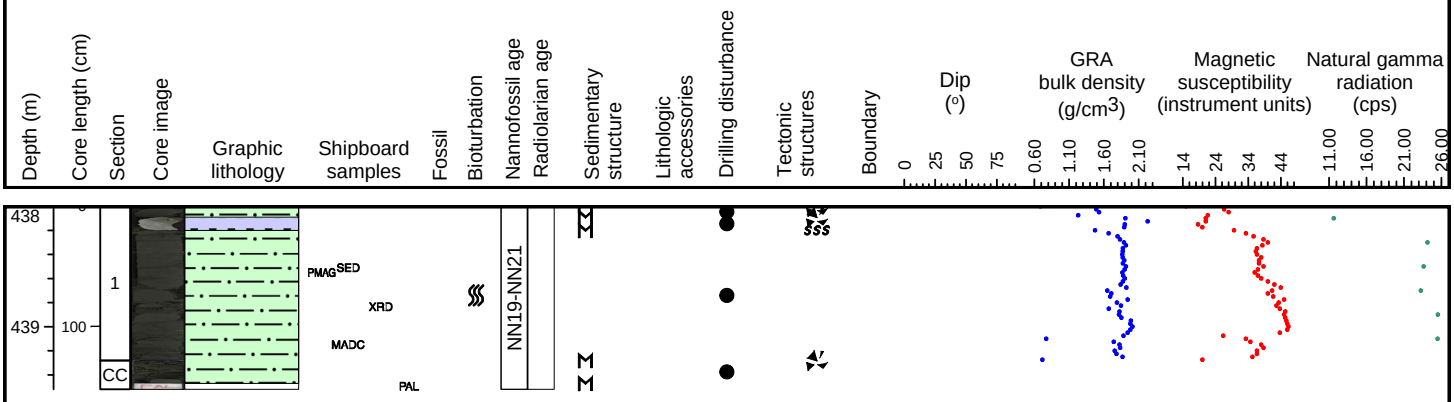
U1380C-11 Drilled interval, U1380C-12 Drilled interval

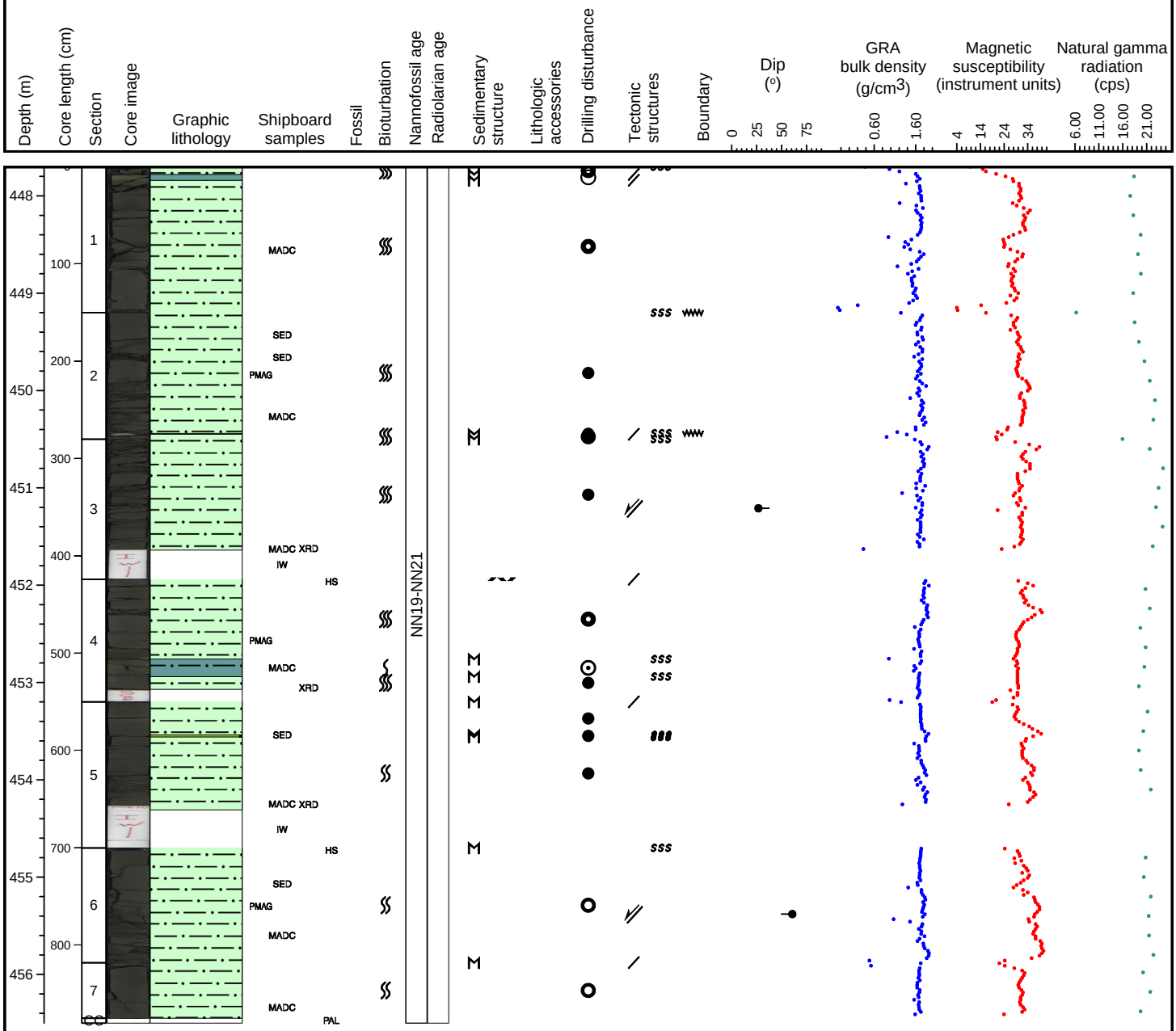
Hole 344-U1380C Core 2R, Interval 438.0-439.52 m (CSF-A)

Massive dark-greenish grey clayey siltstone (color 10 G 3/1) with accessory pyrite and biogenic components. Bioturbation is present at 20-60 cm depth. Light bluish gray carbonate nodule at 9-20 cm depth.



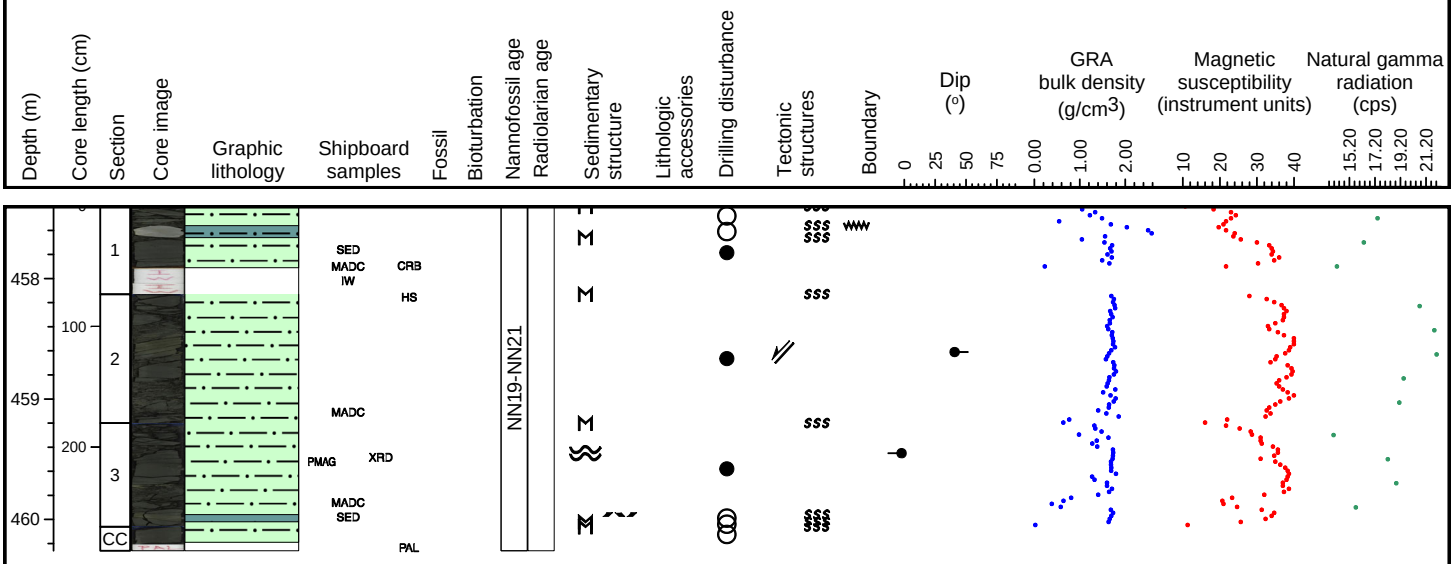
Hole 344-U1380C Core 3R, Interval 447.7-456.5 m (CSF-A)

Massive dark-greenish grey clayey siltstone (color 10 G 3/1) with pyrite disseminated throughout core and rare cm-long pyrite veins. Carbonate-rich horizon near top of section 1 and carbonate nodule in section 2, 123-125 cm. Bioturbation is present. Fractured by drilling disturbance.



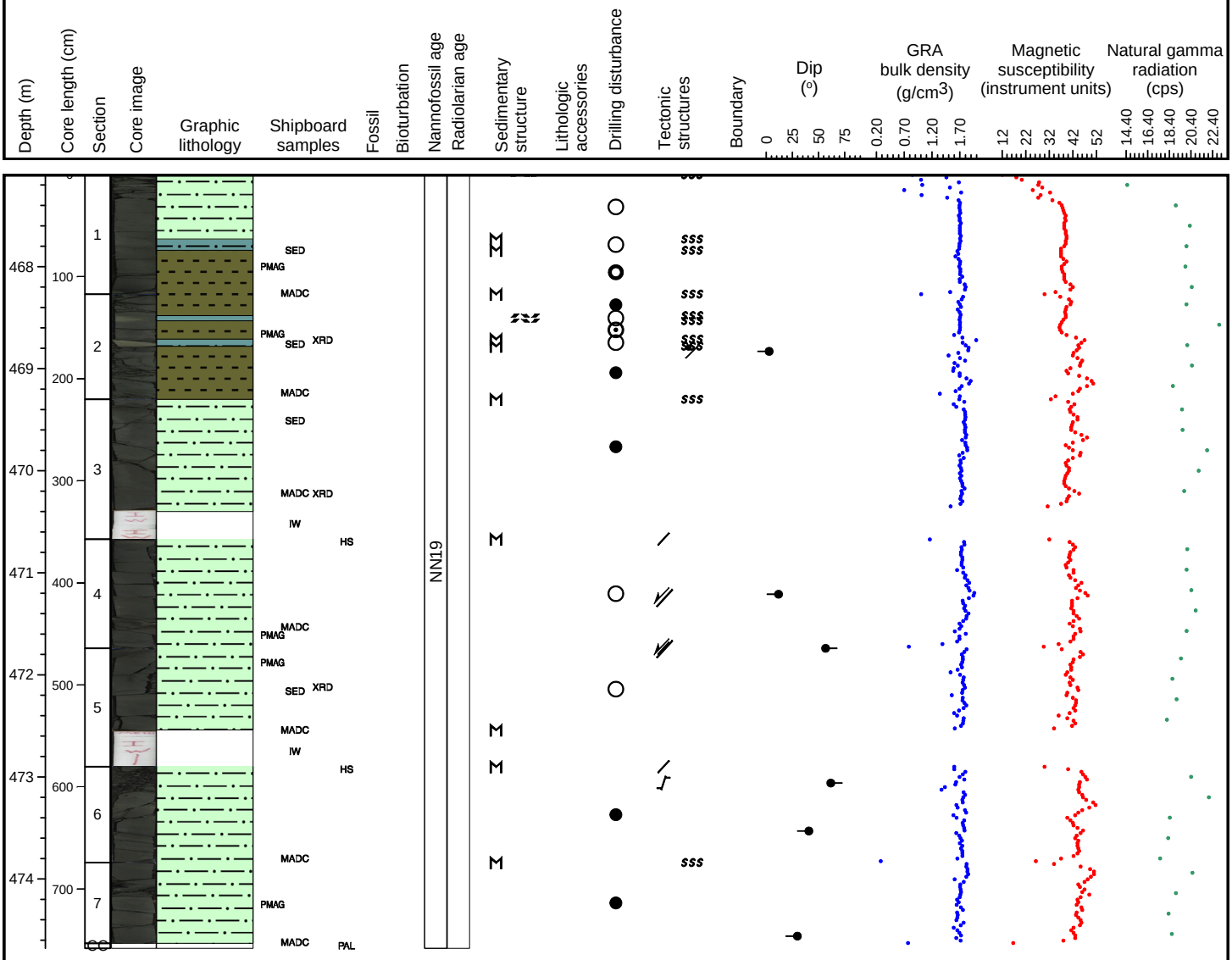
Hole 344-U1380C Core 4R, Interval 457.4-460.26 m (CSF-A)

Massive dark-greenish grey clayey siltstone (color 10 G 3/1) with rare pyrite disseminated and bioclasts throughout core. Carbonate-rich horizon near top of section 1 (16-26 cm) and section 3 (76-82 cm). Drilling disturbance (fractured) varies from slight to high.



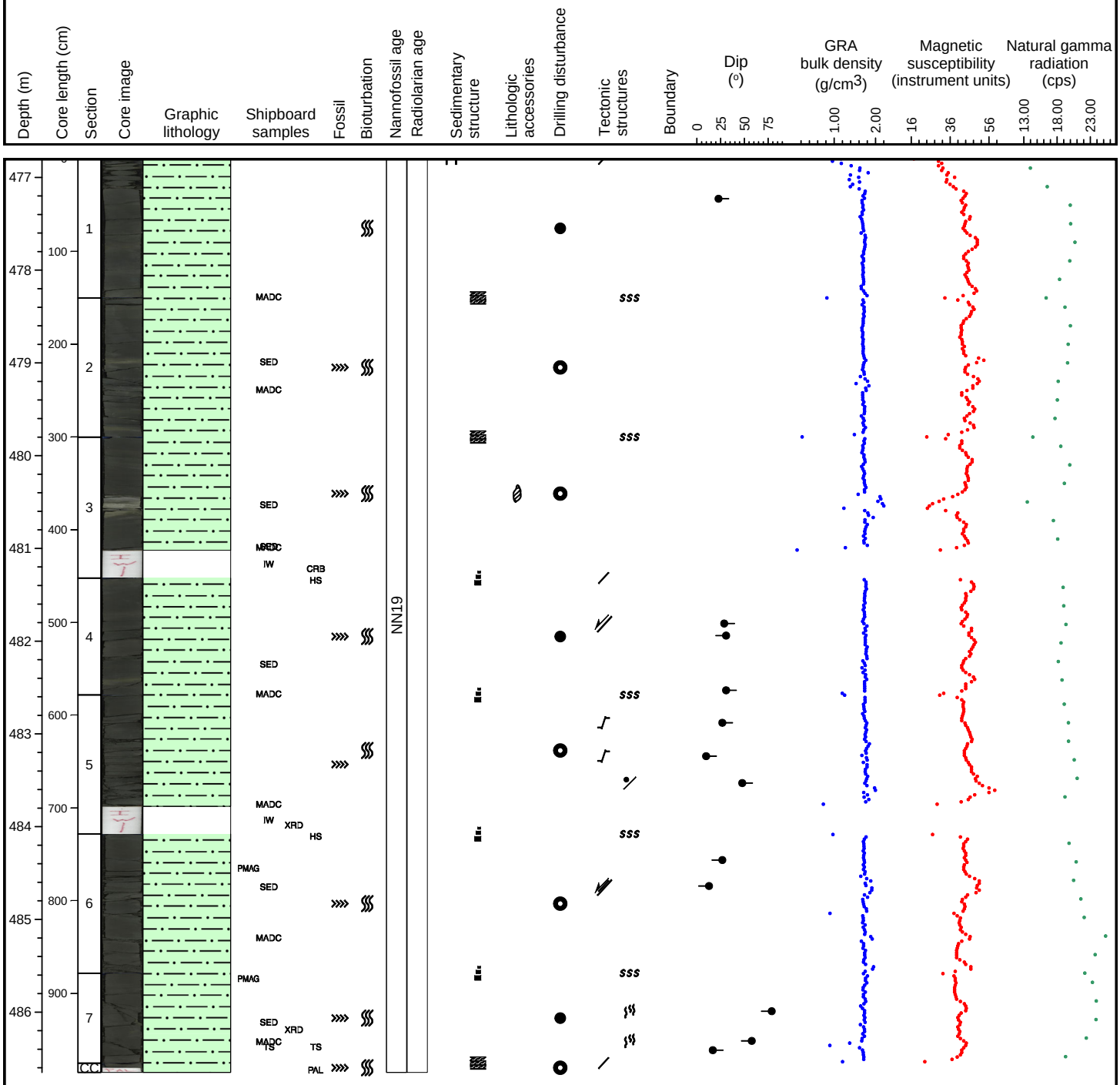
Hole 344-U1380C Core 5R, Interval 467.1-474.68 m (CSF-A)

Massive dark-greenish grey clayey siltstone (color 10 G 3/1) with rare bioclasts throughout core. Some carbonate-rich horizon in section 1 (63-74 cm) and 2 (21-26 cm and 44-51 cm). Sandy layers, typically about 1 cm thick increase with increasing depth. Drilling disturbance (fractured) varies from mostly moderate to sometimes high.



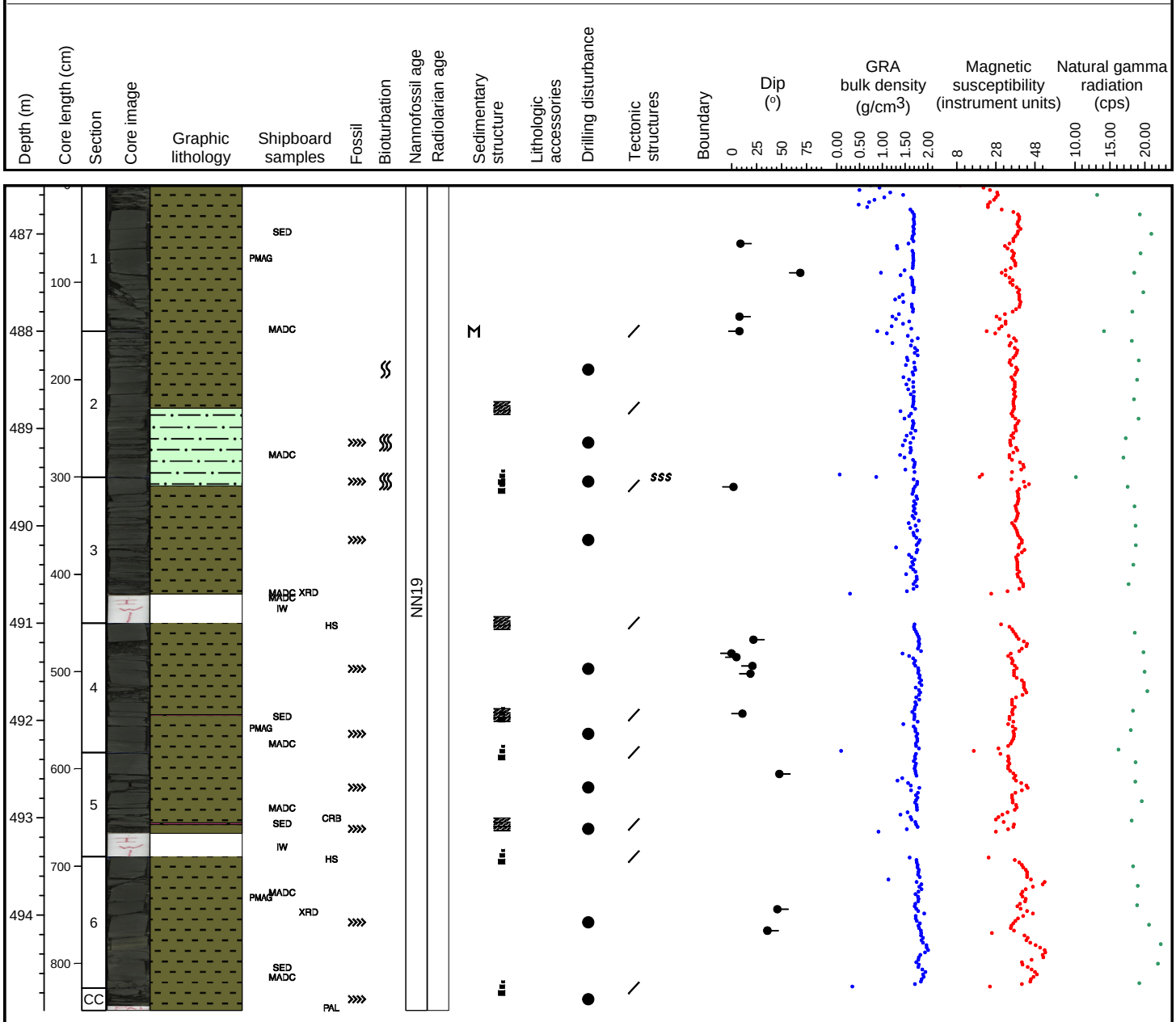
Hole 344-U1380C Core 6R, Interval 476.8-486.65 m (CSF-A)

This is a package of several dark greenish grey beds having fining upward sequences starting with an erosional contact and cm-thick horizons of fine sandstone, transitioning into silty claystone at top that is often characterized by a moderately to highly bioturbated calcareous cm-scaled horizon. Frequency of intervals increase toward the base. Ash pods at 120cm in section 3 and 50 cm in section 4; larger, up to 20 cm thick calcareous horizons are observed in section 2 63 to 72 cm, and section 3 63 to 85 cm.



