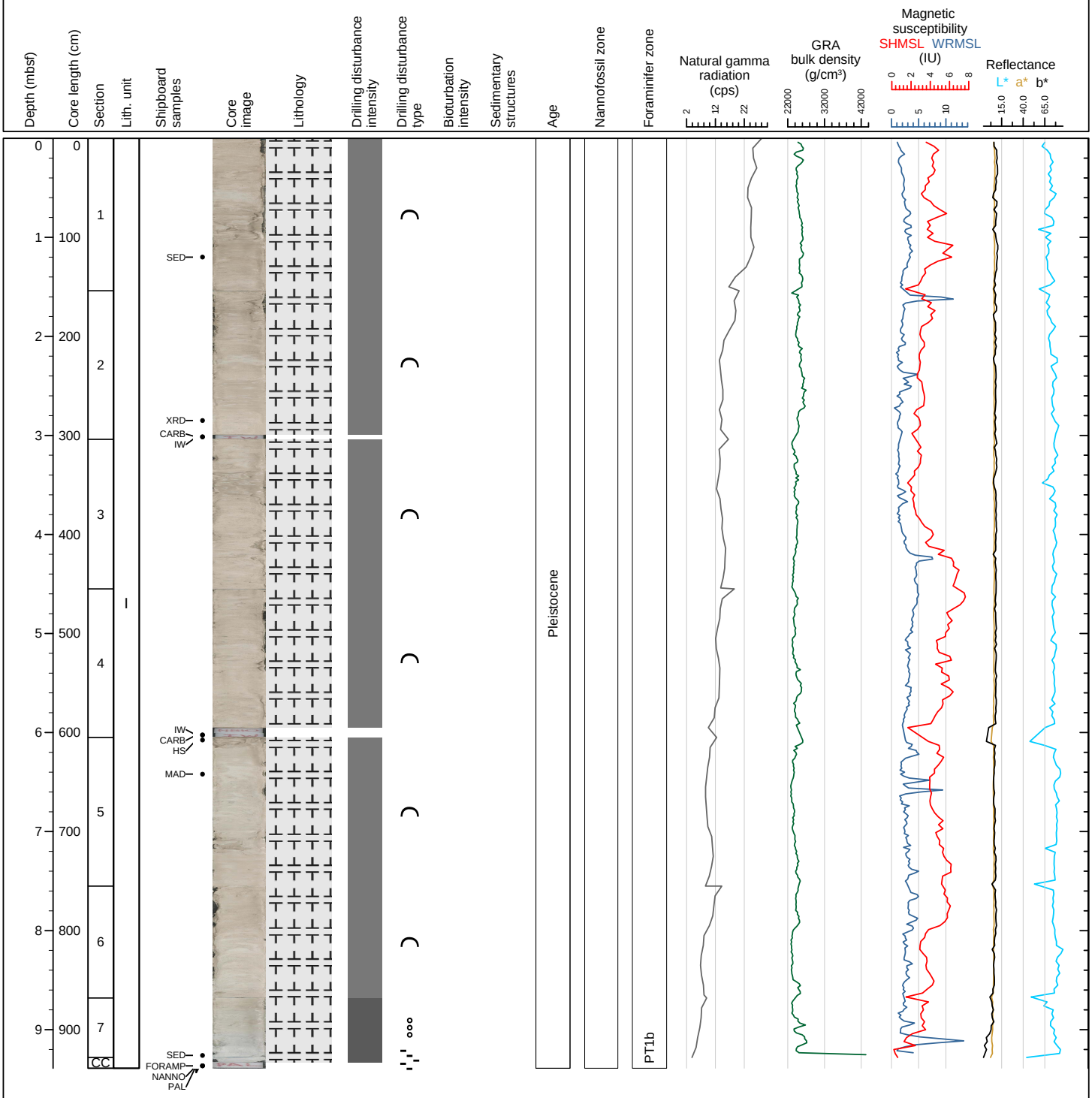
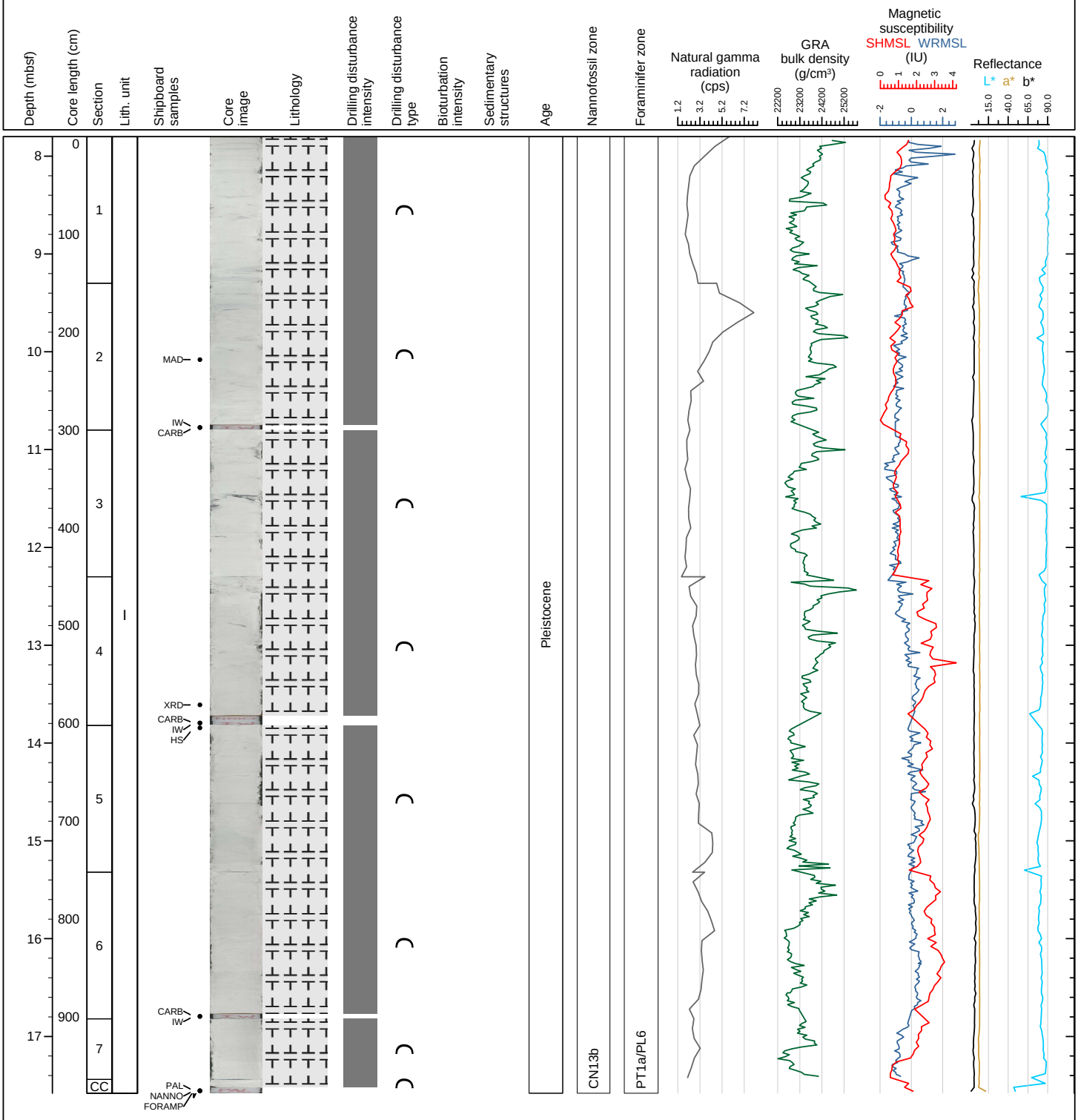
Hole 391-U1576A Core 1R, Interval 0.0-9.39 m (CSF-A)

Very pale brown nannofossil-foraminifera ooze. Unconsolidated and soupy with moderate to high drilling disturbance. Very disturbed bedding <10 cm-thick. Color bands vary between very pale brown (80% of the section) and white (20% of the section). Rare cm-sized darker patches and cm-thick bands (likely pyrite-rich disturbed layers and burrows).



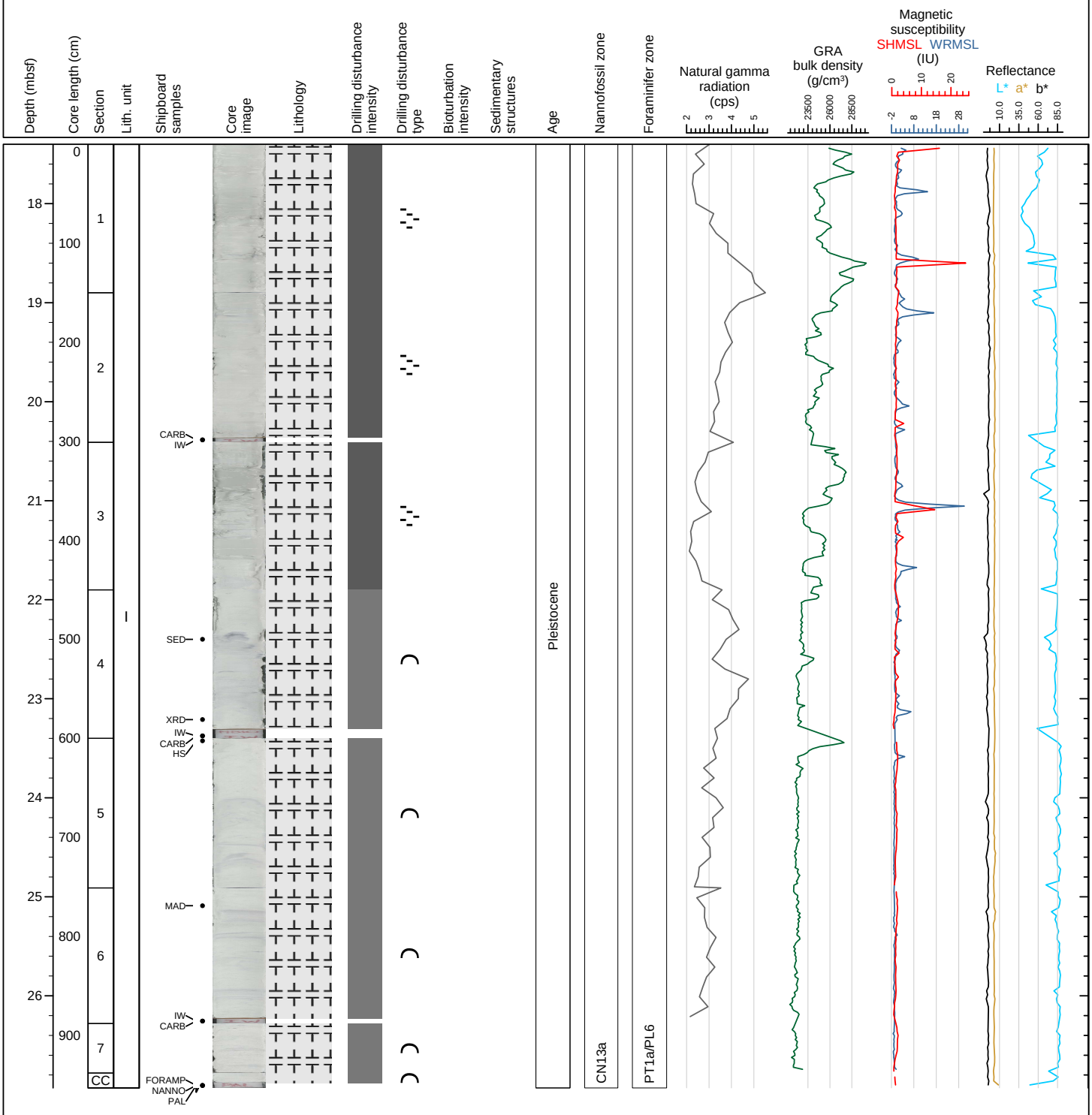
Hole 391-U1576A Core 2R, Interval 7.8-17.58 m (CSF-A)

White nannofossil-foraminifera ooze. Unconsolidated slurry with moderate to high drilling disturbance. Very disturbed bedding. Common cm-sized darker patches and cm-thick bands (likely pyrite-rich layers and burrows disturbed by drilling). Some sections have a greenish hue.



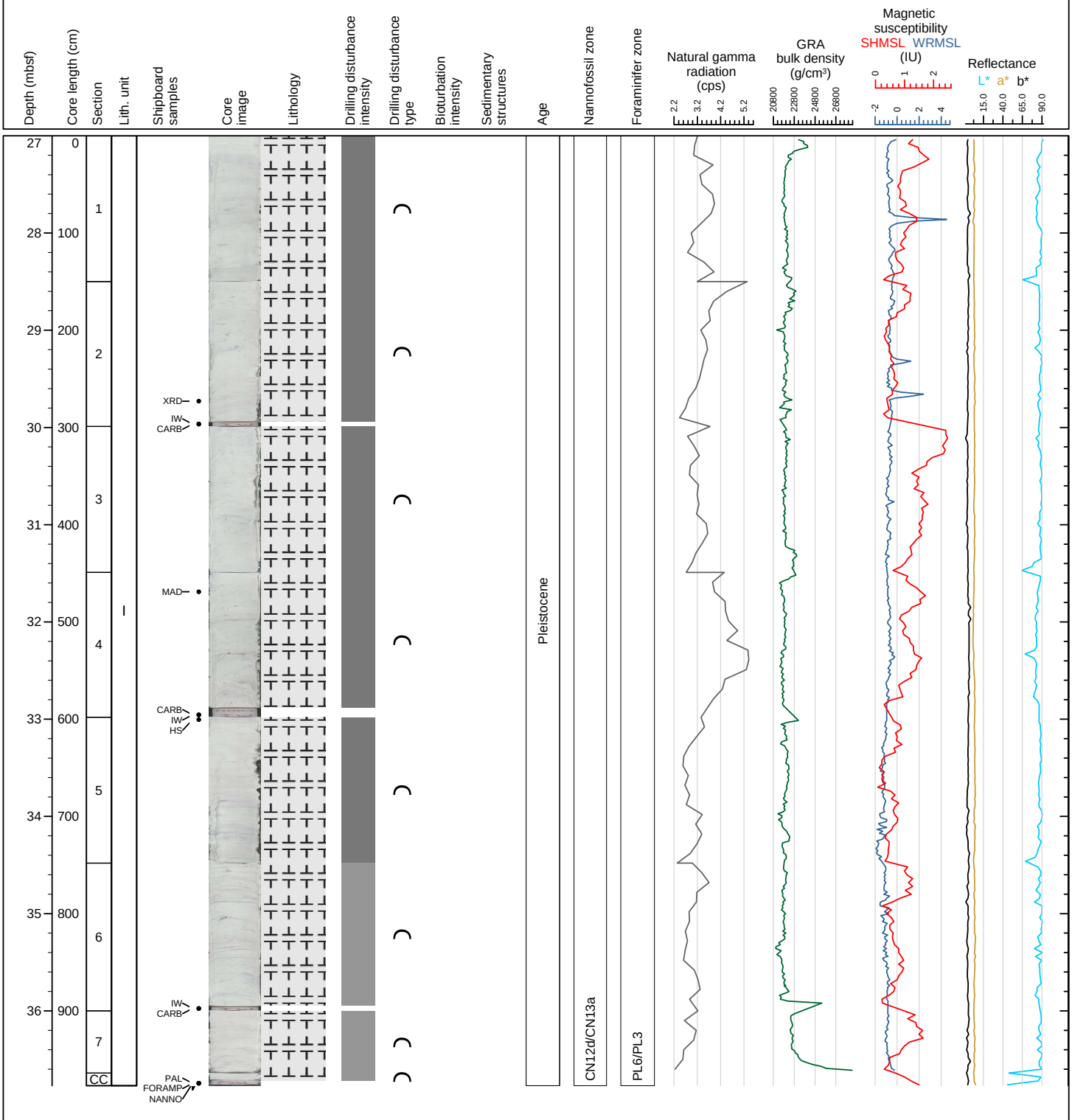
Hole 391-U1576A Core 3R, Interval 17.4-26.93 m (CSF-A)

White nannofossil-foraminifera ooze. Unconsolidated slurry with moderate to high drilling disturbance. Moderately disturbed bedding. Common cm-sized darker patches and common cm-thick bands (likely pyrite-rich layers and burrows disturbed by drilling). Subtle gradings of very pale grey to brown sediment throughout.



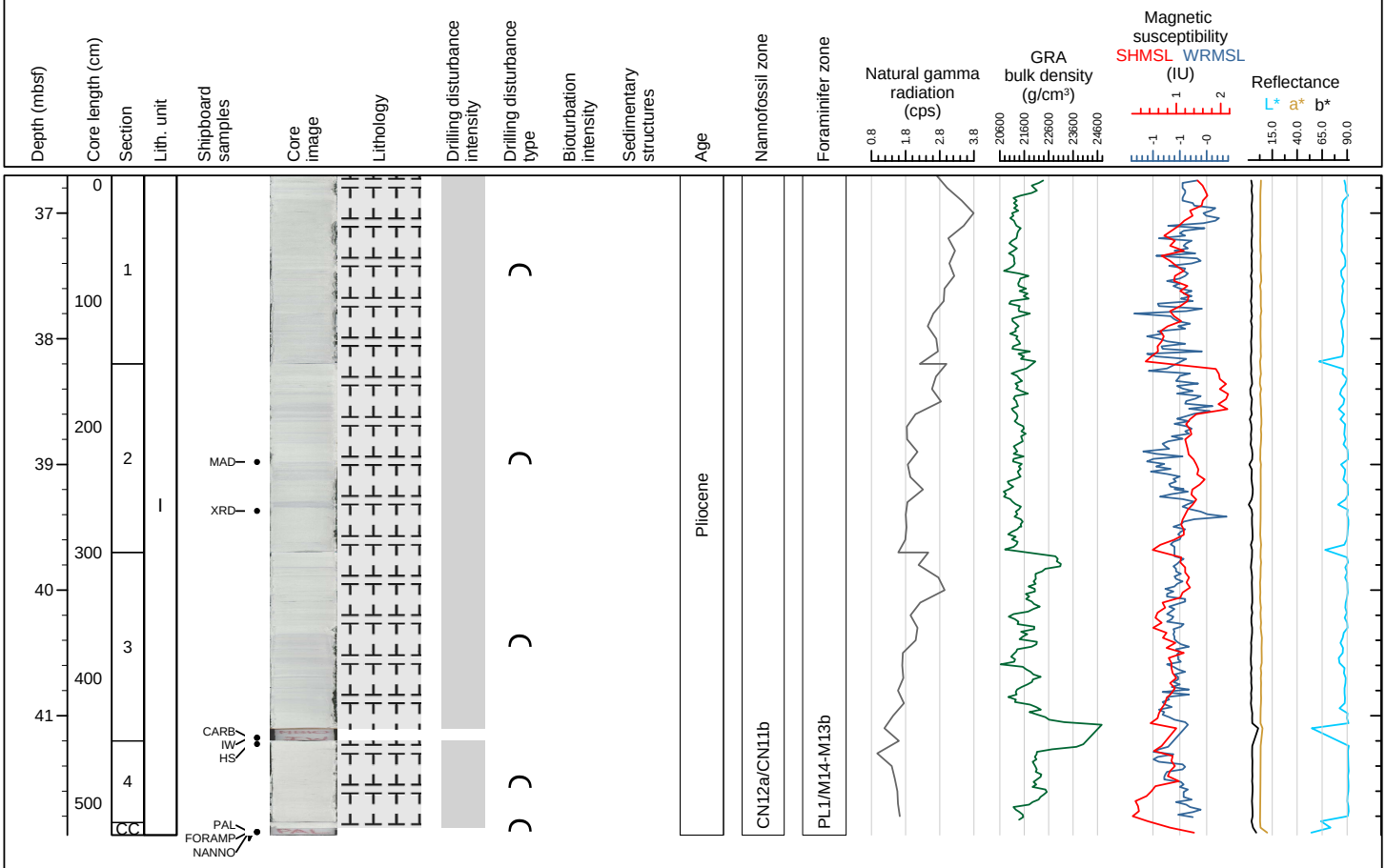
Hole 391-U1576A Core 4R, Interval 27.0-36.77 m (CSF-A)

White nannofossil-foraminifera ooze. Unconsolidated slurry with moderate to high drilling disturbance. Moderately disturbed bedding. Common cm-sized darker patches and common cm-thick bands (likely pyrite-rich layers and burrows disturbed by drilling). Subtle gradings of very pale grey to brown sediment throughout.



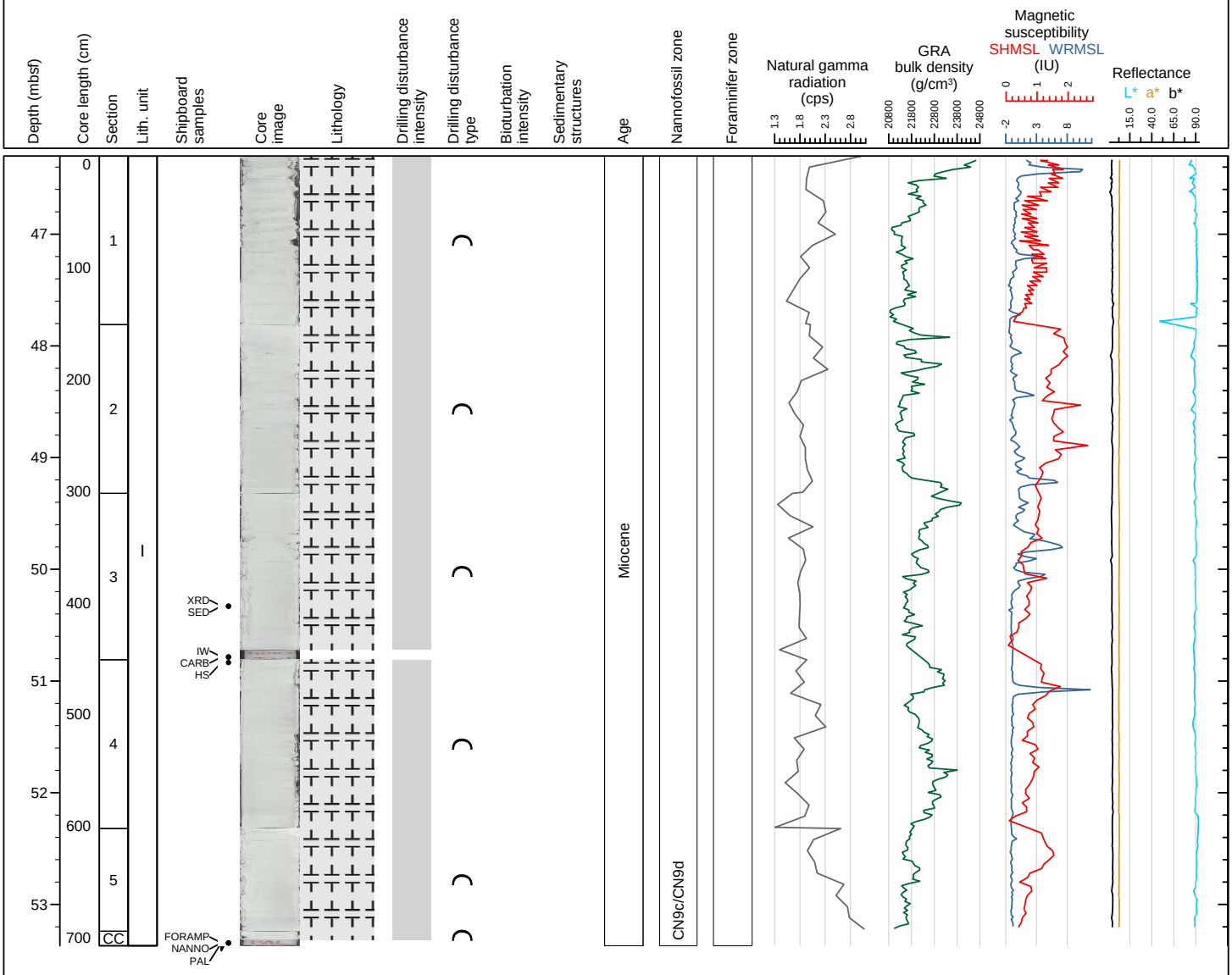
Hole 391-U1576A Core 5R, Interval 36.7-41.95 m (CSF-A)

White nannofossil-foraminifera ooze. Consolidate emulsion with slight drilling disturbance. Moderately disturbed bedding; Locally very well preserved bedding. Abundant sub-cm layering marked by color changes between white, light grey, and brownish-grey, rare patches of darker material (likely pyrite).



