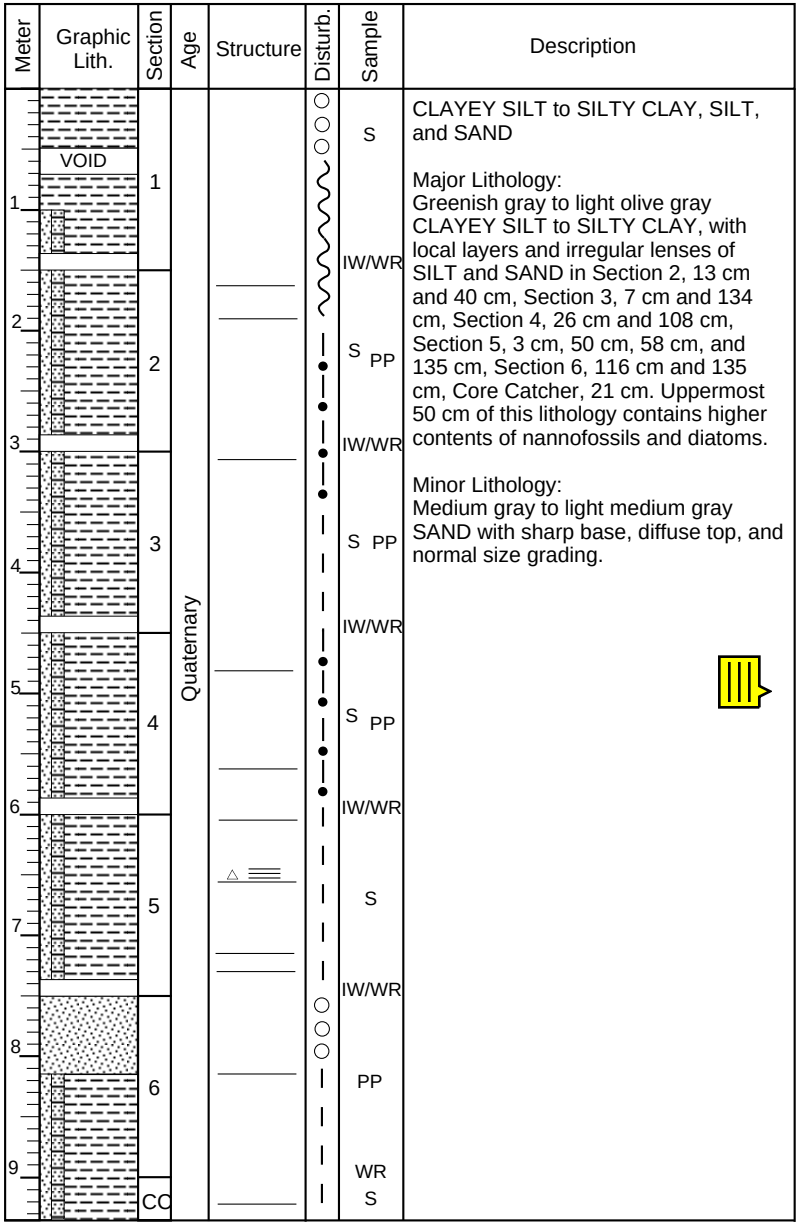
SITE 1023 HOLE A CORE 1H CORED 0.0 - 9.3 mbsf



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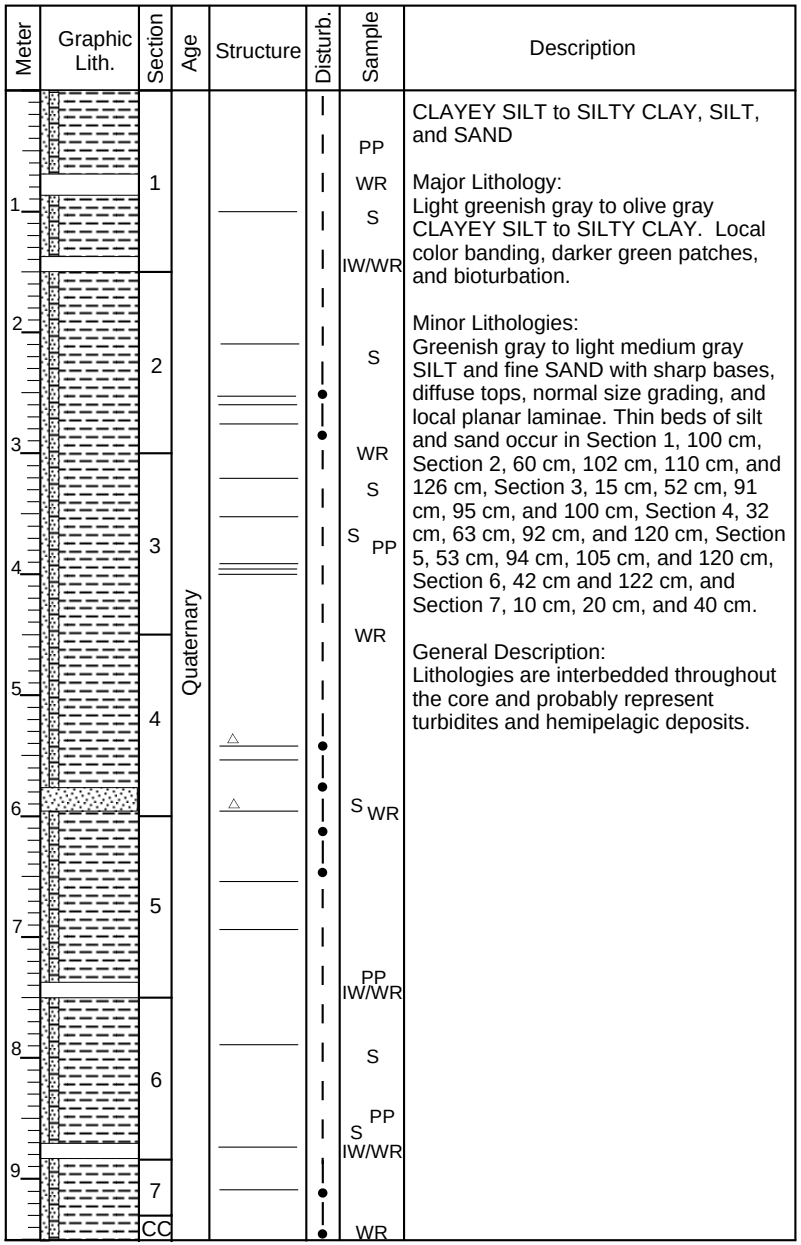
SITE 1023 HOLE A CORE 2H CORED 9.3 - 18.8 mbsf



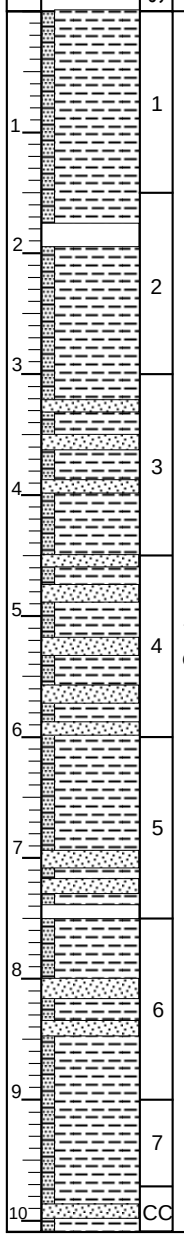
CLAYEY SILT to SILTY CLAY, SILT, and SAND

Major Lithology:
Light greenish gray to olive gray CLAYEY SILT to SILTY CLAY. Local color banding, darker green patches, and bioturbation.

Minor Lithologies:
Greenish gray to light medium gray SILT and fine SAND with sharp bases, diffuse tops, normal size grading, and local planar laminae. Thin beds of silt and sand occur in Section 1, 100 cm, Section 2, 60 cm, 102 cm, 110 cm, and 126 cm, Section 3, 15 cm, 52 cm, 91 cm, 95 cm, and 100 cm, Section 4, 32 cm, 63 cm, 92 cm, and 120 cm, Section 5, 53 cm, 94 cm, 105 cm, and 120 cm, Section 6, 42 cm and 122 cm, and Section 7, 10 cm, 20 cm, and 40 cm.

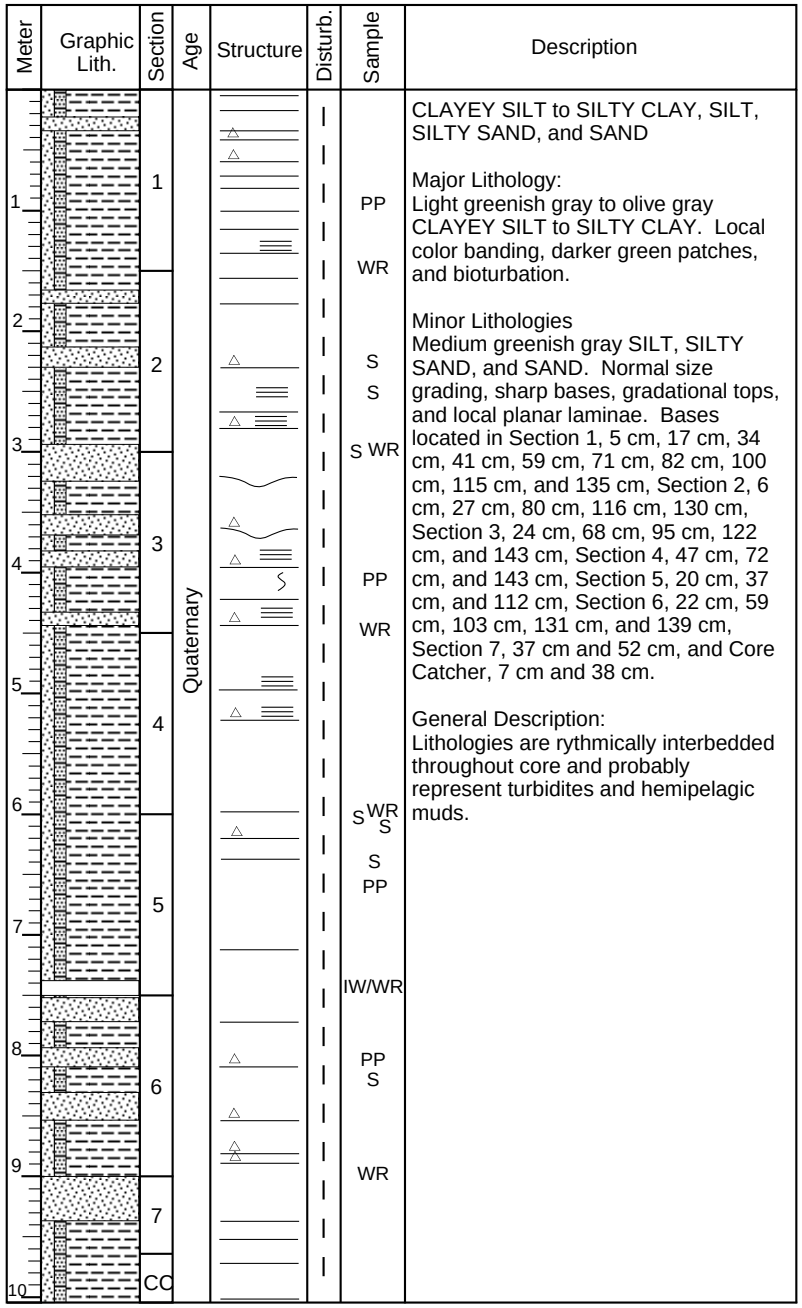
General Description:
Lithologies are interbedded throughout the core and probably represent turbidites and hemipelagic deposits.