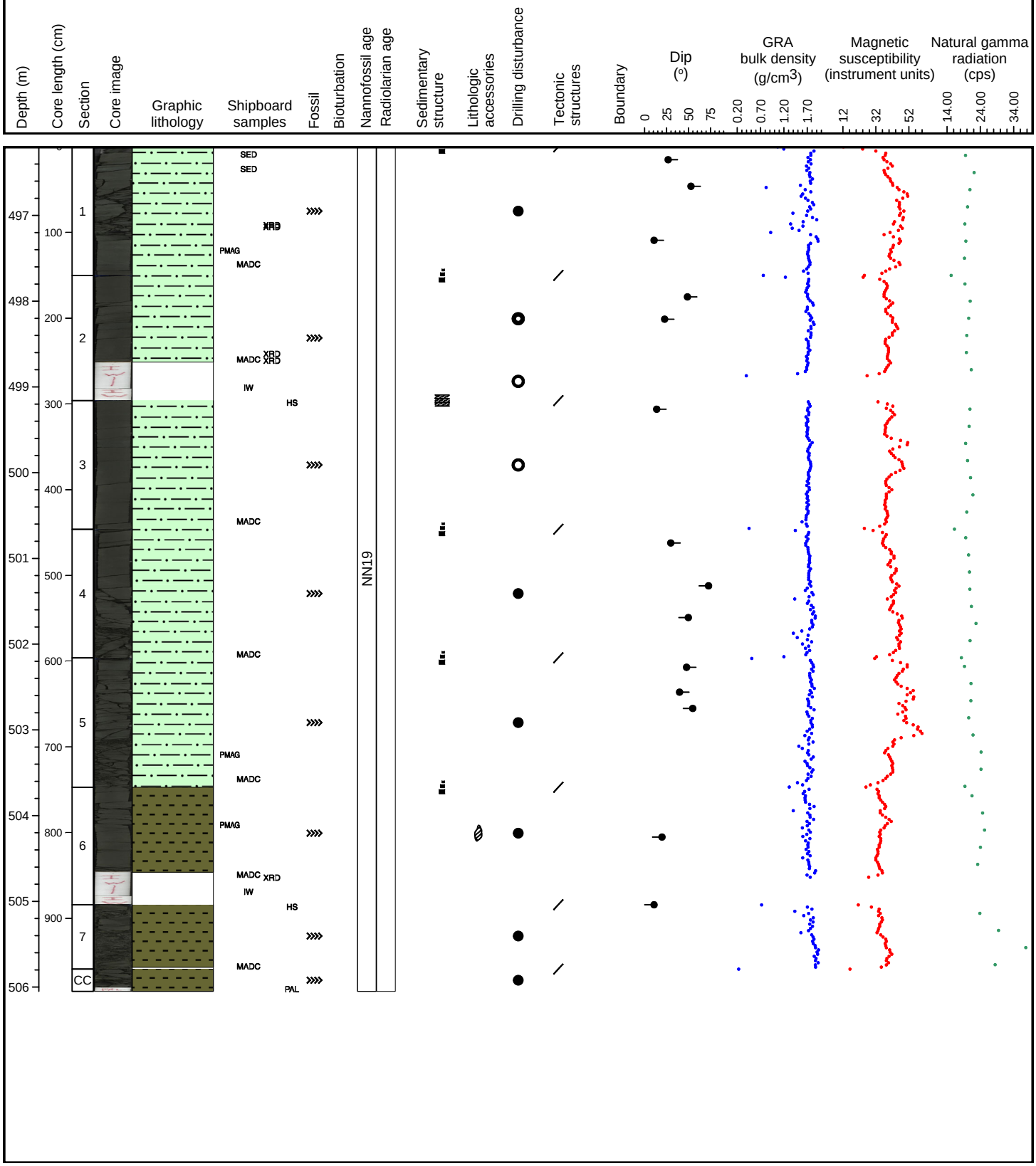
Hole 344-U1380C Core 7R, Interval 486.5-494.98 m (CSF-A)

This is a package of several dark greenish grey beds having fining upward sequences starting with an erosional contact and cm-thick horizons of fine sandstone, transitioning into silty claystone at top that is often characterized by a moderately to highly bioturbated calcareous cm-scaled horizon. In the middle of the core (section 4 and 5) sandstone abundance and thickness is decreasing and pyrite concretions are common, but in section 6 they come back to the frequency and thickness as in core 5. Two ash layers are observed at section 4, 96 to 96.5 cm and section 5, 72 to 74 cm. Overall shell fragments and foraminifers are macroscopically observed whereas nannofossils are abundant in the matrix. In Section 6, 66 cm, a 1 cm thick layer with shell fragments is present.



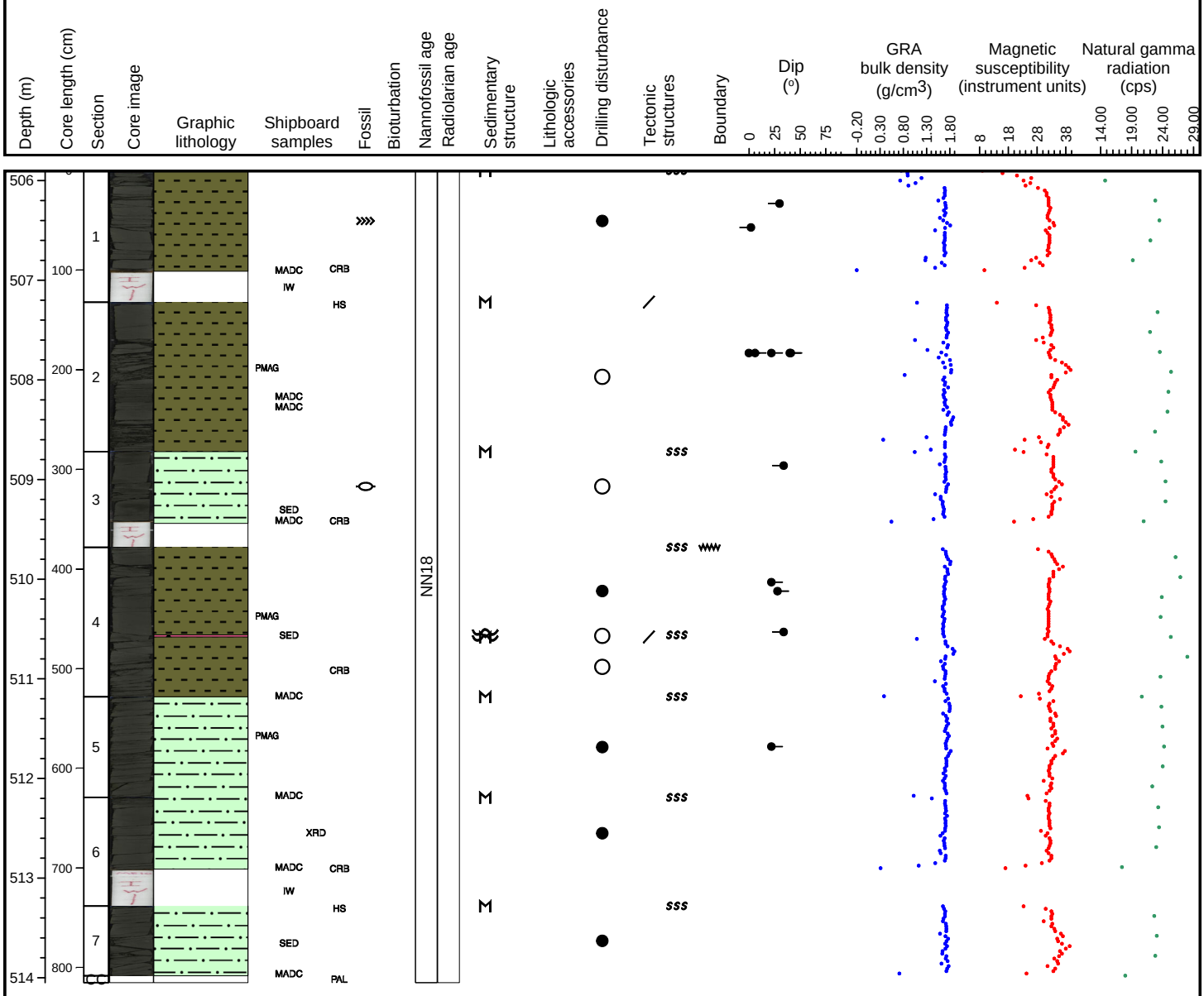
Hole 344-U1380C Core 8R, Interval 496.2-506.05 m (CSF-A)

This is a package of several dark greenish grey beds characterized by abundant thick (up to dm scale) interlayered intervals of a chaotic mix of sandstone, siltstone and clays. Overall pods containing shell fragments that are macroscopically observed whereas nannofossils are abundant in the matrix. Also several pyrite pods that are up to 1 cm in size. Some sections of this core are highly disturbed by drilling.



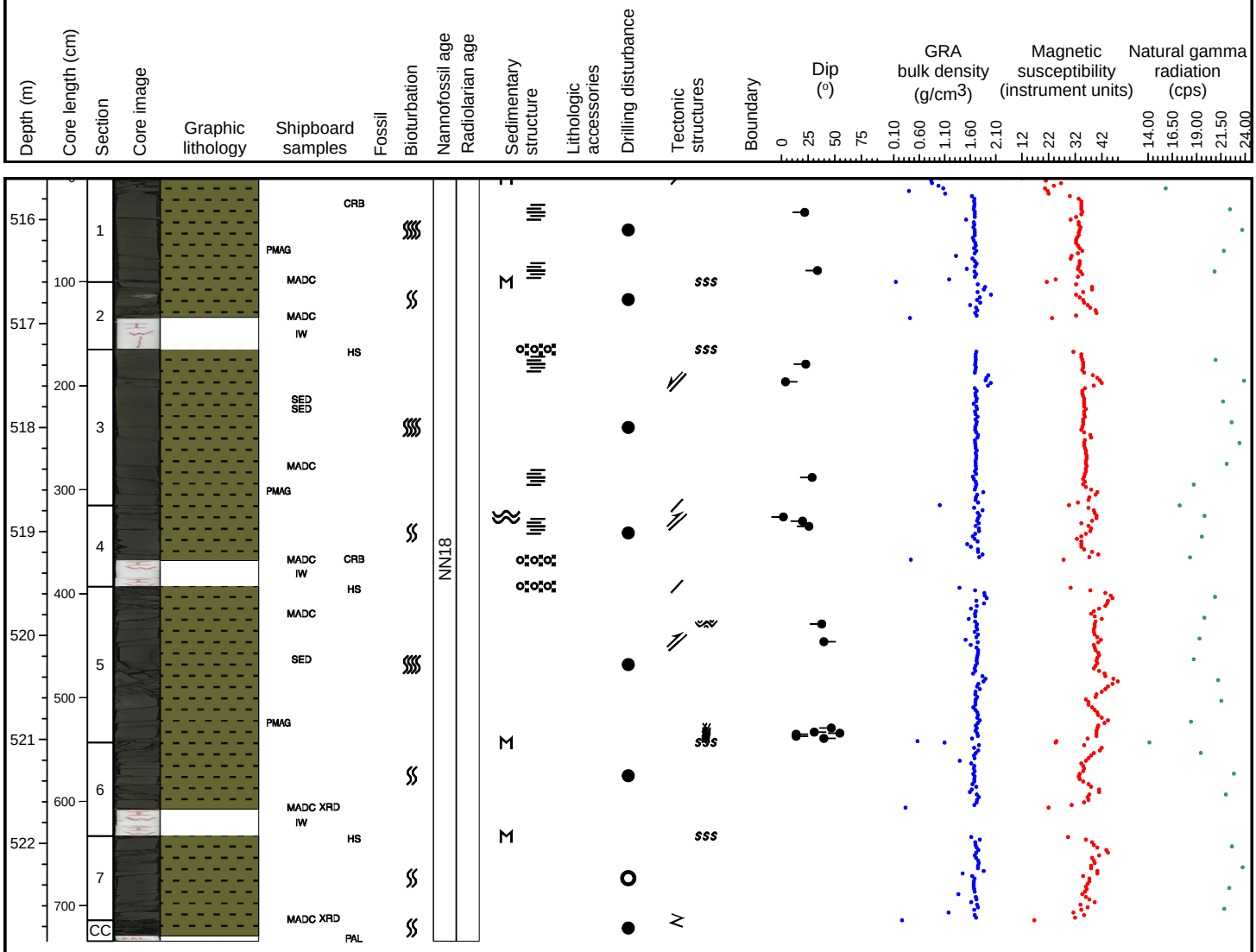
Hole 344-U1380C Core 9R, Interval 505.9-514.05 m (CSF-A)

Massive greenish grey clayey siltstone alternating with silty claystone that contains commonly rare pyrite and calcareous bioclasts. Light-grey to grey-greenish tephra layer in section 4 (88-90 cm).



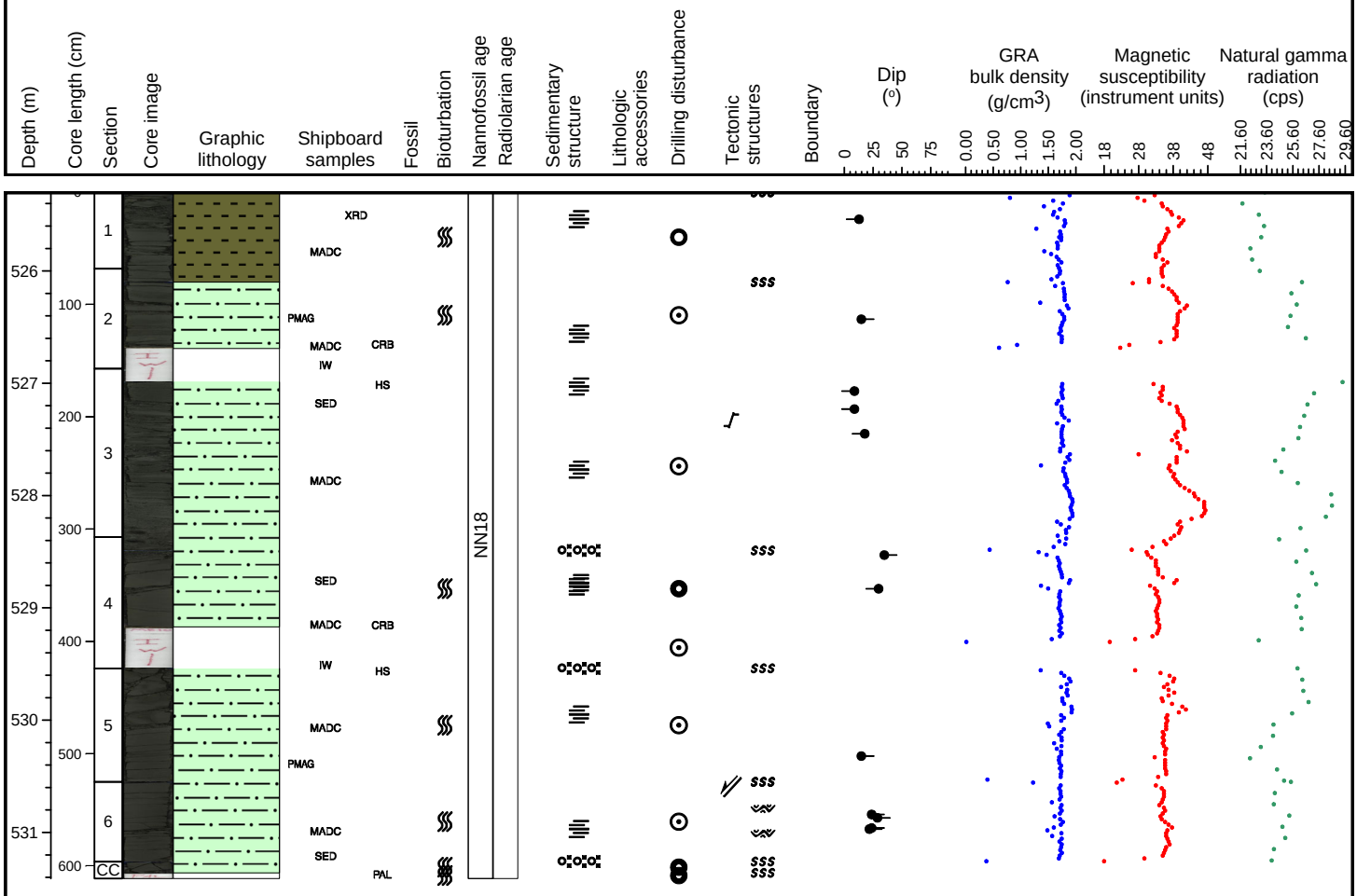
Hole 344-U1380C Core 10R, Interval 515.6-522.94 m (CSF-A)

Massive greenish grey silty claystone with intercalated schlieren of silt and bioturbation that cause a slightly marbleized appearance. Common disseminated calcareous fossils and rarer pyrite. Diffuse carbonate enrichment in section 2 between 12-15 cm depth and calcareous components in surrounding claystone. Common throughout core are in-situ fractures with openings.



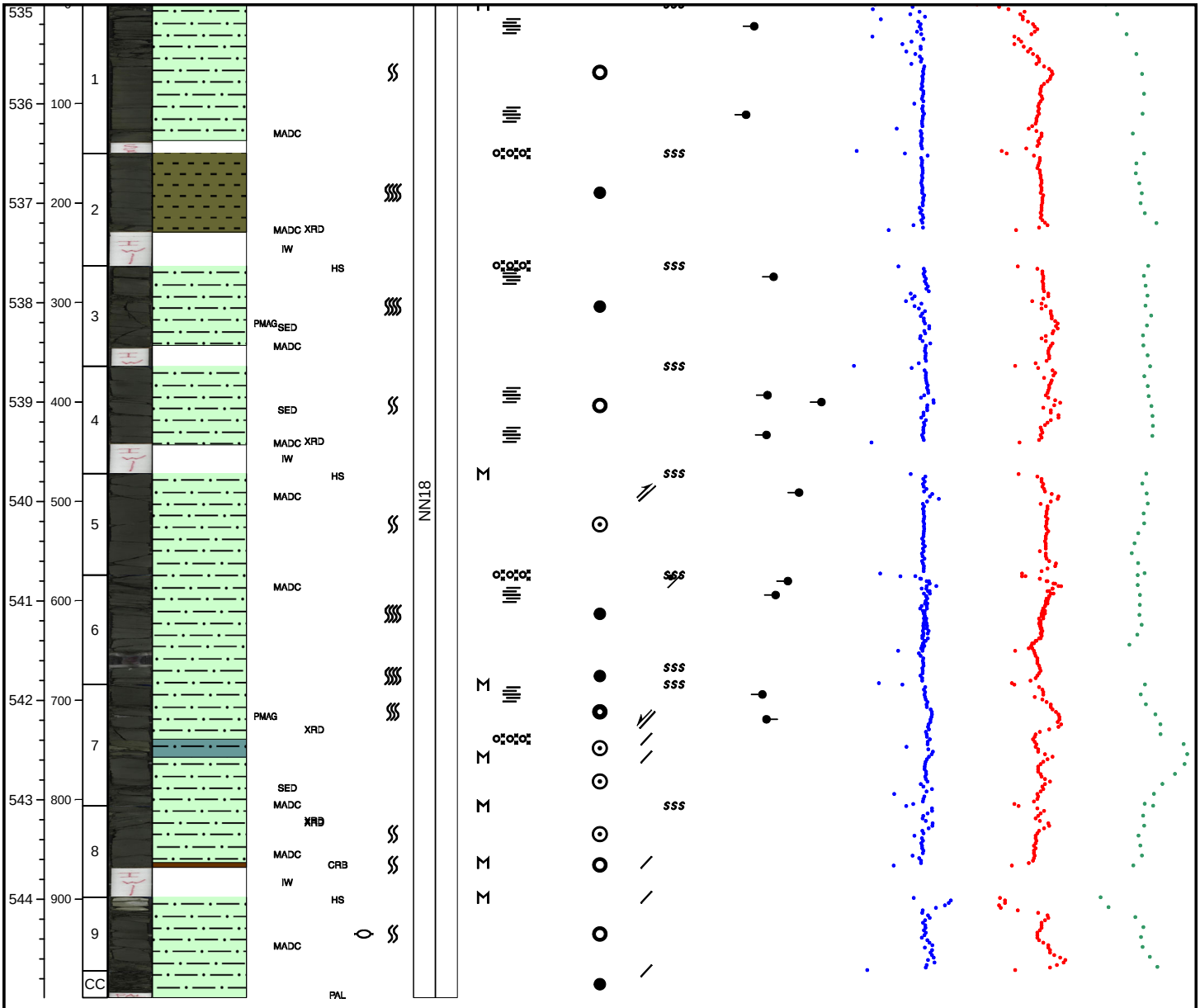
Hole 344-U1380C Core 11R, Interval 525.3-531.41 m (CSF-A)

Greenish grey silty claystone to clayey siltstone presenting bioturbation. Abundant in situ fractures.



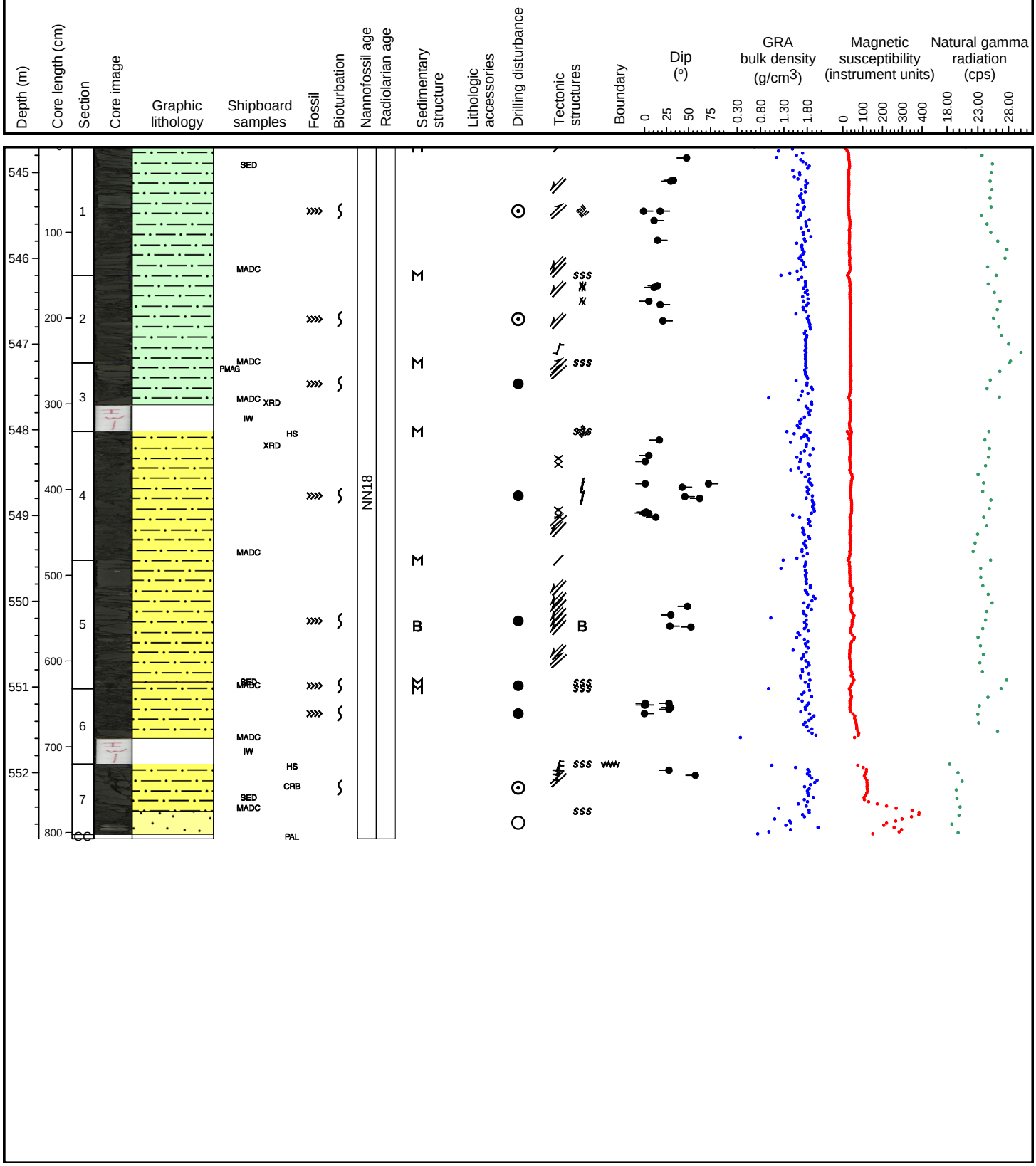
Hole 344-U1380C Core 12R, Interval 535.0-544.99 m (CSF-A)

Massive very dark greenish gray clayey siltstone with a well sorted matrix of feldspars, hornblende, quartz and accessory actinolite and biotite. Some diatom fragments but nannofossils have become more sparse in general. Disseminated shell fragments throughout core. Bioturbation is common and drilling disturbances are high.