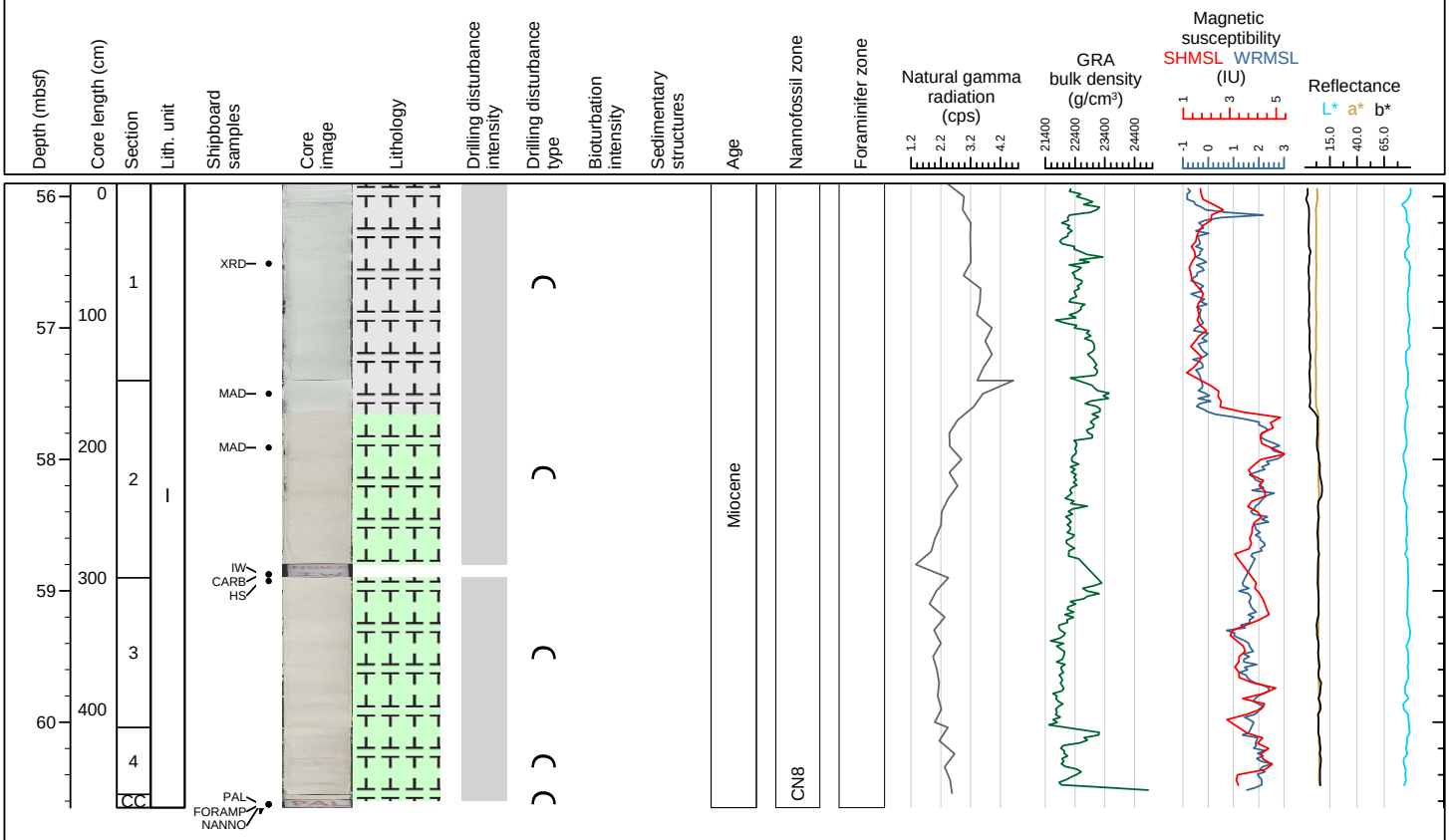
Hole 391-U1576A Core 6R, Interval 46.3-53.37 m (CSF-A)

White nannofossil-foraminifera ooze. Consolidate emulsion with slight drilling disturbance. Moderately disturbed bedding; Locally very well preserved bedding. Abundant sub-cm layering marked by color changes between white, light grey, and brownish-grey, rare patches of darker material (likely pyrite).



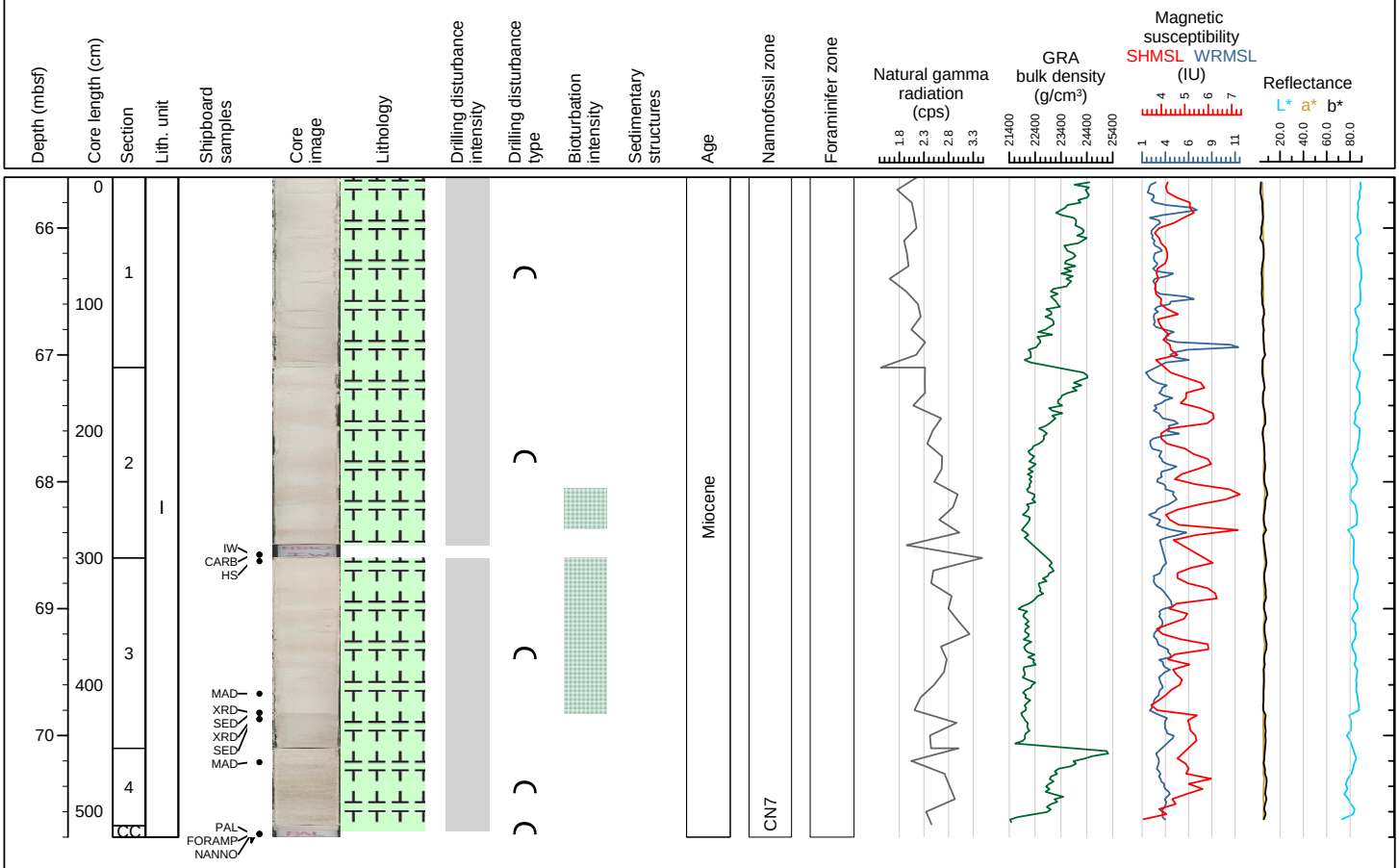
Hole 391-U1576A Core 7R, Interval 55.9-60.65 m (CSF-A)

Pale brown nannofossil-foraminifera ooze. Consolidated with slight drilling disturbance. No visible layering. Rare patches and discontinuous horizontal streaks of darker material (likely pyrite).



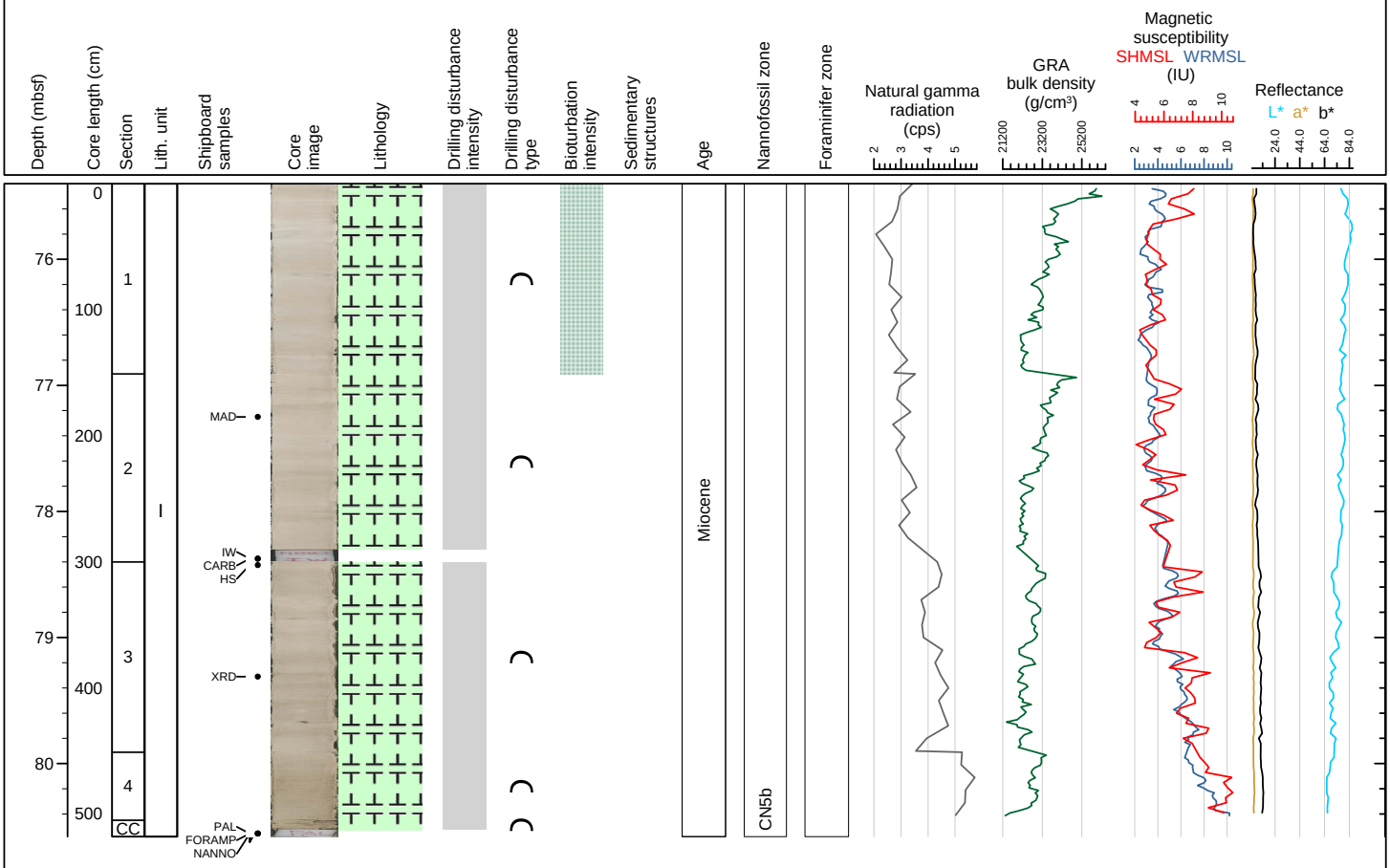
Hole 391-U1576A Core 8R, Interval 65.6-70.8 m (CSF-A)

Pale brown nannofossil-foraminifera ooze, becoming increasingly darker. Consolidated with slight drilling disturbance. No visible layering. Rare patches and discontinuous horizontal streaks of darker material (likely pyrite).



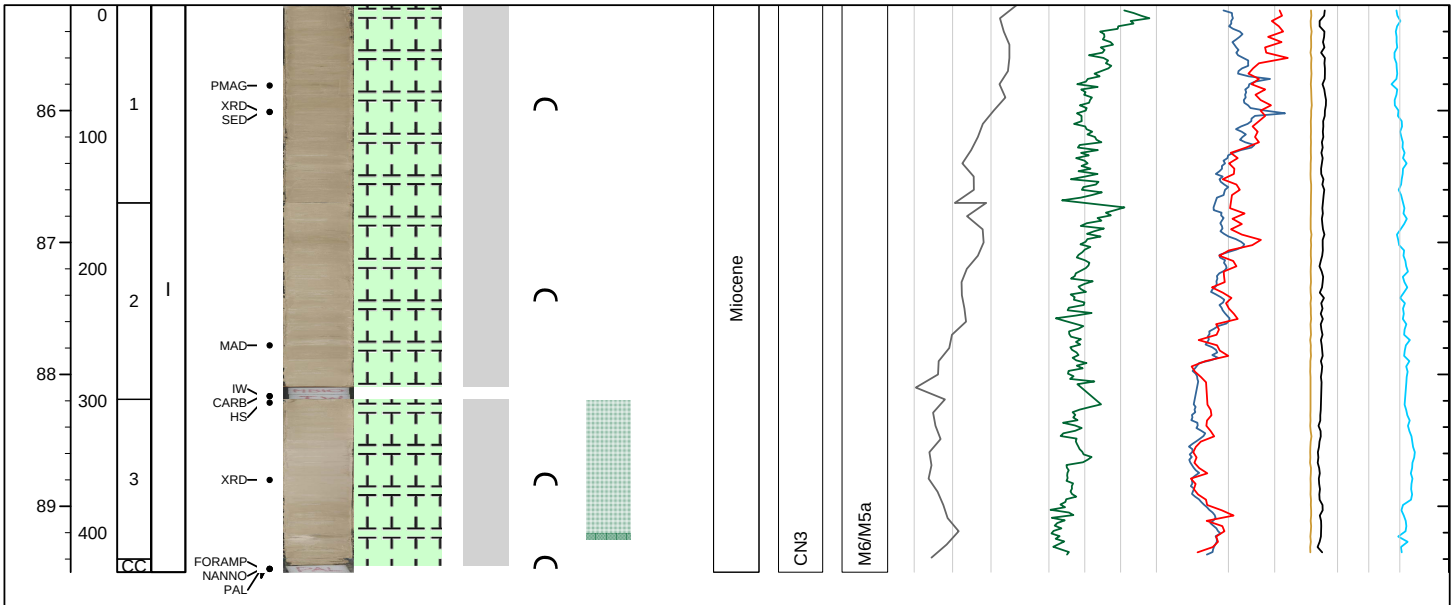
Hole 391-U1576A Core 9R, Interval 75.4-80.58 m (CSF-A)

Pale brown nannofossil-foraminifera ooze, becoming increasingly darker. Consolidated with slight drilling disturbance. No visible layering; Rare patches and discontinuous horizontal streaks of darker material (likely pyrite).



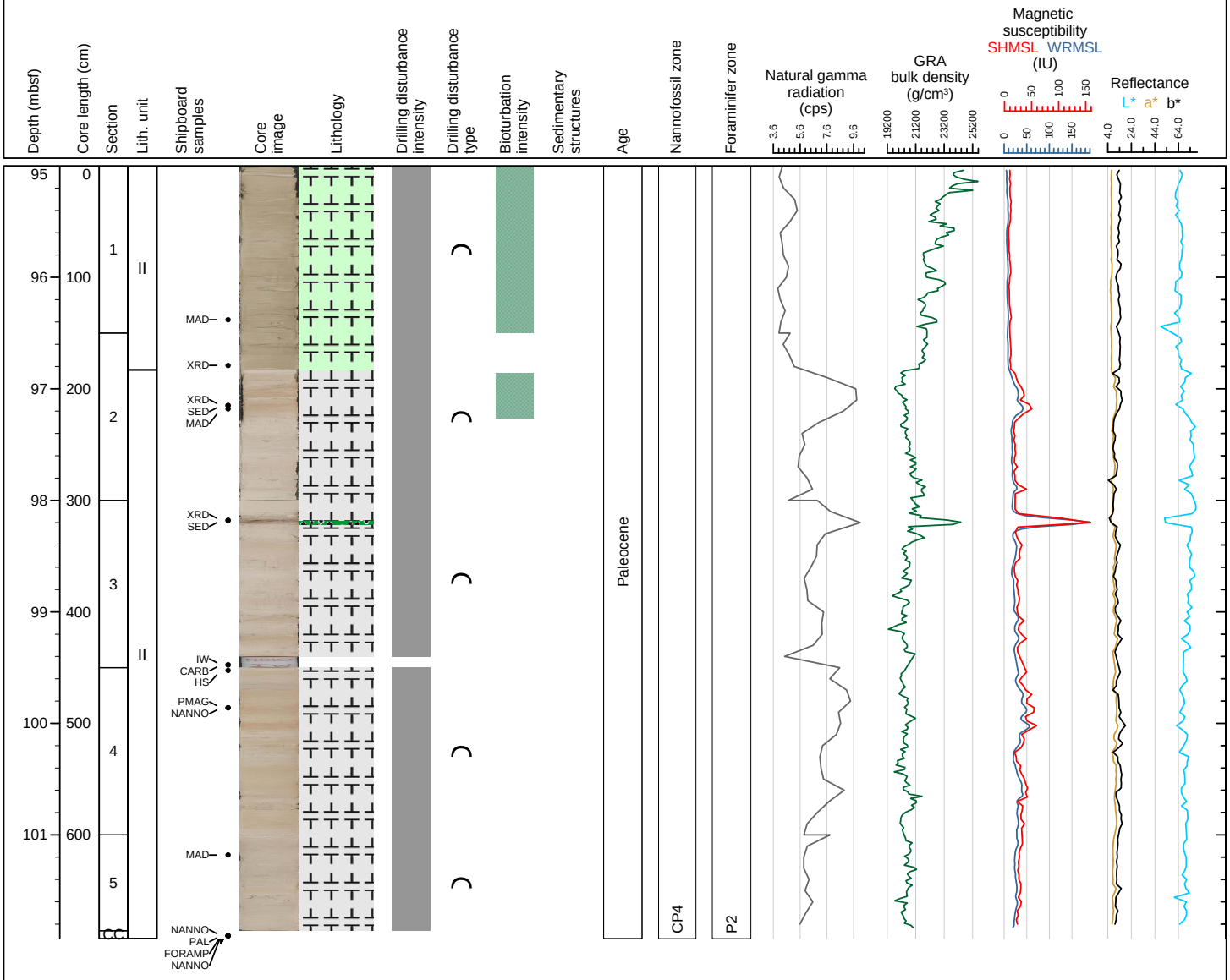
Hole 391-U1576A Core 10R, Interval 85.2-89.5 m (CSF-A)

Increasingly pale brown nannofossil-foraminifera ooze. Consolidated with slight drilling disturbance. No visible layering. Rare patches and discontinuous horizontal streaks of darker material (likely pyrite).



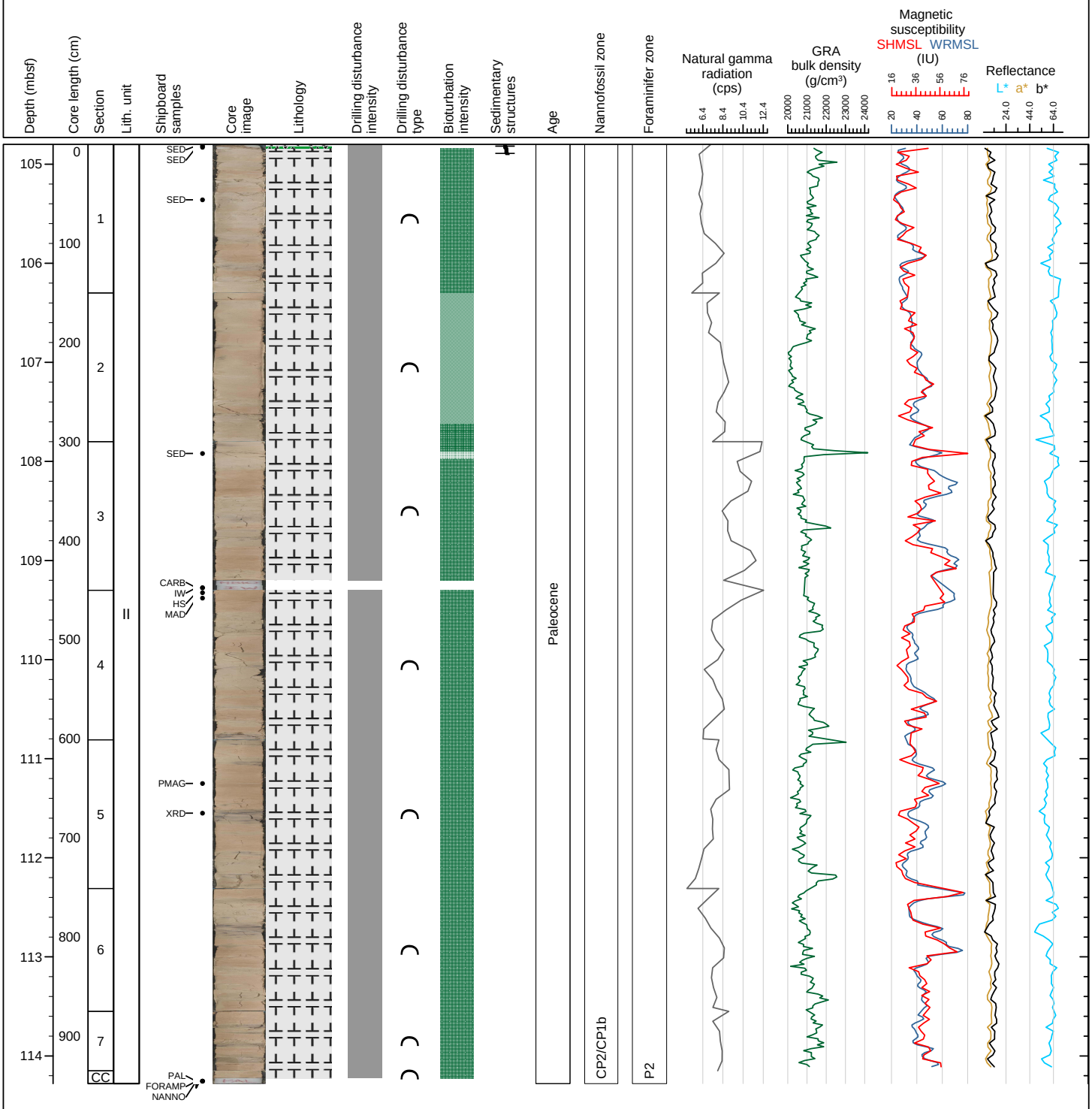
Hole 391-U1576A Core 11R, Interval 95.0-101.93 m (CSF-A)

Pink foraminifera-nannofossil ooze with clay. Consolidated with moderate drilling disturbance. Faint, repeated sequences of pink grading to pinkish-white cycles (between 30 and 50cm thick) with increased bioturbation at the top of each cycle.