SITE 1023 HOLE A CORE 3H CORED 18.8 - 28.3 mbsf



Graphic Lith.	Section	Age	Structure	Disturb.	Sample	Description
	1	Quaternary			S	CLAYEY SILT to SILTY CLAY, SILT, and SILTY SAND to SAND Major Lithology: Light greenish gray to olive gray CLAYEY SILT to SILTY CLAY. Local color bands, darker green patches, and bioturbation.
					PP	
					WR	
	2				S	Minor Lithologies: Greenish gray to light medium gray SILT and fine-grained SAND to SILTY SAND with sharp bases, diffuse tops, normal size grading, and local planar laminae. Bases of beds in Section 1, 61 cm, 96 cm, 103 cm, 118 cm, and 140 cm, Section 2, 22 cm, 62 cm, 95 cm, 114 cm, 132 cm, and 143 cm, Section 3, 5 cm, 30 cm, 62 cm, 77 cm, 99 cm, and 131 cm, Section 4, 10 cm, 39 cm, 82 cm, 99 cm, 122 cm, and 148 cm, Section 5, 6 cm, 32 cm, 47 cm, 79 cm, 107 cm, 129 cm, and 135 cm, Section 6, 7 cm, 29 cm, 65 cm, 97 cm, Section 7, 2 cm, and Core Catcher, 28 cm.
					WR	
	3				S	
					PP	
					WR	
	4					
					WR	General Description: Lithologies are interbedded throughout the core and probably represent turbidites and hemipelagic deposits.
	5				S	
					IW/WR	
	6					
	7				S	
	CC					

SITE 1023 HOLE A CORE 4H COVERED 28.3 - 37.8 mbsf



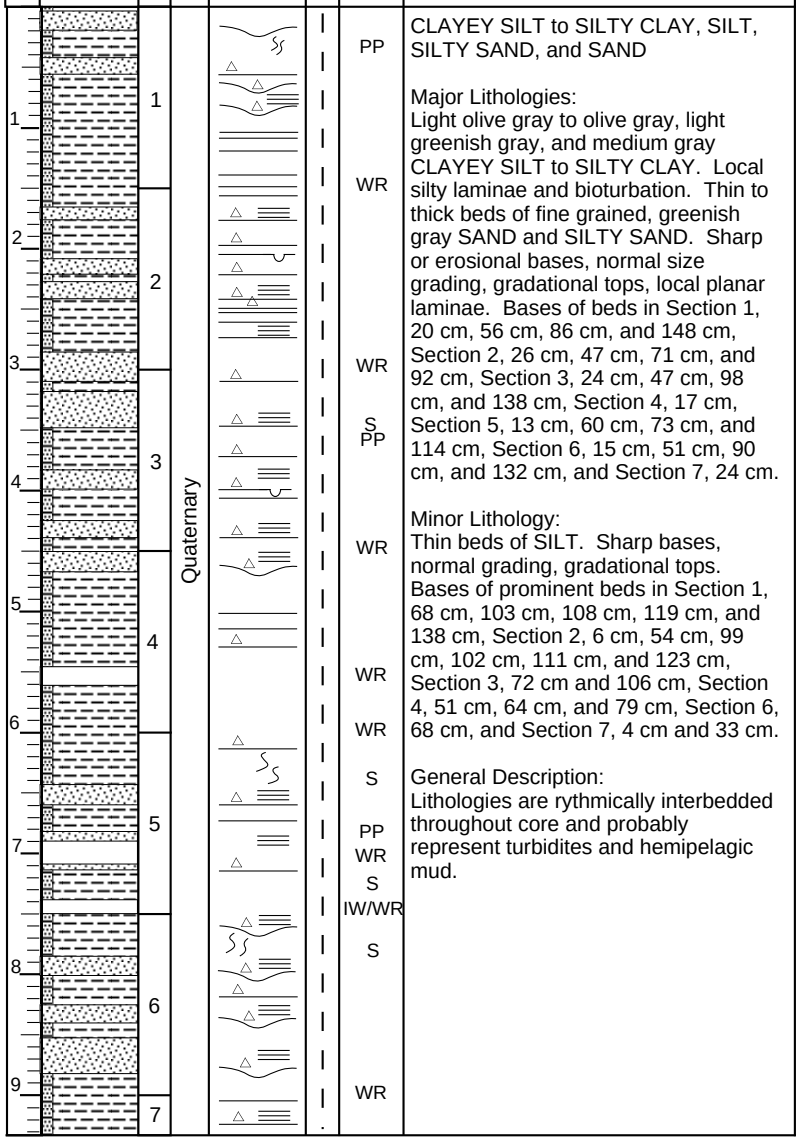
CLAYEY SILT to SILTY CLAY, SILT, SILTY SAND, and SAND

Major Lithology:
Light greenish gray to olive gray CLAYEY SILT to SILTY CLAY. Local color banding, darker green patches, and bioturbation.

Minor Lithologies
Medium greenish gray SILT, SILTY SAND, and SAND. Normal size grading, sharp bases, gradational tops, and local planar laminae. Bases located in Section 1, 5 cm, 17 cm, 34 cm, 41 cm, 59 cm, 71 cm, 82 cm, 100 cm, 115 cm, and 135 cm, Section 2, 6 cm, 27 cm, 80 cm, 116 cm, 130 cm, Section 3, 24 cm, 68 cm, 95 cm, 122 cm, and 143 cm, Section 4, 47 cm, 72 cm, and 143 cm, Section 5, 20 cm, 37 cm, and 112 cm, Section 6, 22 cm, 59 cm, 103 cm, 131 cm, and 139 cm, Section 7, 37 cm and 52 cm, and Core Catcher, 7 cm and 38 cm.

General Description:
Lithologies are rythmically interbedded throughout core and probably represent turbidites and hemipelagic muds.

SITE 1023 HOLE A CORE 5H CORED 37.8 - 47.3 mbsf



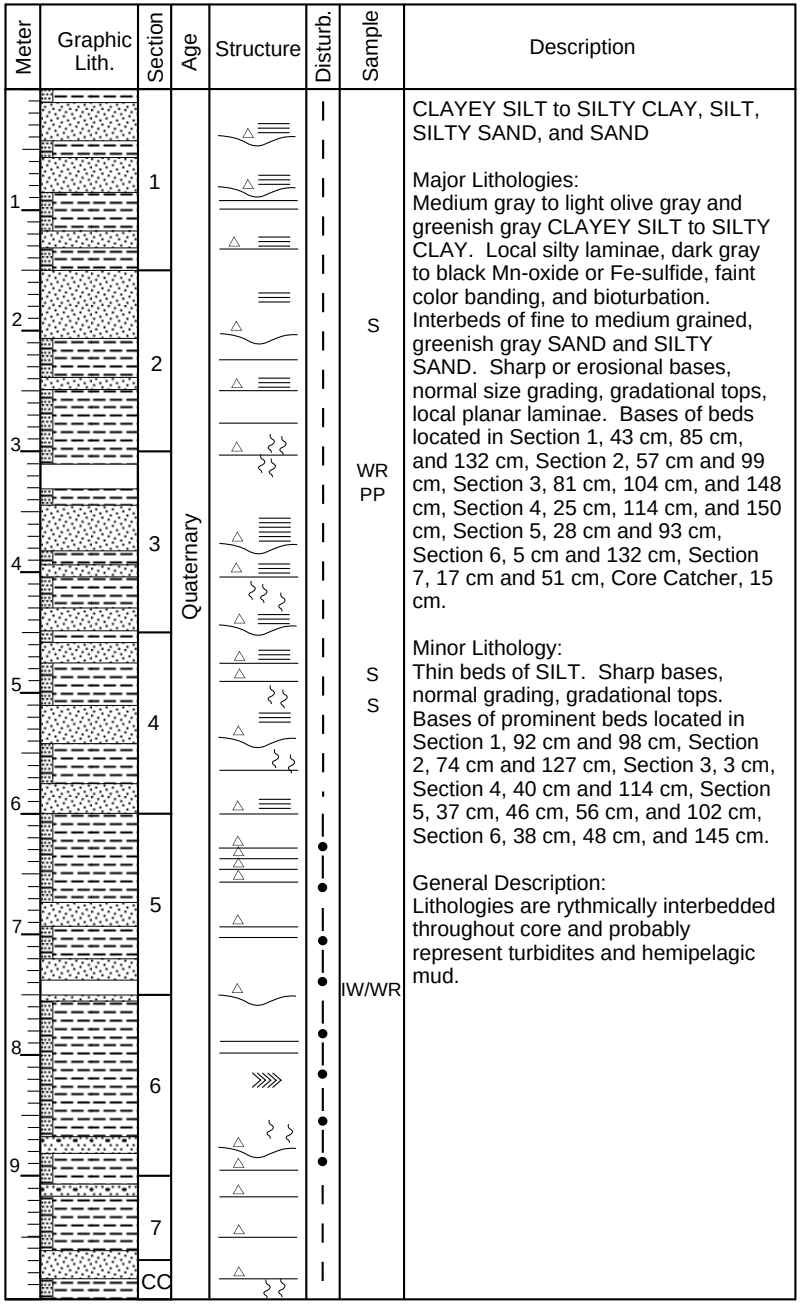
CLAYEY SILT to SILTY CLAY, SILT, SILTY SAND, and SAND