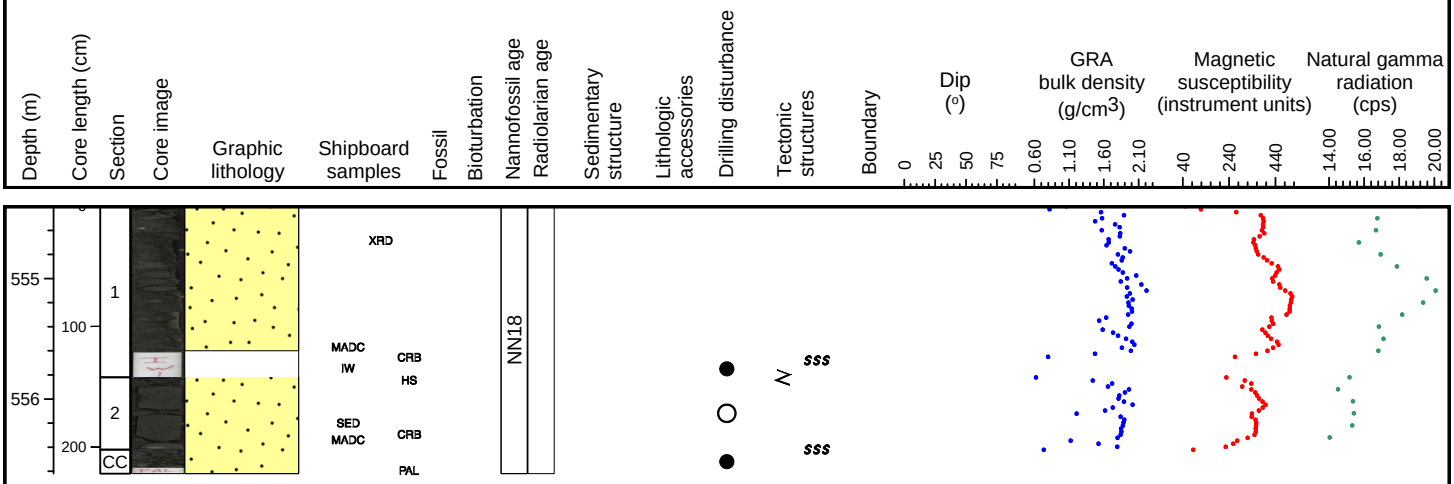
Hole 344-U1380C Core 13R, Interval 544.7-552.77 m (CSF-A)

Massive very dark green clayey siltstone grades into sandstone towards the bottom of the core. Disperse sandy layers are present that contain a matrix with common foram and diatom fragments. Non biogenic components are common feldspar, hornblende, chlorite, biotite and zeolites. Larger shell fragments and petrified wood fragments are present. Highly fractured by drilling disturbances and parts of the core are fractured along foliation planes that are mm's thick. A thin tephra layer also present in section 5, 142 - 143 cm.



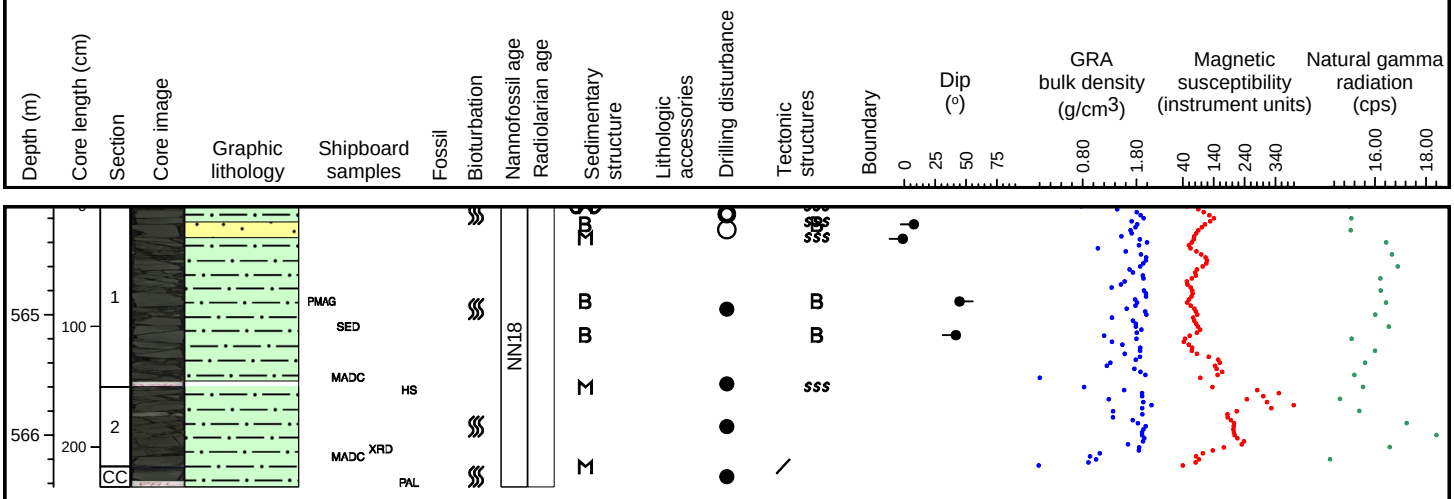
Hole 344-U1380C Core 14R, Interval 554.4-556.62 m (CSF-A)

Poorly to weakly consolidated greenish grey sandstone with abundant shell fragments and other microscopic biogenic material. Matrix composed of feldspar and amphyboles with lithic fragments and chlorite. Pyrite also abundant.



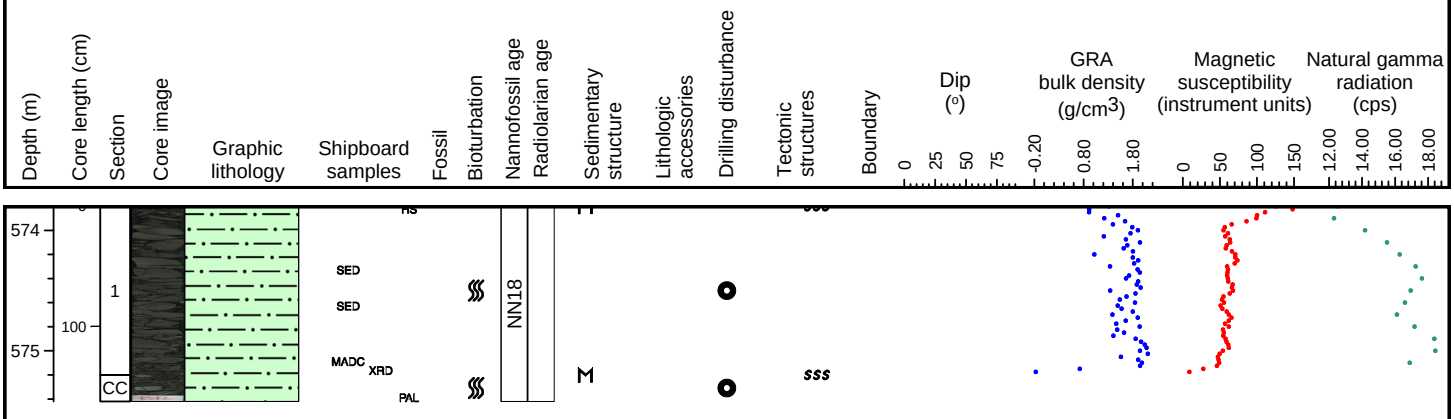
Hole 344-U1380C Core 15R, Interval 564.1-566.43 m (CSF-A)

Very dark greenish grey clayey siltstone with several beds (up to 10 cm) of sandstones that are bioturbated at the top and show sometime lamination due to small grain size changes. One carbonate clast occurs in section 2 at 21 to 25 cm.



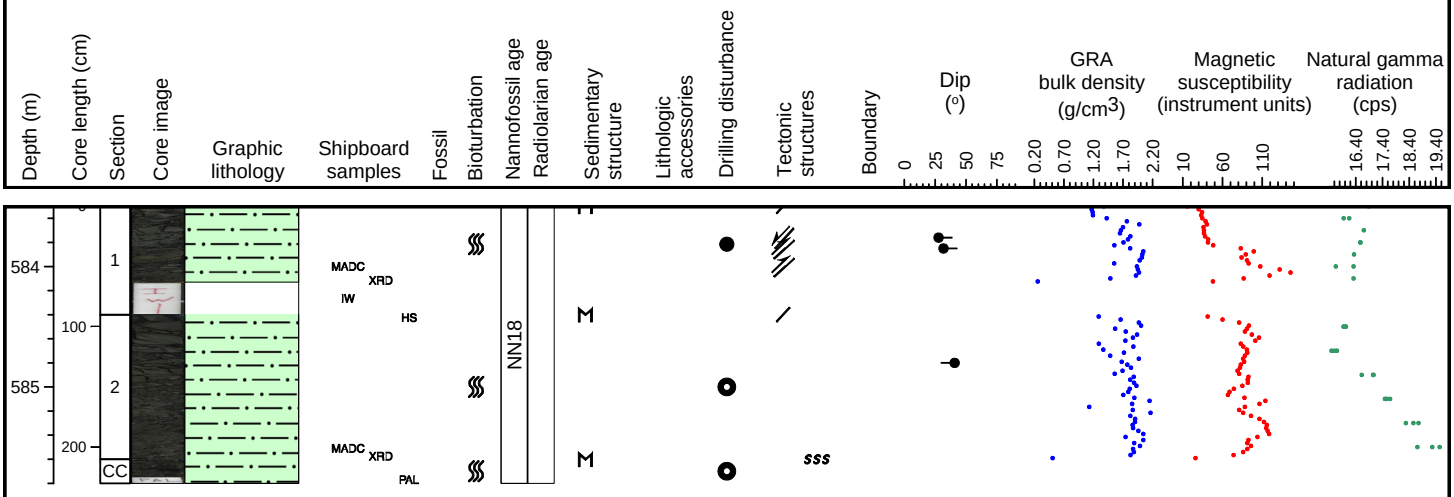
Hole 344-U1380C Core 16R, Interval 573.8-575.42 m (CSF-A)

Very dark greenish grey clayey siltstone with several beds (up to 10 cm) of sandstones that are bioturbated at the top. A carbonate cemented conglomeritic clast occurs in section 2 at 10 to 13 cm. Nannos are rare but present, forams and diatoms are very rare to absent. Sand layers contain abundant to dominant lithic fragments, common feldspar, glass, rare calcite, chlorite and pyroxene.



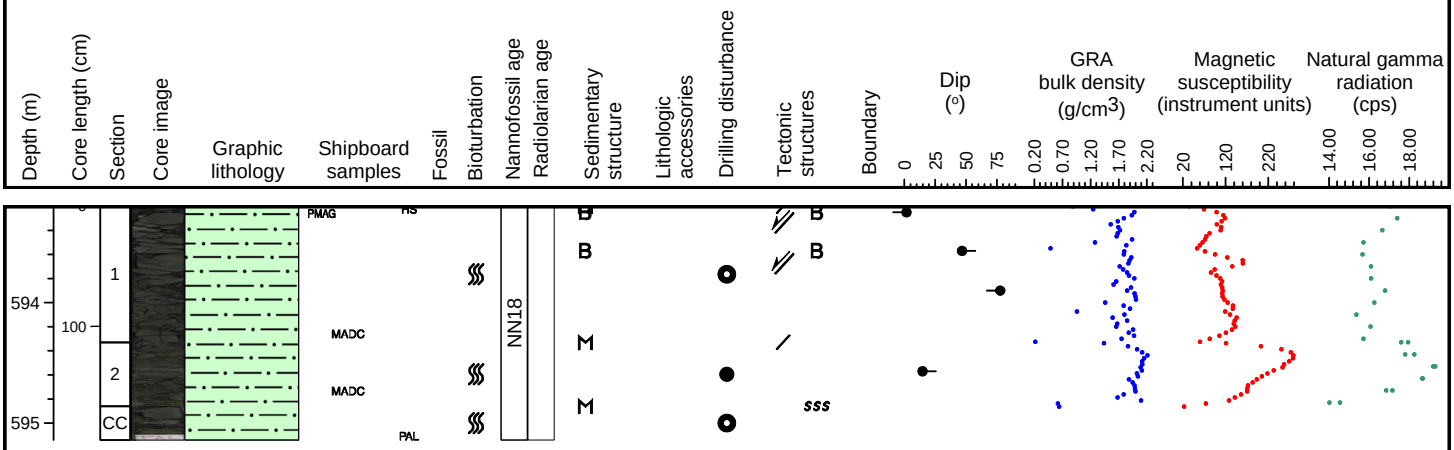
Hole 344-U1380C Core 17R, Interval 583.5-585.8 m (CSF-A)

Very dark greenish grey clayey siltstone with several beds (up to 10 cm) of sandstones that are bioturbated at the top. Nannos are rare but present, forams and diatoms are very rare to absent. Matrix contains sand layers with abundant to dominant lithic fragments, common feldspar, glass, rare calcite, chlorite and pyroxene.



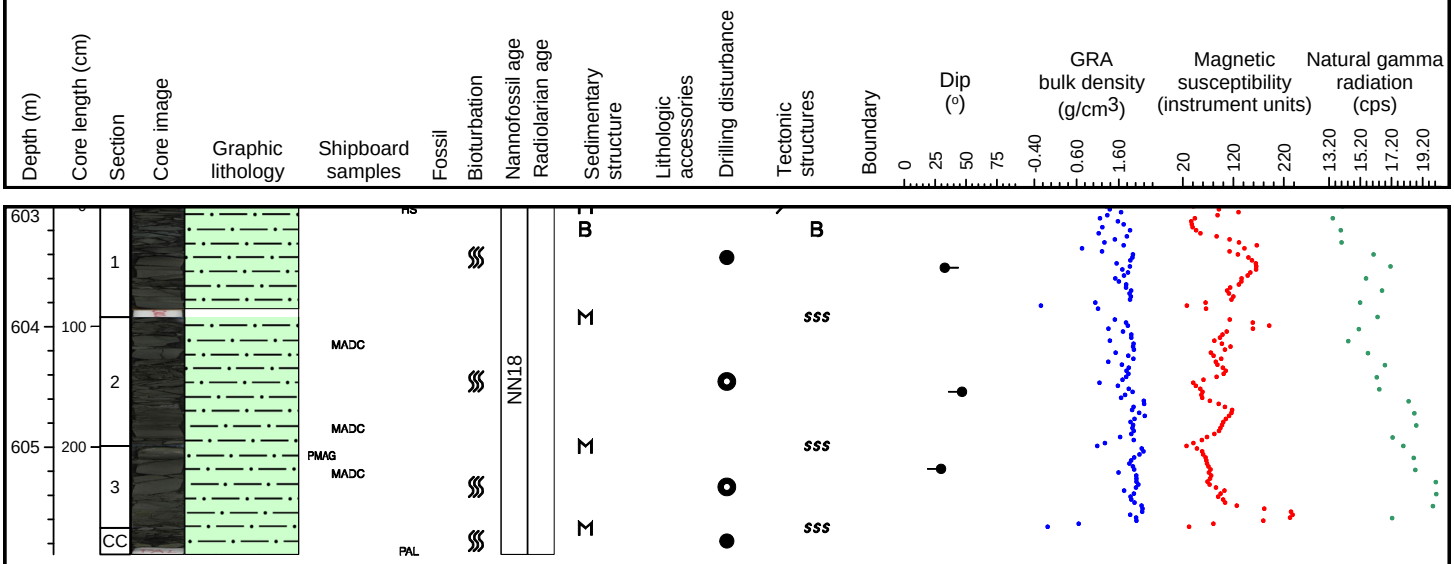
Hole 344-U1380C Core 18R, Interval 593.2-595.14 m (CSF-A)

Massive very dark greenish gray clayey siltstone with a well sorted matrix of feldspars, hornblende, quartz and accessory actinolite and biotite. Some diatom fragments but nannofossils have become more sparse in general. Very rare shell fragments throughout core. Bioturbation is common and drilling disturbances are high. Intercalated sandstone beds are in cm-scale.



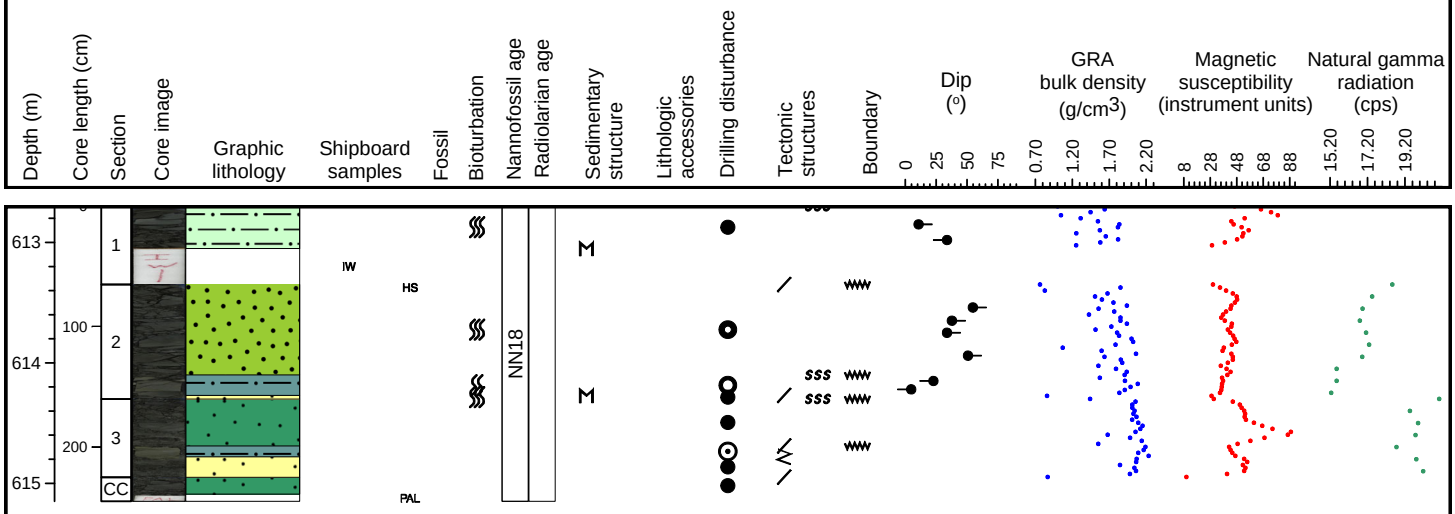
Hole 344-U1380C Core 19R, Interval 603.0-605.89 m (CSF-A)

Massive very dark greenish gray clayey siltstone with a well sorted matrix of feldspars, hornblende, quartz and accessory actinolite and biotite. Some diatom fragments but nannofossils have become more sparse in general. Very rare shell fragments throughout core. Bioturbation is common and drilling disturbances are high. Intercalated sandstone beds getting grey color (N3.1) but still are in cm-scale and partly disseminated.



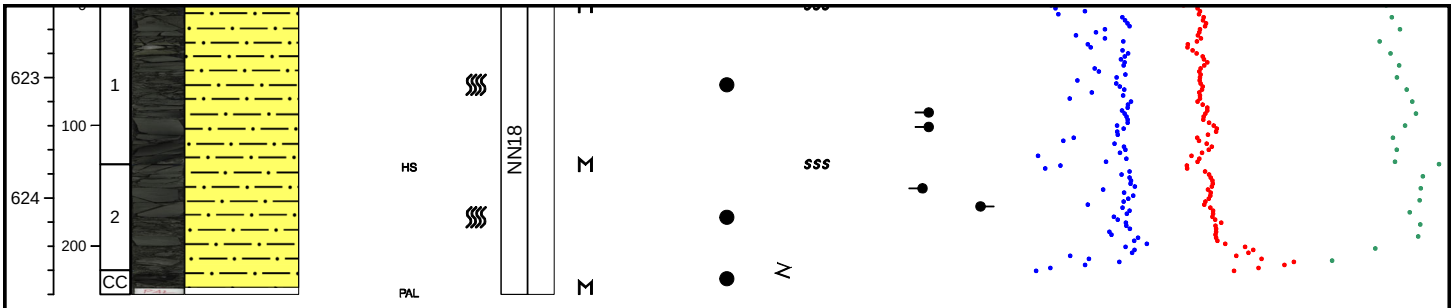
Hole 344-U1380C Core 20R, Interval 612.7-615.15 m (CSF-A)

Massive very dark greenish gray clayey siltstone with intercalated beds of sand. Calcareous siltstone in section 2, 75-92 cm, and section 3, 39-48 cm.



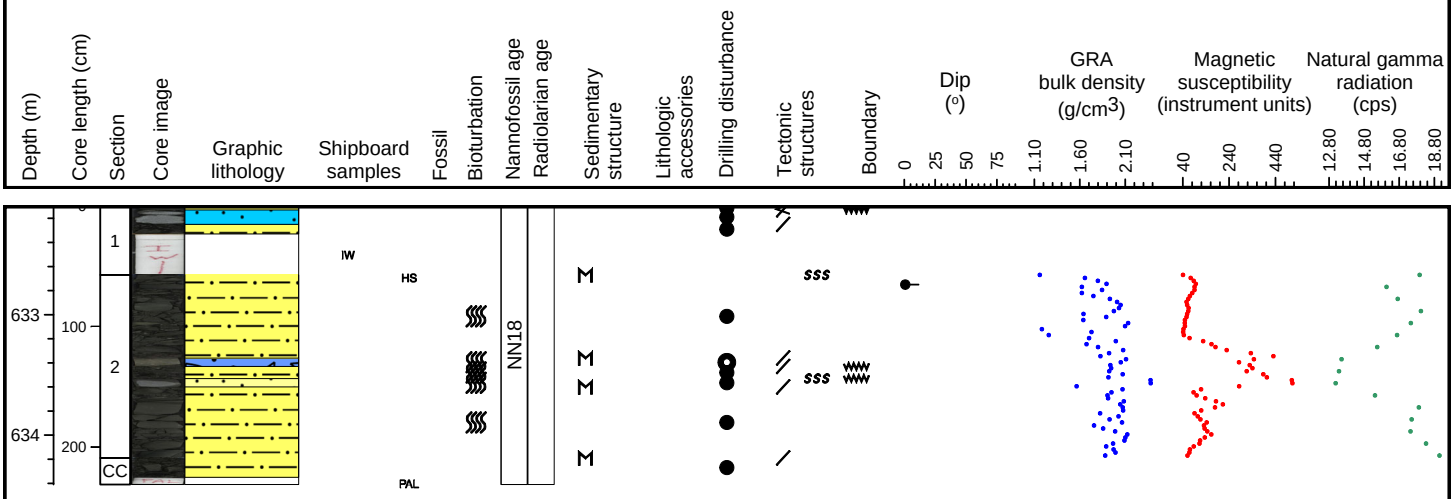
Hole 344-U1380C Core 21R, Interval 622.4-624.8 m (CSF-A)

Massive very dark greenish gray clayey siltstone with intercalated beds of sand. Sand is more frequent, and depositional facies in part chaotic with schlieren and pods of sand distributed in siltstone. Calcareous concretion in section 1, 34-36 cm.



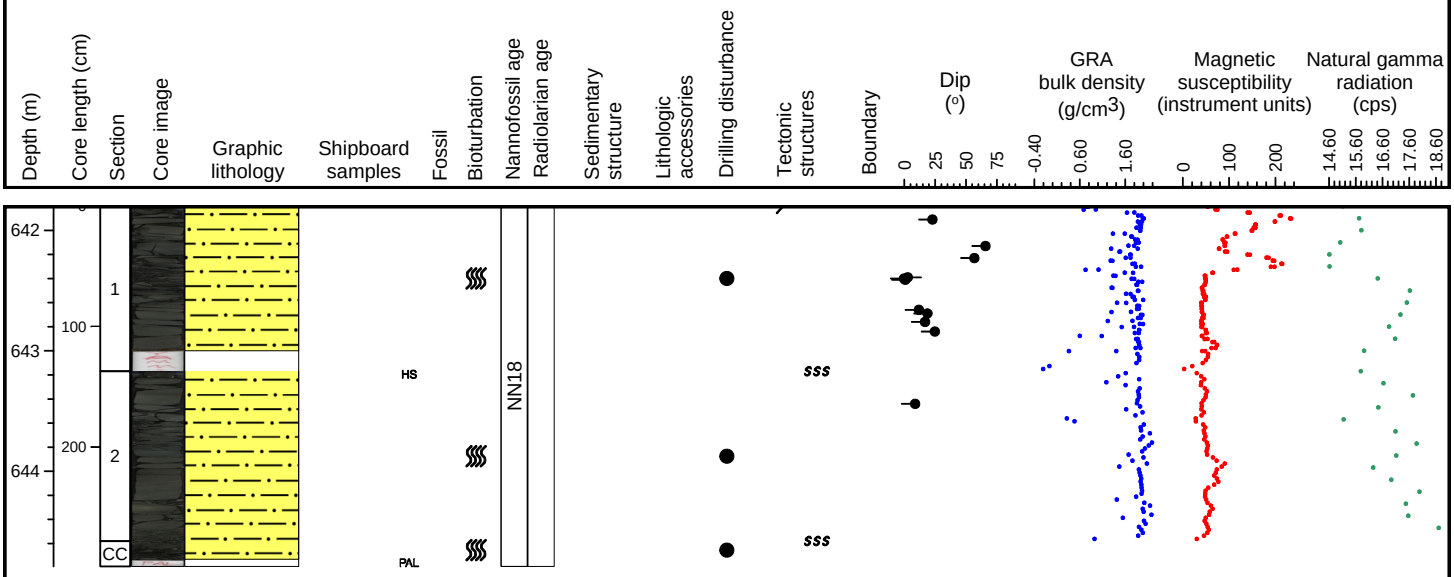
Hole 344-U1380C Core 22R, Interval 632.1-634.41 m (CSF-A)

Massive very dark greenish gray clayey siltstone with intercalated beds of medium-grained and coarse-grained sand. Depositional facies partly chaotic with pods and schlieren of sand mingled within siltstone. Coarse-grained sandstone in section 1, 3-15 cm (poorly sorted coarse sandstone without bedding) and section 2, 86-93 cm. Calcareous breccia at 69-76 cm.



