CC, 22-24 20X-CC, 26-28	58.42 68.29			_ _ _ _ _	Few Rare Barren Barren Barren	Poor — — — — — — — — —	Strong — — — — —	Brown tint		Sieve Sieve Sieve Sieve Sieve	R				=	R R 		_ 5	Semi-lithified turbiditic sand Semi-lithified turbiditic mud Semi-lithified turbiditic mud Semi-lithified turbiditic mud Semi-lithified turbiditic sand Turbiditic mud	foraminifers. Semi-lithified lumps of fine sand and silt, brown and green micas, black organic(?) bits, and very recrystallized planktonic foraminifers. Silt and clay lithified into sand-sized lumps, brown mica, pyrite crystals in fine fraction, and recrystallized foraminifers. Silt and clay lithified into sand-sized lumps, white and brown micas, black organic(?) bits, and pyrite grains in very fine sand fraction. Silt and clay lithified into sand-sized lumps and pyrite grains_ Mineral sand with abundant pyrite grains, tiny perfect quartz crystals, gray and some white lithified silt, and clay in sand-sized lumps. Large lithified lumps 1 cm in diameter. Clay lithified into sand-sized lumps with very fine sand-sized sulfide, and one agglutinated benthic foraminifer in good condition; downhole contamination???
169-1038I- 1X-1, 0-2	0.00	0.02	_	_	Rare			_		Sieve						R R			Hemipelagite	Agglutinated benthic foraminifers, radiolarians, diatoms, sponge spicules, organic bits, and mica.
1X-2, 63–65 1X-CC, 13–15	2.13 5.90	5.92	Holocene —	CD1	Common Rare	Good	Moderate Weak	None None	Neritic	Sieve Sieve	С	F		R	R	C C R		7	Hemipelagite beneath base of turbidite Turbiditic sand	Planktonic foraminifers dominate with radiolarians, few mineral grains. Mica dominates with very fine mineral sand, with minor framboidal pyrite, pollen, organic bits, rare benthic foraminifers, diatoms, sponge spicules, and radiolarians.
2X-1, 125–127 2X-CC, 18–20 3H-1, 0–2 3H-CC, 76–78	17.30	10.57 I 13.02 17.32 27.84	Holocene — —	CD1 — —	Rare Rare Barren Rare	Good —	Moderate Weak — Moderate	None None None	Neritic Neritic	Sieve Sieve Sieve	C 	-	_			R — —		_ 1	Mud turbidite beneath base of turbidite Turbiditic mud Turbiditic mud beneath base of turbidite Turbiditic mud	Framboidal pyrite most abundant in very tiny sand-sized fraction. Vascular plant debris, radiolarians, mica, and trace of diatoms. Framboidal pyrite dominates with organic bits, radiolarians, diatoms including <i>Isthmia</i> , and rare benthic foraminifers. Framboidal pyrite dominates with vascular plant debris, mica, trace of diatoms, pollen, and thin-walled nertice benthic foraminifers. Mica dominates with radiolarians, organic bits, diatoms including <i>Arachnoidiscus</i> , a few orange planktonic foraminifers, and minor mineral sand in the
4H-2, 112–114		29.44	_	_	Rare	—			Neritic			R	F	2		ic.	1		Turbiditic mud beneath base of turbidite	very fine range.
4H-CC, 32–34 5H-CC, 22–24 6H-1, 2–4	36.94 46.26 45.82	36.96 46.28 45.84	olocene(?)	CD1(?)	Barren Common —	Poor —	Strong	None		Sieve Sieve Sieve						C R _		1	Turbiditic mud Turbiditic sand Turbiditic mud or hemipelagite beneath	Mica, organic debris, framboidal pyrite, and pale orange pollen. Mineral sand with mica, green earthy mineral, <i>E. smithi</i> fauna, black and clear volcanic glass, and common benthic foraminifers. Mud lumps; rewash.