Major Lithologies:
Light olive gray to olive gray, light greenish gray, and medium gray CLAYEY SILT to SILTY CLAY. Local silty laminae and bioturbation. Thin to thick beds of fine grained, greenish gray SAND and SILTY SAND. Sharp or erosional bases, normal size grading, gradational tops, local planar laminae. Bases of beds in Section 1, 20 cm, 56 cm, 86 cm, and 148 cm, Section 2, 26 cm, 47 cm, 71 cm, and 92 cm, Section 3, 24 cm, 47 cm, 98 cm, and 138 cm, Section 4, 17 cm, Section 5, 13 cm, 60 cm, 73 cm, and 114 cm, Section 6, 15 cm, 51 cm, 90 cm, and 132 cm, and Section 7, 24 cm.

Minor Lithology:
Thin beds of SILT. Sharp bases, normal grading, gradational tops. Bases of prominent beds in Section 1, 68 cm, 103 cm, 108 cm, 119 cm, and 138 cm, Section 2, 6 cm, 54 cm, 99 cm, 102 cm, 111 cm, and 123 cm, Section 3, 72 cm and 106 cm, Section 4, 51 cm, 64 cm, and 79 cm, Section 6, 68 cm, and Section 7, 4 cm and 33 cm.

General Description:
Lithologies are rythmically interbedded throughout core and probably represent turbidites and hemipelagic mud.

SITE 1023 HOLE A CORE 6H CORED 47.3 - 56.8 mbsf



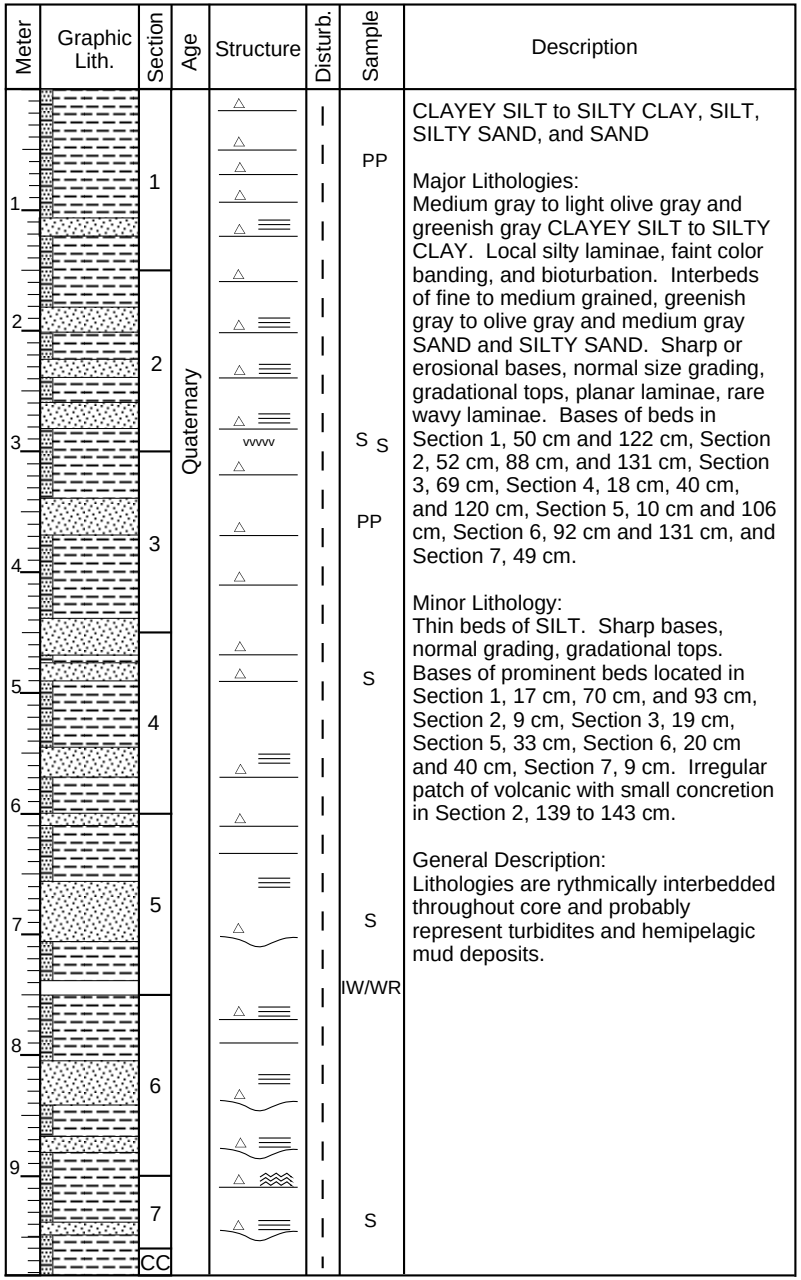
CLAYEY SILT to SILTY CLAY, SILT, SILTY SAND, and SAND

Major Lithologies:
Medium gray to light olive gray and greenish gray CLAYEY SILT to SILTY CLAY. Local silty laminae, dark gray to black Mn-oxide or Fe-sulfide, faint color banding, and bioturbation. Interbeds of fine to medium grained, greenish gray SAND and SILTY SAND. Sharp or erosional bases, normal size grading, gradational tops, local planar laminae. Bases of beds located in Section 1, 43 cm, 85 cm, and 132 cm, Section 2, 57 cm and 99 cm, Section 3, 81 cm, 104 cm, and 148 cm, Section 4, 25 cm, 114 cm, and 150 cm, Section 5, 28 cm and 93 cm, Section 6, 5 cm and 132 cm, Section 7, 17 cm and 51 cm, Core Catcher, 15 cm.

Minor Lithology:
Thin beds of SILT. Sharp bases, normal grading, gradational tops. Bases of prominent beds located in Section 1, 92 cm and 98 cm, Section 2, 74 cm and 127 cm, Section 3, 3 cm, Section 4, 40 cm and 114 cm, Section 5, 37 cm, 46 cm, 56 cm, and 102 cm, Section 6, 38 cm, 48 cm, and 145 cm.

General Description:
Lithologies are rythmically interbedded throughout core and probably represent turbidites and hemipelagic mud.

SITE 1023 HOLE A CORE 7H CORED 56.8 - 66.3 mbsf



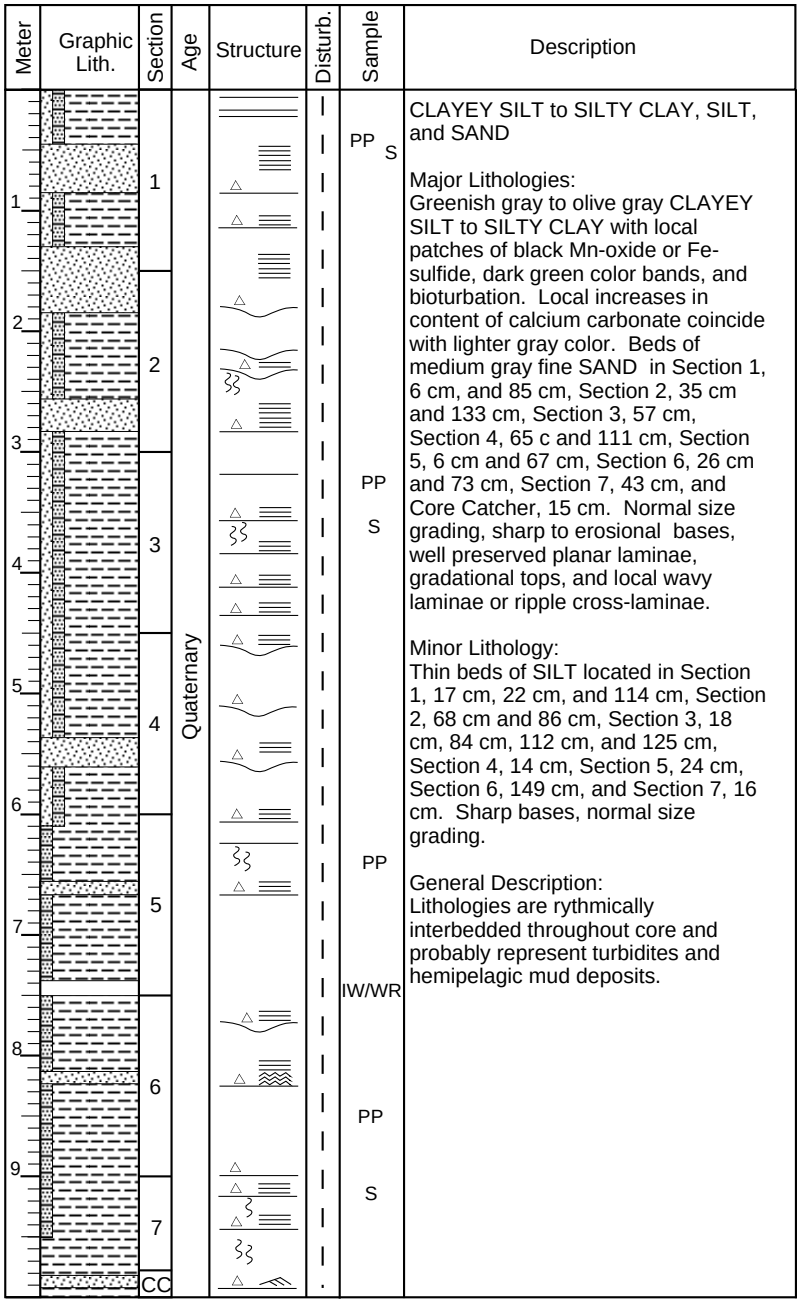
CLAYEY SILT to SILTY CLAY, SILT, SILTY SAND, and SAND

Major Lithologies:
Medium gray to light olive gray and greenish gray CLAYEY SILT to SILTY CLAY. Local silty laminae, faint color banding, and bioturbation. Interbeds of fine to medium grained, greenish gray to olive gray and medium gray SAND and SILTY SAND. Sharp or erosional bases, normal size grading, gradational tops, planar laminae, rare wavy laminae. Bases of beds in Section 1, 50 cm and 122 cm, Section 2, 52 cm, 88 cm, and 131 cm, Section 3, 69 cm, Section 4, 18 cm, 40 cm, and 120 cm, Section 5, 10 cm and 106 cm, Section 6, 92 cm and 131 cm, and Section 7, 49 cm.