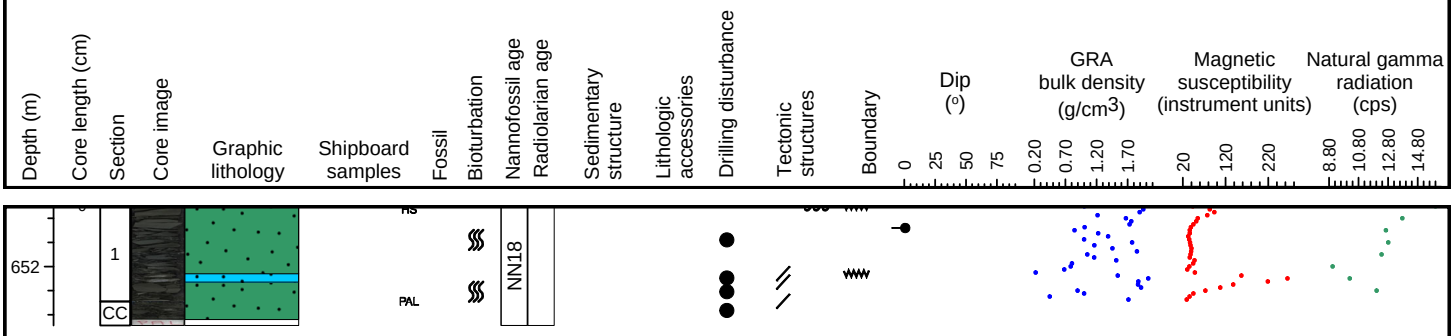
Hole 344-U1380C Core 23R, Interval 641.8-644.79 m (CSF-A)

Massive dark greenish gray clayey siltstone with intercalated beds of fine-grained to medium-grained sand. Matrix is calcareous in upper 50 cm of section 2; calcareous concretion in section 2 at 96-114 cm.



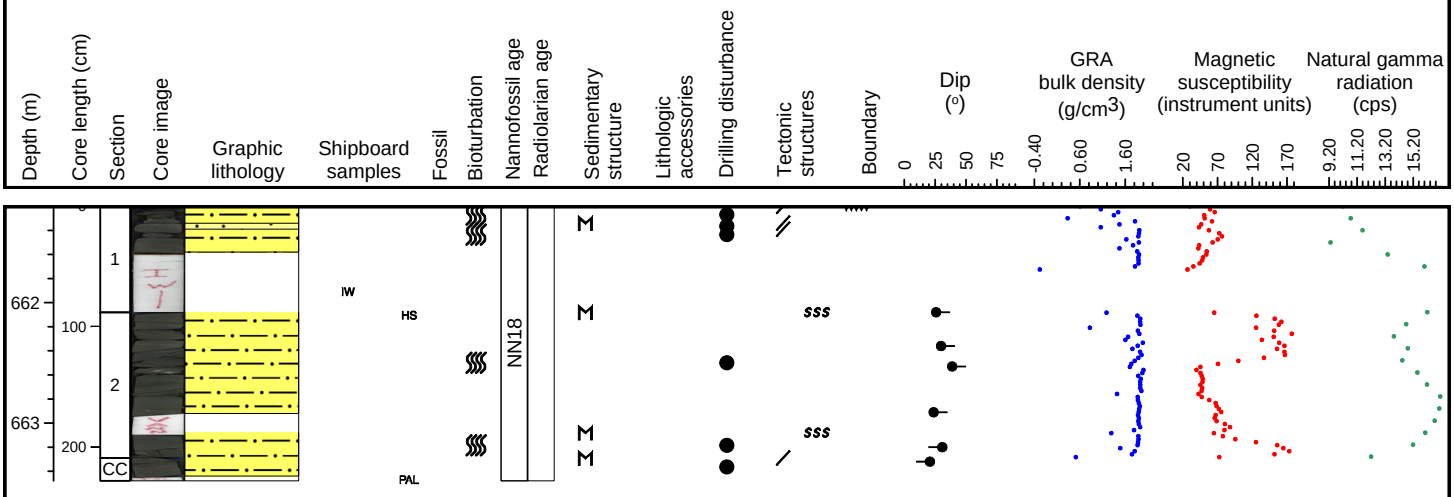
Hole 344-U1380C Core 24R, Interval 651.5-652.49 m (CSF-A)

Massive dark greenish gray sandstone intercalated with siltstone beds. Very coarse-grained poorly sorted sandstone with calcareous matrix in section 1, 56-63 cm, with rounded to angular clasts and no visible bedding.



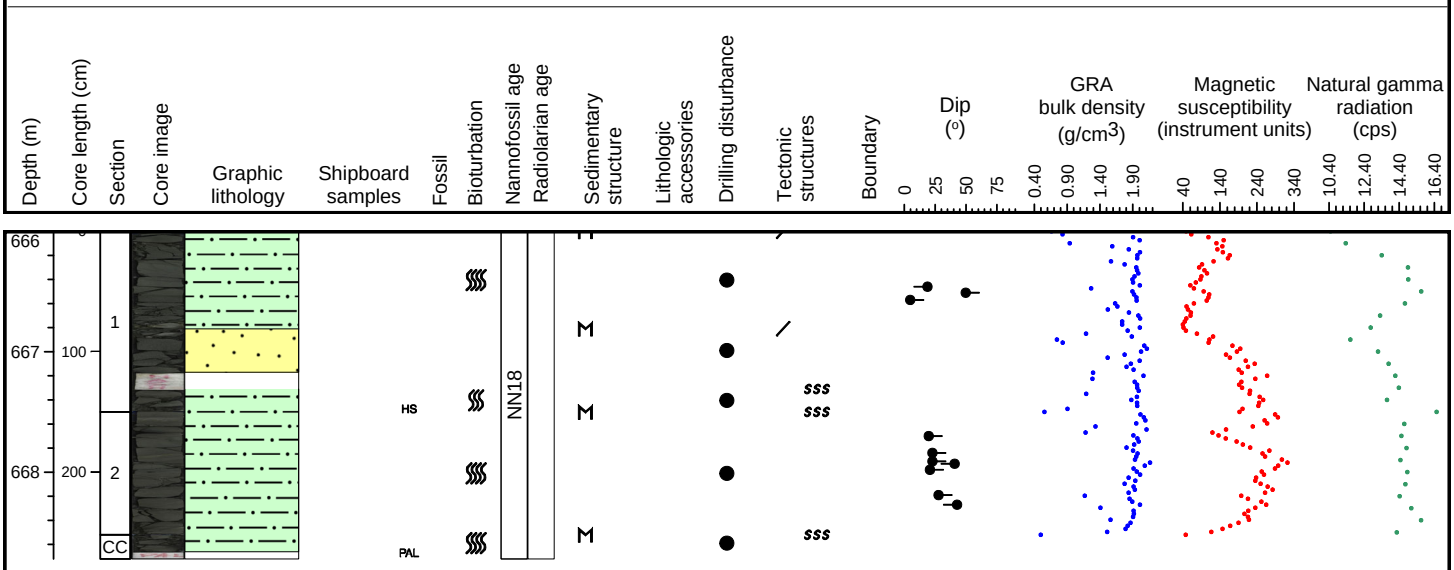
Hole 344-U1380C Core 25R, Interval 661.2-663.48 m (CSF-A)

Massive dark greenish gray siltstone intercalated with multiple beds of medium-grained to coarse-grained sandstone. Principal sandstone beds in section 1, 14-19 cm, and section 2, 12-15 cm (coarse-grained sandstone), 34-43 cm (medium-grained), 76-80 (fine-grained). Residual bed of very coarse-grained sandstone ("beach-sand") at top of core-catcher.



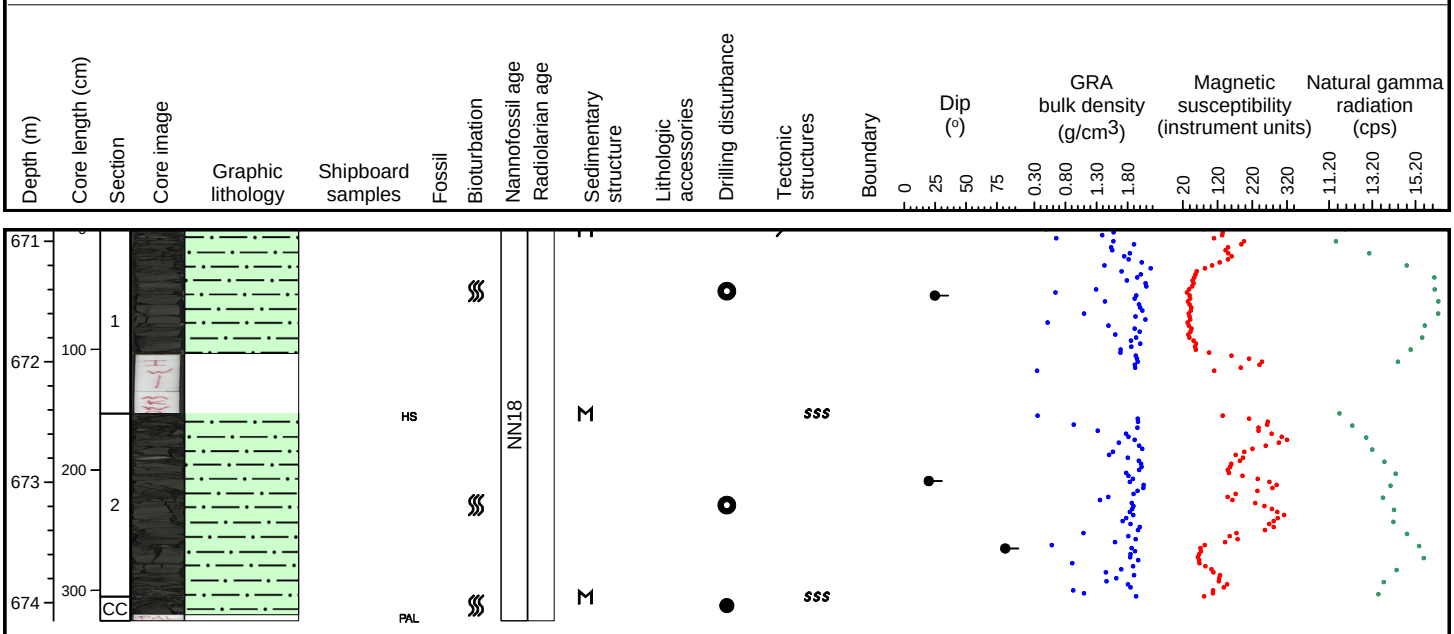
Hole 344-U1380C Core 26R, Interval 666.0-668.72 m (CSF-A)

Massive dark greenish gray siltstone intercalated with multiple beds of sand.



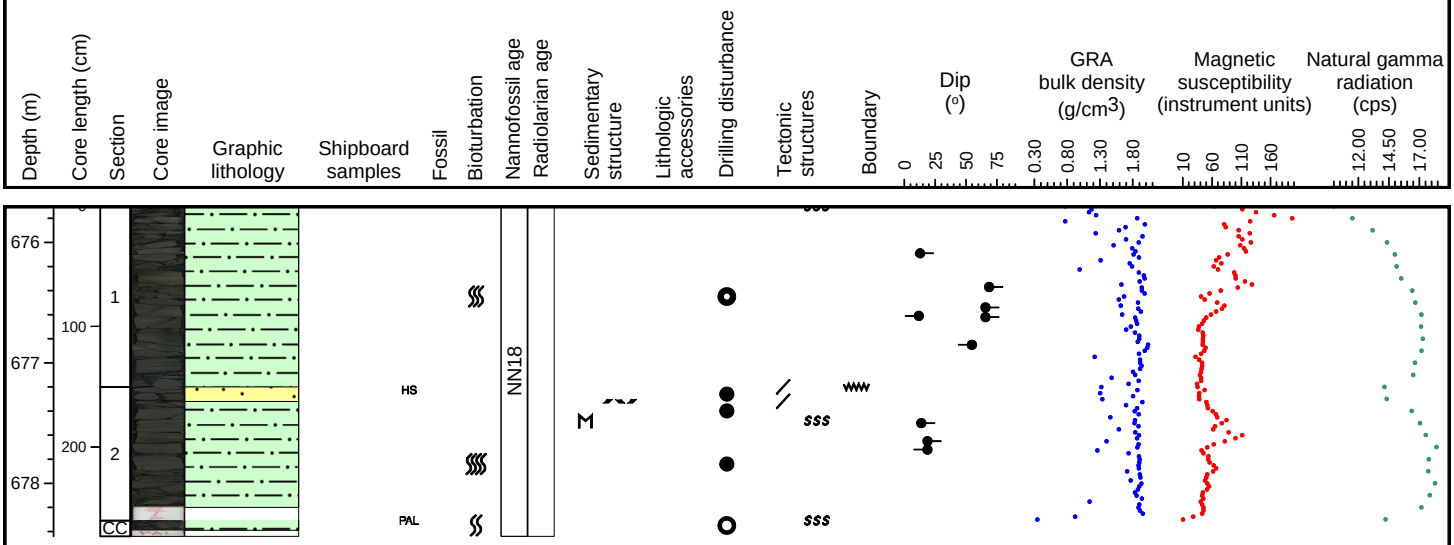
Hole 344-U1380C Core 27R, Interval 670.9-674.15 m (CSF-A)

Massive dark greenish gray siltstone intercalated with multiple beds of sand.



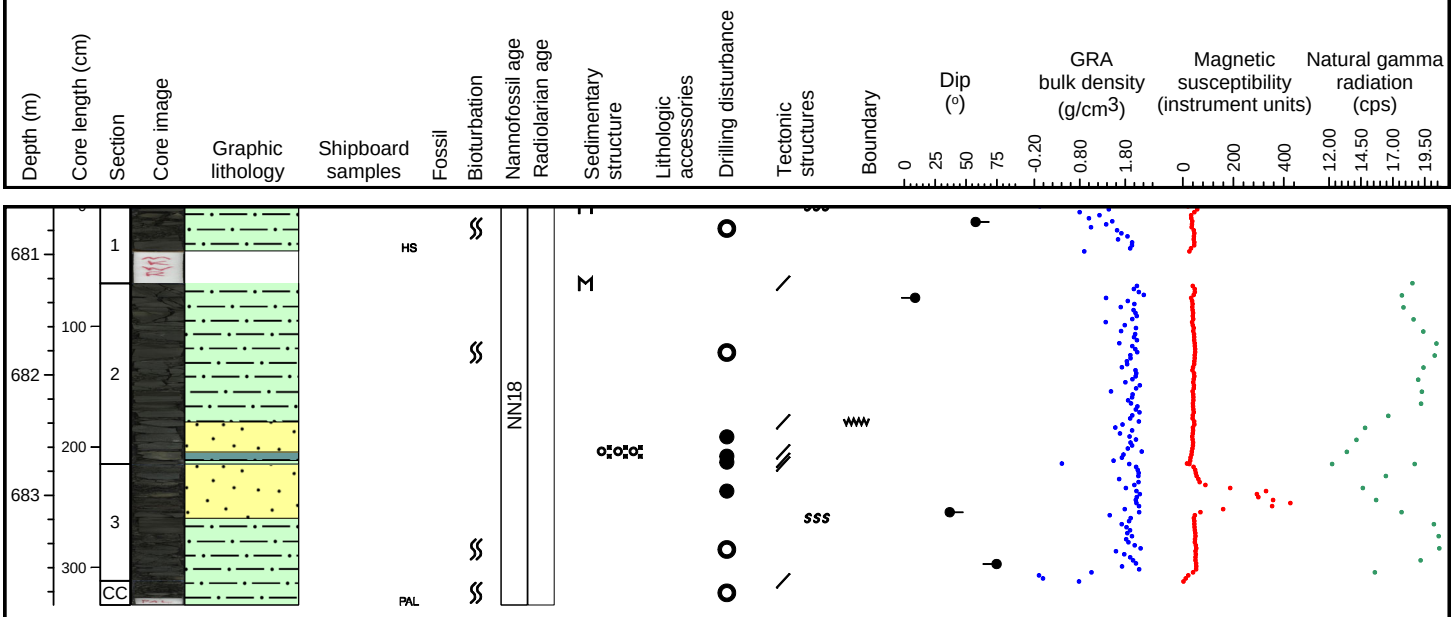
Hole 344-U1380C Core 28R, Interval 675.7-678.44 m (CSF-A)

Massive dark greenish gray siltstone intercalated with multiple bed of fine-grained, medium-grained and coarse-grained sandstone. Sandstone up to decimeter thick, commonly normally graded and has often erosional bottom contacts. In section 2, at 12-20 cm there are 'rip-up clasts" of coarse sand in siltstone matrix.



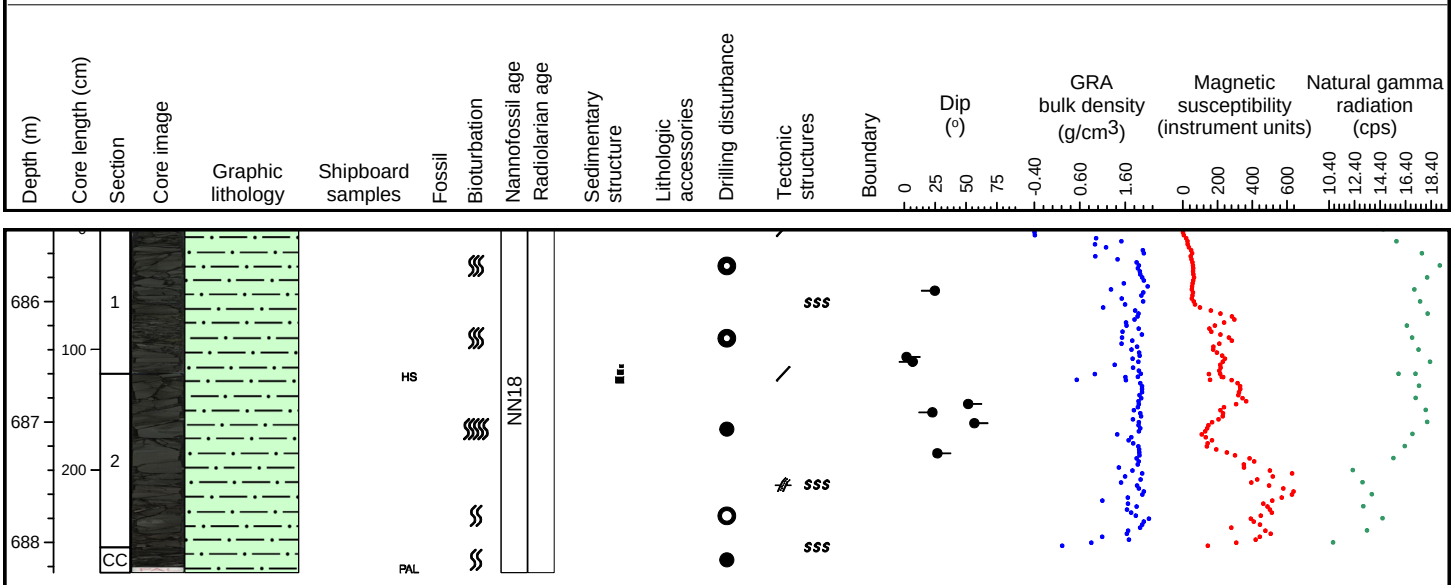
Hole 344-U1380C Core 29R, Interval 680.6-683.91 m (CSF-A)

Massive dark greenish gray siltstone intercalated with multiple bed of fine-grained, medium-grained and coarse-grained sandstone. Sandstone up to decimeter thick, commonly normally graded and has often erosional bottom contacts. In section 2, at 118 to 132 a very coarse normal graded sandstone bed is included that is transitioning in to a breccious part dominated by reworked sandstone fragments between 132 to 139 and further to calcareous breccia between 139 to 146-20 cm (section 1) within a silty matrix. Additional horizons with calcareous breccia at 13 to 17 cm and 23 to 27 cm on section 3.



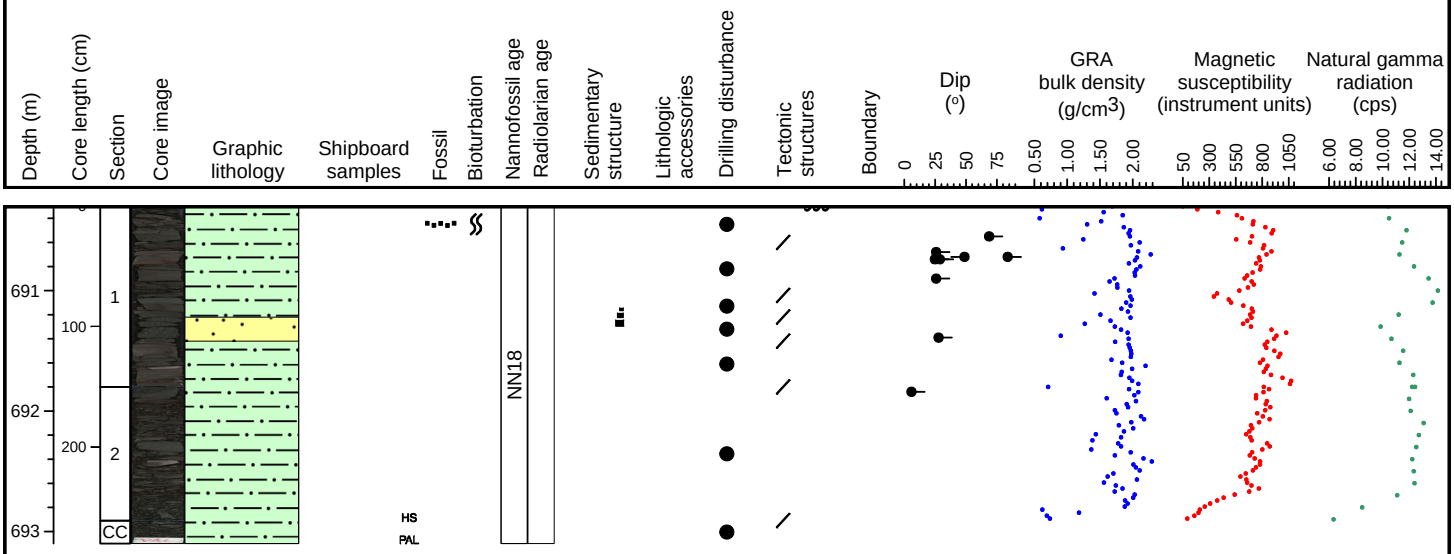
Hole 344-U1380C Core 30R, Interval 685.4-688.25 m (CSF-A)

Thick bedded dark greenish gray clayey silt with multiple interbedded sand layers that range from less than a cm to 2 cm thick. A thick bedded horizon grades normally from fine silt to very coarse sand in section 2 from 64 to 87 cm depth. A slight change in color in the lower part of the core to a more brownish material but with the same composition. Biogenetic material rare to absent. Matrix composition is mainly feldspar and lithic fragments with rare amphybole, chert and chlorite.