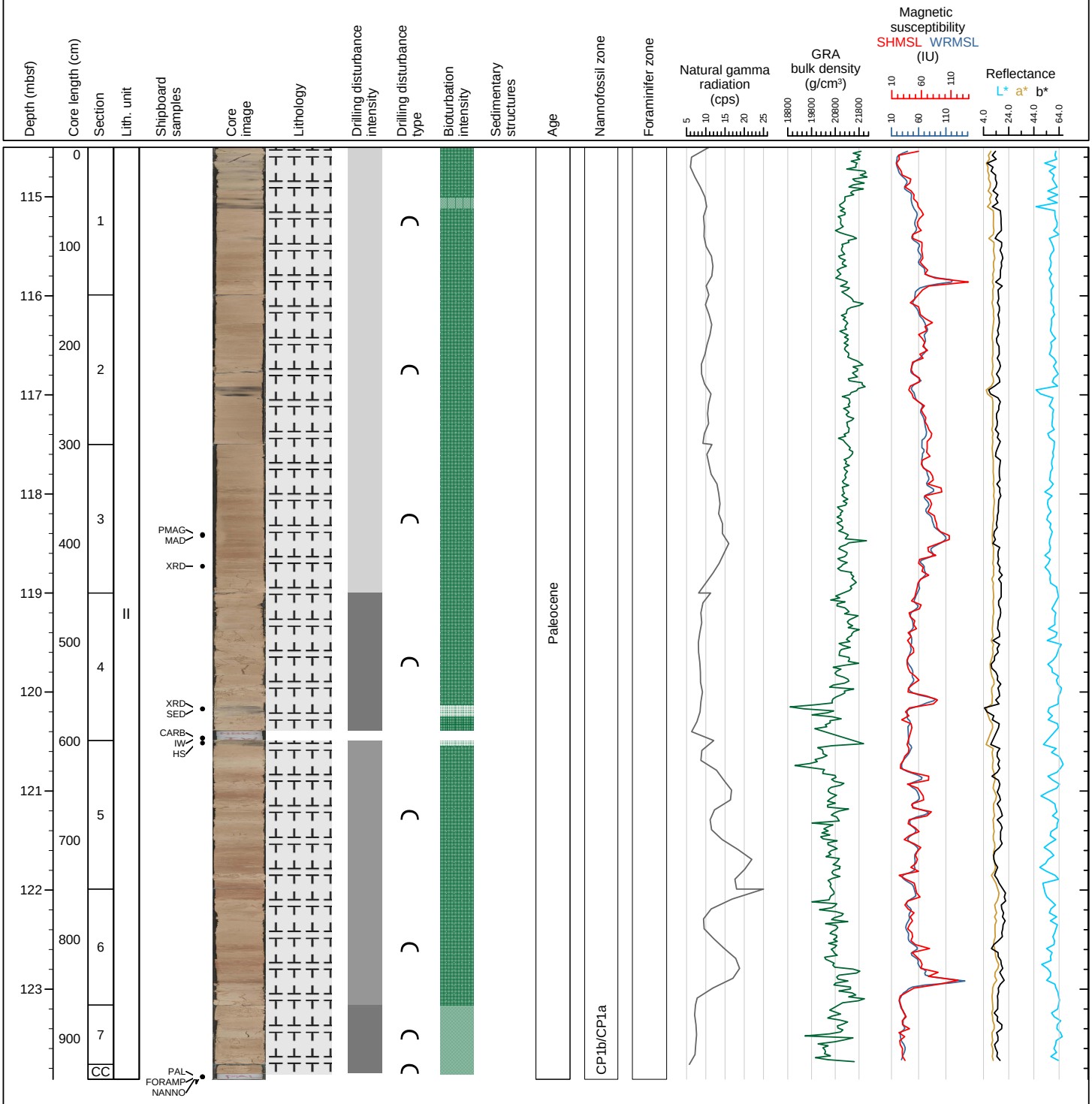
Hole 391-U1576A Core 12R, Interval 104.8-114.28 m (CSF-A)

Pink foraminifera-nannofossil ooze with clay. Consolidated with moderate drilling disturbance. Faint, cycles of pinkish white to pink bioturbated ooze. Bioturbation is more intense in the pink part of the cycles. Each cycle is 20-60cm thick. Dispersed, black volcaniclastic material, and angular to sub-rounded granules (up to 3mm in length) are sporadically present.



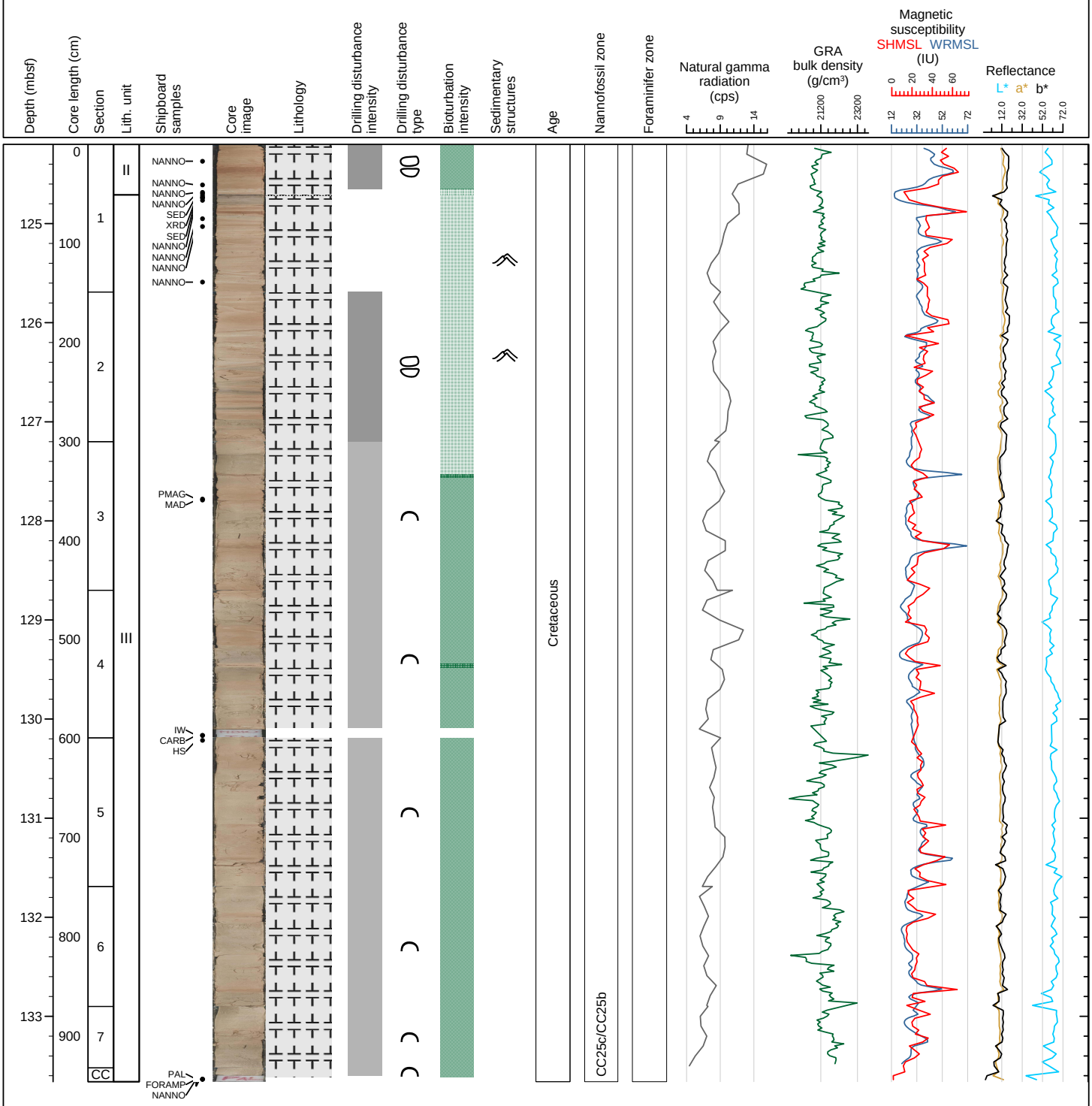
Hole 391-U1576A Core 13R, Interval 114.5-123.91 m (CSF-A)

Pink foraminifera-nannofossil ooze with clay. Consolidated with moderate drilling disturbance. Faint, cycles of pinkish white to pink bioturbated ooze. Bioturbation is more intense in the pink part of the cycles. Each cycle is 20-60cm thick. Dispersed, black volcaniclastic material, and angular to sub-rounded granules (up to 3mm in length) are sporadically present.



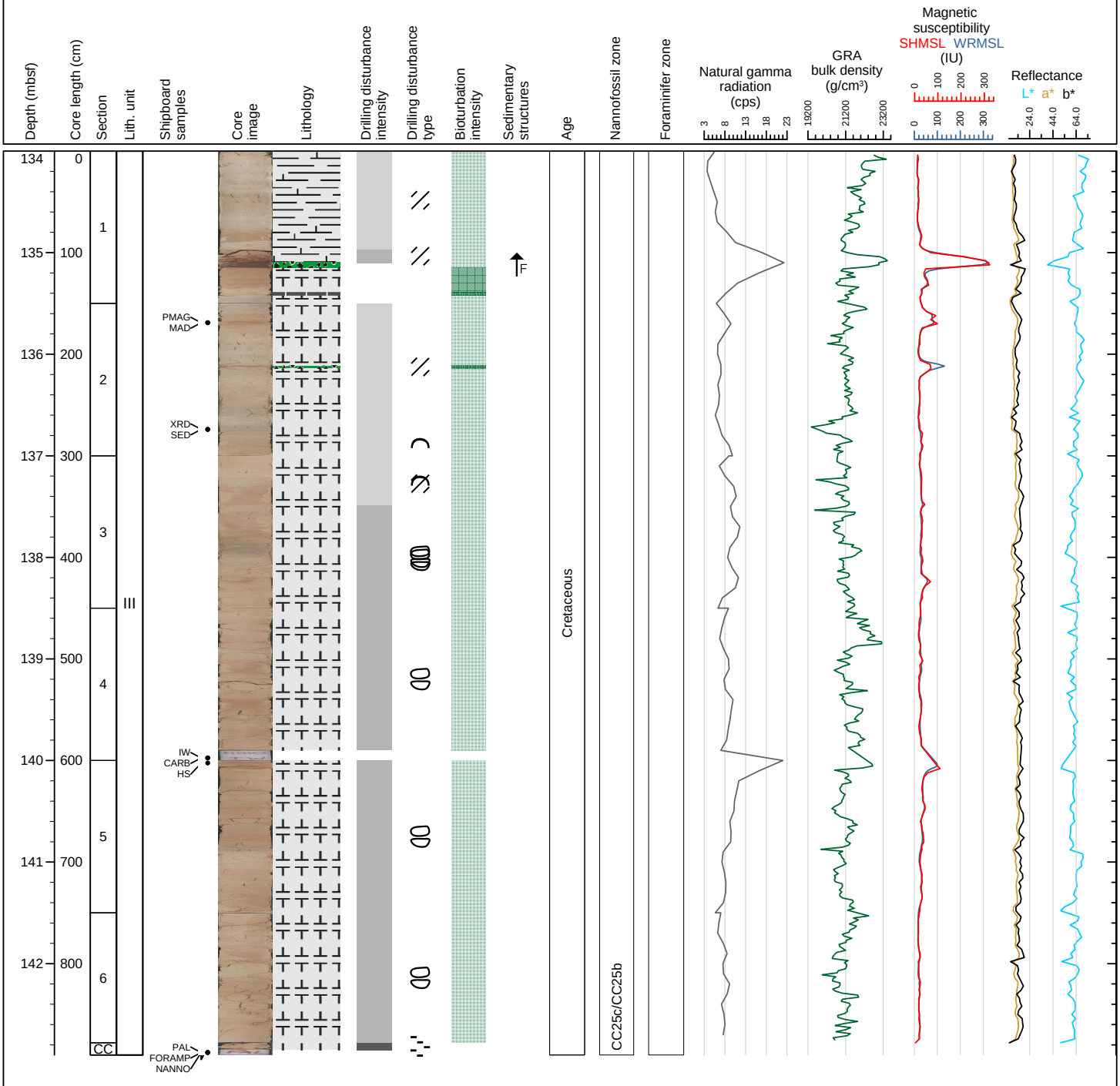
Hole 391-U1576A Core 14R, Interval 124.2-133.66 m (CSF-A)

Pale pinkish to brown foraminifera-nannofossil ooze with clay. Consolidated with variable (slight to high) drilling disturbance. Cycles of pinkish white to pink bioturbated ooze. Bioturbation is more intense in the pink part of the cycles. Each cycle is 20-60cm thick. Dispersed, black volcaniclastic material.



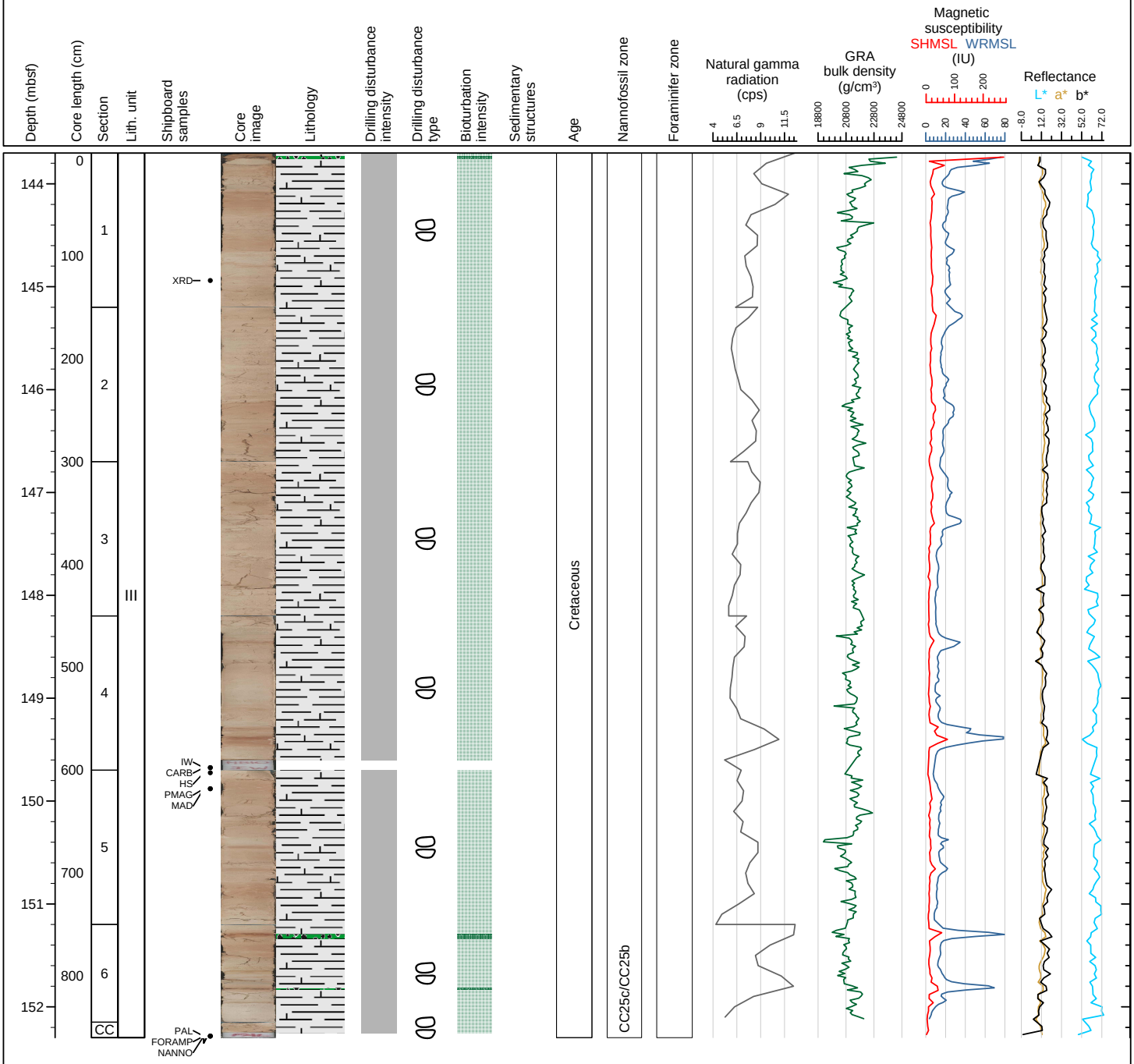
Hole 391-U1576A Core 15R, Interval 134.0-142.9 m (CSF-A)

Pale pinkish to brown foraminifera-nannofossil ooze with clay. Consolidated with variable (slight to high) drilling disturbance. Cycles of pinkish white to pink bioturbated ooze. Bioturbation is more intense in the pink part of the cycles. Each cycle is 20-60cm thick. Dispersed, black volcaniclastic material.



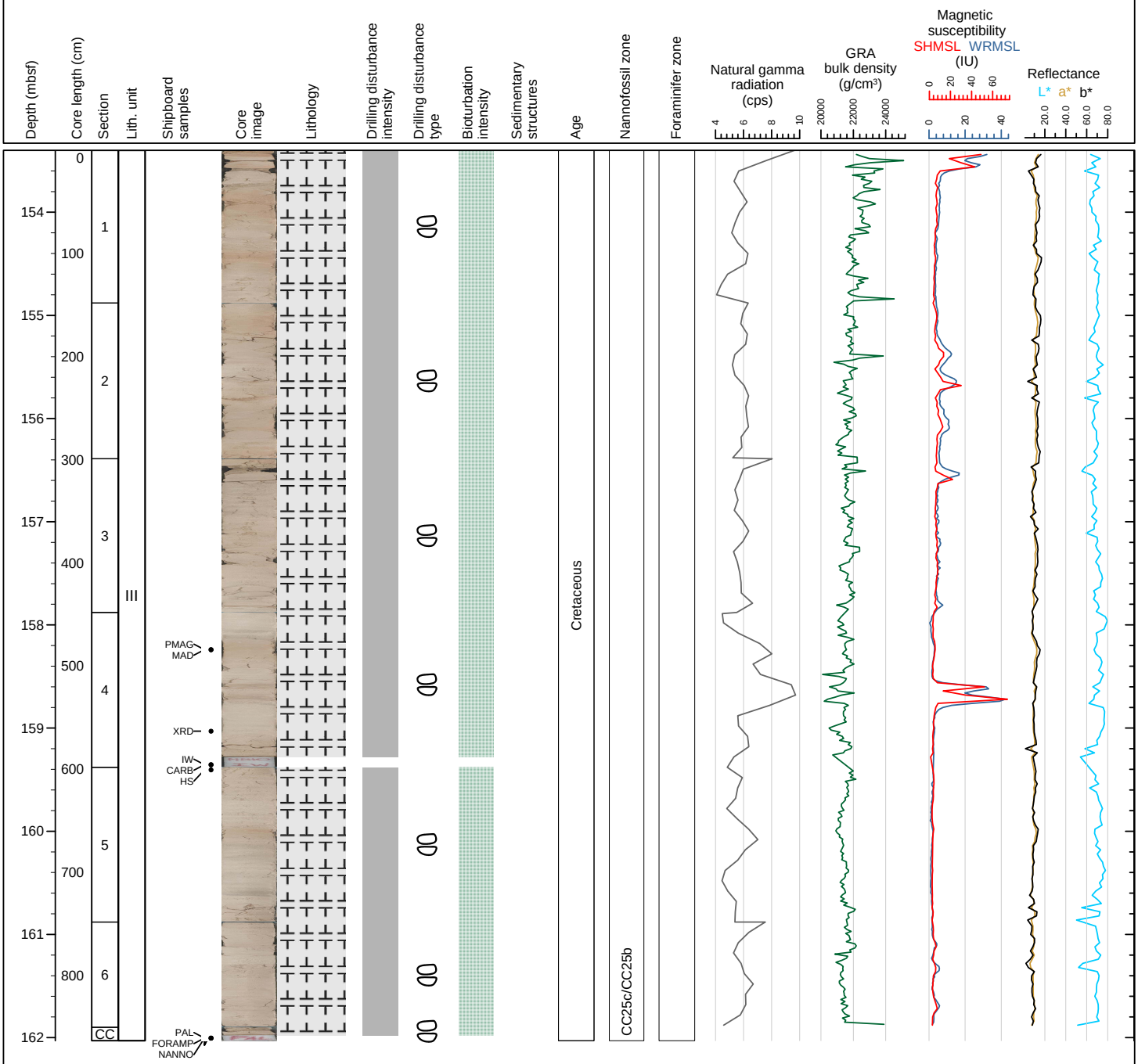
Hole 391-U1576A Core 16R, Interval 143.7-152.3 m (CSF-A)

Pale pinkish to brown foraminifera-nannofossil ooze with clay. Consolidated with variable (slight to high) drilling disturbance. Cycles of pinkish white to pink bioturbated ooze. Bioturbation is more intense in the pink part of the cycles. Each cycle is 20-60cm thick. Dispersed, black volcaniclastic material.



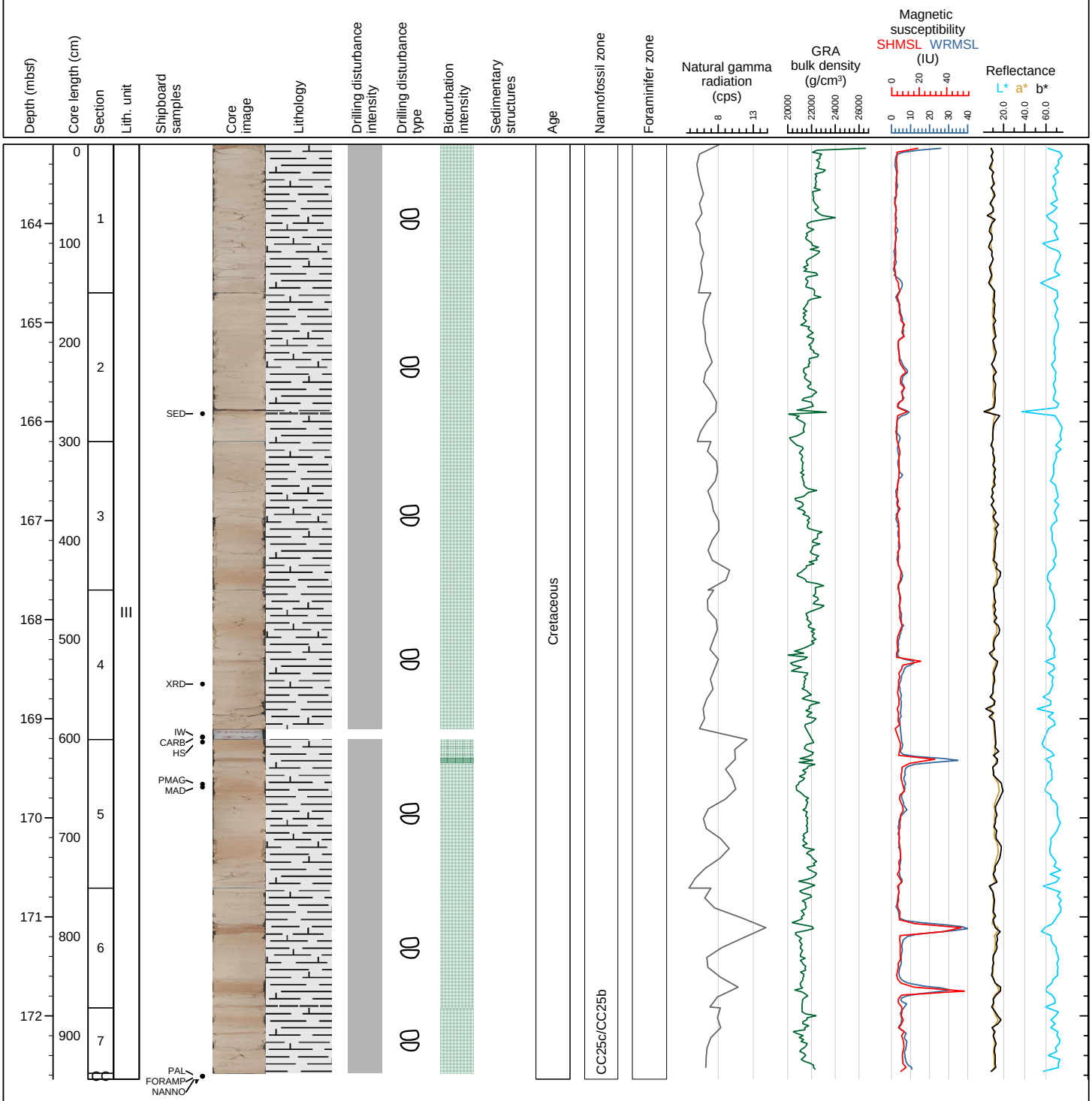
Hole 391-U1576A Core 17R, Interval 153.4-162.03 m (CSF-A)

Pale pinkish to brown foraminifera-nannofossil ooze with clay. Consolidated with variable (slight to high) drilling disturbance. Cycles of pinkish white to pink bioturbated ooze. Bioturbation is more intense in the pink part of the cycles. Each cycle is 20-60cm thick. Dispersed, black volcaniclastic material.