Minor Lithology:
Thin beds of SILT. Sharp bases, normal grading, gradational tops. Bases of prominent beds located in Section 1, 17 cm, 70 cm, and 93 cm, Section 2, 9 cm, Section 3, 19 cm, Section 5, 33 cm, Section 6, 20 cm and 40 cm, Section 7, 9 cm. Irregular patch of volcanic with small concretion in Section 2, 139 to 143 cm.

General Description:
Lithologies are rythmically interbedded throughout core and probably represent turbidites and hemipelagic mud deposits.

SITE 1023 HOLE A CORE 8H CORED 66.3 - 75.8 mbsf



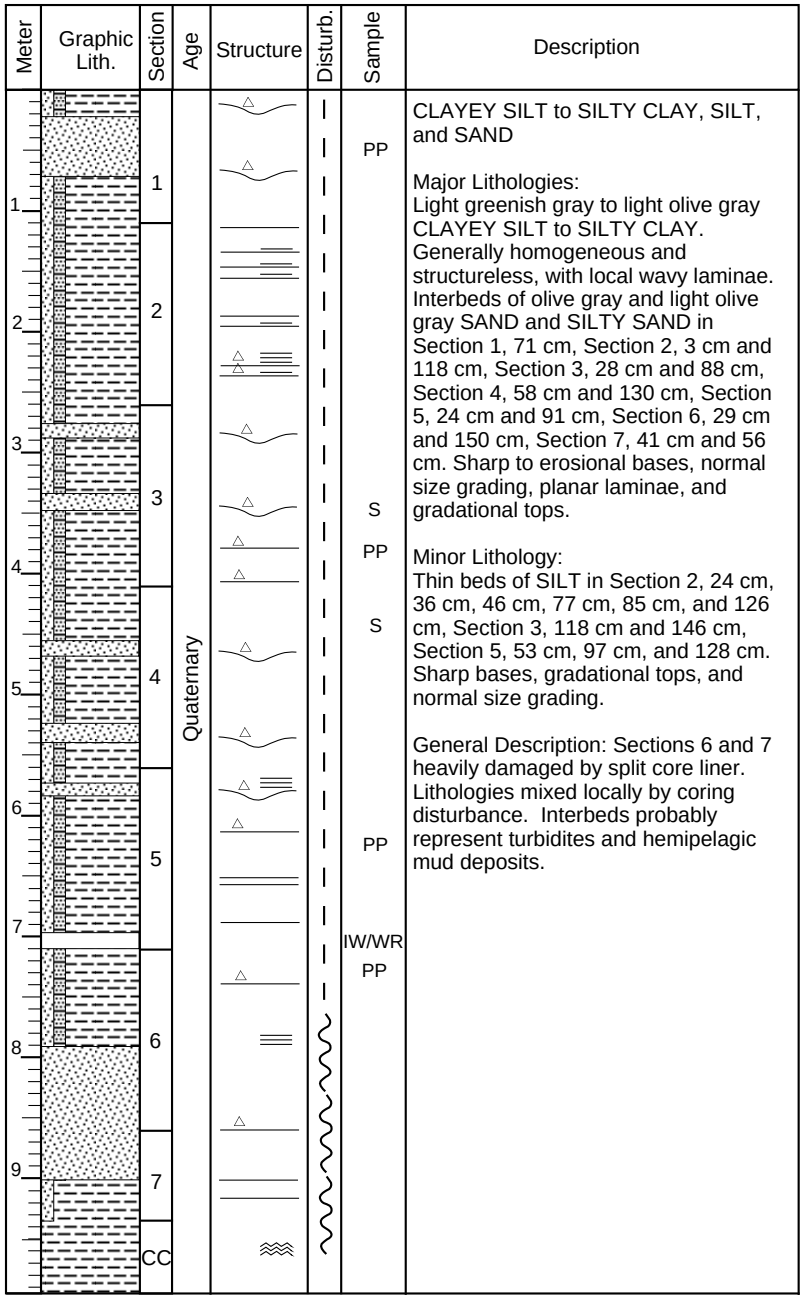
CLAYEY SILT to SILTY CLAY, SILT, and SAND

Major Lithologies:
Greenish gray to olive gray CLAYEY SILT to SILTY CLAY with local patches of black Mn-oxide or Fe-sulfide, dark green color bands, and bioturbation. Local increases in content of calcium carbonate coincide with lighter gray color. Beds of medium gray fine SAND in Section 1, 6 cm, and 85 cm, Section 2, 35 cm and 133 cm, Section 3, 57 cm, Section 4, 65 c and 111 cm, Section 5, 6 cm and 67 cm, Section 6, 26 cm and 73 cm, Section 7, 43 cm, and Core Catcher, 15 cm. Normal size grading, sharp to erosional bases, well preserved planar laminae, gradational tops, and local wavy laminae or ripple cross-laminae.

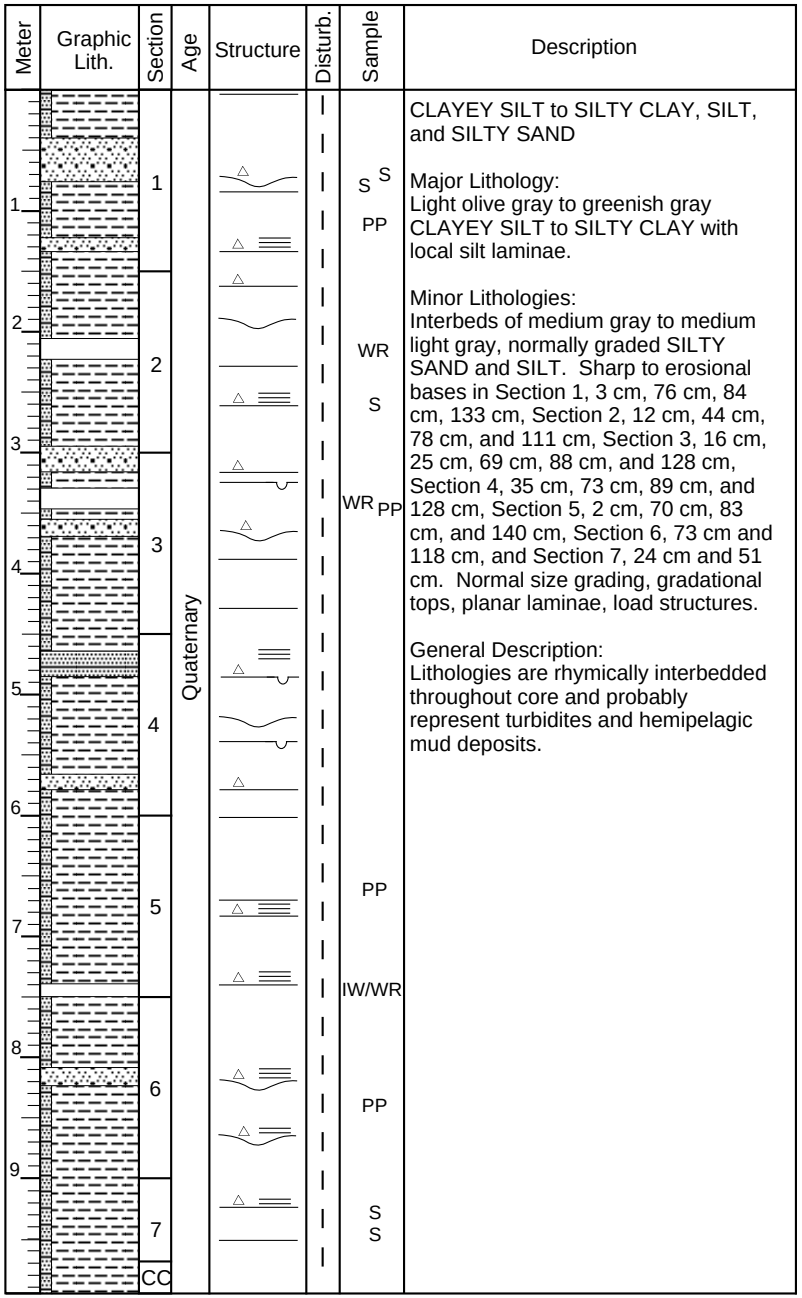
Minor Lithology:
Thin beds of SILT located in Section 1, 17 cm, 22 cm, and 114 cm, Section 2, 68 cm and 86 cm, Section 3, 18 cm, 84 cm, 112 cm, and 125 cm, Section 4, 14 cm, Section 5, 24 cm, Section 6, 149 cm, and Section 7, 16 cm. Sharp bases, normal size grading.

General Description:
Lithologies are rythmically interbedded throughout core and probably represent turbidites and hemipelagic mud deposits.