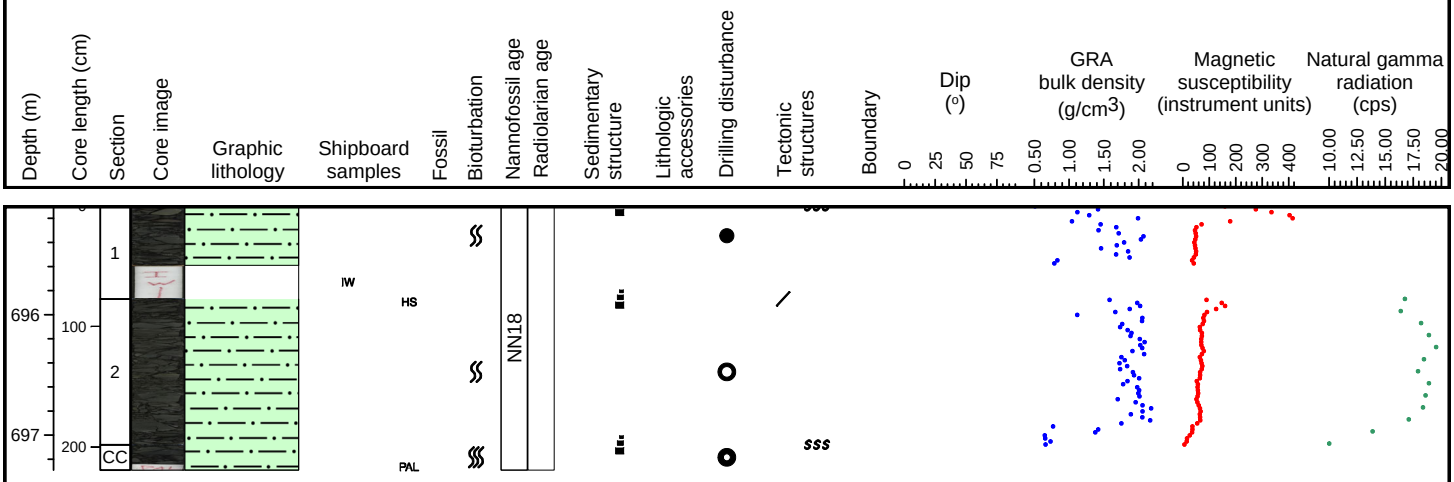
Hole 344-U1380C Core 31R, Interval 690.3-693.1 m (CSF-A)

Interlayered clayey siltstone with 5 thick bedded sandstone to conglomerate layers at section 1: 24 to 30; 49 to 53; 75 to 80; 92 to 113; Section 2 0 to 9; 44 to 53 cm. These are reddish brownish sandstone layers that are medium bedded becoming more grayish downcore. These are well sorted, normally graded and fine to medium sized. Matrix composition is feldspar, rare amphybole, some chert and calcite. Llithic fragments are abundant. Extremely fractured due to drilling disturbance. Biogenic material is rare but matrix contains calcareous fine grained material.



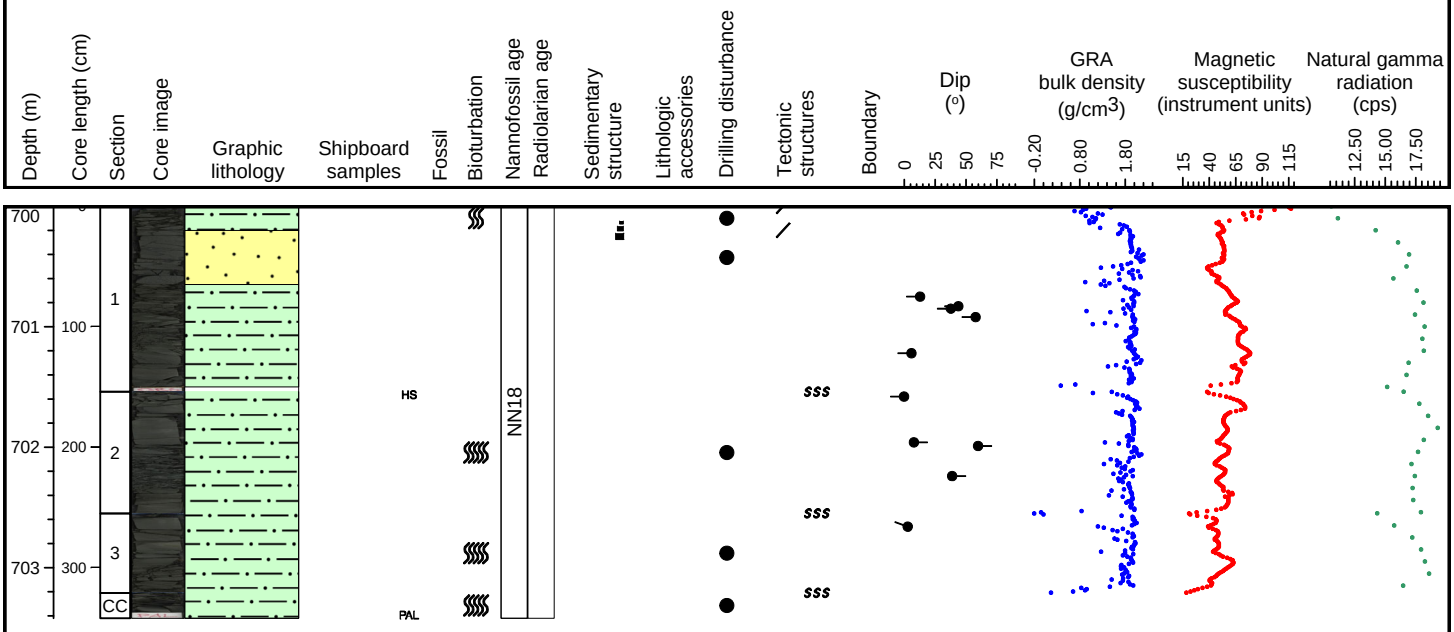
Hole 344-U1380C Core 32R, Interval 695.1-697.29 m (CSF-A)

Thickly bedded dark greenish gray clayey siltstone with interlayered thin sandstone beds at 7 to 11; from 20 to 25; from 45 to 51; from 79 to 85 cm. Sandstone beds are generally normally graded from medium to fine sand that is well sorted. Matrix composed of feldspar, rare amphybole, chlorite and chert. Common lithic fragments. Biogenic material absent. Drilling disturbance is extreme.



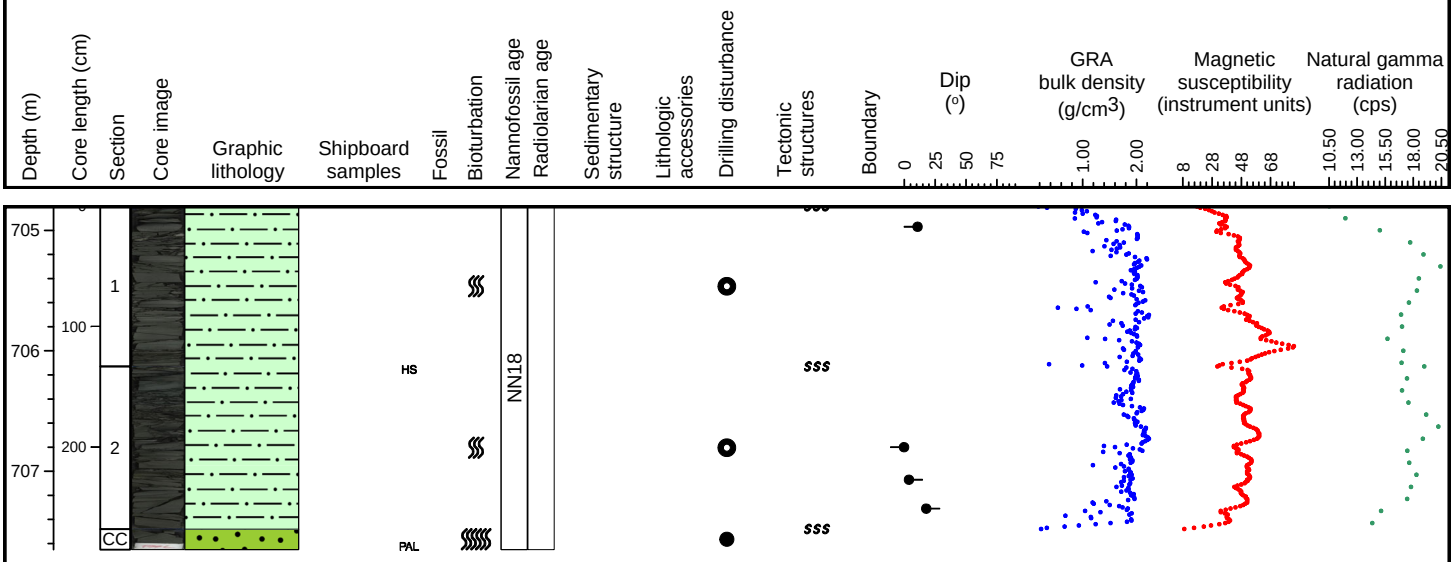
Hole 344-U1380C Core 33R, Interval 700.0-703.42 m (CSF-A)

Thickly bedded clayey siltstone with interlayered sandstone beds from very thin bedded to thick bedded, are well sorted, are normally graded and range in grain size from fine to coarse. Layers in section 3 at 12 to 14; 22 to 23; 36 to 37; 42 to 43; 59 to 60 cm. In section 2 beds at 7 to 11; from 20 to 25; from 45 to 51; from 79 to 85 cm. In section 1: 122 to 134 cm; section 2: at 42 to 44 cm with fine sand sized grains that grade normally.



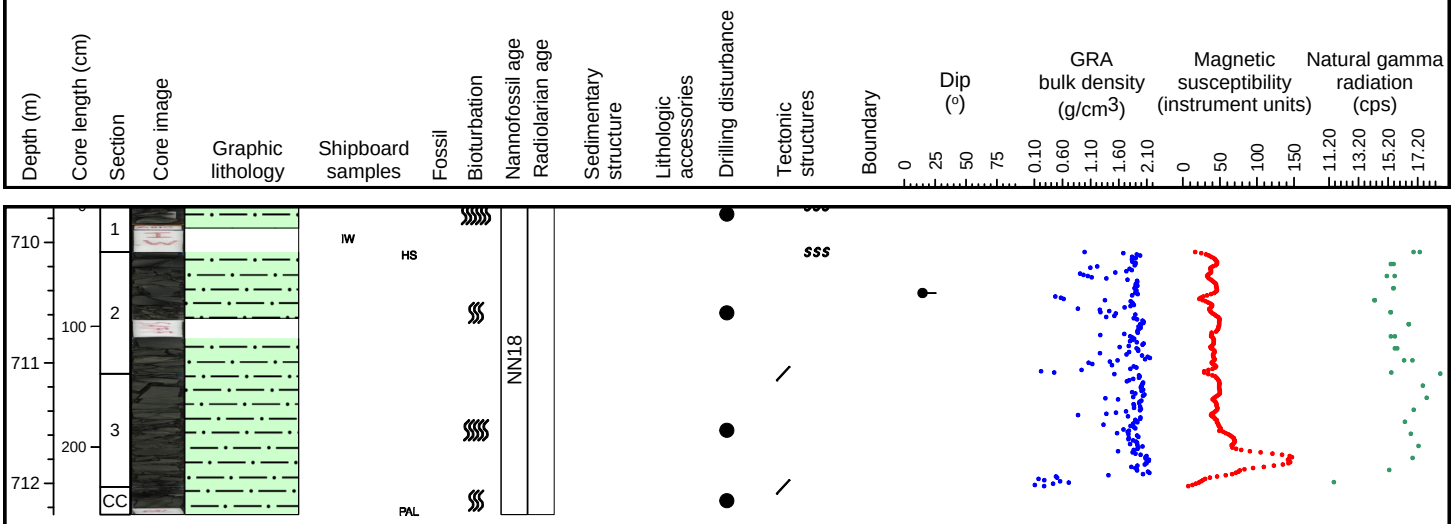
Hole 344-U1380C Core 34R, Interval 704.8-707.65 m (CSF-A)

Thickly bedded dark greenish grey clayey siltstone with interlayered sandstone beds from very thin bedded to thin bedded, are well sorted, are normally graded and range in grain size from fine to coarse. Layers in section 1 at 14 to 21; 54 to 62; 82 to 83; section 2: 62 to 69; 100 to 102, 105 to 107, 115 to 121 cm. Coal enriched in sandstones parallel to the laminae bedding. One calcareous breccia between 22 and 28 cm.



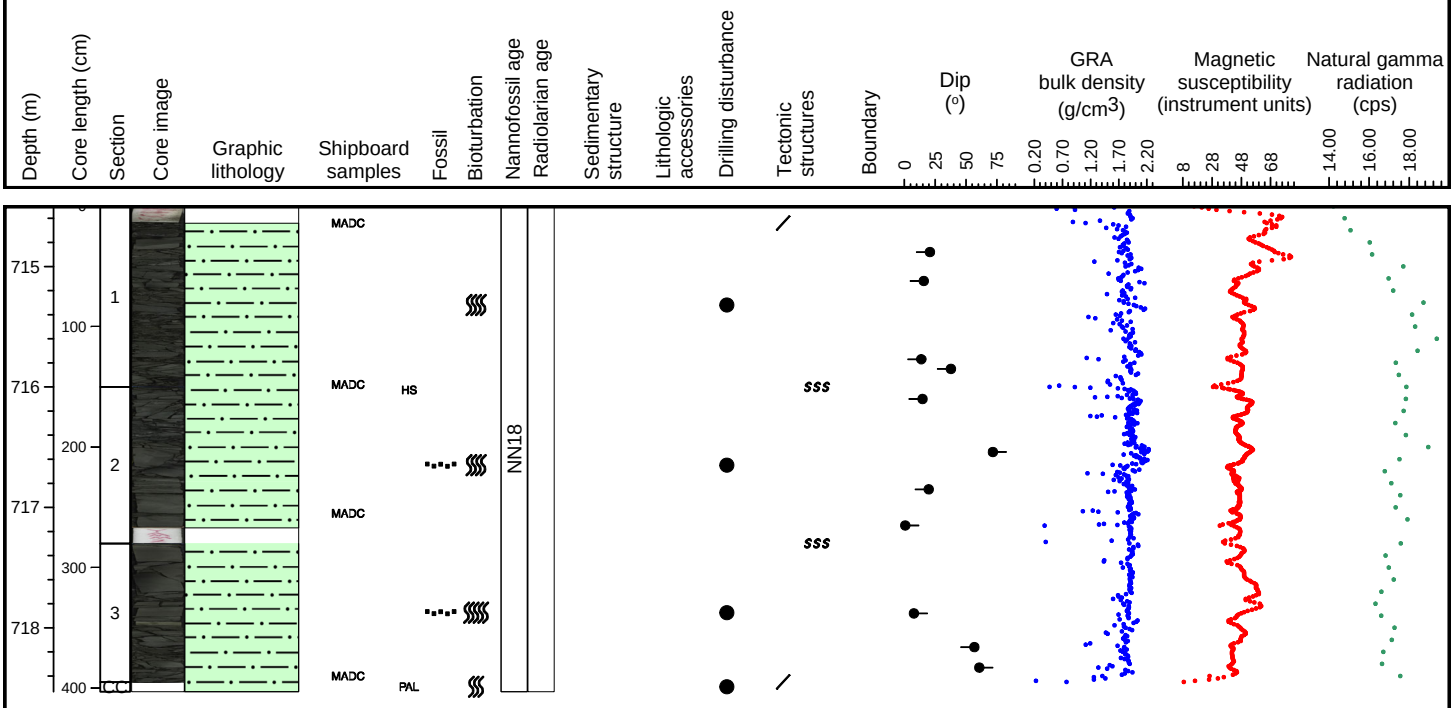
Hole 344-U1380C Core 35R, Interval 709.7-712.26 m (CSF-A)

Dark greenish grey clayey siltstone with intercalated sandstone beds that range up to ~12 cm with medium sand at the base and normal grading down to fine silt at top. Massive sandstone beds at section 2-12 to 15, 29 to 43, 69 to 79, 88 to 92; section 3 19 to 25 cm. Larger sandstone beds are partly laminated and characterized partly by enrichment of coal at the laminae boundaries. Matrix composed of feldspar, common amphibole, chlorite and chert. Bioturbation is strong in the finer parts of the core but extreme in the lowermost part.



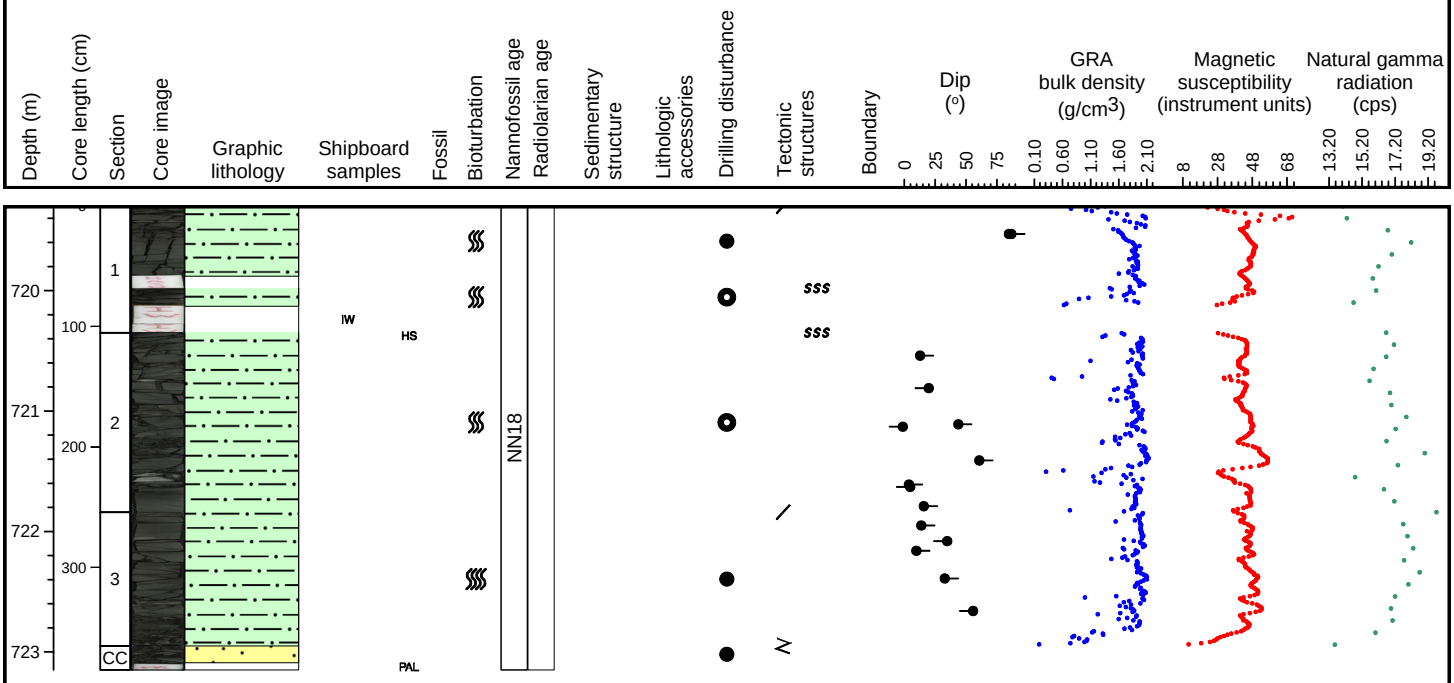
Hole 344-U1380C Core 36R, Interval 714.5-718.53 m (CSF-A)

Dark greenish grey clayey siltstone with intercalated sandstone beds that range up to ~22 cm with medium sand to coarse and generally normal grading. Well sorted. Larger sandstone beds are partly laminated and characterized partly by enrichment of coal at the laminae boundaries. Matrix composed of feldspar, common amphibole, chlorite and chert. Bioturbation is strong throughout the core. Massive Sandstone beds in section 1 at 50 to 61, 80 to 90 cm and 120 to 126, in section 2 at 58 to 75 and 112 to 116 cm and in section 3 at 14 to 18, 81 to 85 cm and 120 to 126. Calcite cemented rich horizon at 64 to 69 cm in section 3.



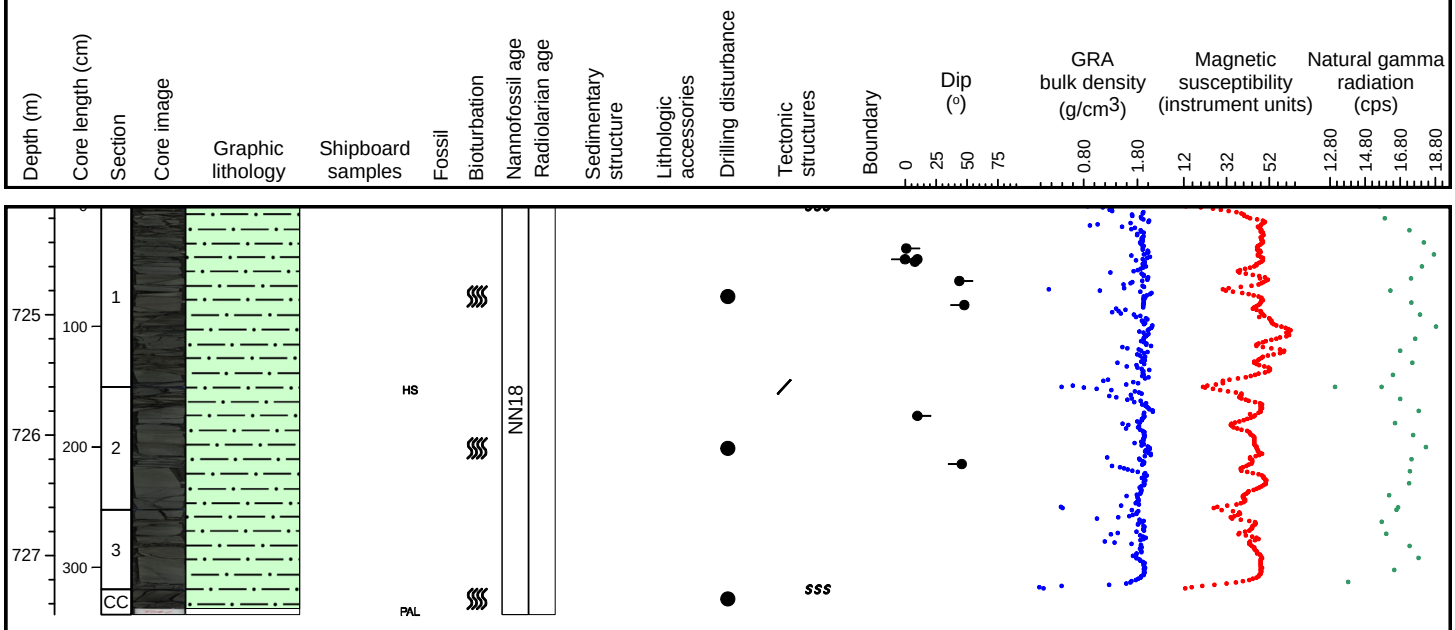
Hole 344-U1380C Core 37R, Interval 719.3-723.15 m (CSF-A)

Dark greenish grey clayey siltstone with intercalated beds of fine-grained to medium-grained sandstone of up to 10 cm thickness. Sandstone is commonly normally graded, with bedding structures and has often sharp bottom contacts. Sandstone beds in section 2 have calcareous matrixes.