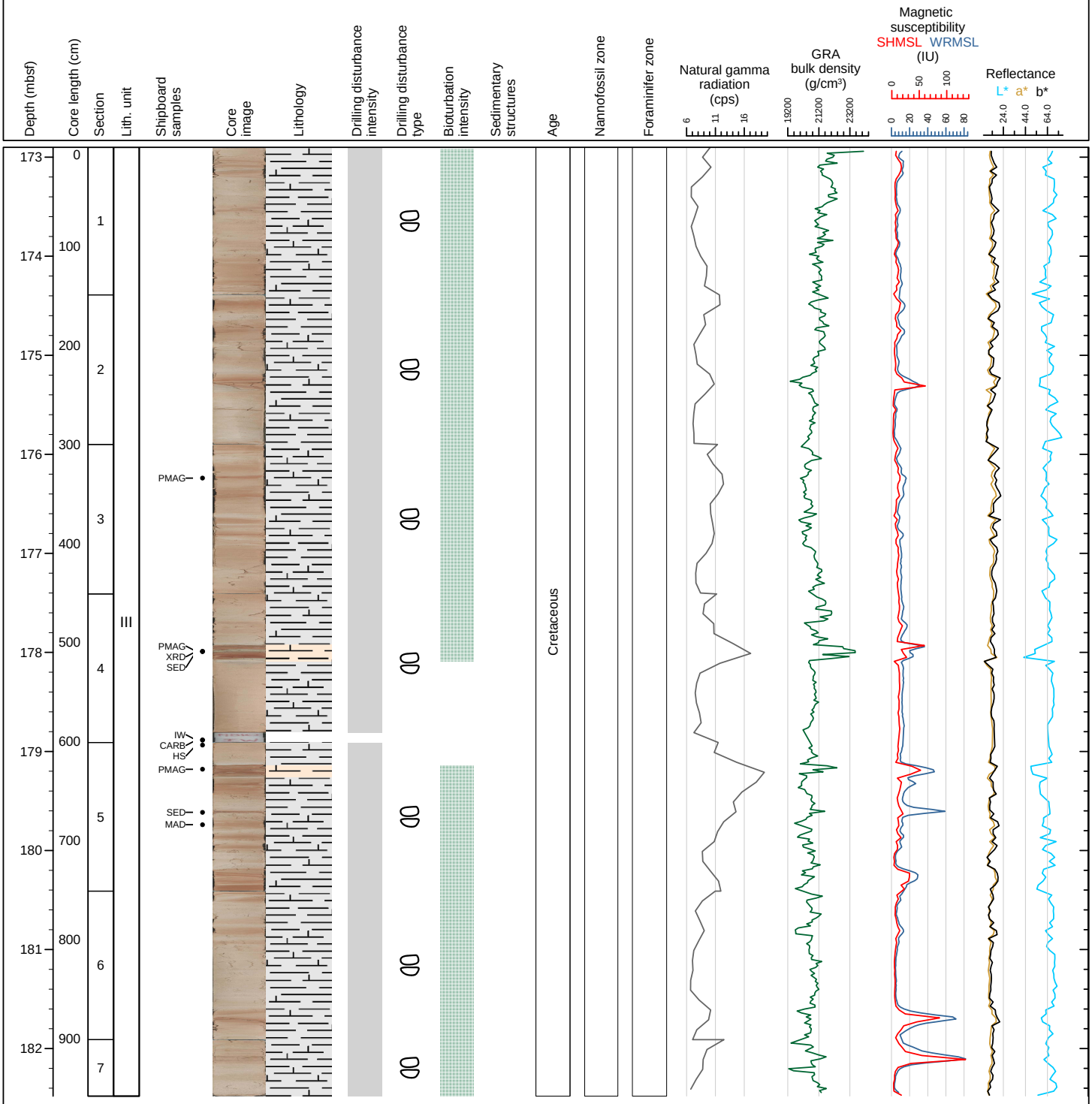
Hole 391-U1576A Core 18R, Interval 163.2-172.64 m (CSF-A)

Pale pink to whitish pink foraminifera-nannofossil chalkwith clay. Consolidated with variable (slight to high) drilling disturbance. Faint cycles from pale pink to whitish pink, with rarer greyer intervals. Bioturbation is more intense or more visible in the pink part of the cycle. Each cycle is 20-60cm thick.



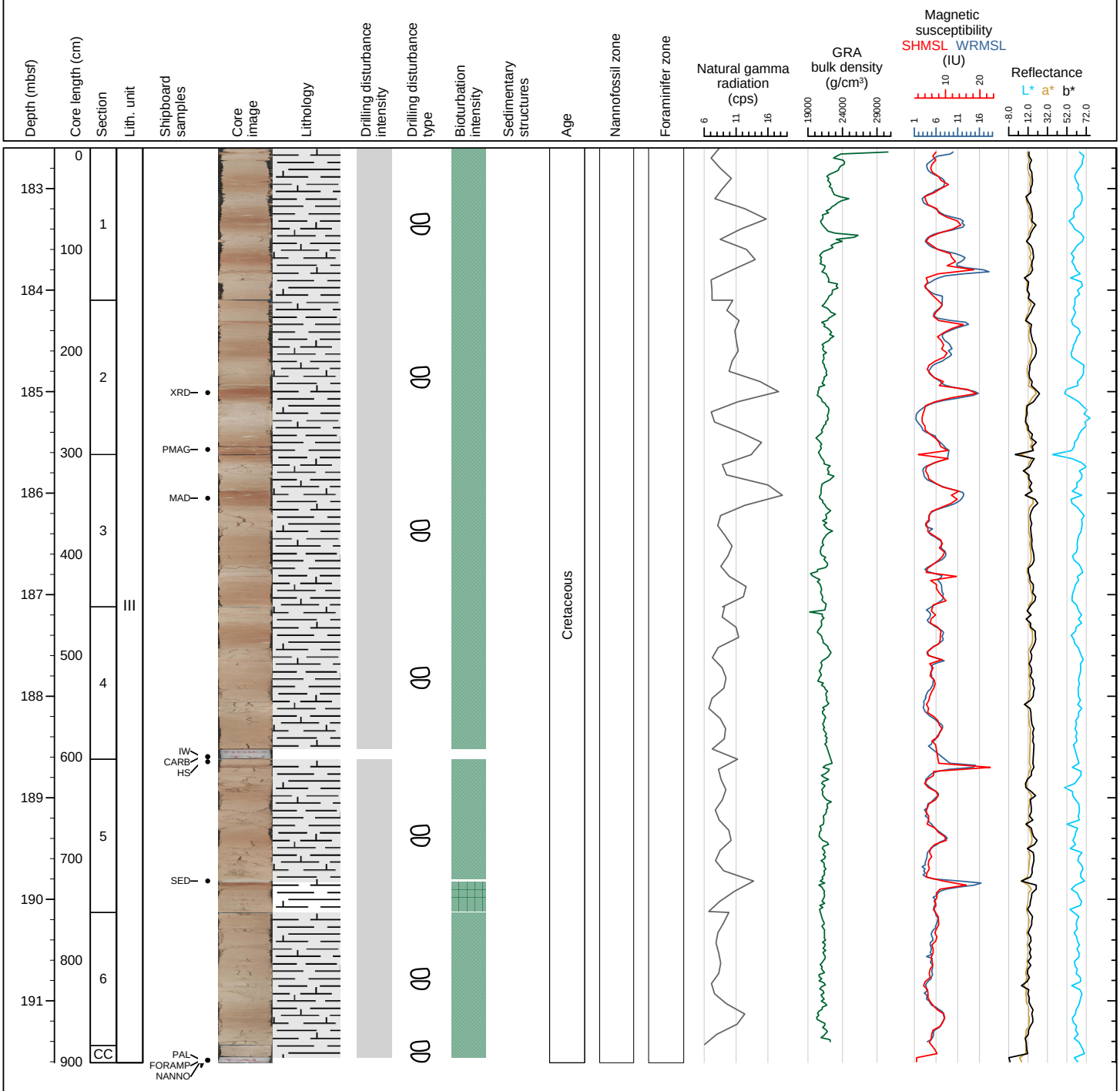
Hole 391-U1576A Core 19R, Interval 172.9-182.48 m (CSF-A)

Pale pink to whitish pink foraminifera-nannofossil chalk with clay. Consolidated with slight drilling disturbance. Prominent cycles from darker brownish pink to whitish pink. Bioturbation is more intense or more visible in the pink part of the cycle. Cycles of variable thickness. Thin lenses of light green altered ash in pink chalk.



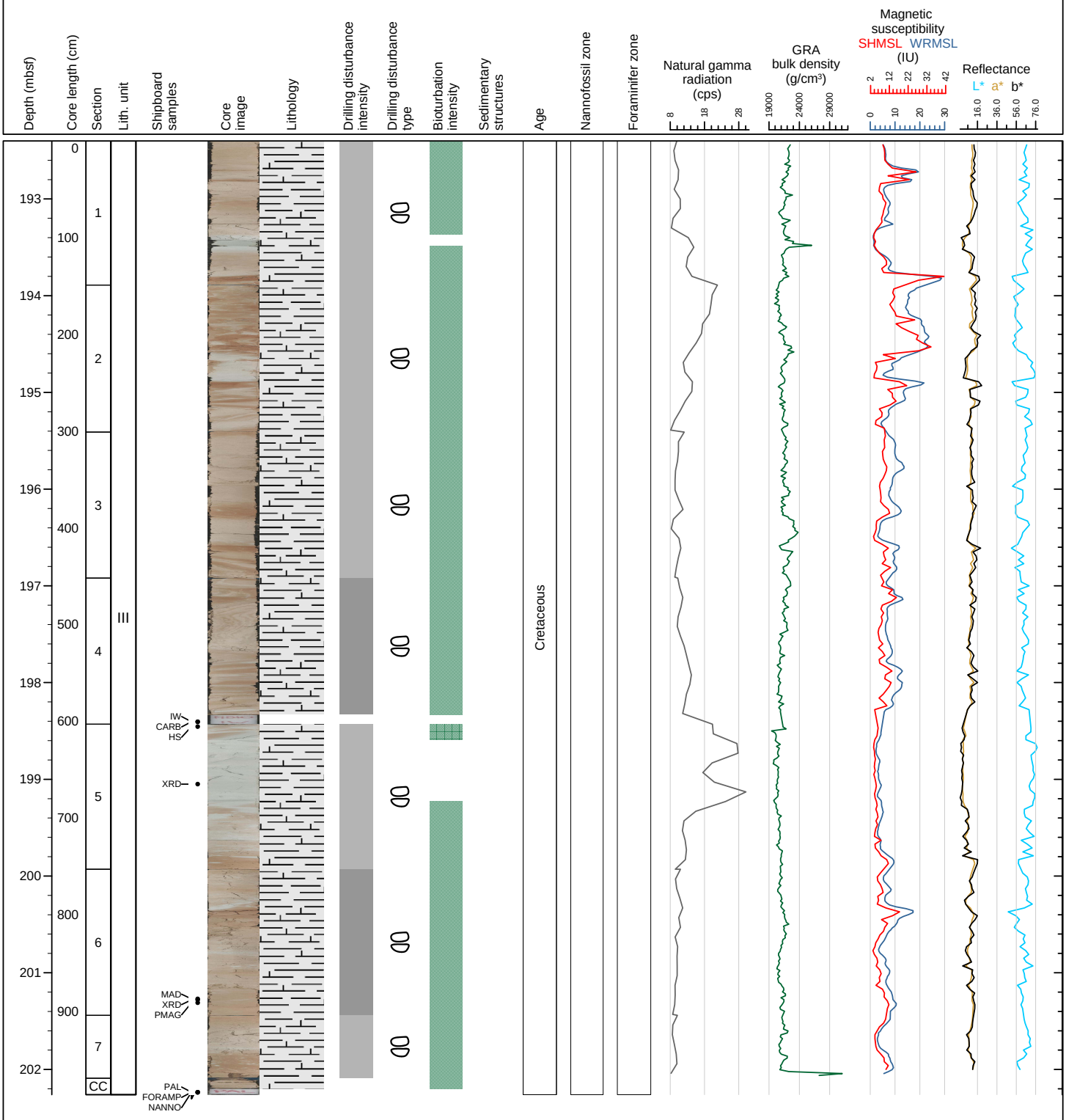
Hole 391-U1576A Core 20R, Interval 182.6-191.61 m (CSF-A)

Pale pink to whitish pink foraminifera-nannofossil chalk with clay. Consolidated with slight drilling disturbance. Prominent cycles of pinkish white to pink bioturbated chalk. Bioturbation is more intense in the pink part of the cycles. Each cycle is 20-40cm thick.



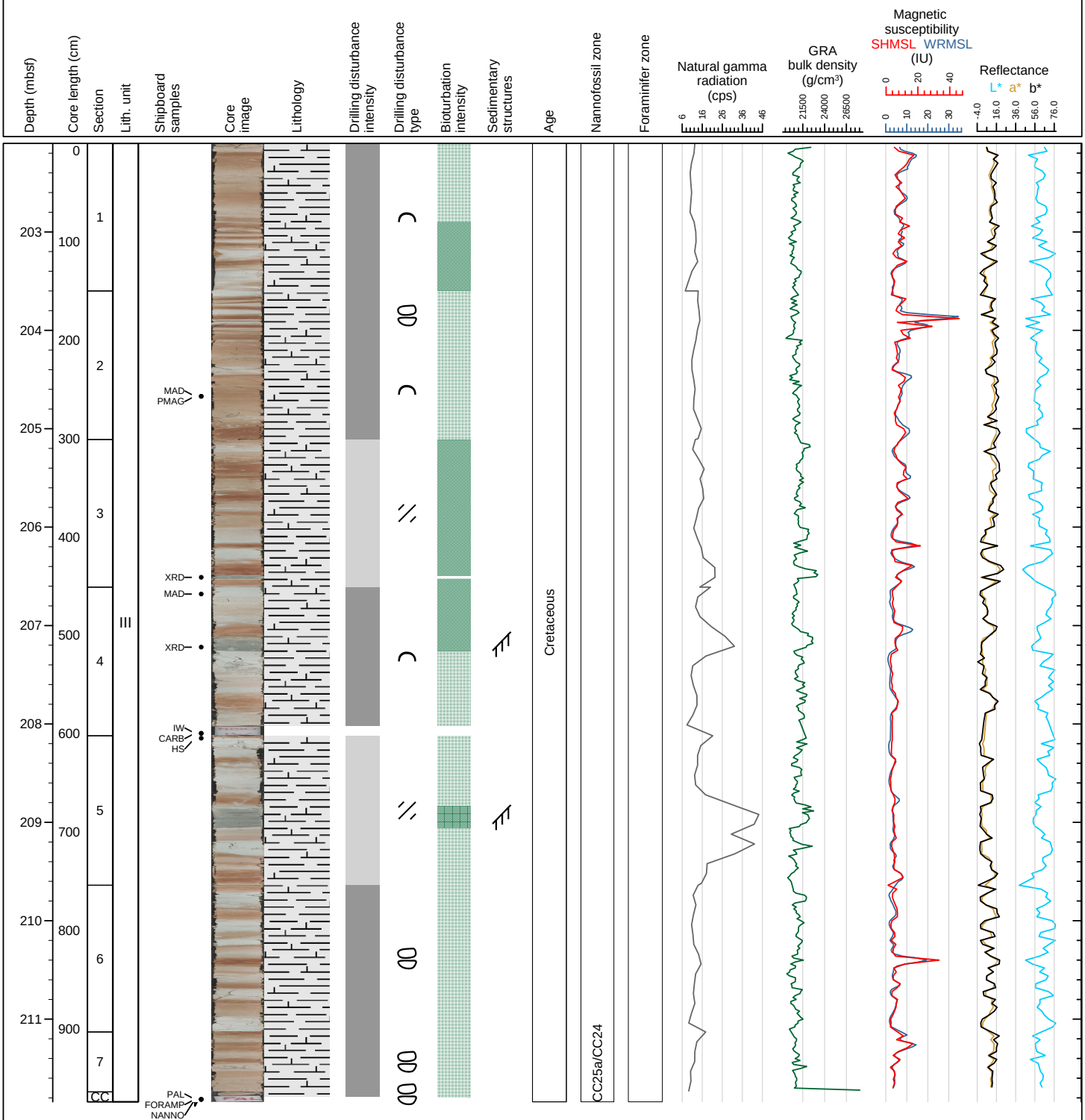
Hole 391-U1576A Core 21R, Interval 192.4-202.26 m (CSF-A)

Pale pink to whitish pink foraminifera-nannofossil chalk with clay. Consolidated with significant drilling disturbance. Discontinuous patches of pinkish white to pink bioturbated chalk.



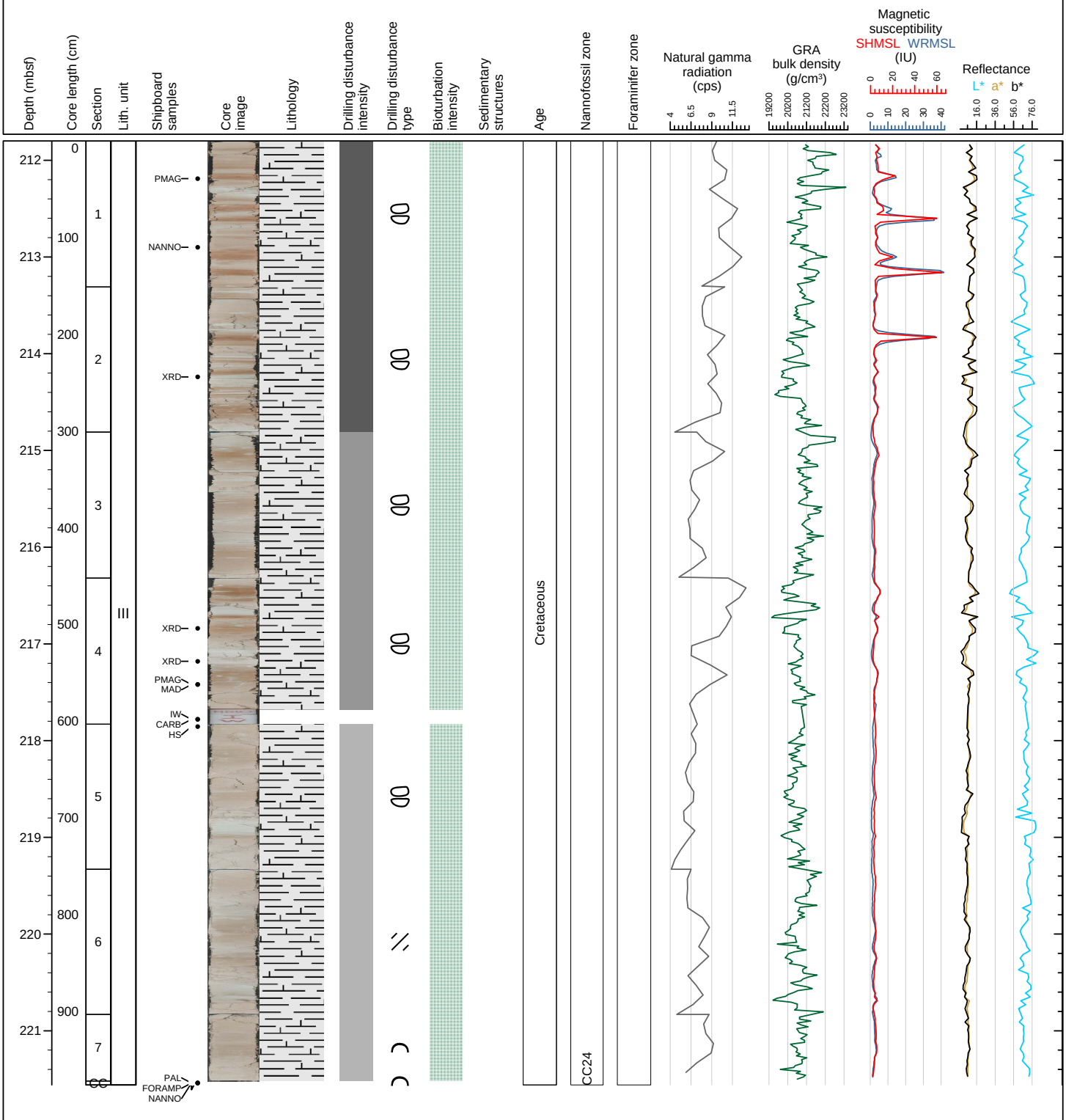
Hole 391-U1576A Core 22R, Interval 202.1-211.84 m (CSF-A)

Pale pink to whitish pink foraminifera-nannofossil chalk with clay. Consolidated with significant drilling disturbance producing discontinuous patches of pinkish white to pink bioturbated chalk continuing into sections 1 and 2. Sections 3 - 7 show prominent brown to white cyclicity. Thick intervals of greenish white volcanic clay.



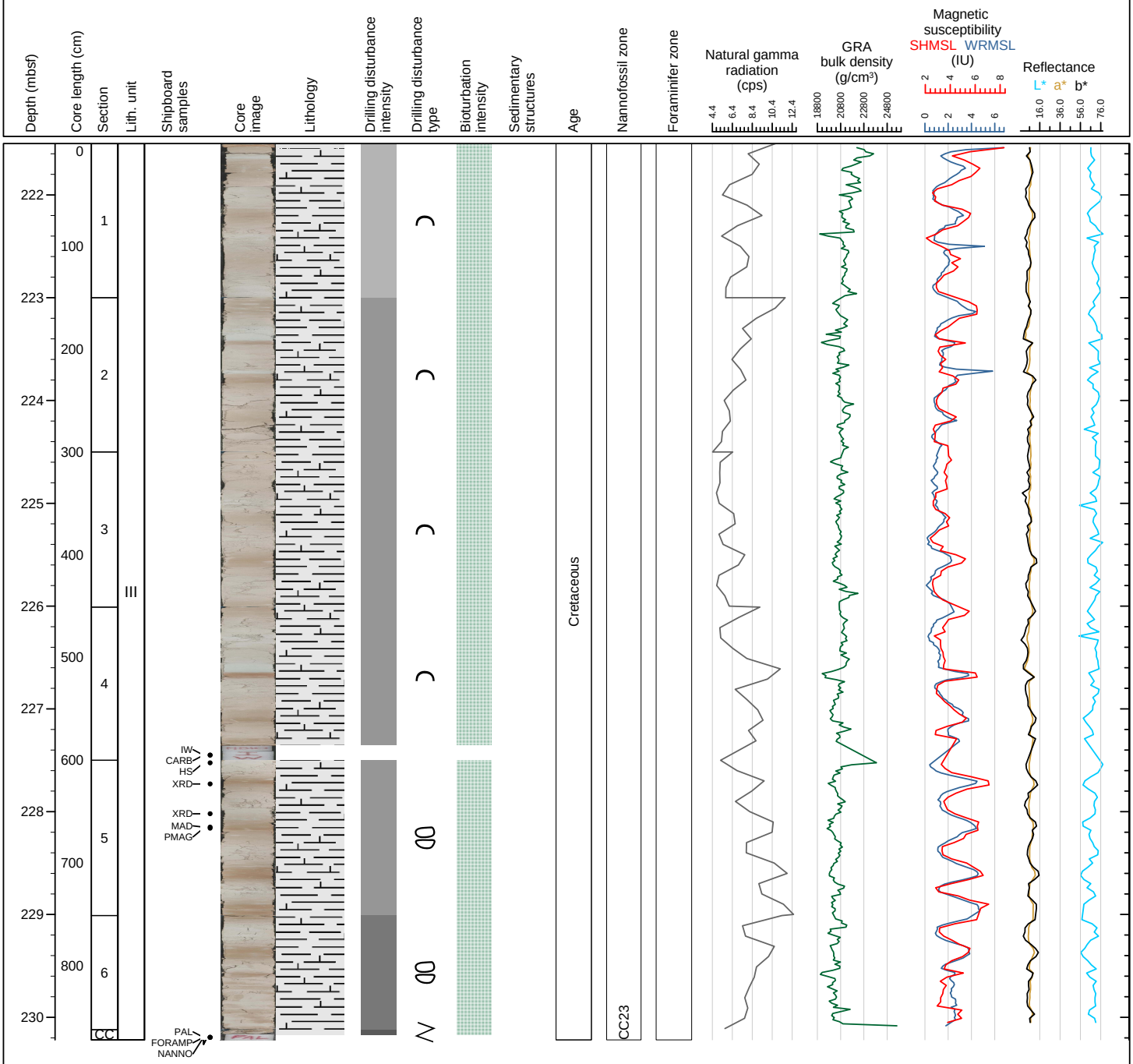
Hole 391-U1576A Core 23R, Interval 211.8-221.56 m (CSF-A)

Pale pink-brown to white foraminifera-nannofossil chalk with clay. Cycles of dark pink/orange to light pink and white. Bioturbation is more intense in the darker pink/orange bands. Cycles of dark pink/orange to light pink and white. Bioturbation is more intense in the darker pink/orange bands. Cycles are ca. 10-20cm.