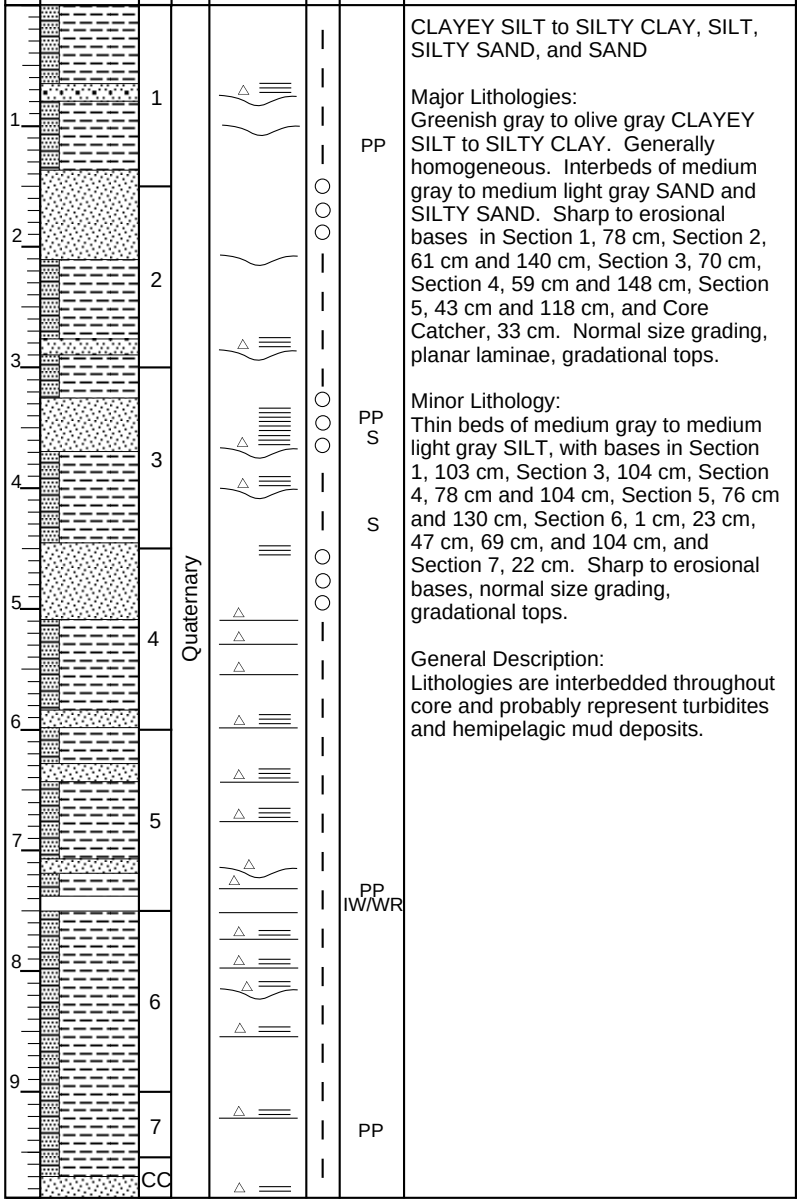
SITE 1023 HOLE A CORE 9H CORED 75.8 - 85.3 mbsf



SITE 1023 HOLE A CORE 10H CORED 85.3 - 94.8 mbsf



SITE 1023 HOLE A CORE 11H CORED 94.8 - 104.3 mbsf



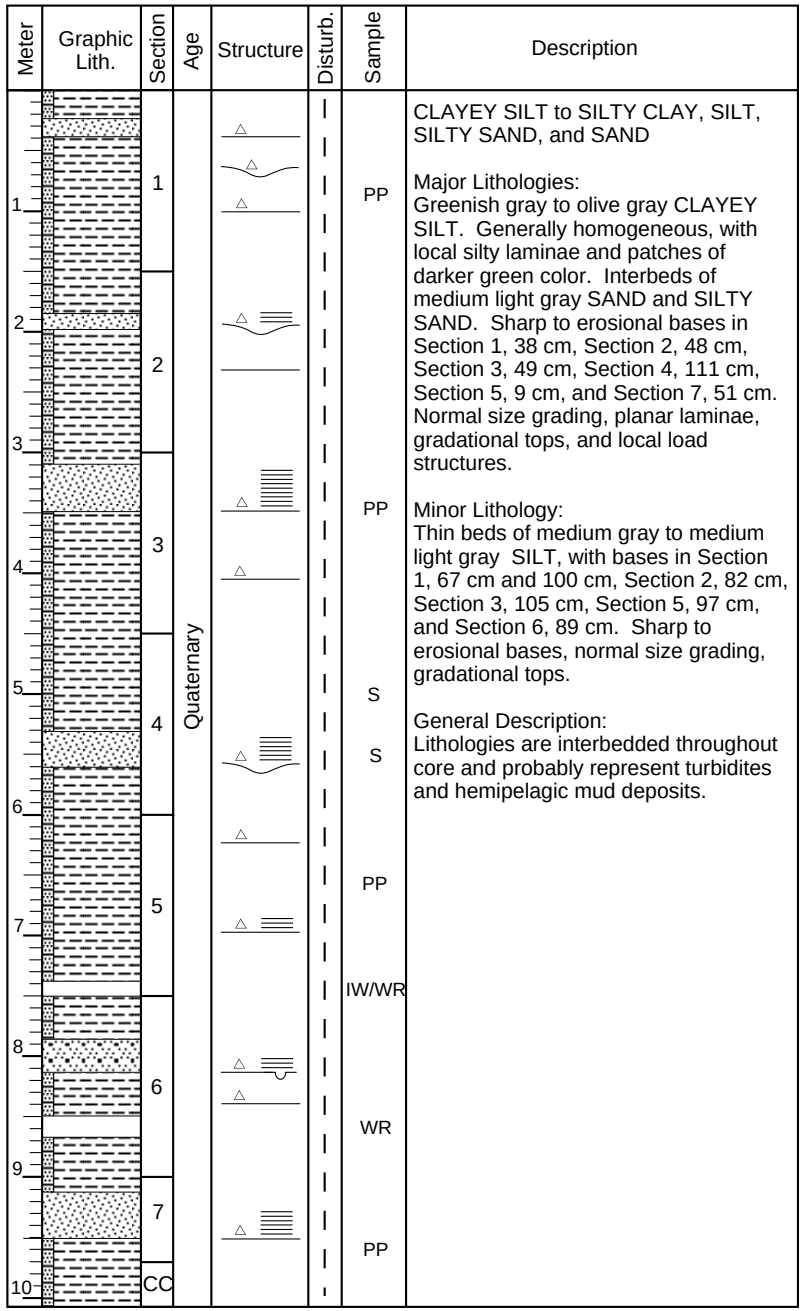
CLAYEY SILT to SILTY CLAY, SILT, SILTY SAND, and SAND

Major Lithologies:
Greenish gray to olive gray CLAYEY SILT to SILTY CLAY. Generally homogeneous. Interbeds of medium gray to medium light gray SAND and SILTY SAND. Sharp to erosional bases in Section 1, 78 cm, Section 2, 61 cm and 140 cm, Section 3, 70 cm, Section 4, 59 cm and 148 cm, Section 5, 43 cm and 118 cm, and Core Catcher, 33 cm. Normal size grading, planar laminae, gradational tops.

Minor Lithology:
Thin beds of medium gray to medium light gray SILT, with bases in Section 1, 103 cm, Section 3, 104 cm, Section 4, 78 cm and 104 cm, Section 5, 76 cm and 130 cm, Section 6, 1 cm, 23 cm, 47 cm, 69 cm, and 104 cm, and Section 7, 22 cm. Sharp to erosional bases, normal size grading, gradational tops.

General Description:
Lithologies are interbedded throughout core and probably represent turbidites and hemipelagic mud deposits.

SITE 1023 HOLE A CORE 12H CORED 104.3 - 113.8 mbsf



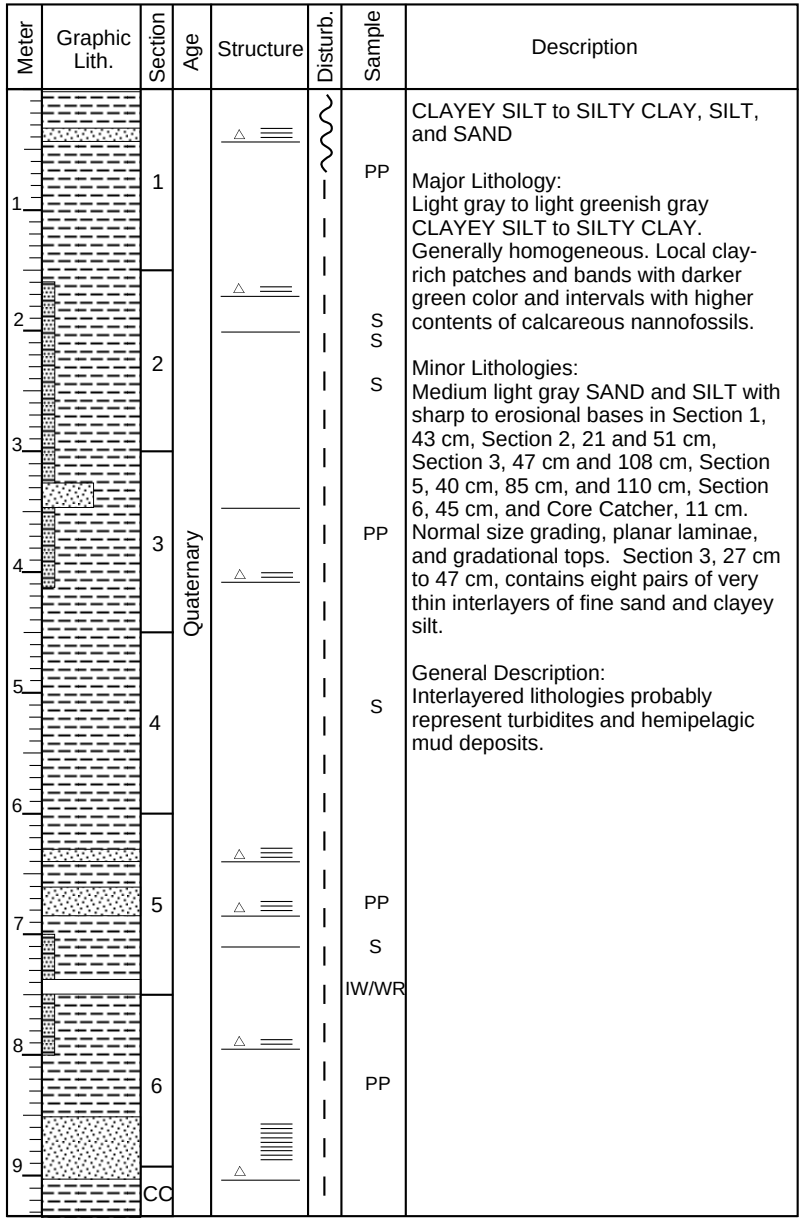
CLAYEY SILT to SILTY CLAY, SILT, SILTY SAND, and SAND

Major Lithologies:
Greenish gray to olive gray CLAYEY SILT. Generally homogeneous, with local silty laminae and patches of darker green color. Interbeds of medium light gray SAND and SILTY SAND. Sharp to erosional bases in Section 1, 38 cm, Section 2, 48 cm, Section 3, 49 cm, Section 4, 111 cm, Section 5, 9 cm, and Section 7, 51 cm. Normal size grading, planar laminae, gradational tops, and local load structures.