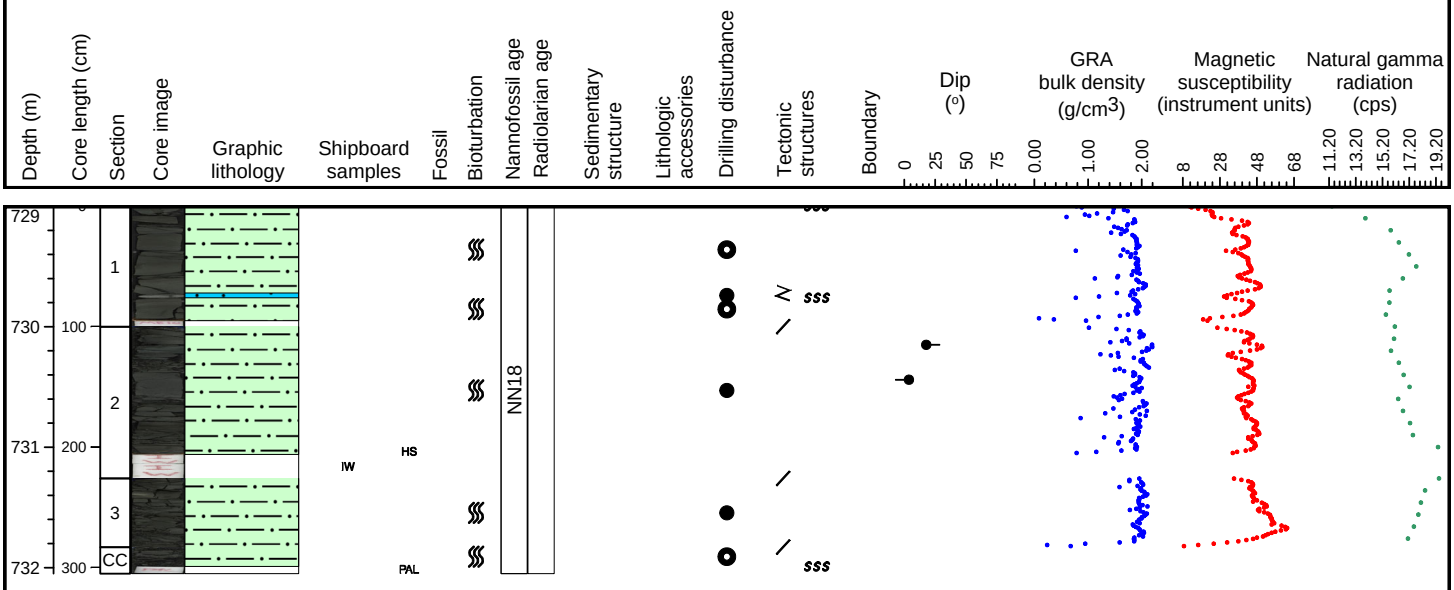
Hole 344-U1380C Core 38R, Interval 724.1-727.49 m (CSF-A)

Dark greenish grey clayey siltstone with intercalated beds of fine-grained to medium-grained sandstone of up to 10 cm thickness. Sandstone is commonly normally graded, with bedding structures and has often sharp bottom contacts.



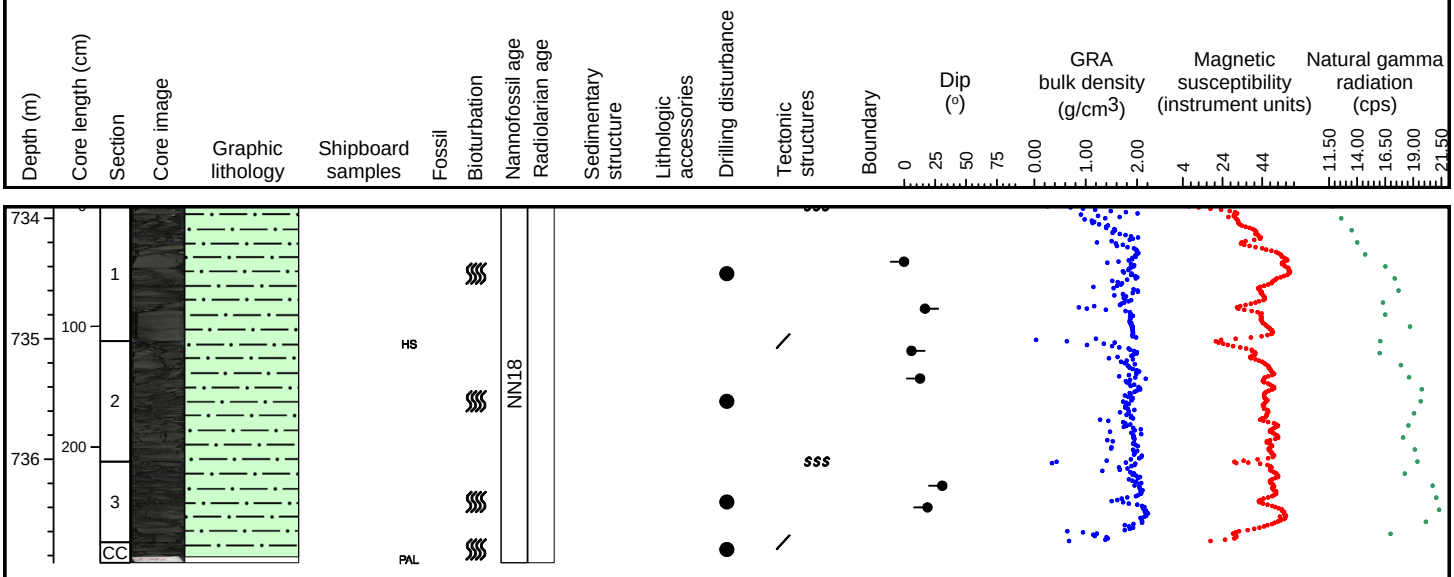
Hole 344-U1380C Core 39R, Interval 729.0-732.05 m (CSF-A)

Dark greenish grey clayey siltstone with intercalated sandstone beds with medium sand at the base and normal grading down to fine silt at top. A 4-cm thick layer of biogenic calcareous sandstone with shell fragments has been observed in section 1 at 72cm.



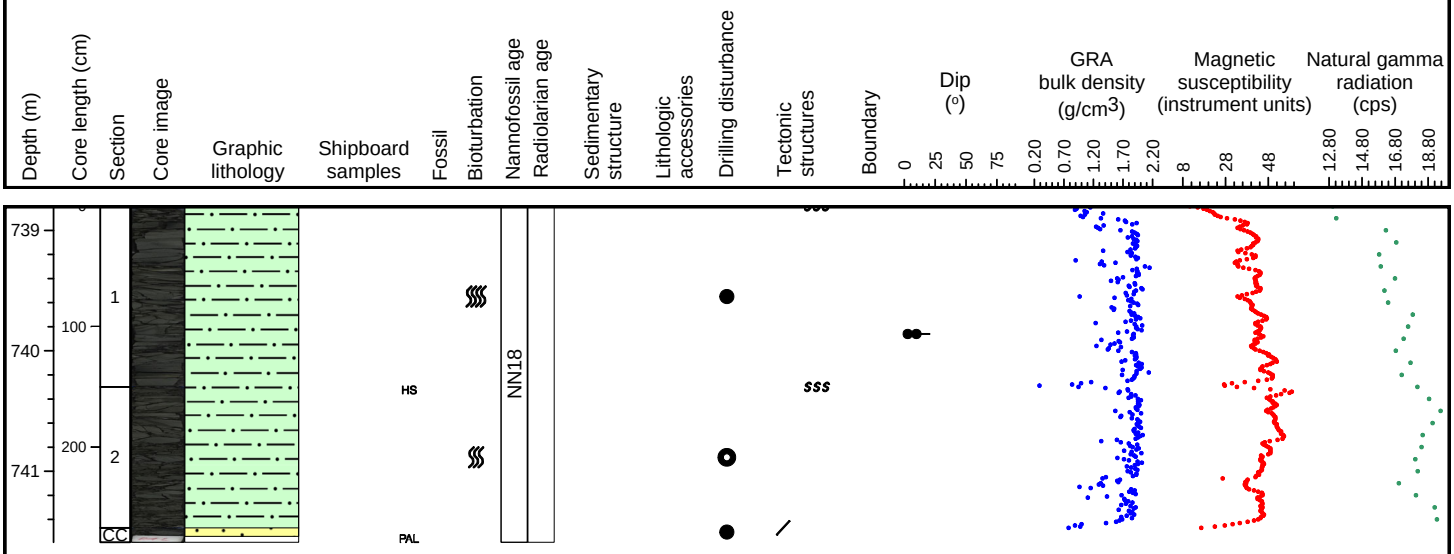
Hole 344-U1380C Core 40R, Interval 733.9-736.86 m (CSF-A)

Dark greenish grey clayey siltstone with intercalated cm- to dm-thick fine-grained and medium-grained sandstone beds. Sandstone is commonly normally graded with sharp bottom boundary. In section 1, siltstone matrix is calcareous between 70-75 cm and contains calcareous fossil shells.



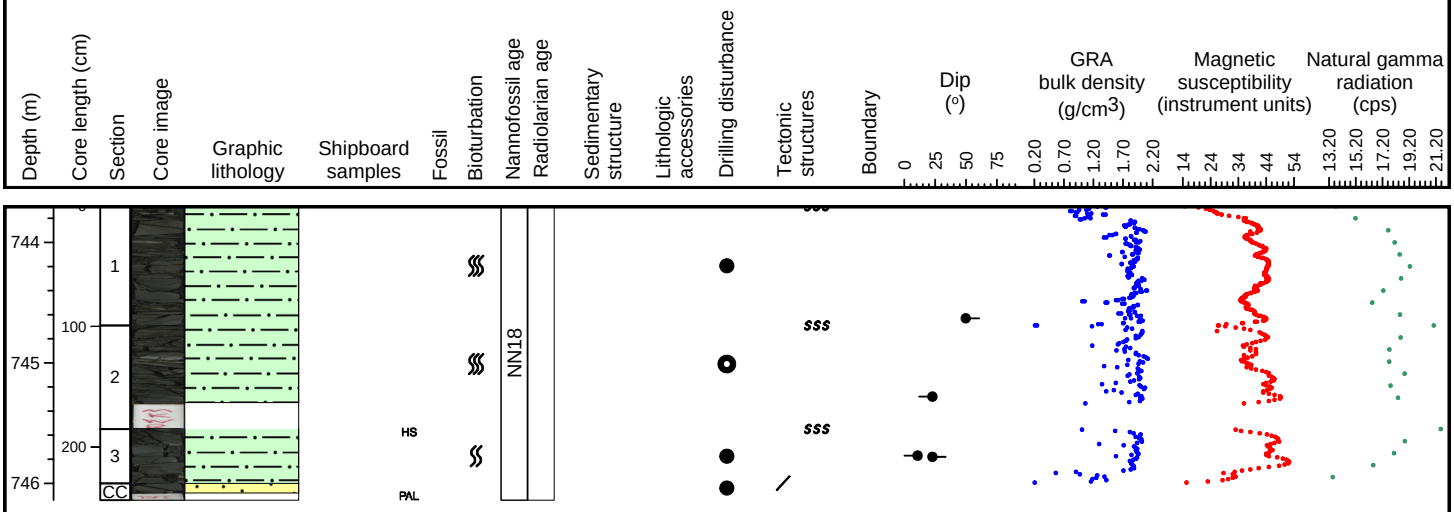
Hole 344-U1380C Core 41R, Interval 738.8-741.59 m (CSF-A)

Dark greenish grey clayey siltstone with intercalated cm- to dm-thick fine-grained and medium-grained sandstone beds. Sandstone is commonly normally graded with sharp bottom boundary. Horizons with coal along bedding planes in all beds of sandstone of section 1. In section 1, 2 portions of siltstone have calcareous matrix (between 49 and 54, and 138 and 142cm).



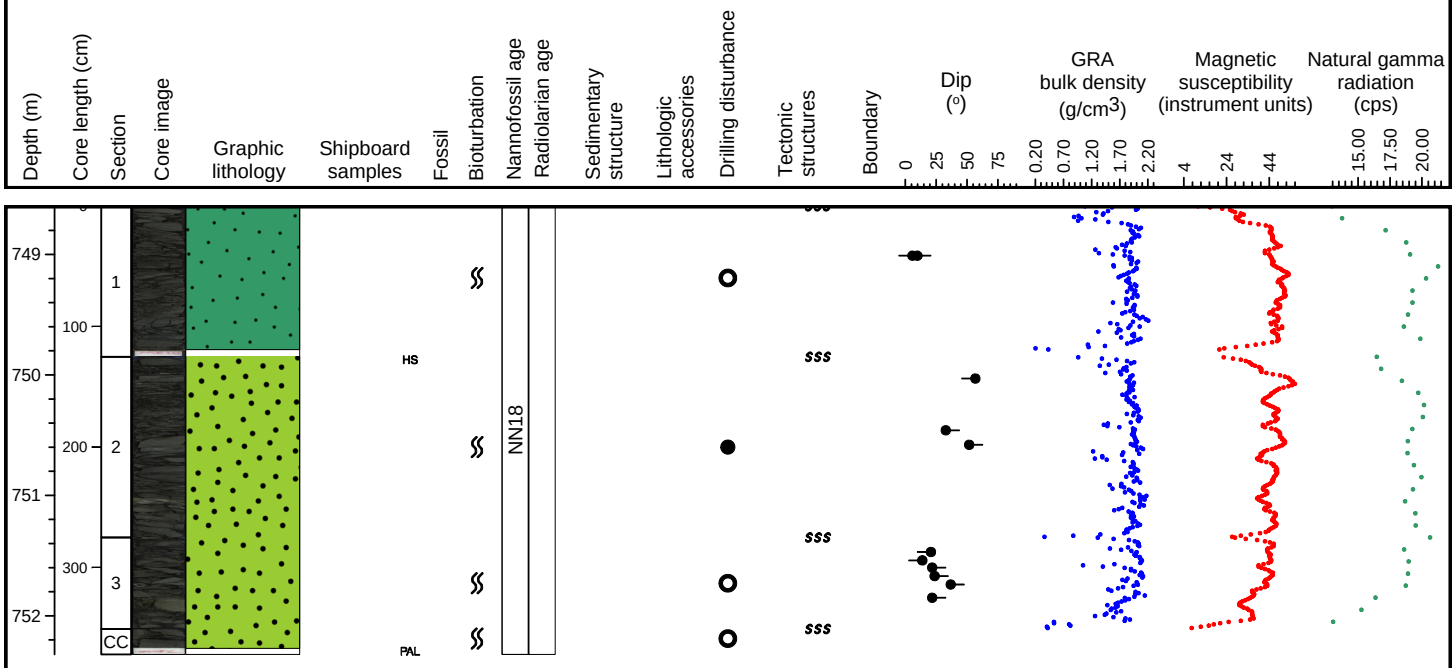
Hole 344-U1380C Core 42R, Interval 743.7-746.14 m (CSF-A)

Dark greenish grey clayey siltstone with intercalated cm- to dm-thick fine-grained and medium-grained sandstone beds. Sandstone is commonly normally graded with sharp bottom boundary. Some sandstones have veins of coal fragments embedded. Siltstone matrix is calcareous in section 1, 30-31 cm and section 2, 29-34 cm.



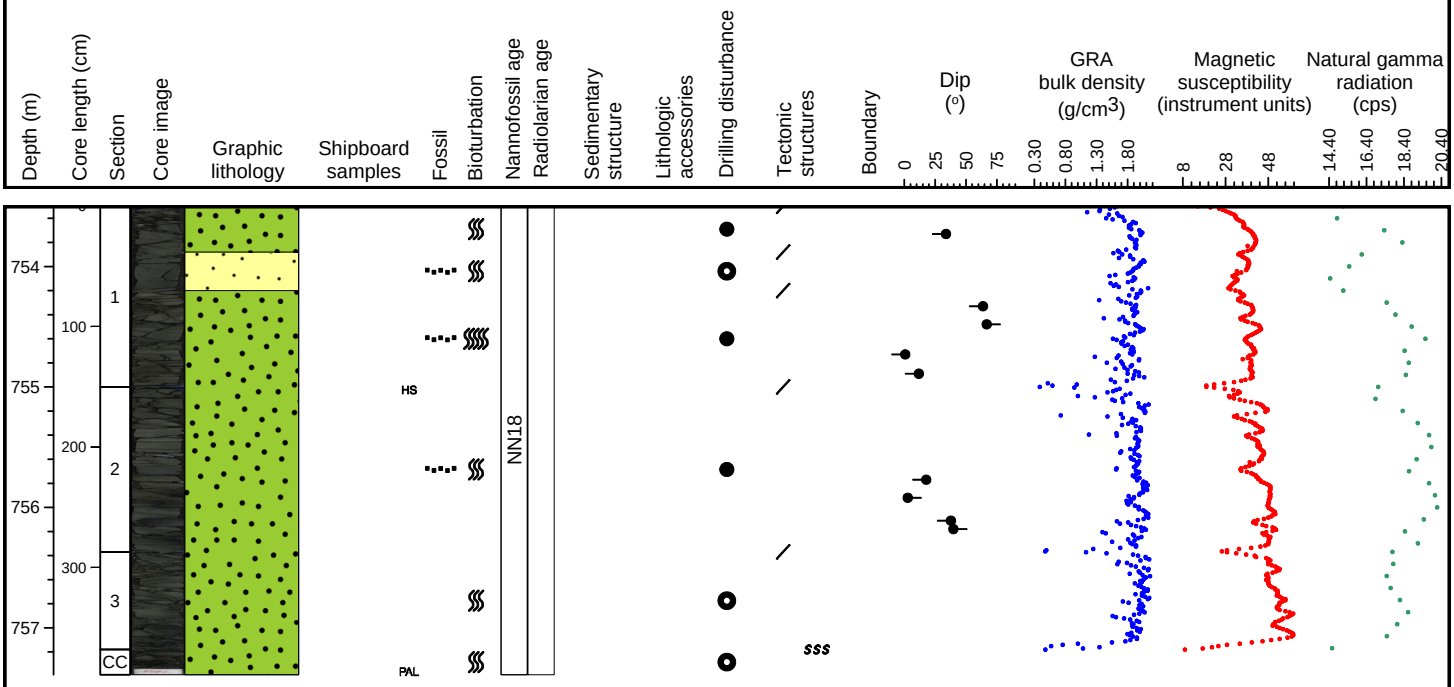
Hole 344-U1380C Core 43R, Interval 748.6-752.32 m (CSF-A)

Dark greenish grey clayey siltstone with intercalated cm- to dm-thick fine-grained and medium-grained sandstone beds. Sandstone is more abundant in section 1 and alternates with coarse silt. Coarse chaotic sandstone layer at 13-31 cm in section 1. Sandstone is commonly normally graded with sharp bottom boundary. Some sandstones have veins of coal fragments embedded. Siltstone matrix is calcareous in section 2, 117-122 cm and section 3, 49-61 cm. Coal fragments in section 1 at 73 cm and 97 cm.



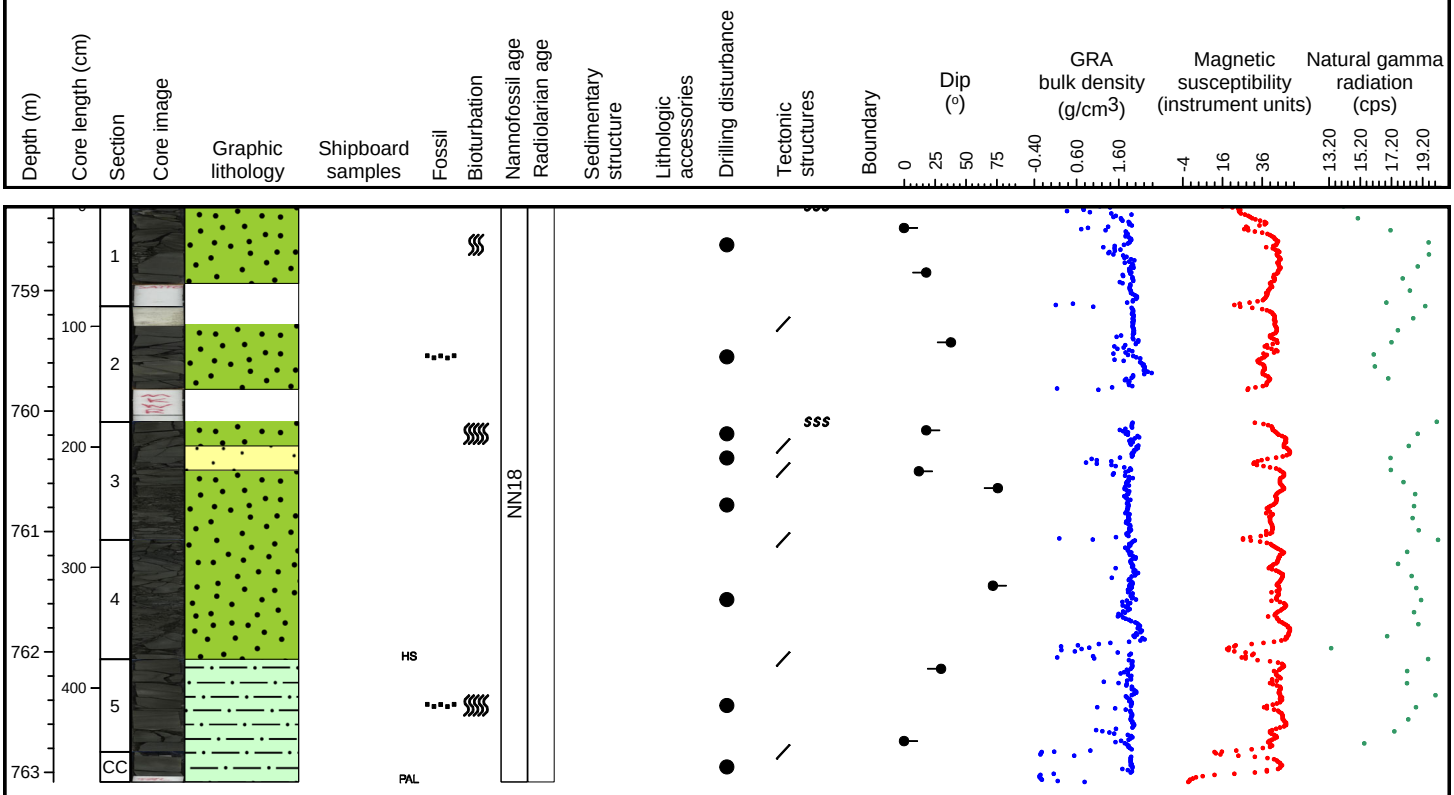
Hole 344-U1380C Core 44R, Interval 753.5-757.39 m (CSF-A)

Interlayered siltstone with mm to cm scale fine sandstones. Fine grained sandstone layers in section 1 at 102 to 110119 to 125; section 2 at 66 to 72 and 108 to 116. Coal fragment common along sand bedding planes. Matrix composed of feldspar, some lithic fragments and amphyboles. Accessory chlorite. Biogenic material absent. Some fine grained calcareous material in the matrix.



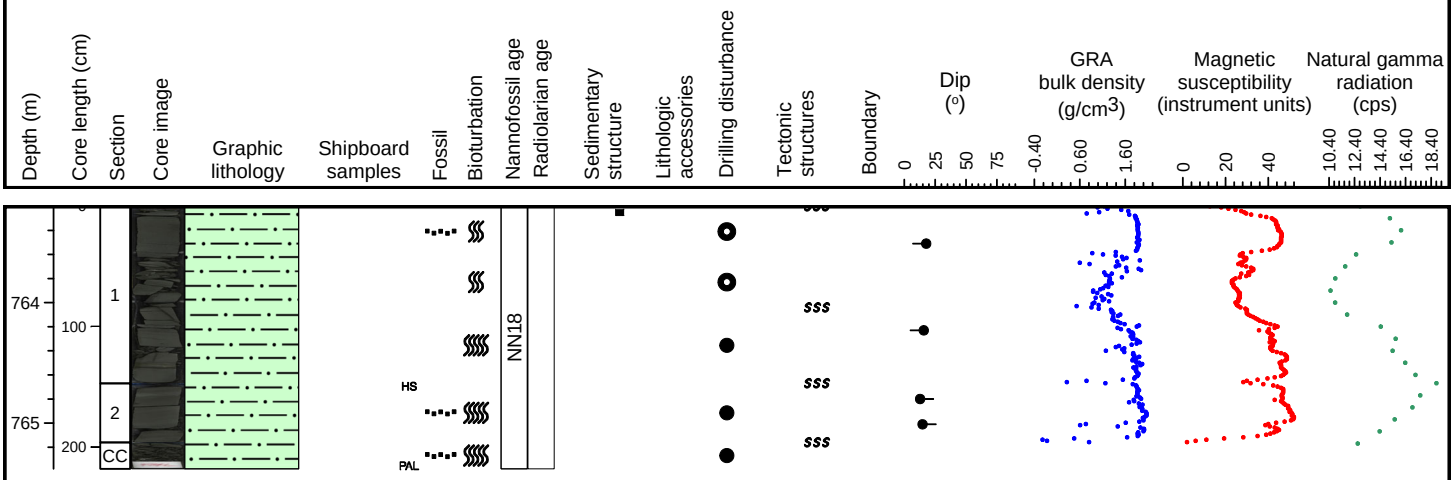
Hole 344-U1380C Core 45R, Interval 758.3-763.08 m (CSF-A)

Dark greenish gray siltstone interlayered with sandstone beds that range from thin to thickly bedded. Siltstone matrix composed of feldspar and lithic fragments, common glass and accessory chlorite. Sand layers, when fully observable are normally graded and fine grained. Charcoal horizons are sporadic and when present are along the fine grained sandstone beds.