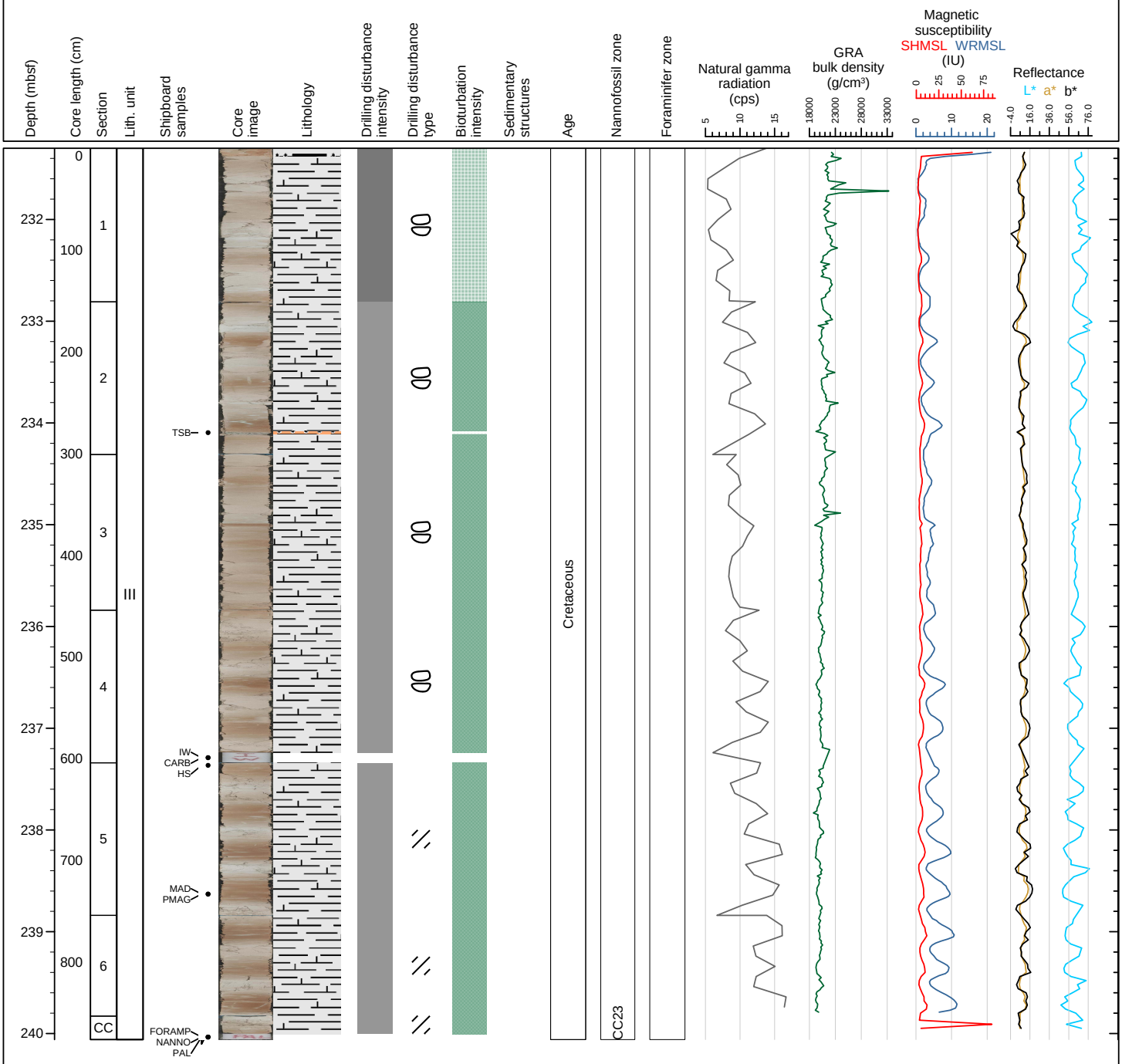
Hole 391-U1576A Core 24R, Interval 221.5-230.22 m (CSF-A)

Pale pink-brown to white foraminifera-nannofossil chalk with clay; 20-40cm thick cycles of dark pink/orange to light pink and white sediment, with slight to moderate bioturbation. Slight to moderate fragmentation due to drilling.



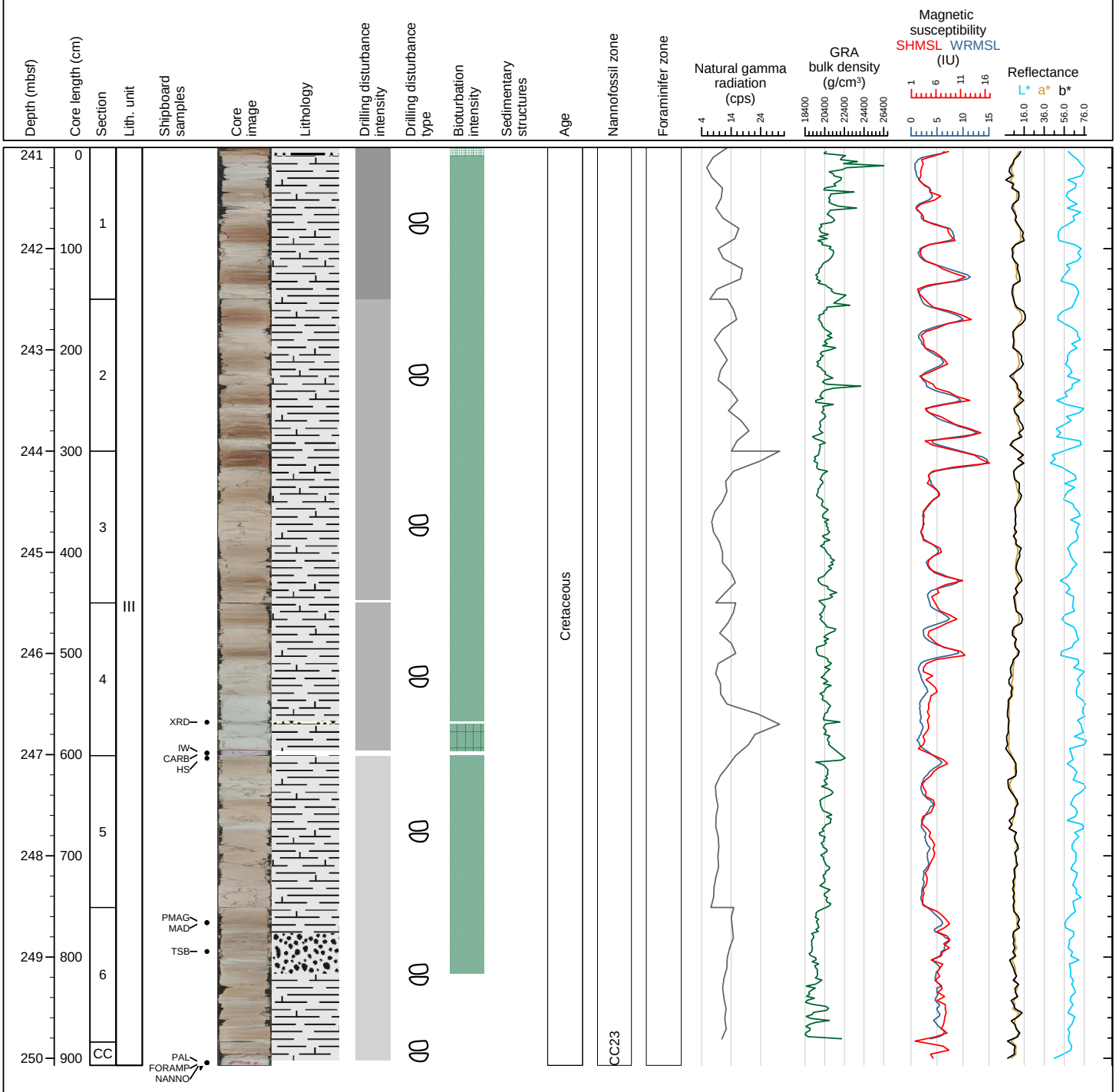
Hole 391-U1576A Core 25R, Interval 231.3-240.06 m (CSF-A)

Pale pink-brown to white foraminifera-nannofossil chalk with clay; 20-40cm thick cycles of dark pink/orange to light pink and white sediment, with slight to moderate bioturbation. Moderate fragmentation due to drilling; the uppermost 8cm are fall in material. Section 2 includes a thin interval of gray sandy siltstone with bioclasts.



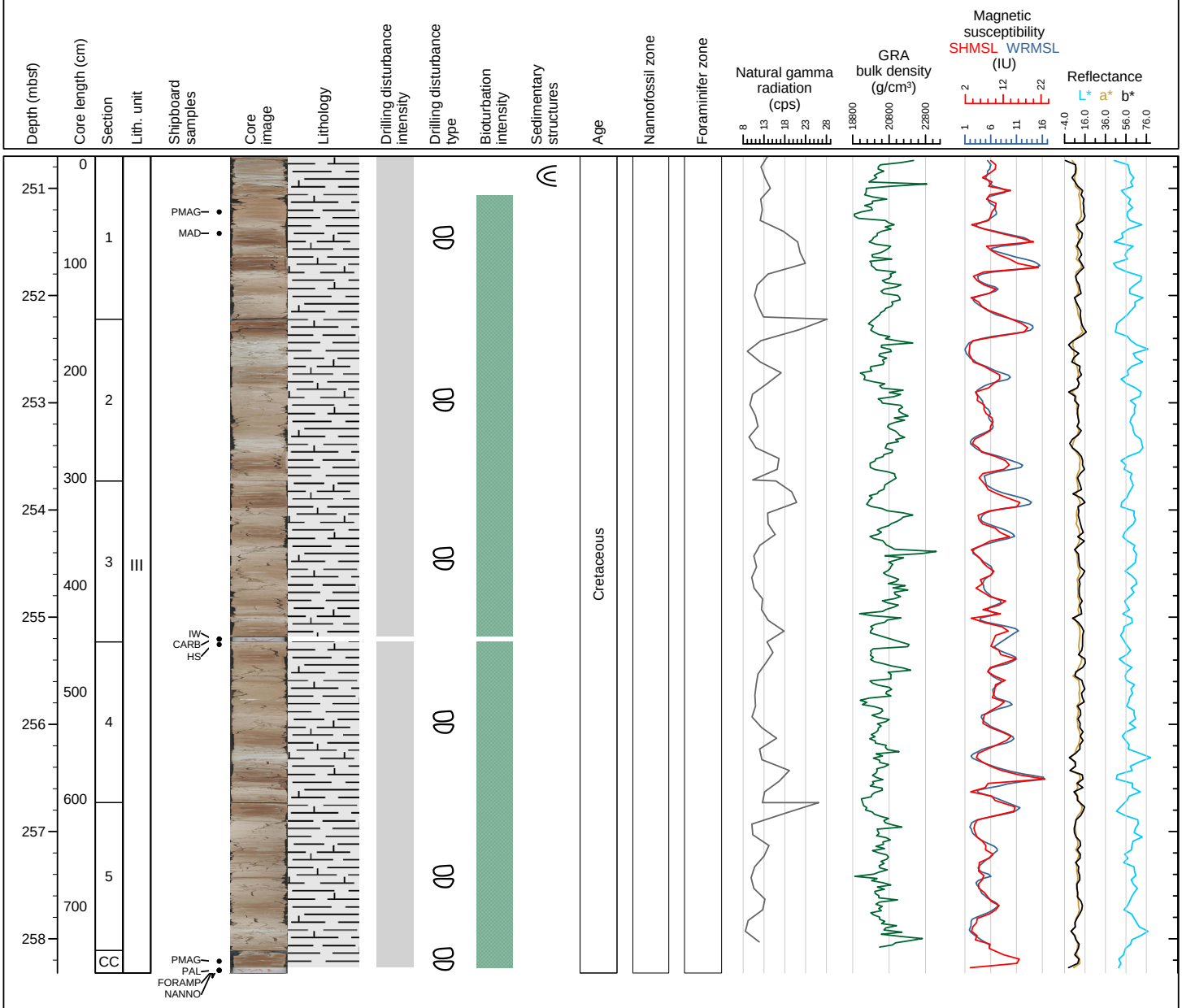
Hole 391-U1576A Core 26R, Interval 241.0-250.07 m (CSF-A)

Pale pink-brown to white foraminifera-nannofossil chalk with clay; 20-40cm thick cycles of dark pink/orange to light pink and white sediment, with slight to moderate bioturbation. Slight to moderate fragmentation due to drilling, with “biscuiting”, and fall in material at the top of the core. Two intervals of foraminifera sand and calcareous gravel (the later probably representing a debris flow deposit).



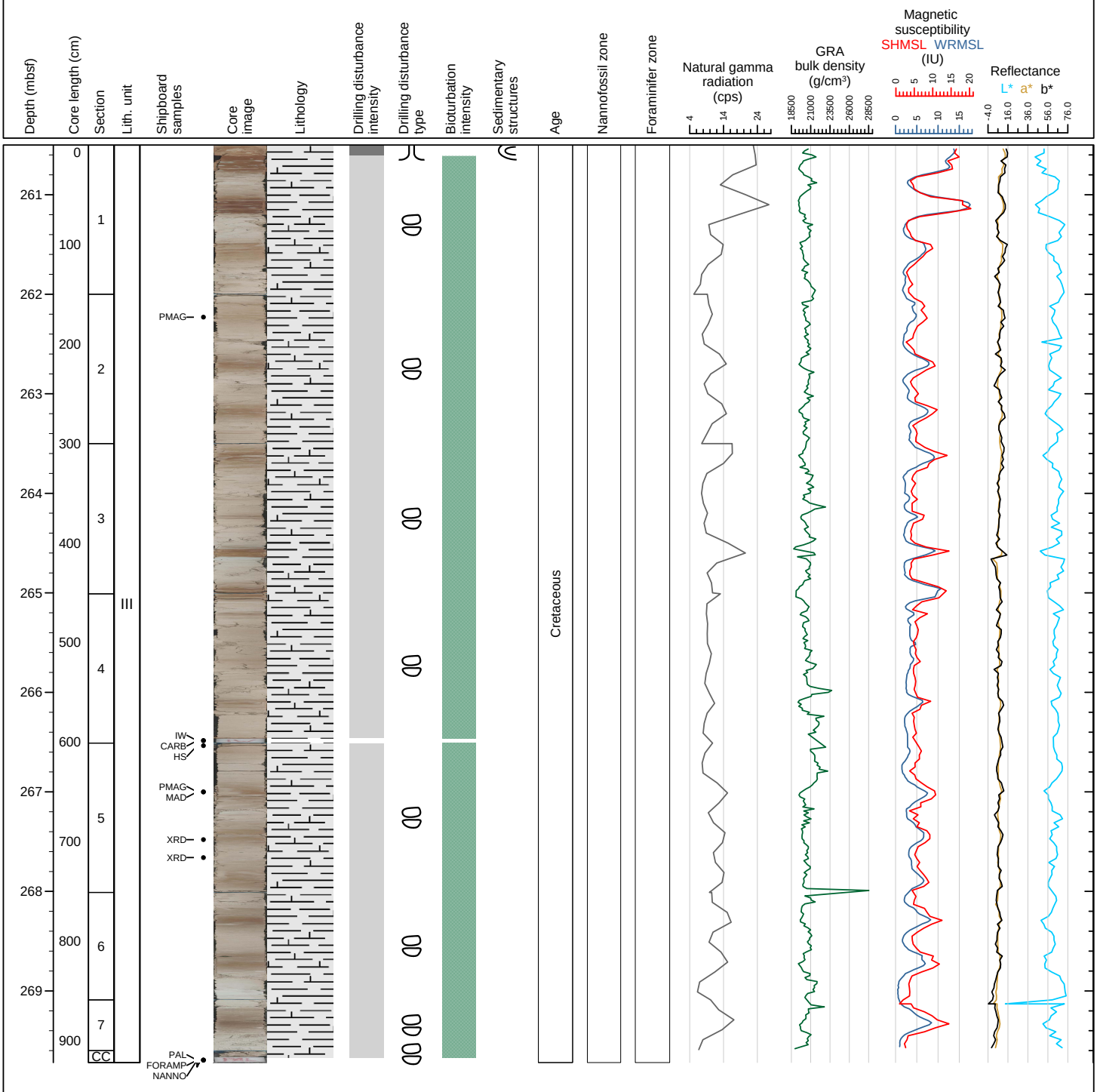
Hole 391-U1576A Core 27R, Interval 250.7-258.32 m (CSF-A)

Pale pink-brown to white foraminifera-nannofossil chalk with clay; 30-40cm thick cycles of dark pink/orange to light pink and white sediment, with slight to moderate bioturbation. Slight to moderate fragmentation due to drilling, with “biscuiting”, and up-arching of poorly consolidated sediment. Large fragments of inoceramid shells locally occur, as well as rare fragments of altered volcanic glass.



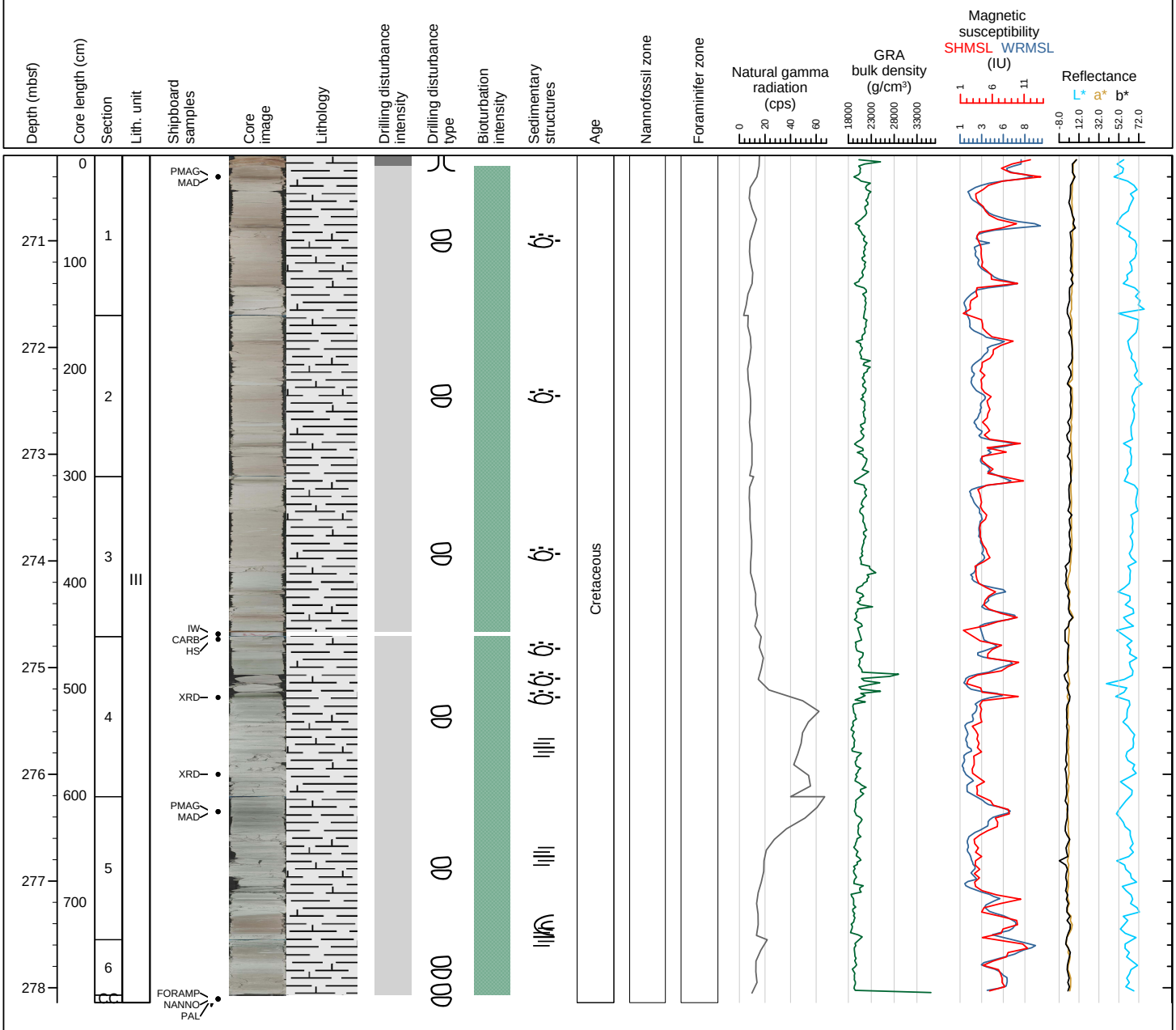
Hole 391-U1576A Core 28R, Interval 260.5-269.72 m (CSF-A)

Pale pink-brown to white foraminifera-nannofossil chalk with clay; 30-40cm thick cycles of dark pink/orange to light pink and white sediment, with slight to moderate bioturbation. Slight to moderate fragmentation due to drilling, with “biscuiting”, and up-arching of poorly consolidated sediment.



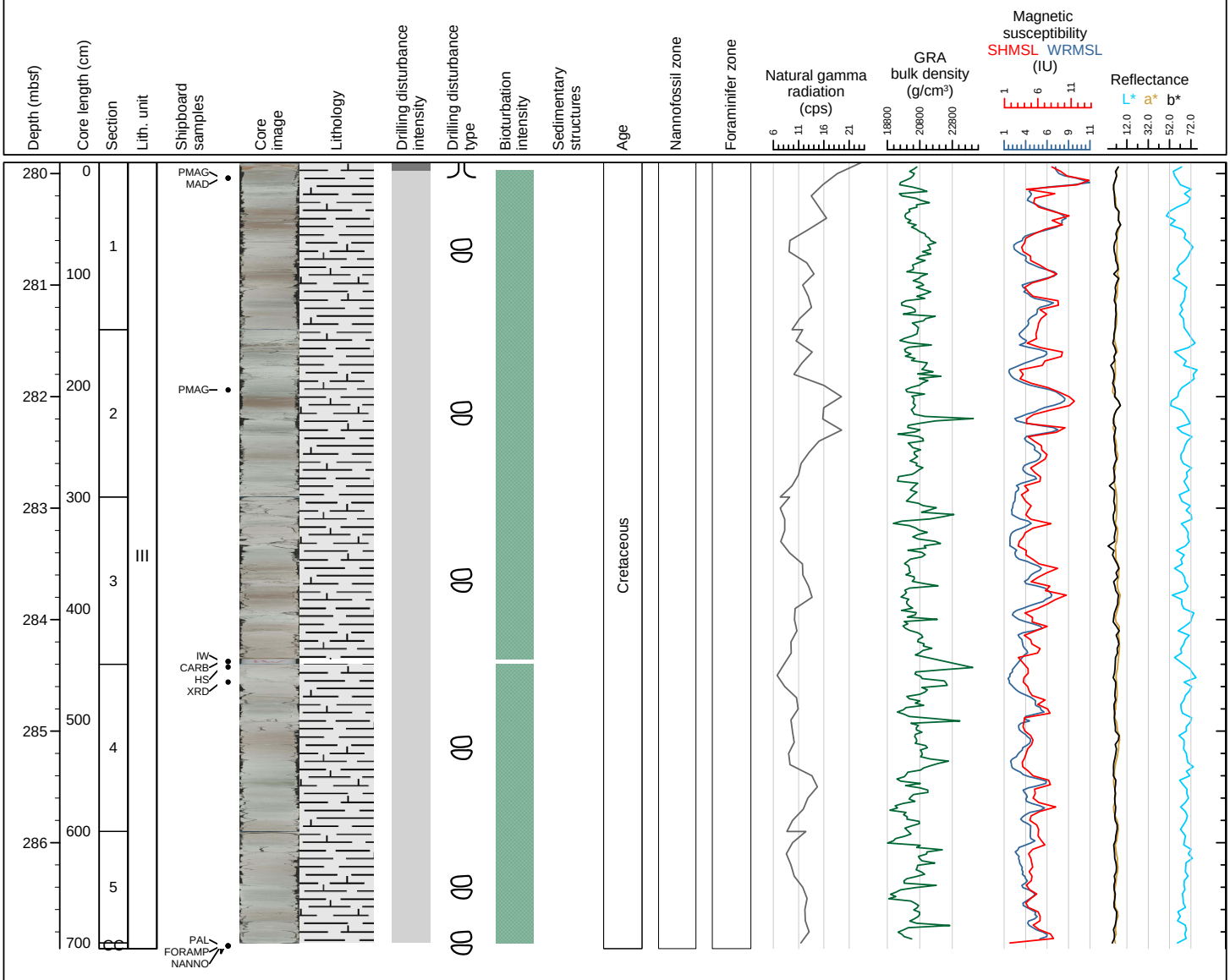
Hole 391-U1576A Core 29R, Interval 270.2-278.14 m (CSF-A)

Pale pink-brown and white foraminifera-nannofossil chalk with clay becoming increasingly pale greenish grey and white downhole at the transition between Subunits IIIA and IIIB; 30-50cm thick cycles of coloured to white sediment, with slight to moderate bioturbation. The upper part of Subunit IIIB, starting in Section 4, includes well-preserved lamination. Slight to moderate drilling-induced fragmentation and “biscuiting”.