6H-CC, 27–29 7H-1, 17–19		53.73 55.49	_	_	Barren Rare	_	_	_		Sieve Sieve									base of turbidite Turbiditic mud Turbiditic mud or hemipelagite beneath	Little in sand-sized fraction. Mica, framboidal pyrite, orange pine pollen, and blackened organic bits. Almost nothing in the sand-sized fraction. Dominated by framboidal pyrite, a few mineral grains (gypsum?), and orange pine pollen.
7H-CC, 31–33 8X-CC, 58–60 9X-CC, 8–10	65.22 74.61 78.19	65.24 74.63		 CD1(?)	Barren Barren		 	— — Brotuboronoo		Sieve Sieve	= = =				===		_ = =	- 1	base of turbidite Turbiditic mud Turbiditic mud Turbiditic mud	Semi-lithified mud silt and clay lumps with a few blackened organic bits. Very little in the sand-sized fraction. Semi-lithified mud lumps, framboidal pyrite, blackened organic bits, mica, and dark orange pollen. Sand-sized lithified lumps of silt and clay with white frosting cement, mica including brown, and brown and crusted foraminifers.
10X-CC, 12–14 11X-CC, 27–29	84.26	78.21 He 84.28 102.85	olocene(?)	— —	Common Barren Rare	Poor Poor	Strong Strong	Protuberance — Brown tint	_	Sieve Sieve Sieve	$-\frac{c}{R}$					- - -	1	_ 7	Turbiditic mud Turbiditic sand Turbiditic mud	Sand-sized infinited lumps of sit and clay with white frosting cement, mica including brown, and brown and crusted foraminiters. Carbonate nodules and mineral sands. Extraordinary number of Globobulimina pacifica. Some are flattened, some are sugary, and some are brown. Pyritized and blackened organic matter, lithified silt lumps, and mica.
12X-CC, 5–7 16X-CC, 31–33	103.69 142.01	103.71 142.03	_	_	Rare Barren	Poor	Strong	Crust	_	Sieve Sieve						 			Turbiditic mud Turbiditic sand	Semi-lithified clay lumps with mica, recrystallized benthic and planktonic foraminifers too poorly preserved to identify readily, and all white! Framboidal pyrite with peacock colors, white cement. Mineral sand.
17X-CC, 30–32 18X-CC, 37–39	152.89	152.91	_	_	Barren Barren	_	_	_		Sieve Sieve								_ I	LIthified Basalt sill	Lithified silt and clay lumps of sand size, framboidal pyrite in the very fine sand fraction, trace of organic debris, and rare flattened and recrystallized benthic foraminifers. Basalt pebbles and recrystallized clay lumps.
19X-CC, 29–31 20X-CC, 32–34 21X-CC, 14–16 23X-CC, 30–32 28X-CC, 16–18	171.35 181.29 191.63 209.38 263.58	171.37 181.31 191.65 209.40 263.60	_ _ _ _	_ _ _ _	Barren Barren Barren Barren Rare		_ _ _ _	Brown tint Brown tint	_ _ _ _	Sieve Sieve Sieve Sieve Sieve		R		 8				— I — I — I	LIthified turbidite clay Lithified turbiditic clay Lithified very fine sand and silt Lithified Silt at bottom of a fining upward sequence	Lithified clay lumps of sand size, and traces of pyrite and mica. Lithified silt and clay in sand-sized lumps, trace of pyrite, and one possible flattened and discolored benthic foraminifer. Lithified silt in sand-sized lumps, mica and mineral very fine sand, sulfide, some clear crystals, and large pieces of pyrite as a cast of a plant(?) part. Lithified clay lumps in sand size with a trace of pyrite in the fine fraction 63–150 microns. Mica dominates with framboidal pyrite, blackened organic matter, brown pine pollen, and a little very fine mineral sand.