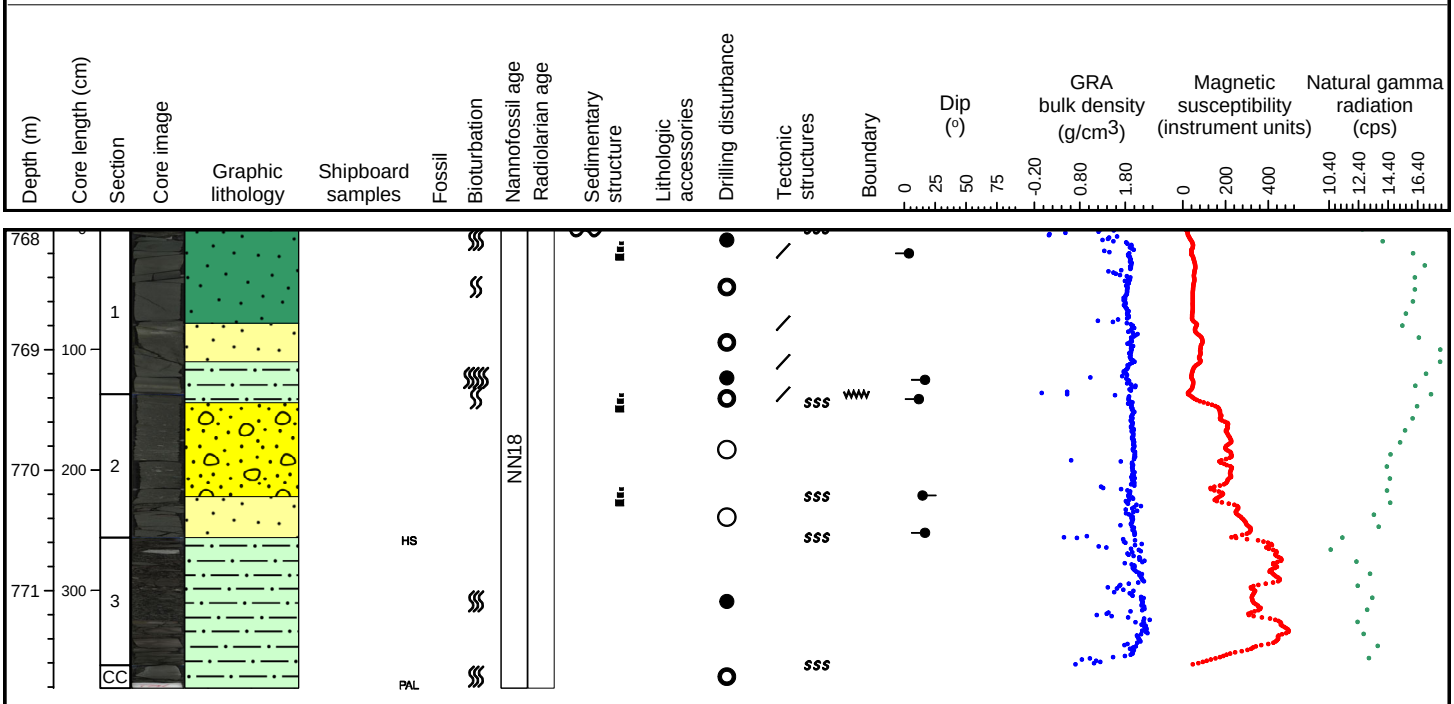
Hole 344-U1380C Core 46R, Interval 763.2-765.38 m (CSF-A)

Dark greenish gray siltstone interlayered with sandstone beds that range from thin to thickly bedded. Siltstone matrix composed of feldspar and lithic fragments, common glass and accessory chlorite. Sand layers, when fully observable are normally graded and fine grained. Charcoal horizons are sporadic and when present are along the fine grained sandstone beds.



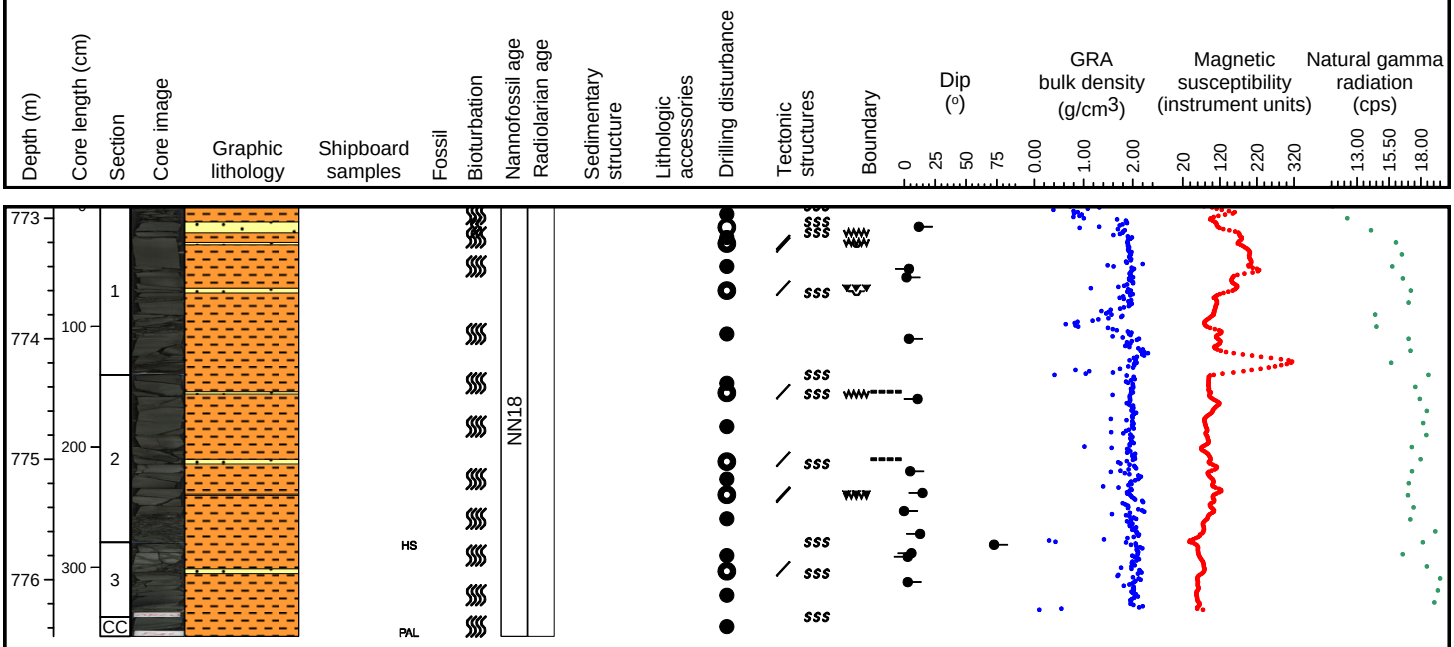
Hole 344-U1380C Core 47R, Interval 768.0-771.81 m (CSF-A)

Dark greenish gray clayey silt with two, thick (up to 40 cm thick) interbedded coarse sand layers section 1. In the lower part convolute bedding indicate interaction with the subsequent silty clay. A thick bedded horizon grades normally from fine conglomerate into coarse sand in section 2 from 7 to 85 cm depth, followed by another thick coarse sandstone bed having reddish brown clayey silstone ripp-up clasts. This change in color continues in the lower part of the core to a more brownish silty clay. Biogenetic material rare to absent. Matrix composition is mainly feldspar and lithic fragments with rare amphibole, chert and chlorite.



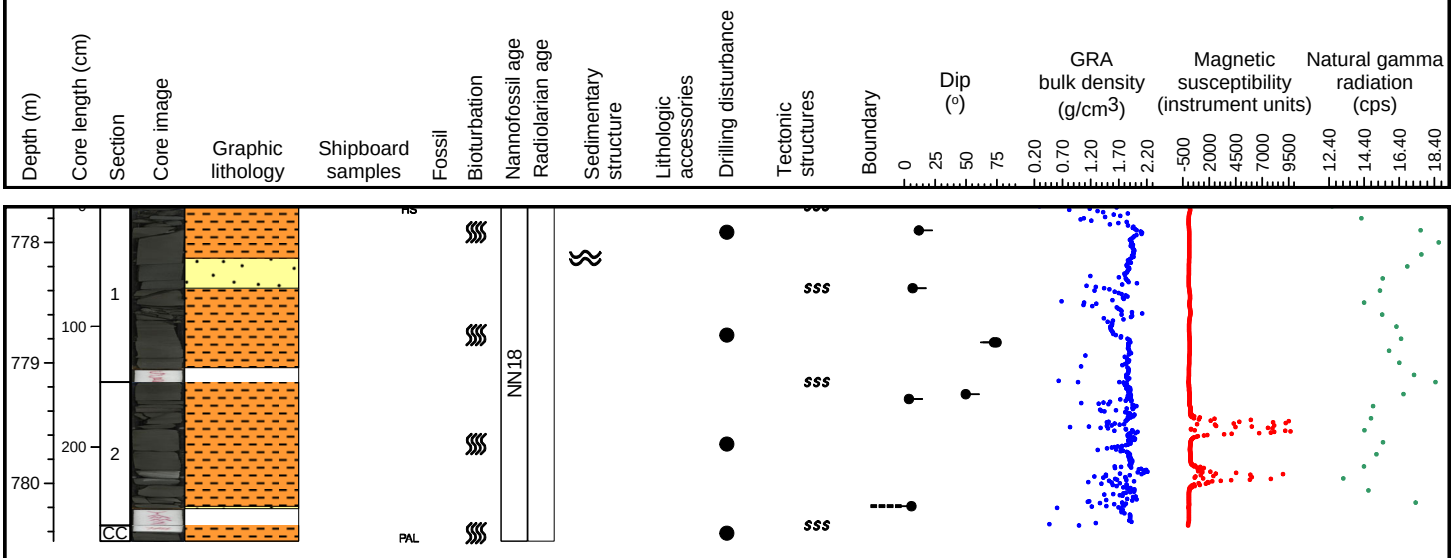
Hole 344-U1380C Core 48R, Interval 772.9-776.47 m (CSF-A)

Massive dark greenish grey claystone with some small cm-sized fine-grained sandstone beds and abundant bioturbation in the finer sediments.



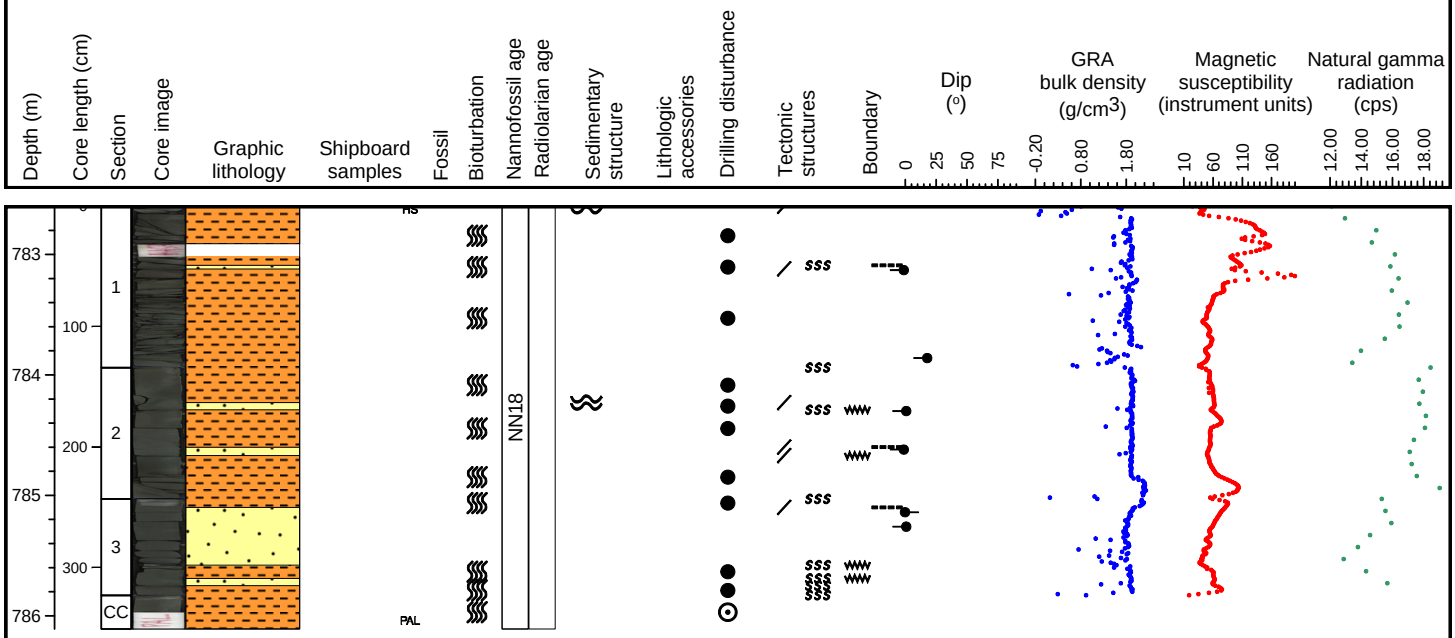
Hole 344-U1380C Core 49R, Interval 777.7-780.48 m (CSF-A)

Massive dark greenish grey clay stone having disseminated calcite cement horizons and some small cm-sized fine-grained sandstone beds and one large bed between 44 and 69 cm. Abundant bioturbation in the finer sediments. Core catcher fragments in Section 2.



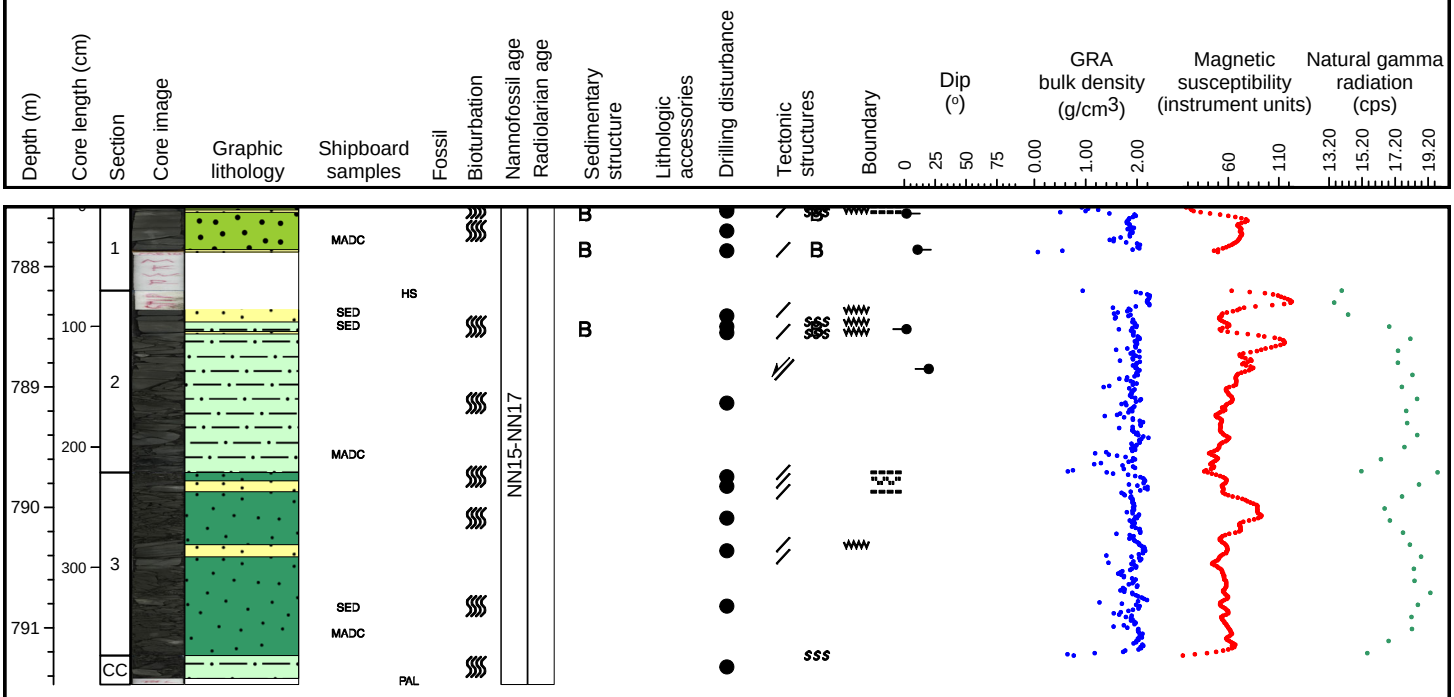
Hole 344-U1380C Core 50R, Interval 782.6-786.11 m (CSF-A)

Massive dark greenish grey claystone with thin and medium bedded, fine-grained sandstone beds and abundant bioturbation in the finer sediments.



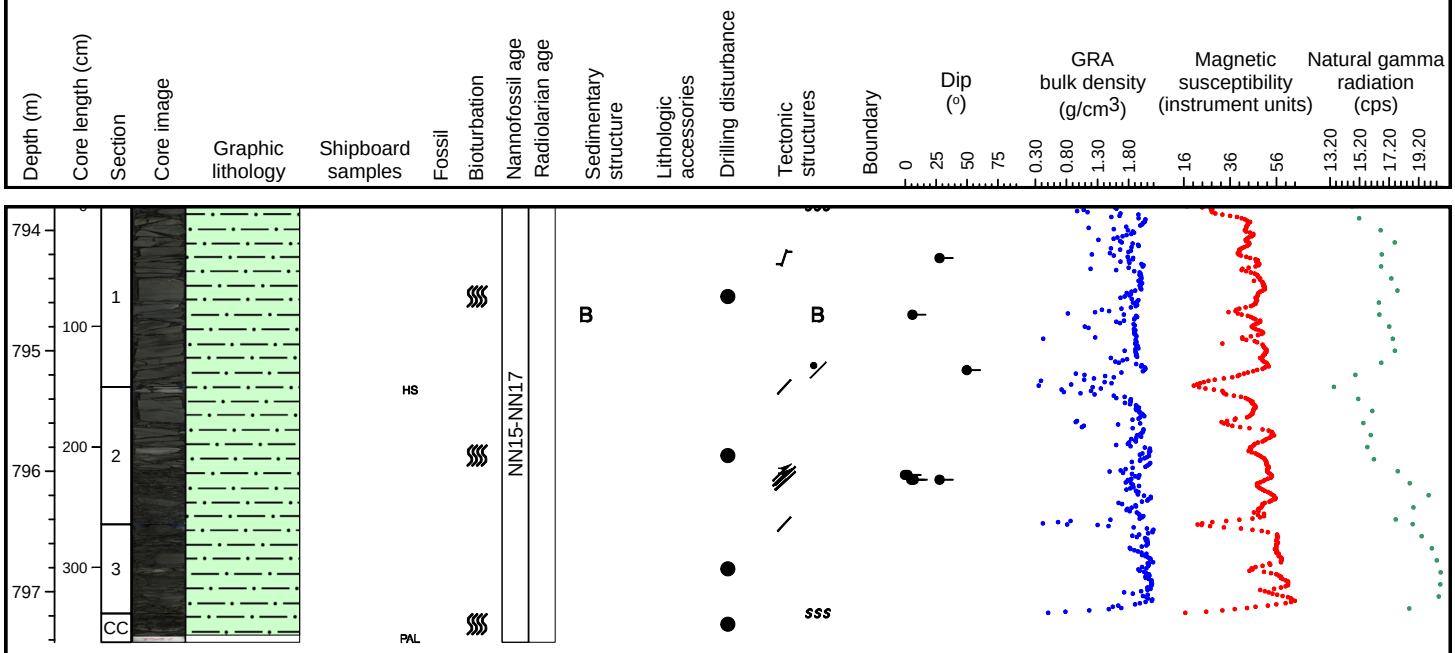
Hole 344-U1380C Core 51R, Interval 787.5-791.47 m (CSF-A)

Massive dark greenish grey claystone alternating with fine sandstone and intercalated beds of medium-grained to coarse-grained sandstone. Bed of poorly sorted coarse-grained sandstone with shell-fragments in section 2 at 7-16 cm. Matrix of siltstone is calcareous in section 3, 103-109 cm and 139-142 cm, and in core-catcher. Abundant bioturbation in the finer sediments.



Hole 344-U1380C Core 52R, Interval 793.8-797.42 m (CSF-A)

Massive dark greenish grey claystone with beds and laminations of fine sandstone. Matrix of siltstone is calcareous in section 1 at 15 cm, and section 2 at 0-6 cm and 50-69 cm. Abundant bioturbation in the finer sediments.