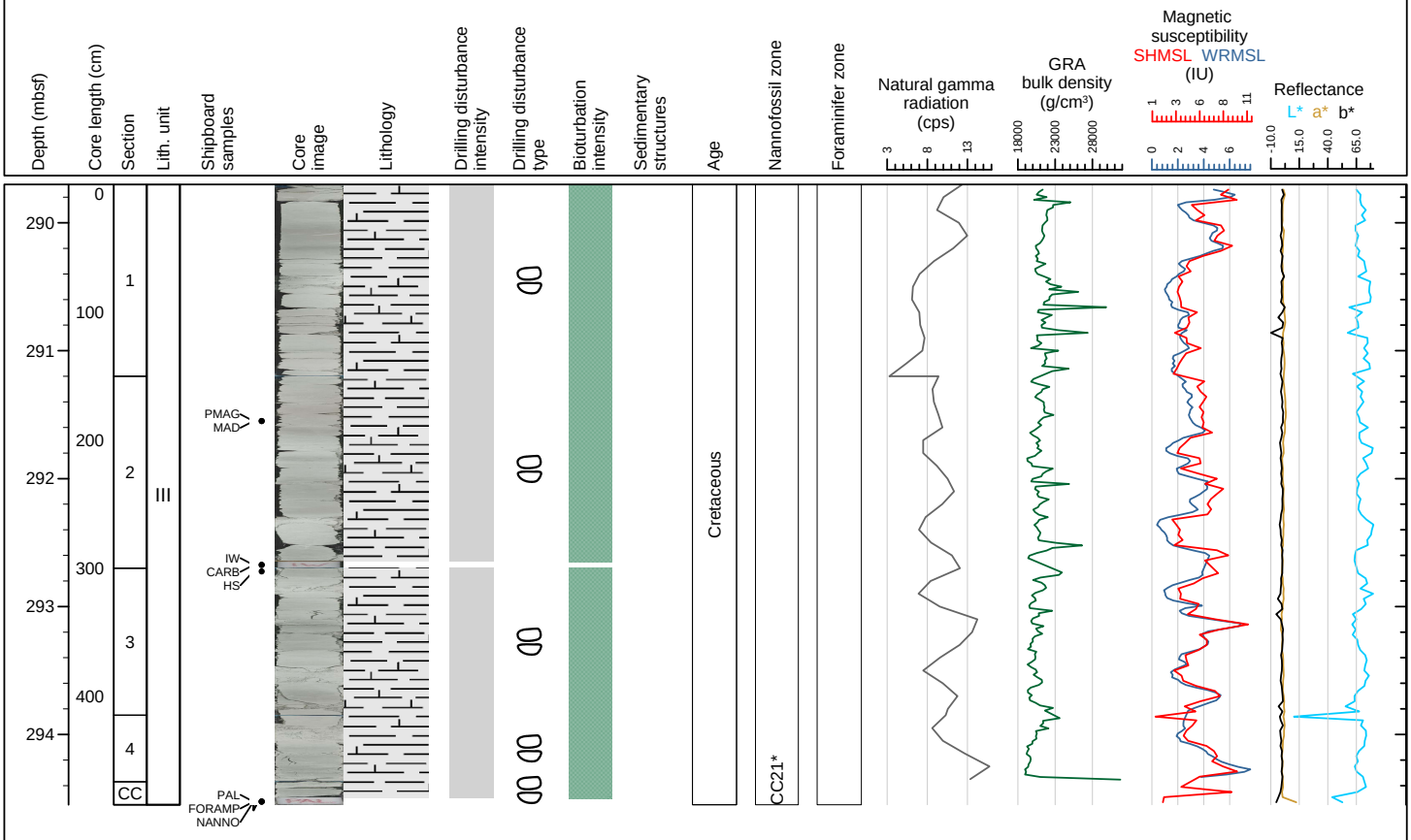
Hole 391-U1576A Core 30R, Interval 279.9-286.95 m (CSF-A)

Pale pink-brown and greenish grey to white foraminifera-nannofossil chalk with clay; 30-50cm thick cycles of coloured to white sediment, with slight to moderate bioturbation. Slight to moderate drilling-induced fragmentation and “biscuiting”.



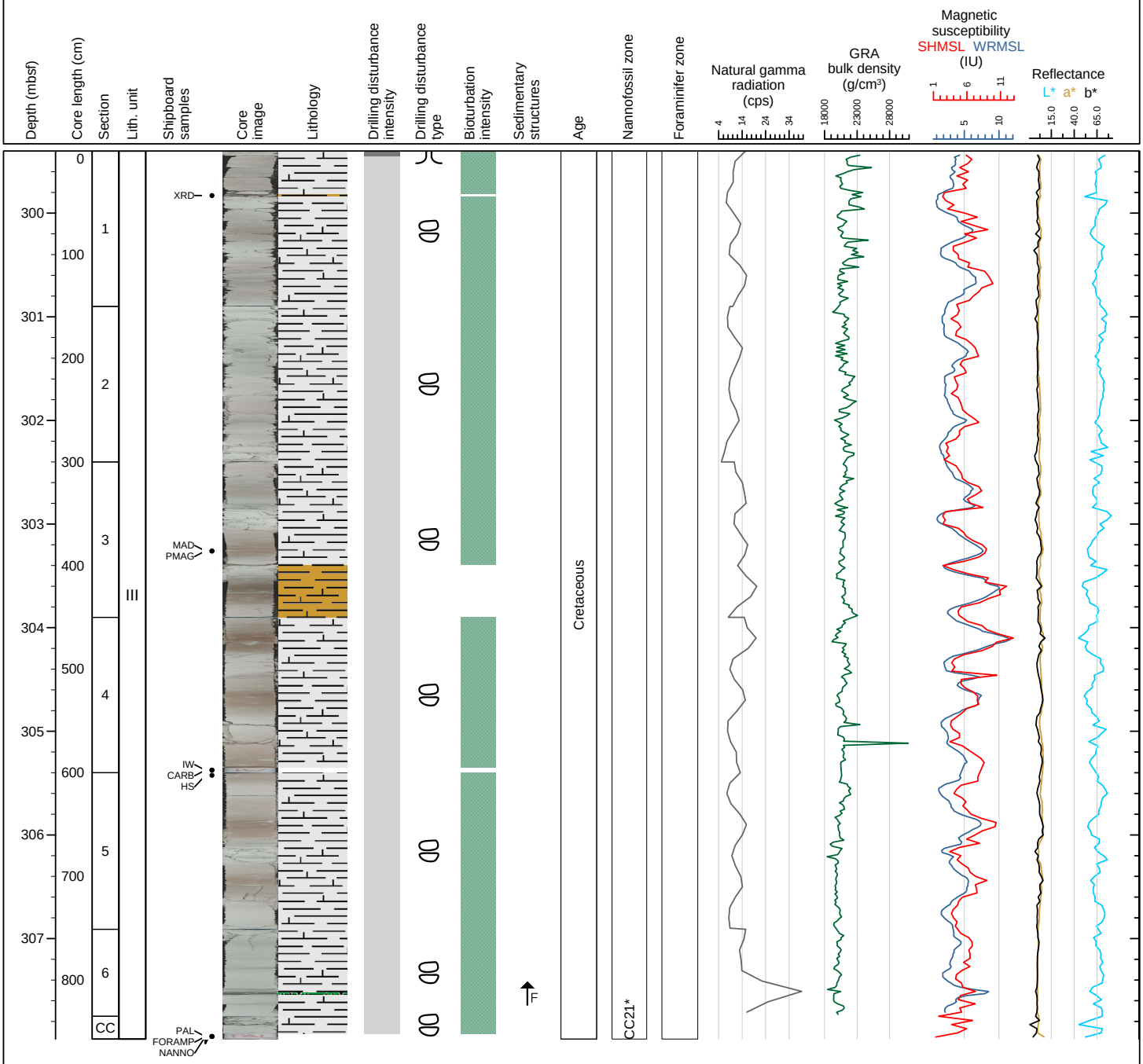
Hole 391-U1576A Core 31R, Interval 289.7-294.55 m (CSF-A)

Greenish grey to white foraminifera-nannofossil chalk with clay; 30-50cm thick cycles of greenish gray to white sediment, with slight to moderate bioturbation. Slight to moderate drilling-induced fragmentation and “biscuiting”.



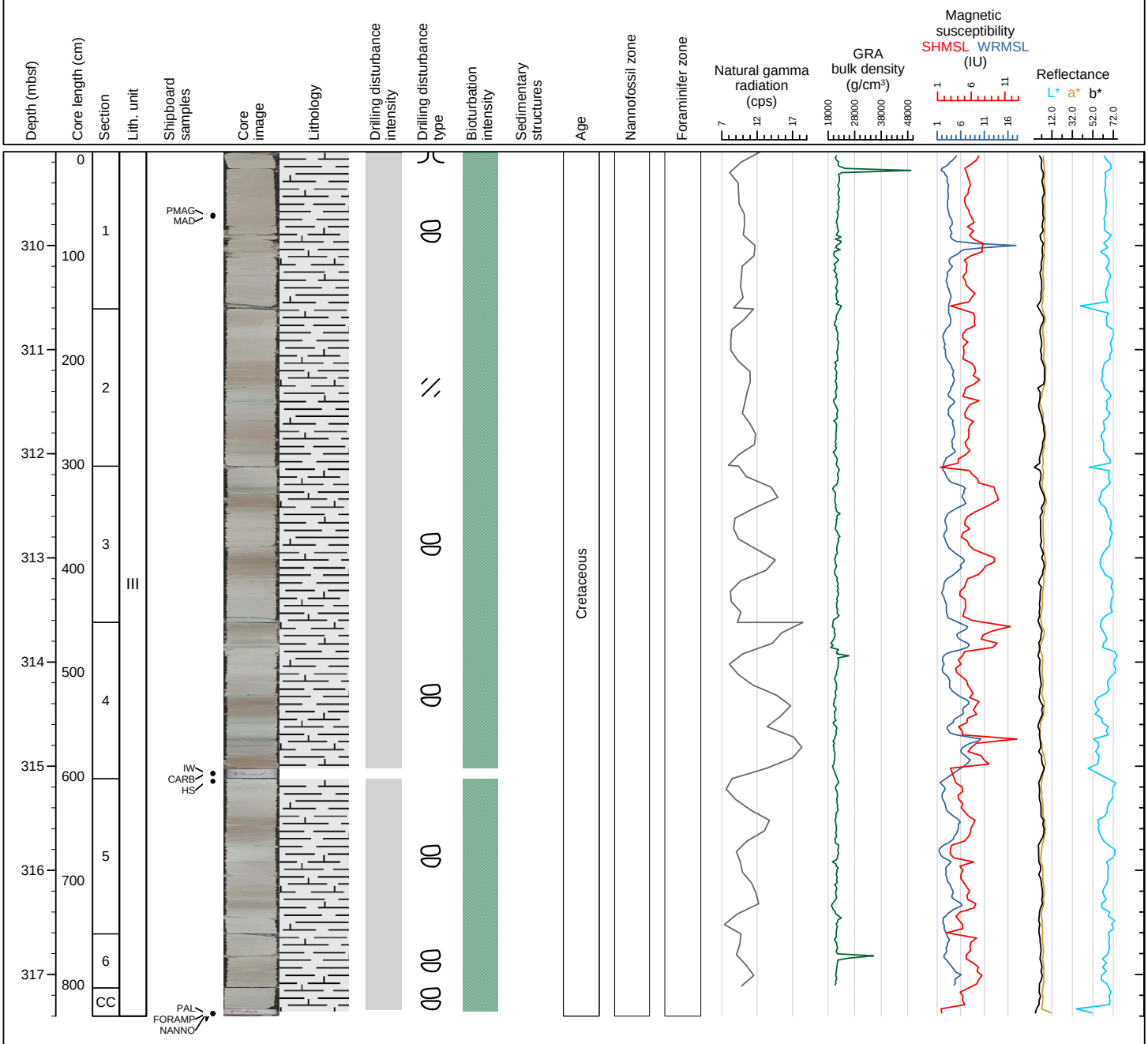
Hole 391-U1576A Core 32R, Interval 299.4-307.97 m (CSF-A)

Pale pink-brown and greenish grey to white foraminifera-nannofossil chalk with clay; 30-50cm thick cycles of coloured to white sediment, with slight to moderate bioturbation. Sections 1 and 3 include two thin (<5cm thick) layers of gray siliceous chalk. Section 6 includes a thin (<5cm thick) layer of dark gray volcanic sand. Slight to moderate drilling-induced fragmentation and “biscuiting”.



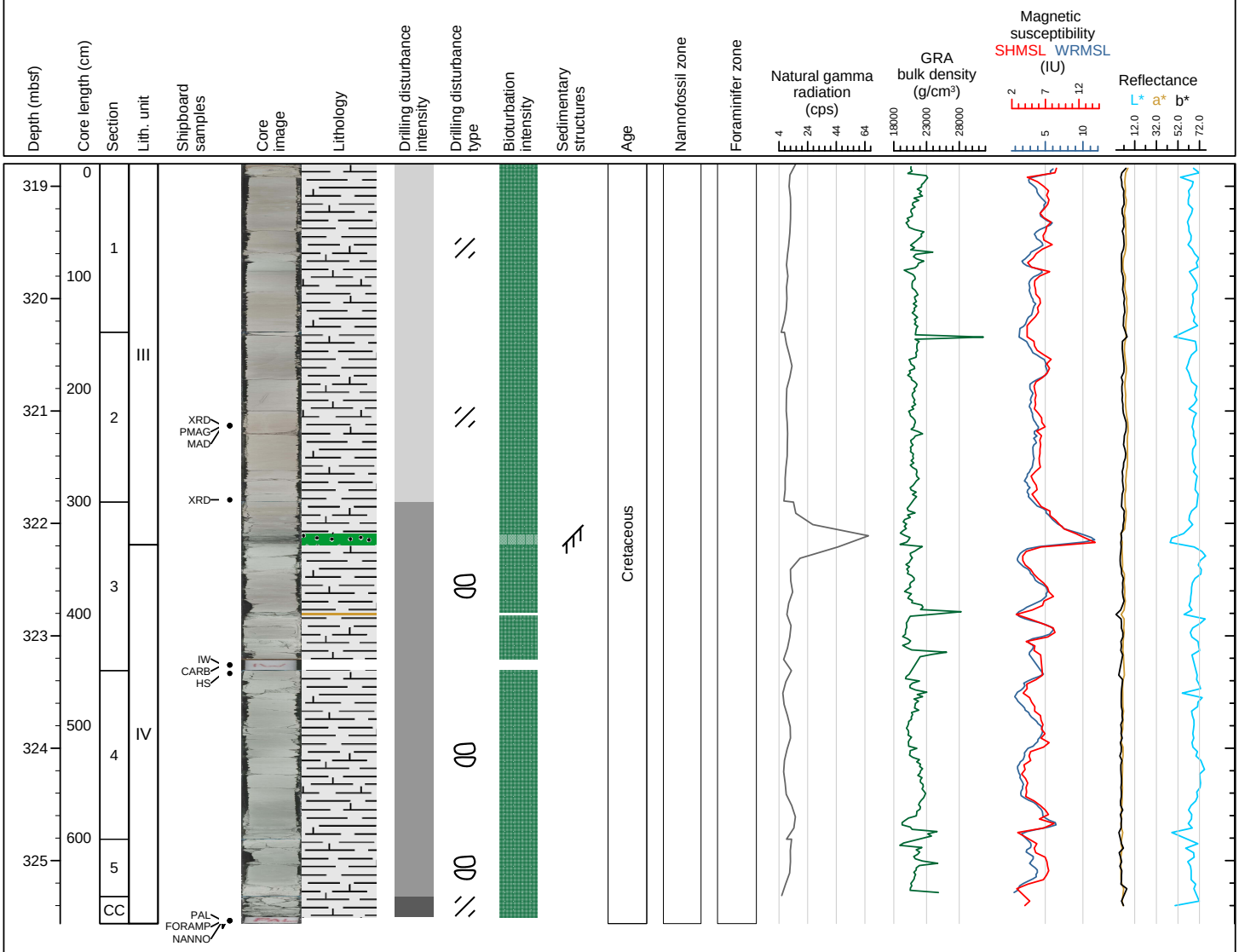
Hole 391-U1576A Core 33R, Interval 309.1-317.4 m (CSF-A)

Pale pink-brown and greenish grey to white foraminifera-nannofossil chalk with clay; 30-50cm thick cycles of coloured to white sediment, with slight to moderate bioturbation. Slight drilling-induced fragmentation and “biscuiting”.



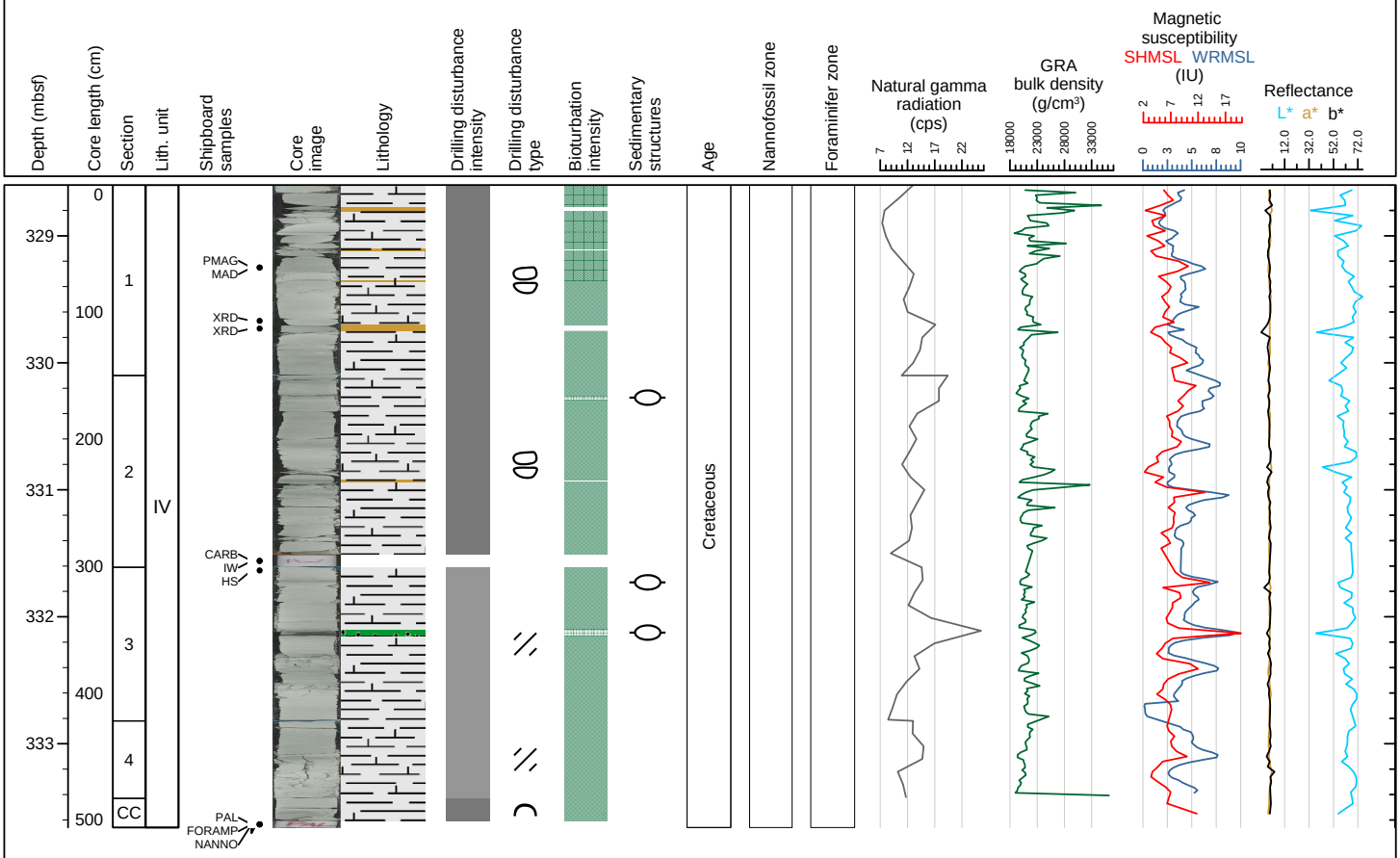
Hole 391-U1576A Core 34R, Interval 318.8-325.56 m (CSF-A)

Very pale pink-brown and greenish grey to white foraminifera-nannofossil chalk with clay; 30-50cm thick cycles of coloured to white sediment, with slight to moderate bioturbation. Section 3 includes a 10cm thick layer of gray bioturbated volcanic silty sand; this section also includes a thin layer of siliceous chalk that marks the boundary between Units III and IV. Slight drilling-induced fragmentation and “biscuiting”.



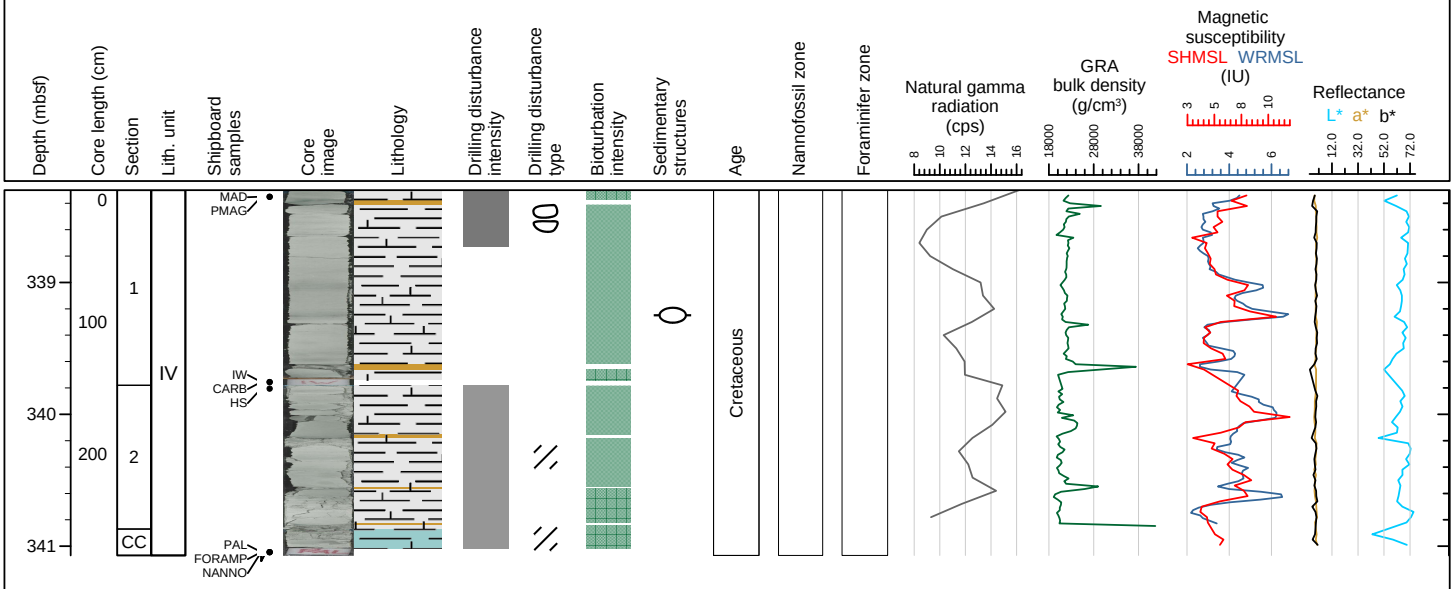
Hole 391-U1576A Core 35R, Interval 328.6-333.66 m (CSF-A)

Greenish gray to light gray foraminifera-nannofossil chalk with clay; 30-50cm thick faint cycles of coloured to white sediment, with slight to moderate bioturbation. Includes minor, thin layers of greenish gray siliceous chalk that is harder and more fragmented than the rest of the core. The core also includes rare dark gray bioturbated volcaniclastic sediments. Slight to moderate drilling-induced fragmentation and “biscuiting”.