Minor Lithology:
Thin beds of medium gray to medium light gray SILT, with bases in Section 1, 67 cm and 100 cm, Section 2, 82 cm, Section 3, 105 cm, Section 5, 97 cm, and Section 6, 89 cm. Sharp to erosional bases, normal size grading, gradational tops.

General Description:
Lithologies are interbedded throughout core and probably represent turbidites and hemipelagic mud deposits.

SITE 1023 HOLE A CORE 13H CORED 113.8 - 123.3 mbsf



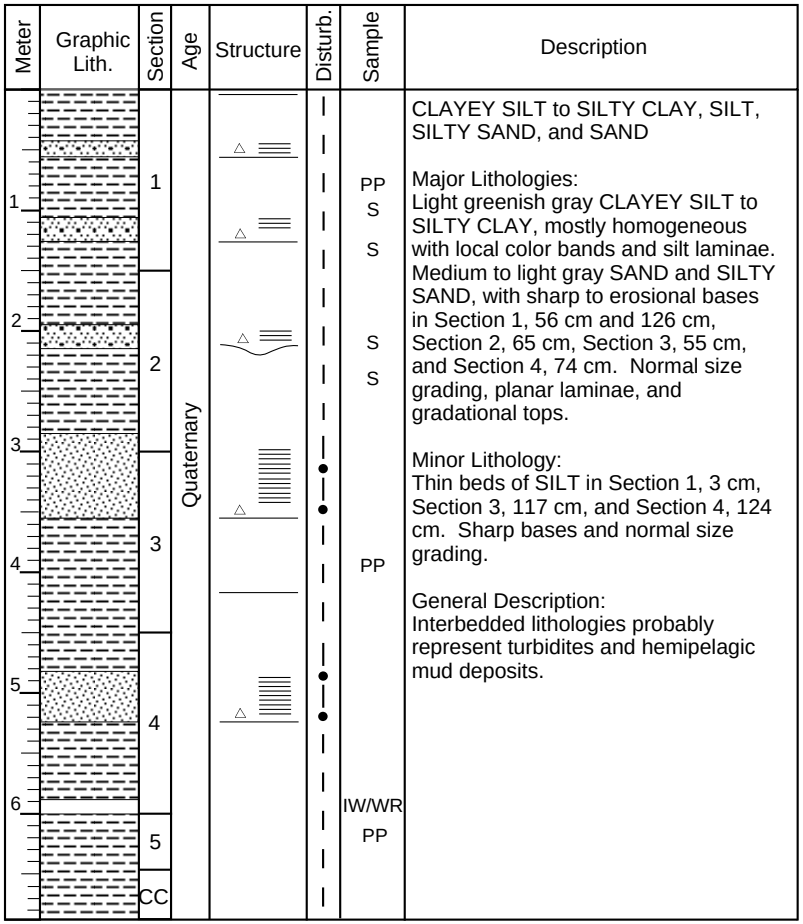
CLAYEY SILT to SILTY CLAY, SILT, and SAND

Major Lithology:
Light gray to light greenish gray CLAYEY SILT to SILTY CLAY. Generally homogeneous. Local clay-rich patches and bands with darker green color and intervals with higher contents of calcareous nannofossils.

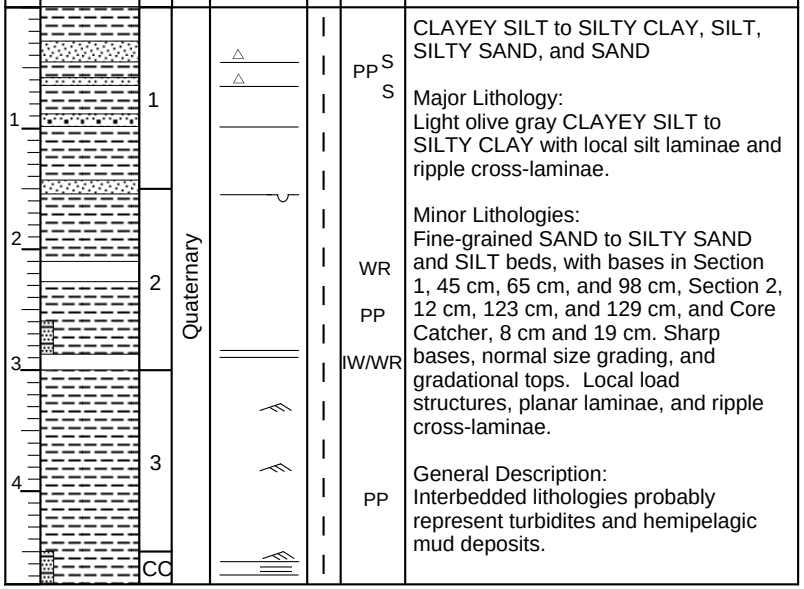
Minor Lithologies:
Medium light gray SAND and SILT with sharp to erosional bases in Section 1, 43 cm, Section 2, 21 and 51 cm, Section 3, 47 cm and 108 cm, Section 5, 40 cm, 85 cm, and 110 cm, Section 6, 45 cm, and Core Catcher, 11 cm. Normal size grading, planar laminae, and gradational tops. Section 3, 27 cm to 47 cm, contains eight pairs of very thin interlayers of fine sand and clayey silt.

General Description:
Interlayered lithologies probably represent turbidites and hemipelagic mud deposits.

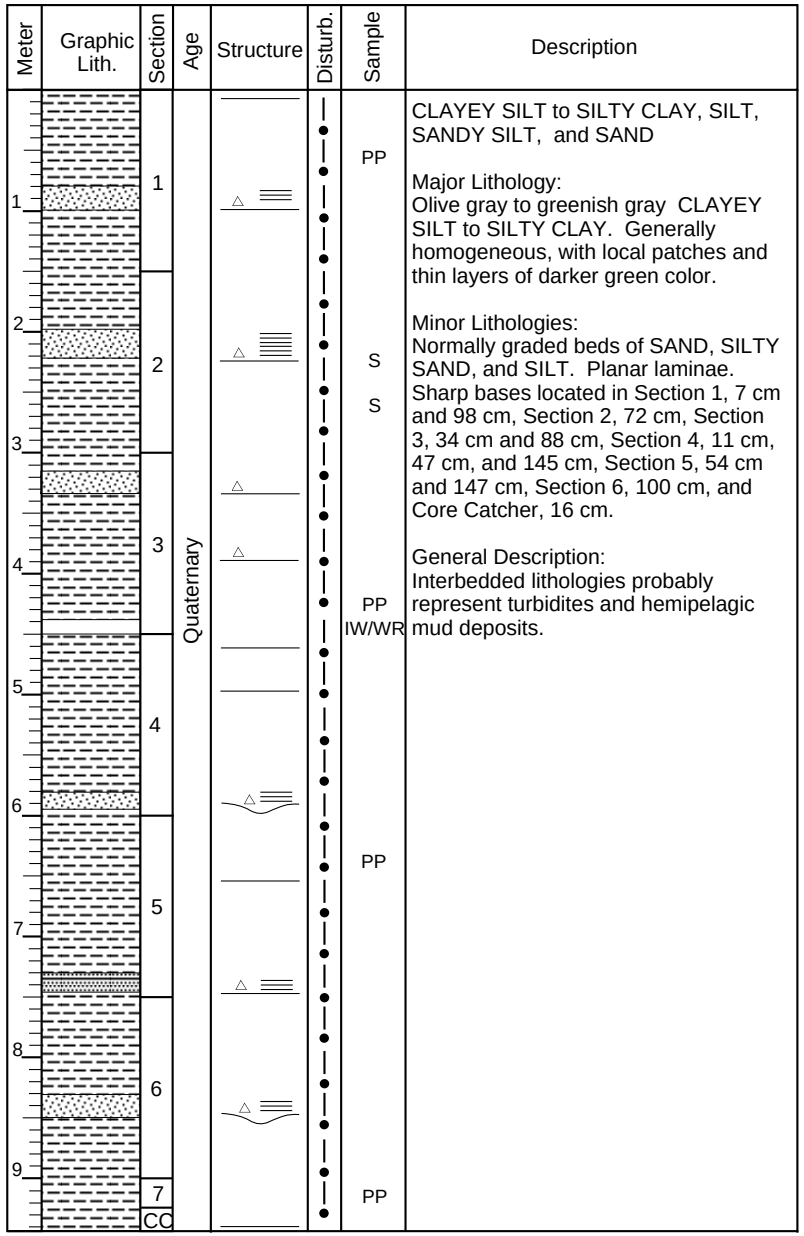
SITE 1023 HOLE A CORE 14H CORED 123.3 - 130.0 mbsf