Sample	Top Depth [m]	Bottom Depth [m]	Description of where smear slide taken	Actinolite abundance	Tephra	Siliciclastic	Detrital carbonate	Biogenic carbonate	Clay minerals abundance	Opaques abundance	Feldspar abundance	Quartz abundance	Glass abundance	Halite abundance	Calcite, allogenic abundance	Hornblende abundance	Pyroxene abundance	Chalcedony abundance	Biotite abundance	Chlorite abundance	Other mineral	Other mineral	Microfossil abundance	Diatoms abundance	Calcareous nannofossils abundance	Foraminifera abundance	Radiolarians abundance	Sponge spicule fragments abundance	Silicoflagellate, ebridian, actiniscidian abundance	Microfossil comment	Macrofossil (fauna) abundance	Macrofossil (fauna) comment	Rock fragment - sedimentary lithic	Rock fragment - volcanic lithic	Rock fragment - plutonic lithic	Principal lithology	General smear slide comment
344-U1380C-2R-1-A 51/51-SS	438.51	438.51		R	C	M	R	R	C	C	A	C	C	R	R	R	R	R	R	A			R		C	M							A	R	R		
344-U1380C-3R-2-A 23/23-SS	449.43	449.43			C	M	R	R	C	C	C	C	C	R	R		R	R	R	A			R		M			R					A		R		
344-U1380C-3R-2-A 23/23-SS-SS	449.66	449.66			C	M	R	R	C	C	C	C	C	R	R		R	R	R	A			R		M			R					A		R		
344-U1380C-3R-5-A 34/34-SS	453.54	453.54		R	C	M	R		C	R	A	C	C		R	R	R	R	R	A													A	R	R		
344-U1380C-3R-6-A 37/37-SS	455.07	455.07		C	C	M	R	R	C	R	A	C	C	R	R	R	R	R	R	A			R		M								A		R		
344-U1380C-4R-1-A 36/36-SS	457.76	457.76		R	C	M	R	C	C	R	A	C	C	R	R		R	R	R	A			C		M								A	R	R		
344-U1380C-4R-3-A 78/78-SS	459.98	459.98			C	M	R	R	A	R	A	C	C		R	R	R	R	R	A			R		C	M		R					A		R		
344-U1380C-5R-1-A 74/74-SS	467.84	467.84		R	C	M	R	C	A	C	C	C	C	R	R	R	C	R	R	C			C	C	C	D		R					A		R		
344-U1380C-5R-2-A 49/49-SS	468.76	468.76			C	M	R	C	A	C	C	C	C	R	R		R	R	R	C			C		M	A		R					A		R		
344-U1380C-5R-3-A 21/21-SS	469.51	469.51		R	C	D	C	C	A	C	A	R	C		C	R	R	R	R	C			C		A	M		R					A	C	C		
344-U1380C-5R-5-A 42/42-SS	472.16	472.16		R	C	M	R	R	A	C	C	R	C		R	R	C	R	R	C			R		M	C		R					A	R	C		
344-U1380C-6R-2-A 69/69-SS	478.99	478.99		R	C	D	C	C	A	R	C	R	C		C	R	R	R	R	C			C		D	A		R					A		R		
344-U1380C-6R-3-A 118/118-ss	480.98	480.98			R	M	R	R	A	C	C	C	R	R	R	R	R	R	R	C			R		M	A							A		C		
344-U1380C-6R-3-A 73/73-SS	480.53	480.53				A	M	R		C	C	R			M					C			R		M	C							A	R	C		
344-U1380C-6R-4-A 93/93-SS	482.25	482.25		R	R	M	R	C	A	C	C	R	R		R	R	R			C			C		A	D		R					A	R	C		
344-U1380C-6R-6-A 57/57-ss	484.65	484.65		R	R	M	C	C	R	C	A	C	R		C	R	R			C			C		A	D							A	C	A		
344-U1380C-6R-7-A 53/53-ss	486.11	486.11				A	M	R		C	C	R			M	R				C			R		M	C							A	R	C		
344-U1380C-7R-1-A 48/48-SS	486.98	486.98		R	C	D	C	C	A	C	A	C	C		C	C	R			C			C		M	A							A	R	A		
344-U1380C-7R-4-A 96/96-SS	491.96	491.96		R	C	D	C	C	A	C	A	C	C		C	R	R			C			C	C	A	M		R					A	C	A		
344-U1380C-7R-5-A 73/73-SS	493.06	493.06			R	M			A	C	A	C	R			C	C	C	C	C													A	R	C		
344-U1380C-7R-6-A 114/114-SS	494.54	494.54			R	D	C	A	A	C	A	C	R		C	R	R			C			A		A	M		R					A	R	C		
344-U1380C-8R-1-A 26/26-ss	496.46	496.46			R	M	C	C	A	C	A	C	R		C	R	R	R	R	C			C		A	D							A	C	A		
344-U1380C-8R-1-A 9/9-ss	496.29	496.29		R	R	M	C	C	A	C	A	C	R		C	R	R			C			C	R	C	M		R					A	C	A		
344-U1380C-9R-3-A 58/59-SS	509.3	509.305		R	C	A	C	A	A	R	A	C	C	R	C	R	R			C			A	R	A	D		R					A		R		
344-U1380C-9R-4-SS	510.56	510.565			R	M	R		R	C	A	C	R		R	A	C	A	A	R													C		C		
344-U1380C-9R-7-A 37/38-SS	513.65	513.655			R	M	R	R	A	C	A	C	R		R	R	R	R	R	C			R		C	M							A		R		
344-U1380C-10R-3-A 48/48-SS	517.73	517.73		R	R	D	C	A	A	C	C	C	R		C	C	R	R	R	C			A	R	A	M							A		C		
344-U1380C-10R-3-A 57/57-SS	517.82	517.82			R	M	C	C	A	C	A	C	R		C	R	C	C	C	C			C		C	M							A		R		
344-U1380C-10R-5-A 70/70-SS	520.23	520.23		R	C	M	C	R	A	C	A	C	C		C	R	R	R	R	C			R		M	R							D		C		
344-U1380C-11R-3-A 19/19-SS	527.18	527.18			C	M	C	R	A	C	C	R	C	R	C	R	R			C			R			M							A	R	C		
344-U1380C-11R-4-A 27/27-SS	528.76	528.76			R	M	C		A	C	A	C	R		C	R				C													A	R	R		
344-U1380C-11R-6-A 66/66-SS	531.21	531.21			C	M	R	C	A	C	A	C	C		R	R	R			C			C		A	M							A	R	C		
344-U1380C-12R-3-A 62/62-SS	538.25	538.25		C	R	A	C	A	A	C	A	C	R	R	C	R	R	C	C	C			A		A	M							A	R	C		
344-U1380C-12R-4-A 44/44-SS	539.08	539.08		C	C	D	C	C	D	C	C	C	C	R	C	R	C			C			C		A	M							C	R	C		

Sample	Top Depth [m]	Bottom Depth [m]	Description of where smear slide taken	Actinolite abundance	Tephra	Siliciclastic	Detrital carbonate	Biogenic carbonate	Clay minerals abundance	Opaques abundance	Feldspar abundance	Quartz abundance	Glass abundance	Halite abundance	Calcite, allogenic abundance	Hornblende abundance	Pyroxene abundance	Chalcedony abundance	Biotite abundance	Chlorite abundance	Other mineral	Other mineral	Microfossil abundance	Diatoms abundance	Calcareous nannofossils abundance	Foraminifera abundance	Radiolarians abundance	Sponge spicule fragments abundance	Silicoflagellate, ebridian, actiniscidian abundance	Microfossil comment	Macrofossil (fauna) abundance	Macrofossil (fauna) comment	Rock fragment - sedimentary lithic	Rock fragment - volcanic lithic	Rock fragment - plutonic lithic	Principal lithology	General smear slide comment
344-U1380C-12R-7-A 104/104-SS	542.88	542.88			C	D	R	C	A	R	C	R	C		R					R	COAL	A	C		A	M		R					A	R	A		
344-U1380C-13R-1-A 21/21-SED	544.91	544.91		R	C	A	C	C	A	C	C	C	C		C	R	R			C			C		M	A		R					A	R	A		
344-U1380C-13R-5-A 142/142-SED	550.94	550.94			R	M			C	C	A	A	R			A	C	A	A														A	R	C		
344-U1380C-13R-7-W 39/39-SED	552.29	552.29			R	A	C	D	A	C	A	C	R		C	C	R	C	C	C			D	R	A	M							A	R	C		
344-U1380C-14R-2-A 38/38-SED	556.2	556.2		R	R	D	C	C	A	R	A	C	R		C	C	R			C			C	C	A	M							C	R	A		
344-U1380C-15R-1-A 100/100-SED	565.1	565.1		R	C	M	C	C	A	R	A	C	R		C	C	R			C													C	R	A		
344-U1380C-16R-1-A 53/53-SED	574.33	574.33			R	M	R			C	R	R	R		R		R			R													C	C	A		
344-U1380C-16R-1-A 83/83-SED	574.63	574.63		R	C	M	C		D	C	A	C	C		C	C	R			C													C	R	C		
344-U1380C-20R-2-A 32/32-SS	613.67	613.67		R	C	M	R	R	R	R	C	R	C	R	R	R	R	R	R	C			R		R	M							A	R	A		
344-U1380C-20R-2-A 86/86-SS	614.21	614.21			R	A	D	C	A	C	C		R		D								C		M								A		R		
344-U1380C-20R-3-A 24/24-SS	614.54	614.54			R	M	C	R	R	R	C	C	R		C	R	R	R	R	C			R		R	M		R					A	R	A		
344-U1380C-21R-1-A 104/104-SS	623.44	623.44		R	C	M	C	R	A	C	C	C	C	R	C	R	R			C			R	R		M							A	R	A		
344-U1380C-21R-2-A 33/33-SS	624.05	624.05			R	M	C	R	D	C	C	C	R	R	C		R			C			R		A	D							A	R	C		
344-U1380C-22R-2-A 140/140-SS	634.07	634.07		C	R	D	C		D	R	A	C	R	R	C	R	C			C													A	R	A		
344-U1380C-22R-2-A 82/82-SS	633.49	633.49		C	R	M	C		R	C	A	C	R		R	C	C			C													A	R	A		
344-U1380C-22R-2-A 9/9-SS	632.76	632.76			C	M	R	R	R	R	C	C	C		R	C	C			C			R			M							D	R	A		
344-U1380C-23R-1-A 7/7-SS	641.87	641.87			R	M	C		A	R	C	C	R	R	C	R	C	R	R	R													A	R	A		
344-U1380C-23R-1-A 81/81-SS	642.61	642.61			C	M	C	R	A	C	A	C	C		C	R	R	R	R	C			R		M	R							A	R	A		
344-U1380C-23R-2-A 92/92-SS	644.09	644.09			C	M	C	C	D	R	C	R	C		C	R	R			C			C		C	M		C					A	R	C		
344-U1380C-24R-1-A 17/17-SS	651.67	651.67			C	M	C	C	D	R	C	R	C		C	R	R			C			C		M	R							A	R	C		
344-U1380C-24R-1-A 20/20-SS	651.7	651.7			R	M	C		A	R	A	C	R		C	R	R			A													A	R	A		
344-U1380C-24R-1-W 55/59-TSB	652.05	652.09							R																								A	D	A	conglomerate	THIN SECTION with iron oxide-rich cement
344-U1380C-25R-2-A 15/15-SS	662.23	662.23		R	R	M	C		A	R	C	C	R		C	R	R	R	R	C													A	R	A		
344-U1380C-25R-2-A 40/40-SS	662.48	662.48		R	R	M	R	R	A	R	A	C	R		R	R	C	R	R	C			R		M								A	C	A		
344-U1380C-25R-2-A 74/74-SS	662.82	662.82			R	M	C		D	C	C	C	R	R	C	R	C			R													A	R	C		
344-U1380C-26R-1-A 102/102-SS	667.02	667.02			R	M	C	C	A	C	A	C	R		C		C			C			C	R	A	D							C	R	A		
344-U1380C-26R-1-A 66/66-SS	666.66	666.66		R	D	A	R	R	C	R	A	R	D		R	R	R			R			R		A	D							C	R	A		
344-U1380C-26R-2-A 25/25-SS	667.75	667.75			R	M	R	R	D	R	C	C	R		R	R	R			C			R		M	C							C	R	A		
344-U1380C-27R-1-A 89/89-SS	671.79	671.79			R	M	R		R	R	A	C	R		R	C	C	R	R	C													A	C	A		
344-U1380C-27R-1-W 12/12-SS	671.02	671.02				A	D		R	R	R	R			D	R				R													A		C		
344-U1380C-27R-1-W 89/89-SS	671.79	671.79			R	M	R		R	R	A	C	R		R	C	C	R	R	C													A	C	A		
344-U1380C-27R-2-A 122/122-SS	673.65	673.65			R	M	R	R	A	R	A	C	R		R	R	R			C			R		M								A	C	A		
344-U1380C-28R-2-W 20/20-SS	677.4	677.4			R	M			A	R	A	R	R			R	R			R													A	R	C		

Sample	Top Depth [m]	Bottom Depth [m]	Description of where smear slide taken	Actinolite abundance	Tephra	Siliciclastic	Detrital carbonate	Biogenic carbonate	Clay minerals abundance	Opaques abundance	Feldspar abundance	Quartz abundance	Glass abundance	Halite abundance	Calcite, allogenic abundance	Hornblende abundance	Pyroxene abundance	Chalcedony abundance	Biotite abundance	Chlorite abundance	Other mineral	Other mineral	Microfossil abundance	Diatoms abundance	Calcareous nannofossils abundance	Foraminifera abundance	Radiolarians abundance	Sponge spicule fragments abundance	Silicoflagellate, ebridian, actiniscidian abundance	Microfossil comment	Macrofossil (fauna) abundance	Macrofossil (fauna) comment	Rock fragment - sedimentary lithic	Rock fragment - volcanic lithic	Rock fragment - plutonic lithic	Principal lithology	General smear slide comment
344-U1380C-28R-2-W 59/59-SS	677.79	677.79			R	M	C	C	A	R	A	C	R		C	R	R			C			C		D	C							A		A		
344-U1380C-28R-2-W 8/8-SS	677.28	677.28			R	M	R	C	C	R	A	R	R		R	C	R			C			C		M								A	C	A		
344-U1380C-29R-2-W 1/1-SS	681.25	681.25				M	C		R	R	C	C			C		C	R	R	R													A	C	A		
344-U1380C-29R-2-W 130/130-SS	682.54	682.54			R	M	C		A	R	C	C	R		C	R	R			R													A	R	A		
344-U1380C-29R-3-W 14/14-SS	682.88	682.88			R	M	R		R	R	A	C	R		R	C	C			C													A	C	A		
344-U1380C-29R-3-W 95/95-SS	683.69	683.69			C	M	R		C	C	A	C	C		R	R	R			C													A	C	A		
344-U1380C-30R-1-A 56/56-SED	685.96	685.96		R	C	M	C	R	D	R	A	C	C		C	R	R			R			M										C	R	C		
344-U1380C-30R-1-A 66/66-SED	686.06	686.06			C	M	C	R	D	C	A	C	C		C	R	R			C			R			M							C	R	C		
344-U1380C-30R-2-A 79/79-SED	687.39	687.39		R	C	M	C	R	D	C	A	C	C		C	R	C			C			R		M								C	R	A		
344-U1380C-30R-CC-A 9/9-SED	688.13	688.13			R	M	R		A	R	A	C	R		C	R	R			C													A	R	C		
344-U1380C-31R-1-A 15/15-SED	690.45	690.45		R	C	M	C	R	D	C	A	C	C		C	R	R			R			R			M							A		C		
344-U1380C-31R-1-A 78/78-SED	691.08	691.08		R	R	M	C	R	A	R	A	C	R		C	R	C			C			R		M								A	R	C		
344-U1380C-31R-1-W 116/117-SS	691.46	691.47		R	R	M	C		A	C	A	C	R		C	C	C			R													A	R	A		
344-U1380C-31R-1-W 99/101-TSB	691.29	691.31							R																								A	D	A	conglomerate	THIN SECTION with iron oxide-rich cement
344-U1380C-31R-2-A 107/107-SED	692.87	692.87			R	M	C		D	R	A	C	R		C	R	C			C													A	R	R		
344-U1380C-31R-2-A 15/15-SED	691.95	691.95		R	R	M	C	R	D	C	A	C	R		C	R	R			C			R		M								C		R		
344-U1380C-32R-1-A 26/26-SED	695.36	695.36			C	M	C		D	R	C	C	C		C	R	R			R													A		C		
344-U1380C-32R-2-A 47/47-SED	696.34	696.34		R	C	M	C	R	C	R	A	C	C		C	C	R			C			R		C	M							A	R	A		
344-U1380C-33R-1-A 36/36-SED	700.36	700.36		R	C	M	C	C	C	R	A	C	C		C	R	R			C			C		A	D							A	C	A		
344-U1380C-33R-2-A 65/65-SED	702.19	702.19			C	M	R	R	D	R	C	C	C		R	R	R			C			R		M								A	R	C		
344-U1380C-34R-2-A 68/68-SED	706.81	706.81		R	R	M	C		R	R	A	C	R		C	C	R			C													A	R	A		
344-U1380C-37R-2-W 108/108-SS	721.43	721.43		R	R	M	R		A	R	A	R	R	R	R	R	R			C													A	R	A		
344-U1380C-37R-2-W 140/140-SS	721.75	721.75		R	R	M	C		A	R	C	R	R	R	C	R	R			R													A	R	A		
344-U1380C-37R-CC-W 7/7-SS	723.02	723.02		R	R	M	C	C	A	C	A	R	R		C	R	R			C			C		A	D							A	R	A		
344-U1380C-38R-2-W 35/35-SS	725.95	725.95		R	R	M	C	R	A	R	C	C	R		C	R	R	R	R	C			R		M								A	R	A		
344-U1380C-38R-2-W 37/37-SS	725.97	725.97		R	R	M	C	R	D	R	C	C	R		C	R	R			C			R		A	M							A	R	R		
344-U1380C-39R-2-W 17/17-SS	730.17	730.17			C	M	C		M	R	C	R	C		C		R			R													C		R		
344-U1380C-39R-2-W 42/42-SS	730.42	730.42			R	M	A	R	R	R	A	C	R		A	R	R	R	R	C			R			M							A		A		
344-U1380C-40R-1-W 82/82-SS	734.72	734.72			R	M	C	R	R	R	C	R	R		C	R	R	R	R	C			R		A	M							A		A		
344-U1380C-41R-1-W 34/34-SS	739.14	739.14		R	R	M	C		C	R	A	R	R		C		R																A	R	A		
344-U1380C-41R-2-W 16/16-SS	740.46	740.46		R	R	M	C		D	R	C	R	R		C					R													C		C		
344-U1380C-42R-1-W 27/27-SS	743.97	743.97		R	C	M	C		D	R	A	R	C		C	R	R			R													A	R	C		
344-U1380C-42R-1-W 32/32-SS	744.02	744.02			R	A	D	R	R	C	R	R	R		D					R			R		M								A		R		

Sample	Top Depth [m]	Bottom Depth [m]	Description of where smear slide taken	Actinolite abundance	Tephra	Siliciclastic	Detrital carbonate	Biogenic carbonate	Clay minerals abundance	Opaques abundance	Feldspar abundance	Quartz abundance	Glass abundance	Halite abundance	Calcite, allogenic abundance	Hornblende abundance	Pyroxene abundance	Chalcedony abundance	Biotite abundance	Chlorite abundance	Other mineral	Other mineral	Microfossil abundance	Diatoms abundance	Calcareous nannofossils abundance	Foraminifera abundance	Radiolarians abundance	Sponge spicule fragments abundance	Silicoflagellate, ebridian, actiniscidian abundance	Microfossil comment	Macrofossil (fauna) abundance	Macrofossil (fauna) comment	Rock fragment - sedimentary lithic	Rock fragment - volcanic lithic	Rock fragment - plutonic lithic	Principal lithology	General smear slide comment
344-U1380C-43R-1-W 16/16-SS	748.76	748.76			C	M	C	R	C	C	C	R	C		C	R	R			C			R		M	A							D	R	A		
344-U1380C-43R-2-W 18/18-SS	750.03	750.03			C	M	C	R	C	C	A	R	C	R	C	R	R			C			R		M	C							D	R	A		
344-U1380C-43R-2-W 21/21-SS	750.06	750.06		R	R	M	C	R	R	R	A	R	R		C	R				C			R		M								A	R	D		
344-U1380C-43R-3-W 55/55-SS	751.9	751.9			R	A	D		R	R	C	R	R		D					R													A		R		
344-U1380C-45R-1-A 47/47-SED	758.77	758.77			C	M	C		D	C	C	R	C		C	R	R			R													A		R		
344-U1380C-45R-3-A 31/31-SED	760.4	760.4			C	M	C	R	R	R	A	C	C		C		R			C			R		M								A	R	A		
344-U1380C-46R-1-A 40/40-SED	763.6	763.6			C	M	C	C	C	C	C	R	C		C	R				C			C		M	C							A	R	A		
344-U1380C-46R-1-A 89/89-SED	764.09	764.09			C	M	C	R	A	C	A	R	C		C	R				C			R		C	M							A		A		
344-U1380C-47R-3-A 75/75-SED	771.31	771.31		R	R	M	C	R	D	R	A	C	R	R	C	R	R			C			R		M								A	R	A		
344-U1380C-50R-2-A 39/39-SED	784.33	784.33		R	C	M	R	R	D	R	A	R	C		R	R				C			R		M								A	R	A		
344-U1380C-50R-3-A 47/47-SED	785.5	785.5			C	M	C	C	D	R	A	R	C		C	R	R			C			C		M	A							A	R	A		
344-U1380C-51R-2-W 18/18-SS	788.38	788.38			R	M	C		R	R	A	R	R		C	R	R	R	R	C													A	R	A		
344-U1380C-51R-2-W 29/29-SS	788.49	788.49			C	M	C		D	R	C	R	C		C	R	R			C													A	R	C		
344-U1380C-51R-3-W 112/112-SS	790.83	790.83			C	M	C		D	R	A	R	C		C	R	R			C													A	R	C		
344-U1380C-52R-2-W 24/24-SS	795.54	795.54			R	M	C	R	R	R	C	R	R		C	R	R			R			R		M	A							A	C	A		
344-U1380C-52R-2-W 52/52-SS	795.82	795.82			R	A	D		R	C	R	R	R		D	R	R			R													A	R	A		

Sample	Top [cm]	Bottom [cm]	Top Depth [m]	Bottom Depth [m]	Tephra layer/pod shape	Tephra layer/pod color	Tephra layer/pod compaction	Cementation of tephra layer/pod	Bottom contact	Bottom contact dip [deg]	Top contact	Top contact dip [deg]	Component summary	Grain sorting	Grading comment	Grain size of normal graded layers - base	Grain size of normal graded layers - base RANK	Grain size of normal graded layers - top	Grain size of normal graded layers - top RANK	Grain size of reverse graded layers - base	Grain size of reverse graded layers - base RANK	Grain size of reverse graded layers - top	Grain size of reverse graded layers - top RANK
344-U1380C-7R-4	94	94.5	491.94	491.945		10BG 4/1 (dark greenish gray)	well consolidated		sharp inclined boundary		sharp contact					very fine sand	3	very fine sand	3				
344-U1380C-7R-5	72	74	493.05	493.07		10YR 3/2 (very dark grayish brown)	lithified	siliciclastic	sharp inclined boundary		sharp contact					fine sand	4	fine sand	4				
344-U1380C-9R-4	88	90	510.56	510.58	layered		well consolidated		sharp contact		sharp contact				well-sorted								
344-U1380C13R-5	142	143	550.94	550.95		10Y 4/1 (dark greenish gray)			sharp inclined boundary		sharp contact					fine sand	4	fine sand	4				
344-U1380C-29R-2	90	93	682.14	682.17		10R 4/1 (dark reddish gray)										coarse silt	5						
344-U1380C-30R-2	93	104	687.53	687.64		10R 4/3 (weak red)										coarse silt	5						
344-U1380C-30R-2	113	117	687.73	687.77		10R 4/1 (dark reddish gray)										coarse silt	5						
344-U1380C-30R-2	132	133	687.92	687.93		10R 3/2 (dusky red)										coarse silt	5						
344-U1380C-31R-1	6	20	690.36	690.5		10R 4/3 (weak red)										coarse silt	5						
344-U1380C-31R-1	31	41	690.61	690.71		10R 4/3 (weak red)										coarse silt	5						
344-U1380C-31R-1	45	50	690.75	690.8		10R 4/3 (weak red)										coarse silt	5						
344-U1380C-31R-1	52	53	690.82	690.83		10R 4/3 (weak red)										coarse silt	5						
344-U1380C-31R-1	67	73	690.97	691.03		10R 3/2 (dusky red)										coarse silt	5						
344-U1380C-31R-1	81	91	691.11	691.21		10R 4/3 (weak red)										coarse silt	5						
344-U1380C-31R-1	112	116	691.42	691.46		10R 4/3 (weak red)										coarse silt	5						
344-U1380C-31R-1	122	124	691.52	691.54		10R 4/3 (weak red)										coarse silt	5						
344-U1380C-31R-1	129	146	691.59	691.76		10R 3/2 (dusky red)										coarse silt	5						
344-U1380C-31R-2	10	24	691.9	692.04		10R 3/2 (dusky red)										coarse silt	5						
344-U1380C-31R-2	53	61	692.33	692.41		10R 4/3 (weak red)										coarse silt	5						
344-U1380C-31R-2	82	95	692.62	692.75		10R 3/2 (dusky red)										coarse silt	5						
344-U1380C-47R-3	0	10	770.56	770.66		10R 4/3 (weak red)										coarse silt	5						
344-U1380C-47R-3	15	57	770.71	771.13		10R 4/3 (weak red)										coarse silt	5						
344-U1380C-47R-3	60	74	771.16	771.3		10R 4/3 (weak red)										coarse silt	5						
344-U1380C-47R-3	79	84	771.35	771.4		10R 4/3 (weak red)										coarse silt	5						
344-U1380C-47R-3	90	92	771.46	771.48		10R 3/2 (dusky red)										coarse silt	5						