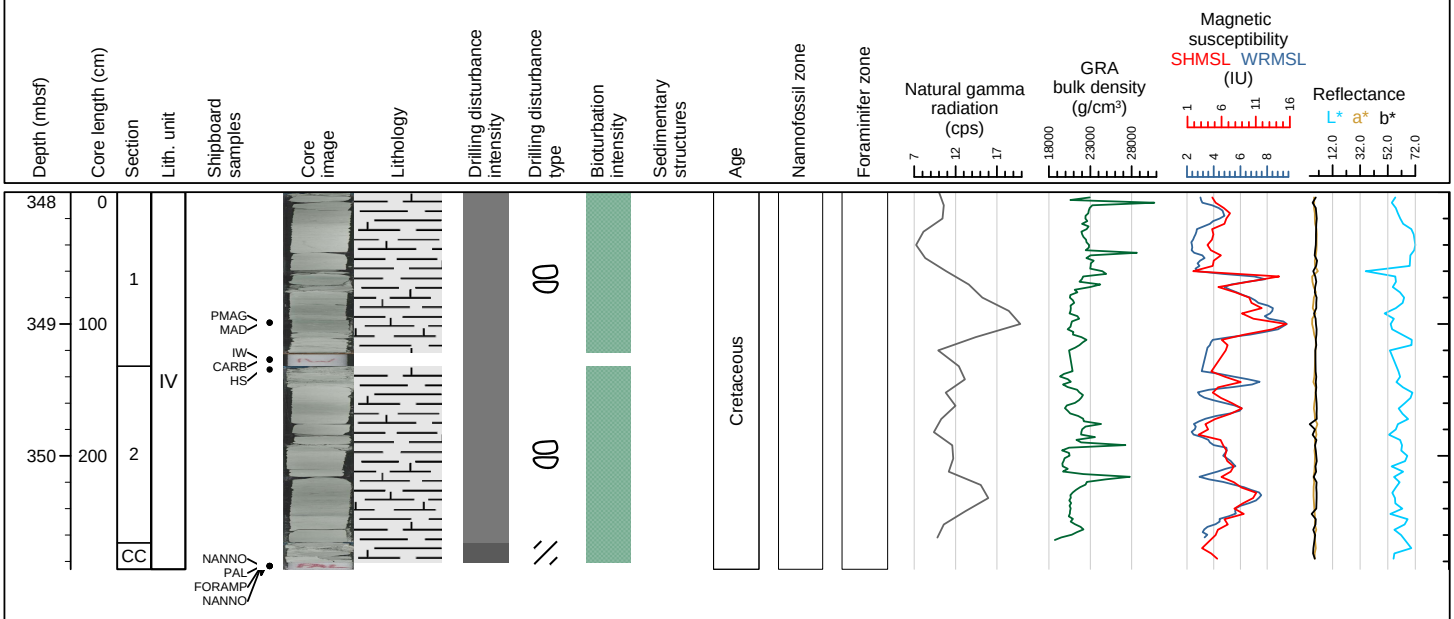
Hole 391-U1576A Core 36R, Interval 338.3-341.07 m (CSF-A)

Greenish gray to light gray foraminifera-nannofossil chalk with clay; 30-50cm thick faint cycles of coloured to white sediment, with slight to moderate bioturbation. Includes minor, thin layers of greenish gray siliceous chalk that is harder and more fragmented than the rest of the core. Moderate to high drilling-induced fragmentation and “biscuiting”.



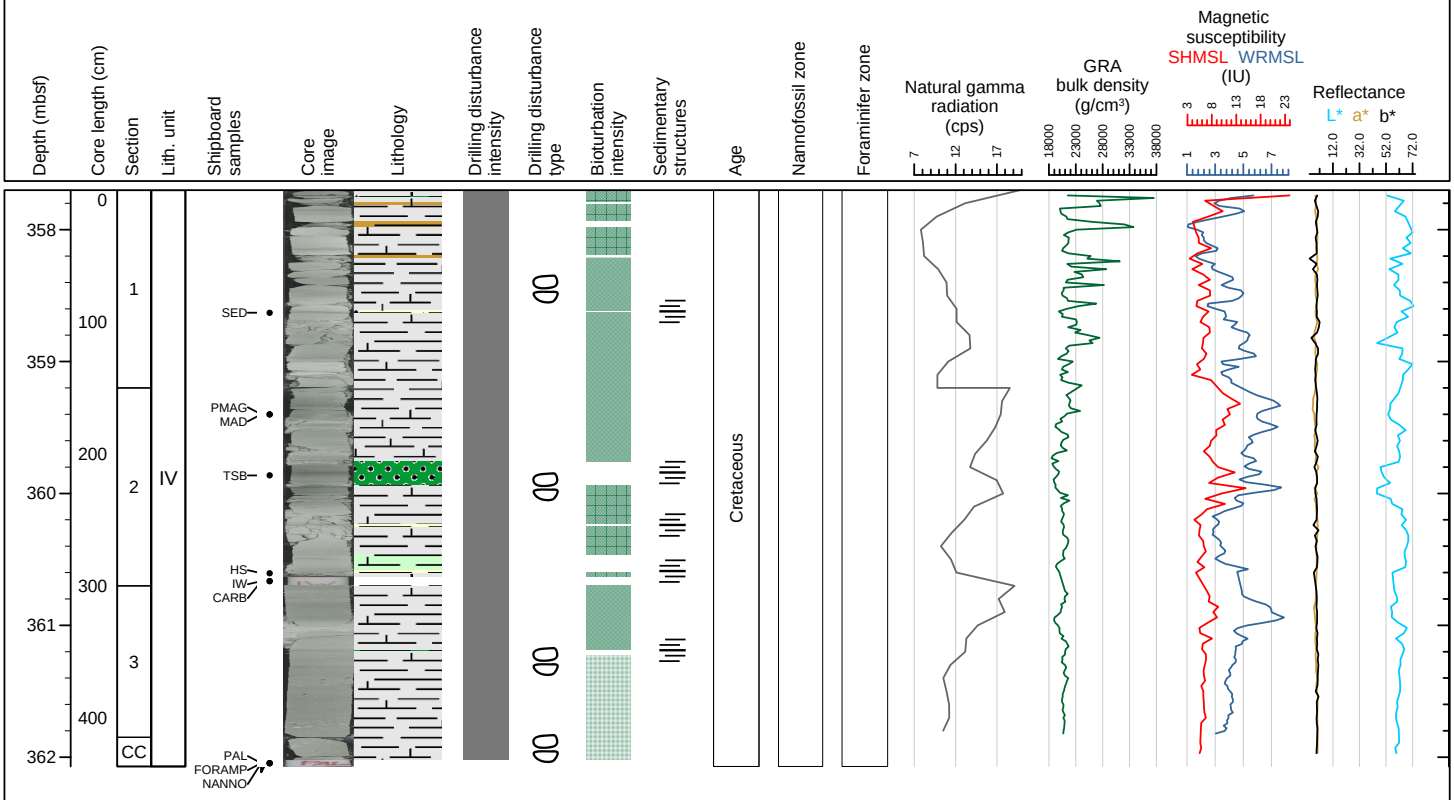
Hole 391-U1576A Core 37R, Interval 348.0-350.86 m (CSF-A)

Greenish gray to light gray foraminifera-nannofossil chalk with clay; 30-50cm thick faint cycles of coloured to white sediment, with slight to moderate bioturbation. Includes minor, thin layers of greenish gray siliceous chalk that is harder and more fragmented than the rest of the core. Moderate to high drilling-induced fragmentation and “biscuiting”.



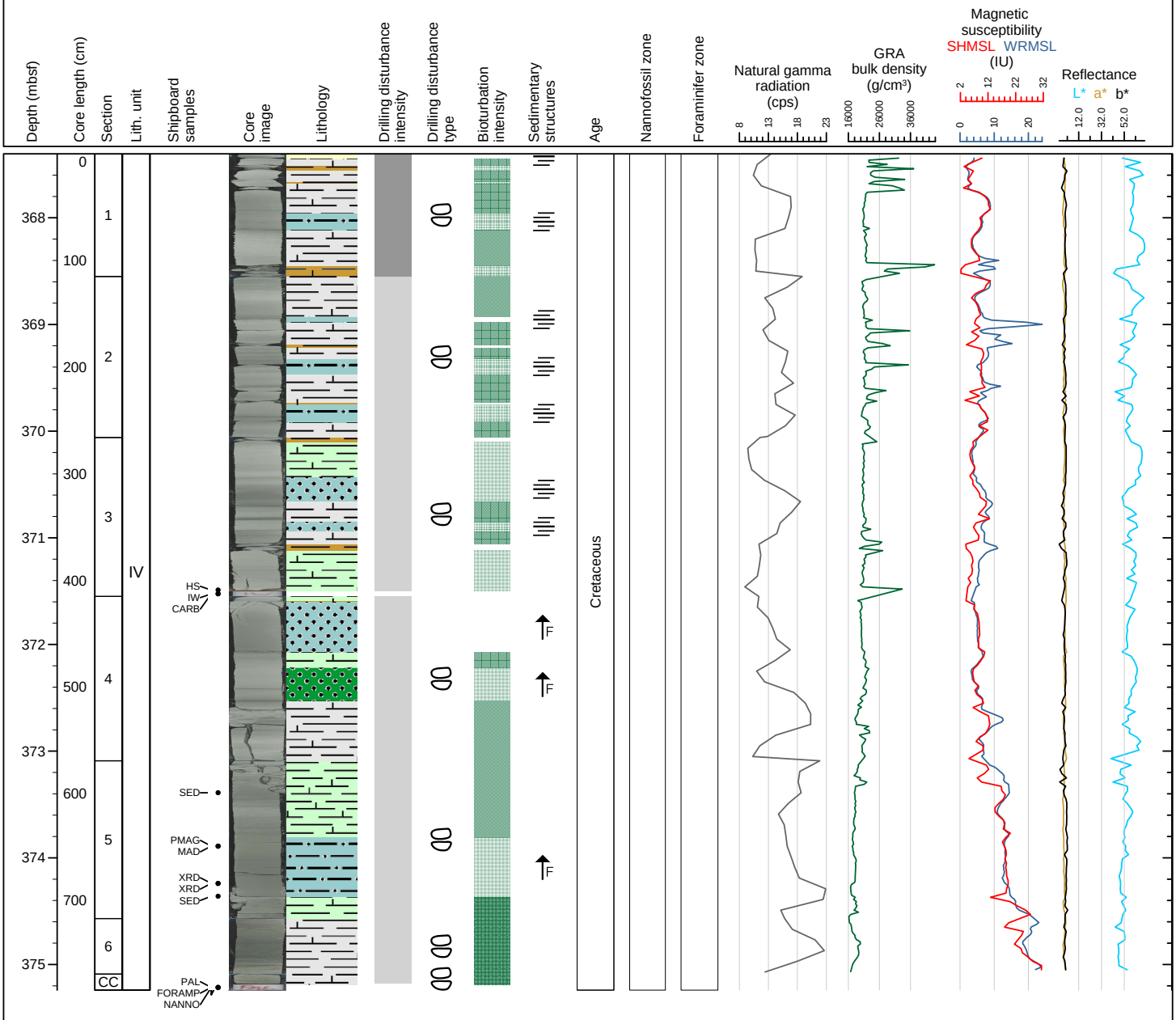
Hole 391-U1576A Core 38R, Interval 357.7-362.07 m (CSF-A)

Greenish gray to light gray foraminifera-nannofossil chalk with clay, with slight to moderate bioturbation. Includes rare, thin layers of greenish gray siliceous chalk that is harder than the rest of the core. The chalk is interbedded with calcareous to volcanic sand to sandstone that is commonly graded and laminated. Sections 3 and CC include a distinctive matrix-supported calcareous debris flow deposit with calcareous gravels. Moderate to high drilling-induced fragmentation and “biscuiting”.



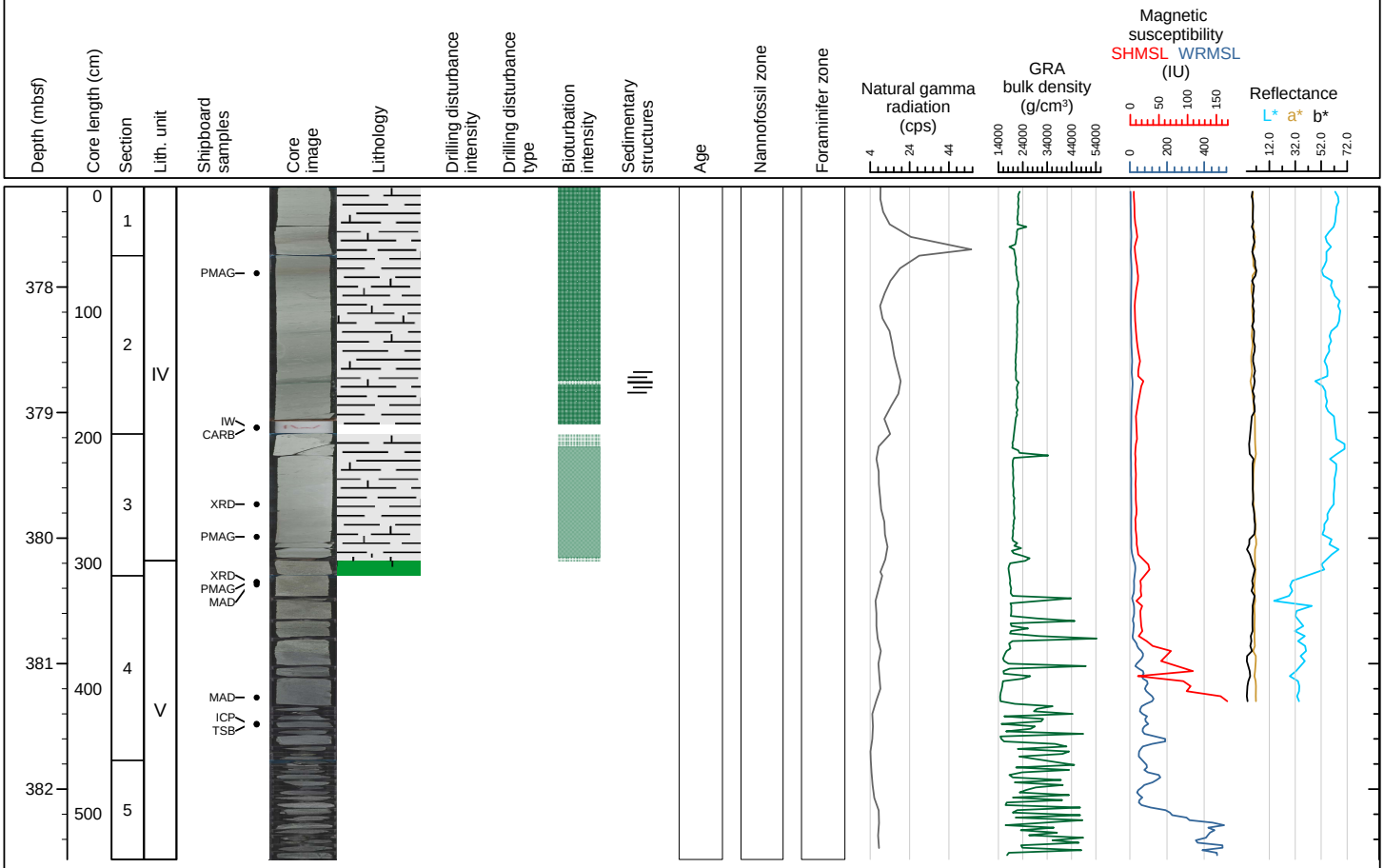
Hole 391-U1576A Core 39R, Interval 367.4-375.24 m (CSF-A)

Greenish gray to light gray foraminifera-nannofossil chalk with clay, with slight to moderate bioturbation. Includes rare, thin layers of greenish gray siliceous chalk that is harder than the rest of the core. The chalk is interbedded with calcareous to volcanic sand to sandstone that is commonly graded and laminated. Slight to moderate drilling-induced fragmentation and “biscuiting”.



Hole 391-U1576A Core 40R, Interval 377.2-382.56 m (CSF-A)

Greenish gray to light gray foraminifera-nannofossil chalk with clay, with slight to moderate bioturbation. Locally includes rare lamination. Slight drilling-induced fragmentation.



Hole 391-U1576A-40R Section 3, Top of Section: 379.17 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

379.20 | 379.30 | 379.40 | 379.50 | 379.60 | 379.70 | 379.80 | 379.90 | 380.00 | 380.10 | 380.20

XRD
MAD

391-U1576A-40R-3-A, 0-101 cm
UNIT:
LITHOLOGY: foraminifera-nannofossil limestone
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

391-U1576A-40R-3-A, 101-113 cm
UNIT: 1
LITHOLOGY: Highly plagioclase-pyroxene phyric basalt.
TEXTURE: Porphyritic.
PRIMARY MINERALOGY: Plag>Px
DESCRIPTION: Sheet flow. Groundmass that ranges from microcrystalline to fine-grained. Isovolumetric alteration has pseudomorphed phenocrysts and erased groundmass minerals; this severe degree of alteration ends ~48cm at an alteration front marked by a change of color from green to grey.

Hole 391-U1576A-40R Section 4, Top of Section: 380.3 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

380.30 | 0 | XRD, MAD | MAD

380.40 | 10 | 1

380.50 | 20 | 2

380.60 | 30

380.70 | 40 | 3

380.80 | 50

380.90 | 60 | 4

381.00 | 70 | 1

381.10 | 80 | 5

381.20 | 90 | 6

381.30 | 100 | MAD

381.40 | 110 | 7 | 8 | 9

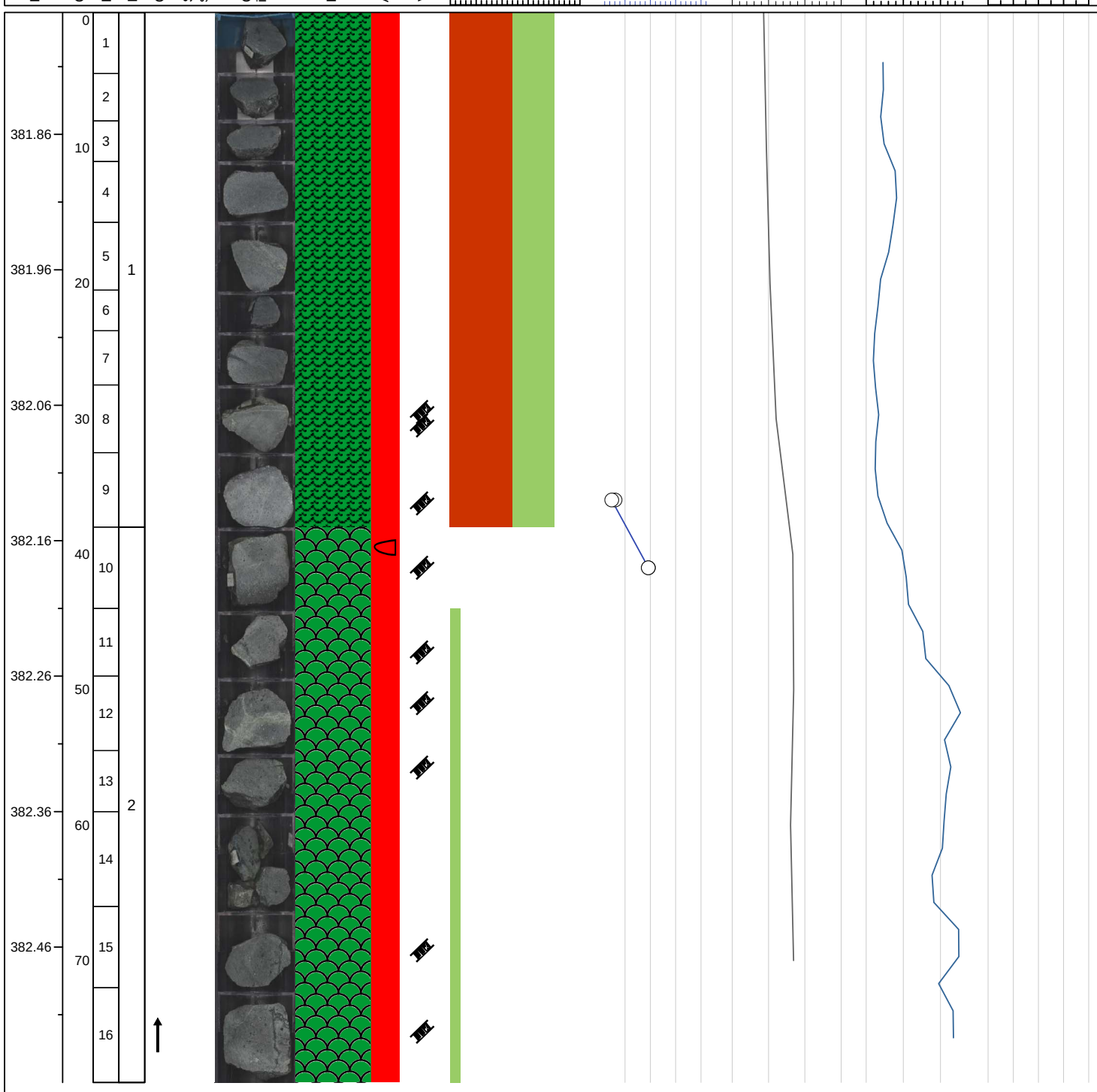
381.50 | 120 | 10 | ICP, TS, TSB

381.60 | 130 | 11 | 12

381.70 | 140 | 13 | 14 | 15

391-U1576A-40R-4-A, 0-147 cm
UNIT: 1
LITHOLOGY: Highly plagioclase-pyroxene phyric basalt.
TEXTURE: Porphyritic
PRIMARY MINERALOGY: Plag>Px
DESCRIPTION: Sheet flow. Groundmass that ranges from microcrystalline to fine-grained. Isovolumetric alteration has pseudomorphed phenocrysts and erased groundmass minerals.

Hole 391-U1576A-40R Section 5, Top of Section: 381.77 m (CSF-A)



391-U1576A-40R-5-A, 0-38 cm
UNIT: 1
LITHOLOGY: Highly plagioclase-pyroxene phyric basalt.
TEXTURE: Porphyritic
PRIMARY MINERALOGY: Plag>Px
DESCRIPTION: Sheet flow. Glassy margin at base.

391-U1576A-40R-5-A, 38-79 cm
UNIT: 2
LITHOLOGY: Aphyric basalt.
TEXTURE: Glassy to microcrystalline; rare microphenocrysts.
PRIMARY MINERALOGY: Rare microphenocrysts of plagioclase and pyroxene.
DESCRIPTION: Pillow lava flow. Pillow rims with well-preserved glassy margins interlayered with highly altered inter-pillow hyaloclastite. Pillow interiors are aphyric with microcrystalline to cryptocrystalline groundmass. Sparsely to moderately vesicular and often filled with at least one secondary mineral (e.g. clay, calcite, zeolite, and/or pyrite). Vesicle sizes are, on average, 1-2mm in diameter but can range up to 10mm.