29X-CC, 33–35 30X-CC, 32–34	279.76	279.78 P	 leistocene	CD3(?)	Barren Common	Poor	Strong	Brown tint Crust	Mixed	Sieve Sieve	— — — С					 C R		7	Turbiditic mud Turbiditic sand	Semi-lithified clay and silt lumps of sand size, framboidal pyrite, mica, blackened organic debris, and very rare benthic foraminifers that are flattened and tinted. Micaceous very fine sand with planktonic foraminifers and framboidal pyrite and a trace of blackened organic matter.
31X-CC, 29–31 32X-CC, 34–36			_		Rare Rare	Poor	Strong	Brown tint	_	Sieve Sieve			R			К	1		Turbiditic mud Turbiditic mud	Blackened organic matter, framboidal pyrite, a little mica, and very fine sand grains, dominated by sand-sized lumps made of silt and clay, a few flattened and yellow benthic foraminifers. Very little in sand-sized fraction. Abundant mica, framboidal pyritized material possibly molds of planktonic foraminifers, very black organic(?)
33X-CC, 23–25			_	_	Rare	Poor	Strong	Brown tint	_	Sieve	R	R				R			Turbiditic mud	material, and very fine mineral sand. Blackened and pyritized organic matter, silt and clay lumps that are very fine sand-sized, a few grains of mineral sand including mica, framboidal pyrite molds of planktonic foraminifers, and one flattened and discolored planktonic foraminifer. Builties of all haddened organic debries your fine sand gired lumps of plant and silt, framboidal pyrite molds of planktonic foraminifers.
34X-CC, 15–17 35X-CC, 12–14 36X-CC, 13–15	328.33	328.35	_	_	Barren Barren	_	_	Brown tint		Sieve Sieve								_ 1	Turbiditic mud Turbiditic mud Turbiditic mud	Pyritized and blackened organic debris, very fine sand-sized lumps of clay and silt, framboidal pyrite molds of planktonic foraminifers, several flattened and discolored benthic foraminifers. Lumps of clay and silt of very fine sand size, mica, framboidal pyrite, rusty orange pollen, and pyrite molds of planktonic foraminifers(?). Pyritized tubes, pyritized and blackened organic debris, mica and several mineral grains, silt and clay lumps of very fine sand size, tiny gastropod shell,
36X-CC, 13–15 37X-CC, 43–45 38X-CC, 26–28		353.23	_		Barren Rare	Poor	Strong	_	_	Sieve Sieve					-			_ 1	Turbiditic mud Turbiditic mud Turbiditic mud	Pyritized tubes, pyritized and blackened organic debris, mica and several mineral grains, silt and clay lumps of very fine sand size, tiny gastropod shell, several flattened, and yellow Fursenkoina. Very fine sand-sized lumps of silt and clay, framboidal pyrite, blackened organic matter, mica, and pyrite molds of planktonic foraminifers(?). Very fine sand-sized lumps of silt and clay, pyritized and blackened organic debris, mica, and yellow and flattened Fursenkoina.
38X-CC, 26–28 39X-CC, 32–34 40X-CC, 17–19	372.97		_		Barren Barren	— — —	Strong —	Brown tint		Sieve Sieve		 			=	 -		— 1	Turbiditic mud Turbiditic mud	Very fine sand-sized lumps of sitt and clay, pyritized and blackened organic debris, mica, and yellow and flattened <i>Fursenkolna</i> . Very fine sand-sized silt and clay lumps, blackened and pyritized organic debris, dark orange pollen, flattened and discolored benthic foraminifers, and framboidal pyrite. Mica, pyritized and blackened organic debris, dark orange pine pollen, silt and clay in very fine sand-sized lumps, and a few benthic foraminifers.
41X-CC, 15–17 42X-CC, 35–37		388.35			Rare Barren	Poor —	Strong —	_	_	Sieve Sieve						R 		1	Turbiditic mud Turbiditic mud	Silt and clay lumps of very fine sand size, framboidal pyrite, blackened organic debris, mica, trace of very fine mineral sand, and brown pollen. Sand-sized clay and silt lumps and framboidal pyrite.