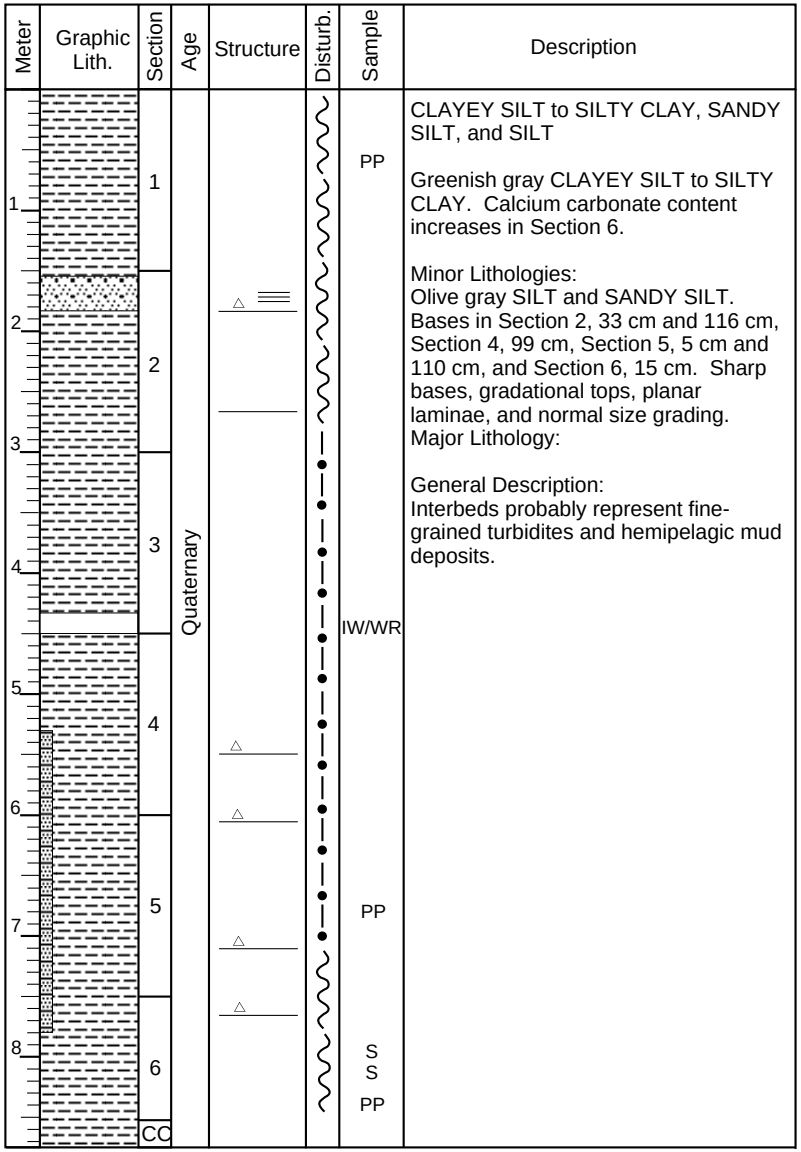
SITE 1023 HOLE A CORE 15X CORED 130.0 - 132.7 mbsf



SITE 1023 HOLE A CORE 16X CORED 132.7 - 142.3 mbsf



SITE 1023 HOLE A CORE 17X CORED 142.3 - 151.9 mbsf



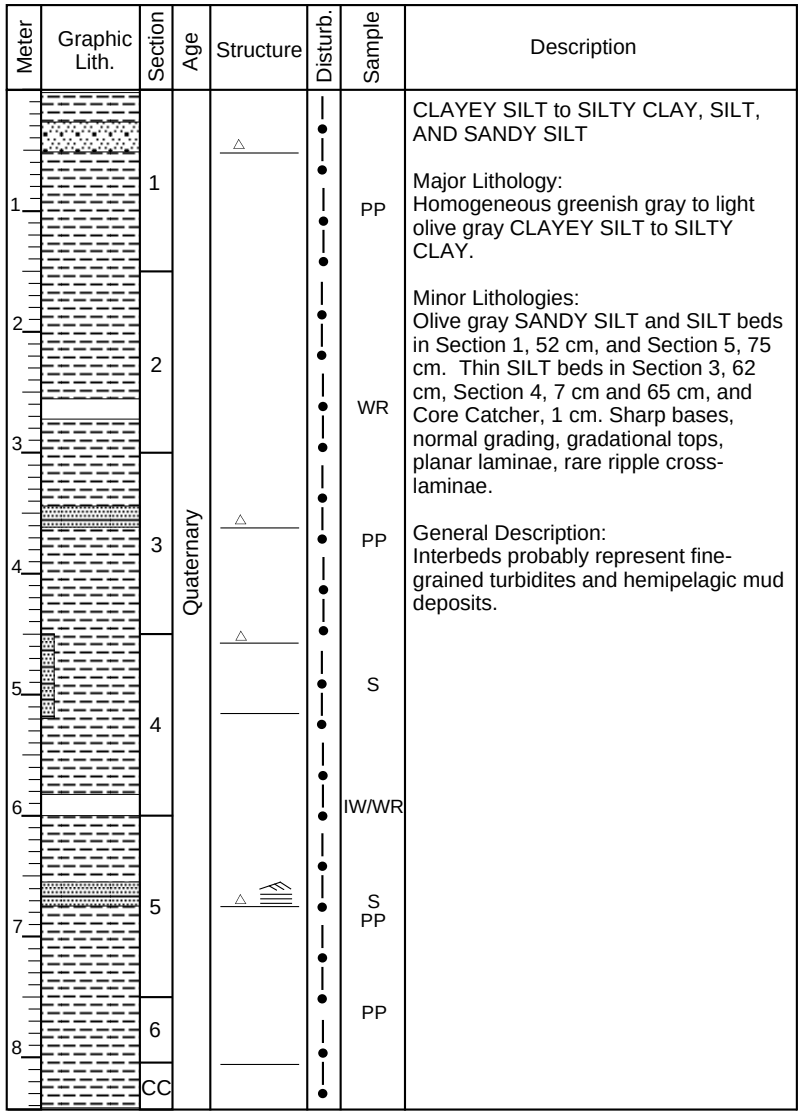
CLAYEY SILT to SILTY CLAY, SANDY SILT, and SILT

Greenish gray CLAYEY SILT to SILTY CLAY. Calcium carbonate content increases in Section 6.

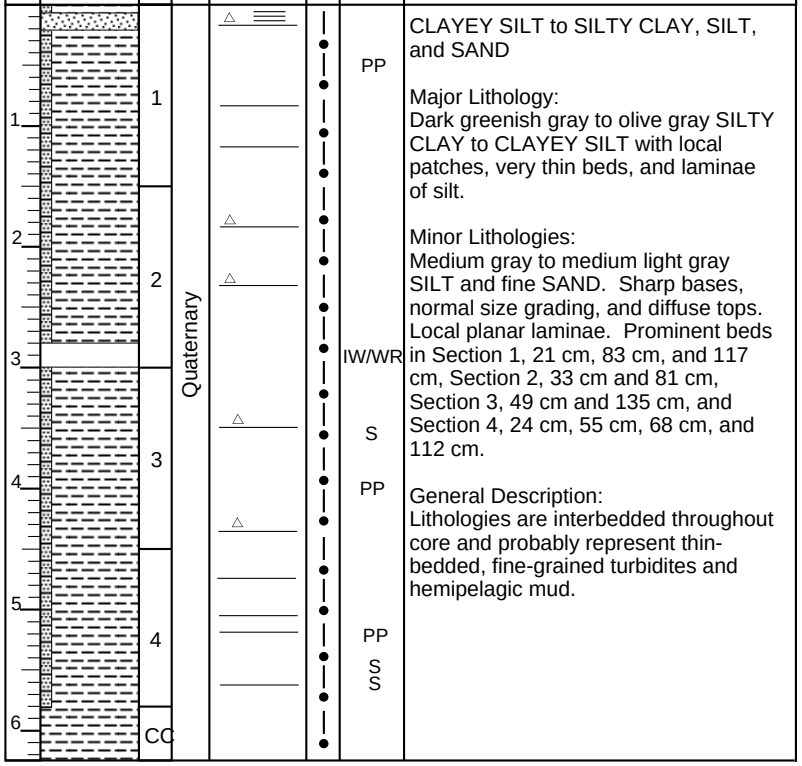
Minor Lithologies:
Olive gray SILT and SANDY SILT. Bases in Section 2, 33 cm and 116 cm, Section 4, 99 cm, Section 5, 5 cm and 110 cm, and Section 6, 15 cm. Sharp bases, gradational tops, planar laminae, and normal size grading.
Major Lithology:

General Description:
Interbeds probably represent fine-grained turbidites and hemipelagic mud deposits.

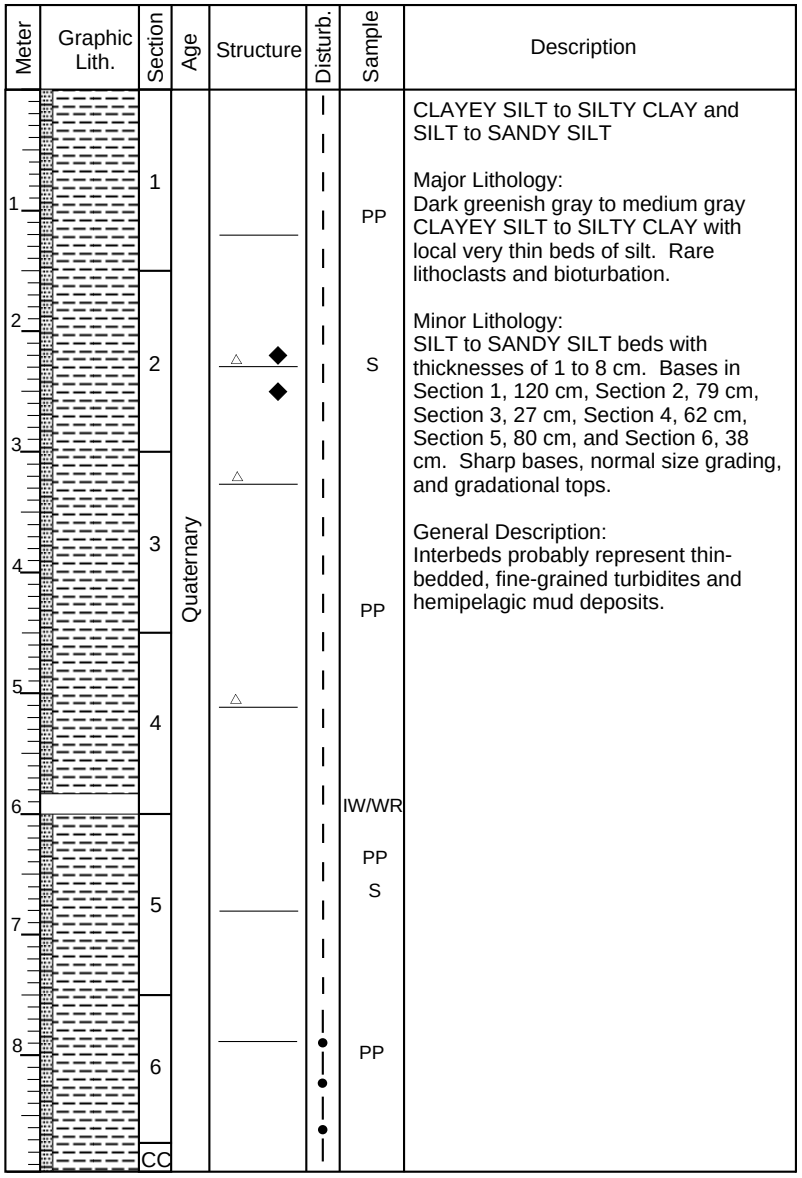
SITE 1023 HOLE A CORE 18X CORED 151.9 - 161.6 mbsf



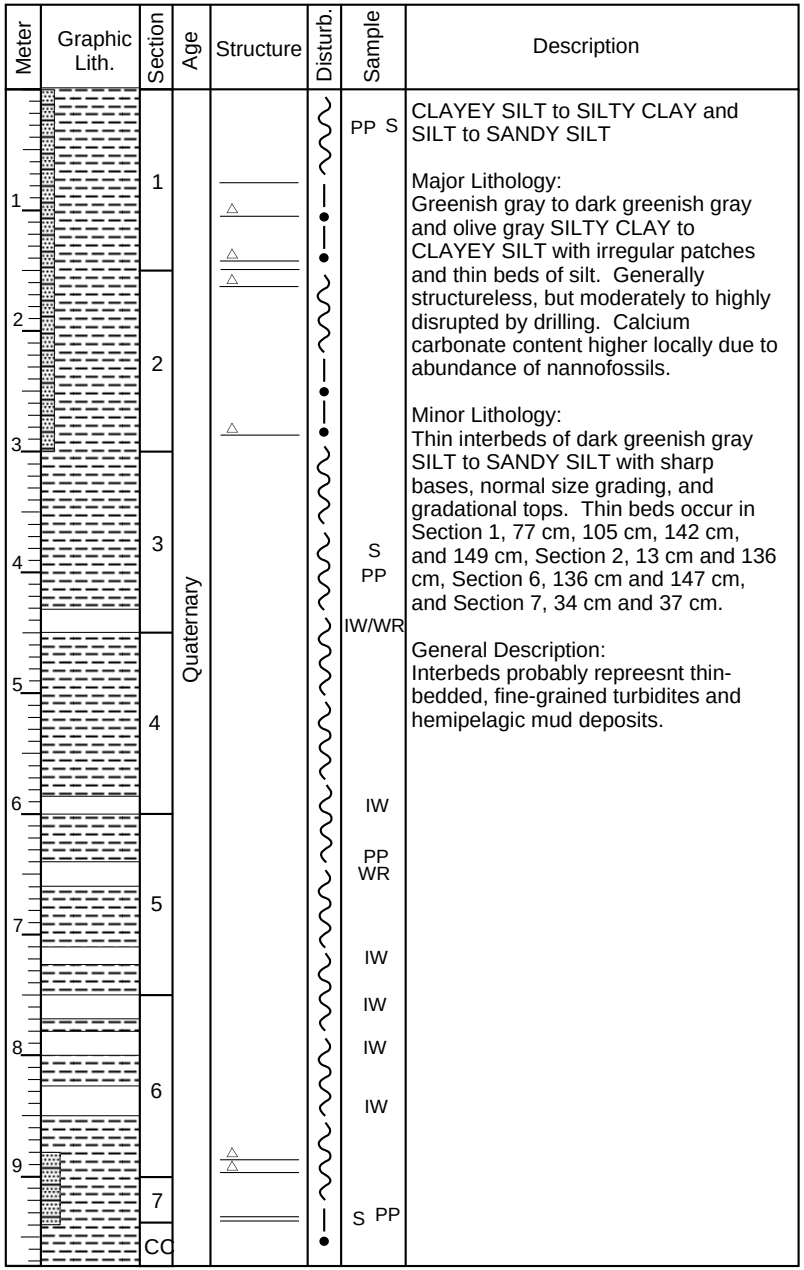
SITE 1023 HOLE A CORE 19X CORED 161.6 - 171.2 mbsf



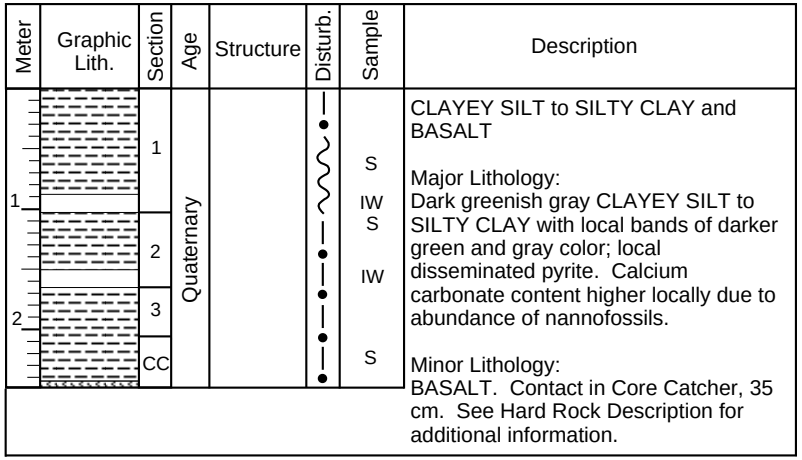
SITE 1023 HOLE A CORE 20X CORED 171.2 - 180.8 mbsf



SITE 1023 HOLE A CORE 21X CORED 180.8 - 190.4 mbsf



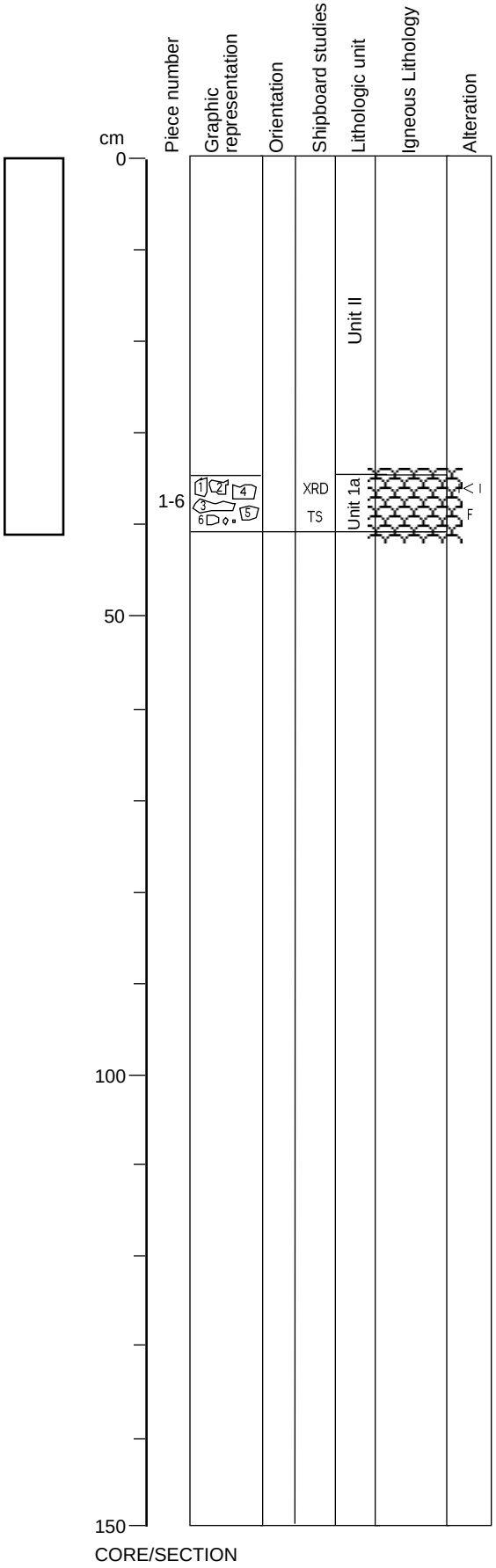
SITE 1023 HOLE A CORE 22X CORED 190.4 - 194.5 mbsf



CLAYEY SILT to SILTY CLAY and BASALT

Major Lithology:
Dark greenish gray CLAYEY SILT to SILTY CLAY with local bands of darker green and gray color; local disseminated pyrite. Calcium carbonate content higher locally due to abundance of nannofossils.

Minor Lithology:
BASALT. Contact in Core Catcher, 35 cm. See Hard Rock Description for additional information.



168-1023A-22X-CC

UNIT II: Muddy lithology (see Sedimentary VCD).

UNIT 1a: PLAGIOCLASE PHYRIC BASALT

PIECES 1-6

CONTACTS: None.
PHENOCRYSTS: Sparsely to moderately plagioclase phyric.
GROUNDMASS: Cryptocrystalline
VESICLES: ≤1%, ≤0.2mm
COLOR: Medium-dark gray, 7PB 2.8/0.1 to 6P 2.6/0.1
STRUCTURE: Pillow fragments.
ALTERATION: Surfaces of pieces 2, 4 & 5 are partially coated with a blue–gray clay-like mineral. Same mineral is coating the interior of the vesicles.
VEINS/FRACTURES: Thin clay vein on surface of piece 2.
ADDITIONAL COMMENTS: Glass rims on Pieces 1, 4 and 6.

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