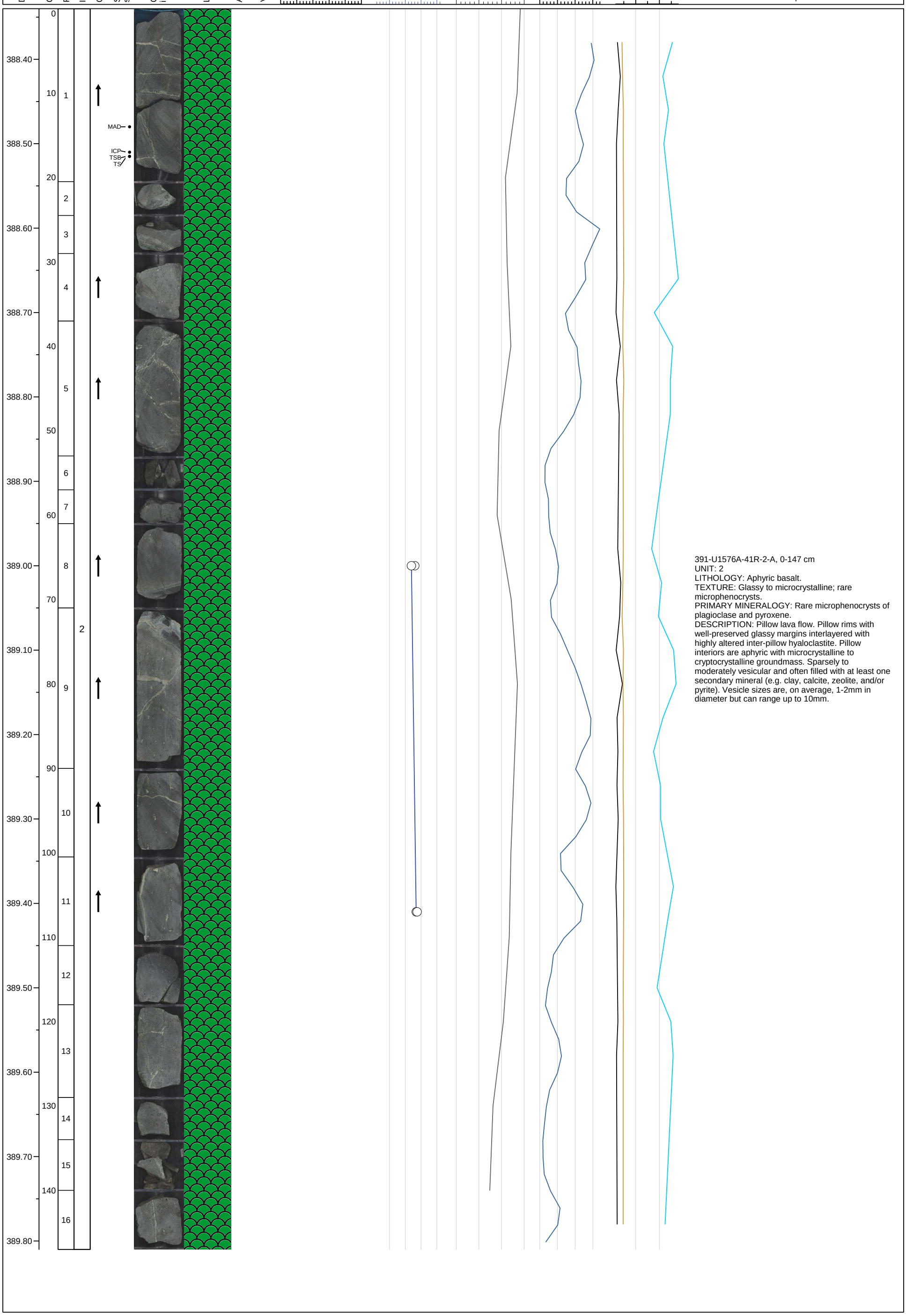
Hole 391-U1576A-41R Section 1, Top of Section: 386.9 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

386.90 | 0 | 1
387.00 | 10 | 2
387.10 | 20
387.20 | 30 | 3 | MAD
387.30 | 40
387.40 | 50 | 4
5
387.50 | 60 | 6
7 | XRD XRD XRD
387.60 | 70 | 8 | 2
9
387.70 | 80 | 10
387.80 | 90 | 11
387.90 | 100 | 12
388.00 | 110 | 13
388.10 | 120 | 14
15
388.20 | 130 | 16
388.30 | 140

391-U1576A-41R-1-A, 0-144 cm
UNIT: 2
LITHOLOGY: Aphyric basalt.
TEXTURE: Glassy to microcrystalline; rare microphenocrysts.
PRIMARY MINERALOGY: Rare microphenocrysts of plagioclase and pyroxene.
DESCRIPTION: Pillow lava flow. Pillow rims with well-preserved glassy margins interlayered with highly altered inter-pillow hyaloclastite. Pillow interiors are aphyric with microcrystalline to cryptocrystalline groundmass. Sparsely to moderately vesicular and often filled with at least one secondary mineral (e.g. clay, calcite, zeolite, and/or pyrite). Vesicle sizes are, on average, 1-2mm in diameter but can range up to 10mm.

Hole 391-U1576A-41R Section 2, Top of Section: 388.34 m (CSF-A)



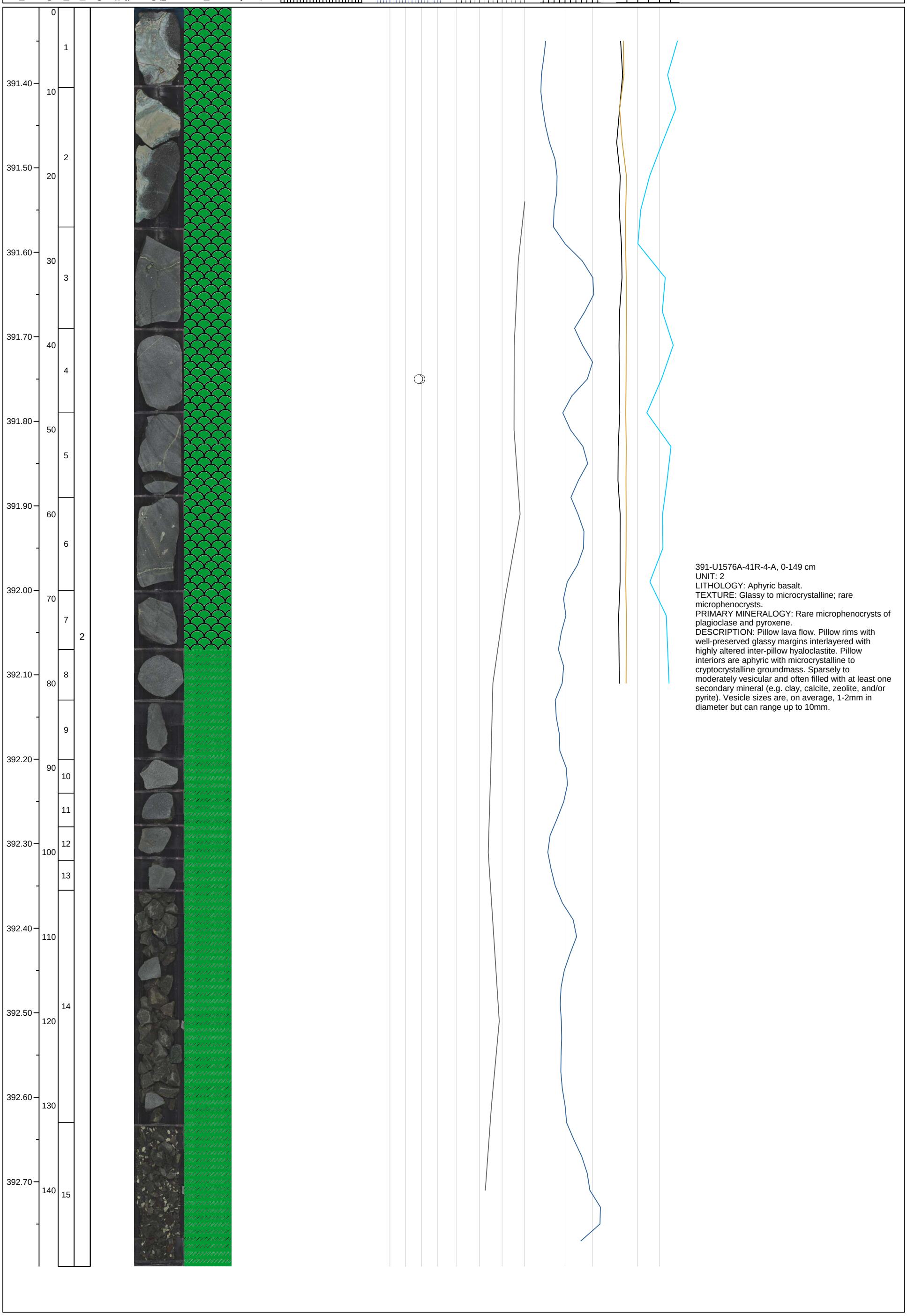
391-U1576A-41R-2-A, 0-147 cm
UNIT: 2
LITHOLOGY: Aphyric basalt.
TEXTURE: Glassy to microcrystalline; rare microphenocrysts.
PRIMARY MINERALOGY: Rare microphenocrysts of plagioclase and pyroxene.
DESCRIPTION: Pillow lava flow. Pillow rims with well-preserved glassy margins interlayered with highly altered inter-pillow hyaloclastite. Pillow interiors are aphyric with microcrystalline to cryptocrystalline groundmass. Sparsely to moderately vesicular and often filled with at least one secondary mineral (e.g. clay, calcite, zeolite, and/or pyrite). Vesicle sizes are, on average, 1-2mm in diameter but can range up to 10mm.

Hole 391-U1576A-41R Section 3, Top of Section: 389.81 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

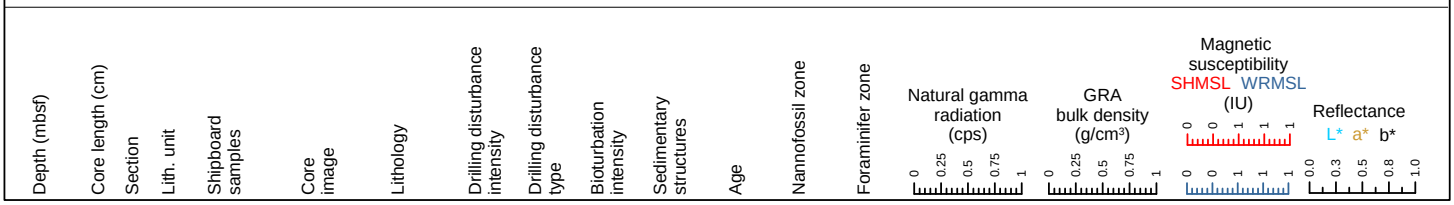
391-U1576A-41R-3-A, 0-150 cm
UNIT: 2
LITHOLOGY: Aphyric basalt.
TEXTURE: Glassy to microcrystalline; rare microphenocrysts.
PRIMARY MINERALOGY: Rare microphenocrysts of plagioclase and pyroxene.
DESCRIPTION: Pillow lava flow. Pillow rims with well-preserved glassy margins interlayered with highly altered inter-pillow hyaloclastite. Pillow interiors are aphyric with microcrystalline to cryptocrystalline groundmass. Sparsely to moderately vesicular and often filled with at least one secondary mineral (e.g. clay, calcite, zeolite, and/or pyrite). Vesicle sizes are, on average, 1-2mm in diameter but can range up to 10mm.

Hole 391-U1576A-41R Section 4, Top of Section: 391.31 m (CSF-A)



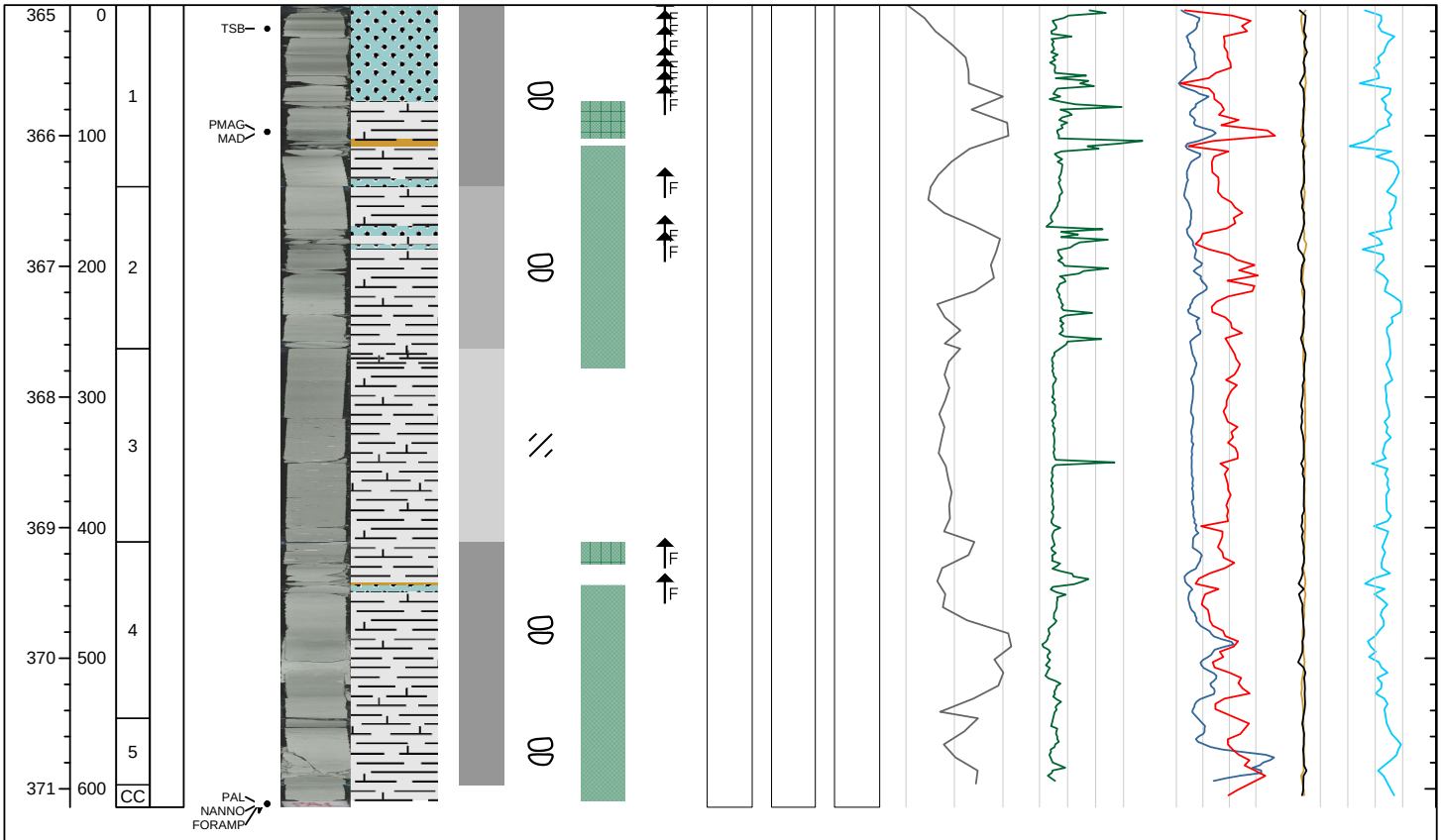
Hole 391-U1576B Core 11, Interval 0.0-0.0 m (CSF-A)

DRILLED INTERVAL 0-365 m



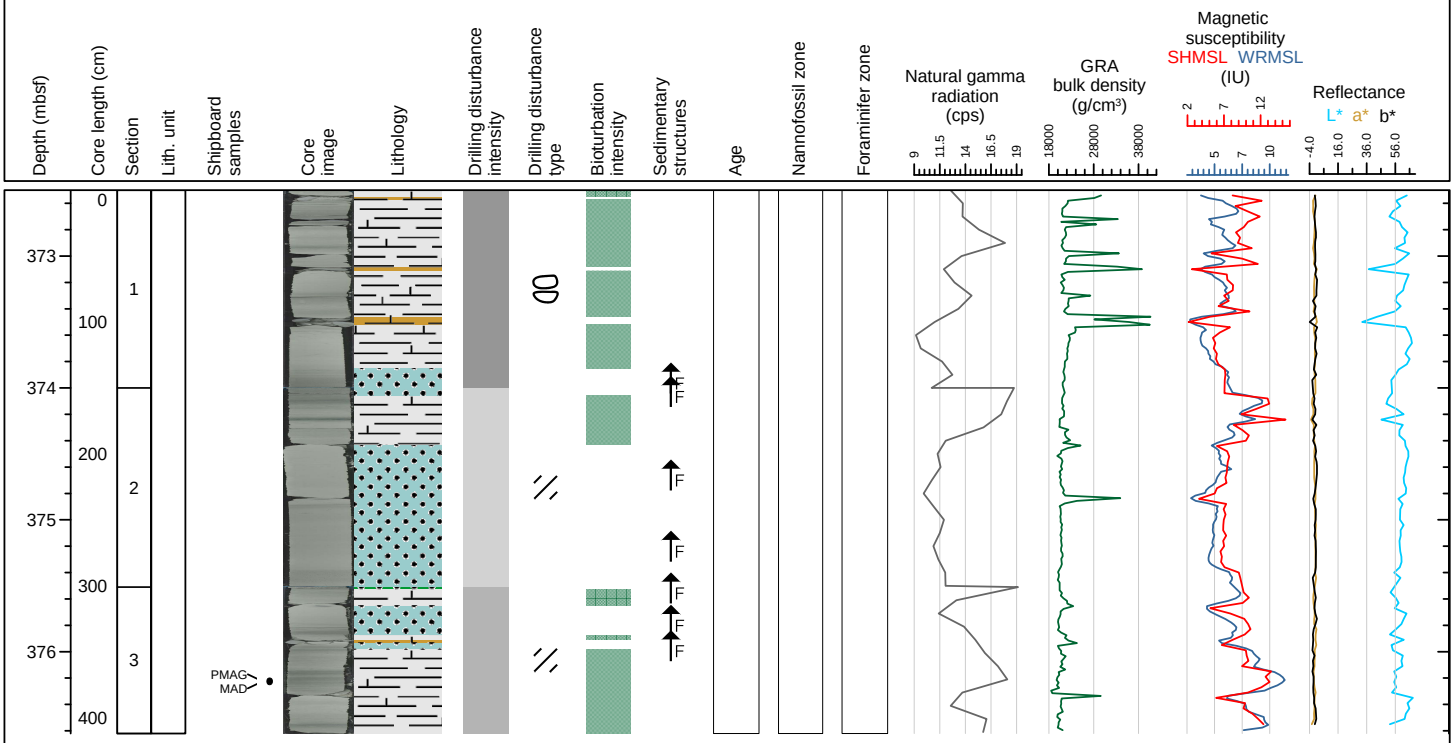
Hole 391-U1576B Core 2R, Interval 365.0-371.14 m (CSF-A)

Greenish gray to light gray foraminifera-nannofossil chalk with clay, with slight to moderate bioturbation. Includes rare, thin layers of greenish gray siliceous chalk that is harder than the rest of the core. The chalk is interbedded with calcareous to volcanic sand to sandstone that is commonly graded and laminated. Sections 3 and 4 include a distinctive matrix-supported calcareous debris flow deposit with calcareous gravels. Moderate to high drilling-induced fragmentation and “biscuiting”.



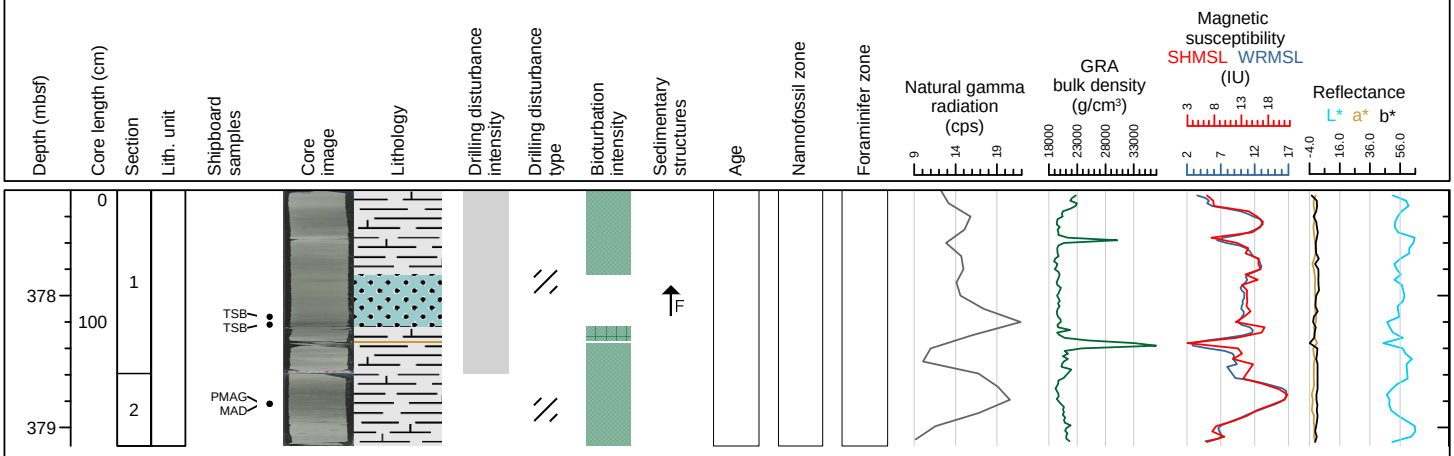
Hole 391-U1576B Core 3R, Interval 372.5-376.62 m (CSF-A)

Greenish gray to light gray foraminifera-nannofossil chalk with clay, with slight to moderate bioturbation. Includes rare, thin layers of greenish gray siliceous chalk that is harder than the rest of the core. The chalk is interbedded with calcareous to volcanic sand to sandstone that is commonly graded and laminated. Slight to moderate drilling-induced fragmentation and “biscuiting”.



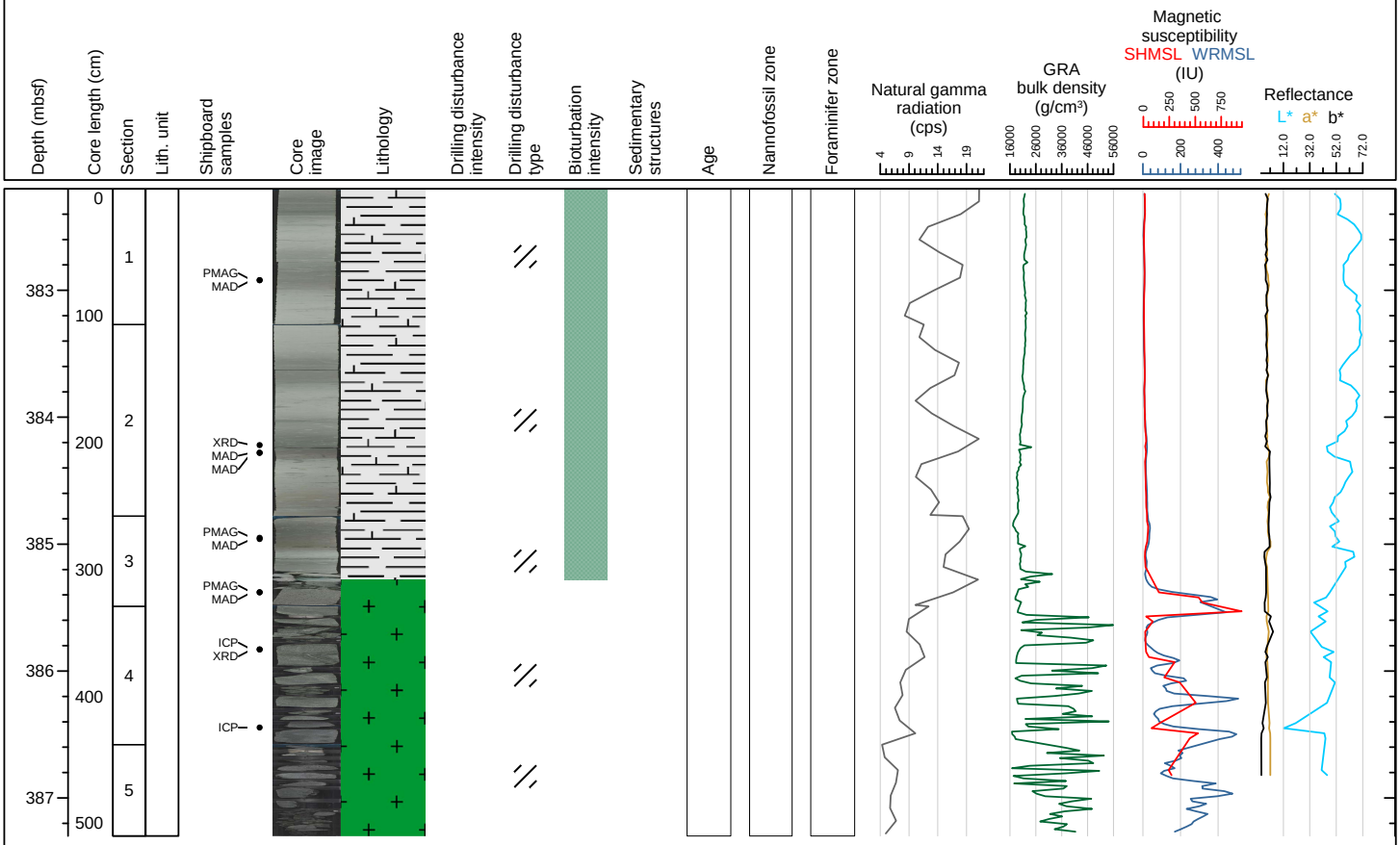
Hole 391-U1576B Core 4R, Interval 377.2-379.14 m (CSF-A)

Greenish gray to light gray foraminifera-nannofossil chalk with clay, with slight to moderate bioturbation. Includes rare, thin layers of greenish gray siliceous chalk that is harder than the rest of the core. Slight drilling-induced fragmentation.

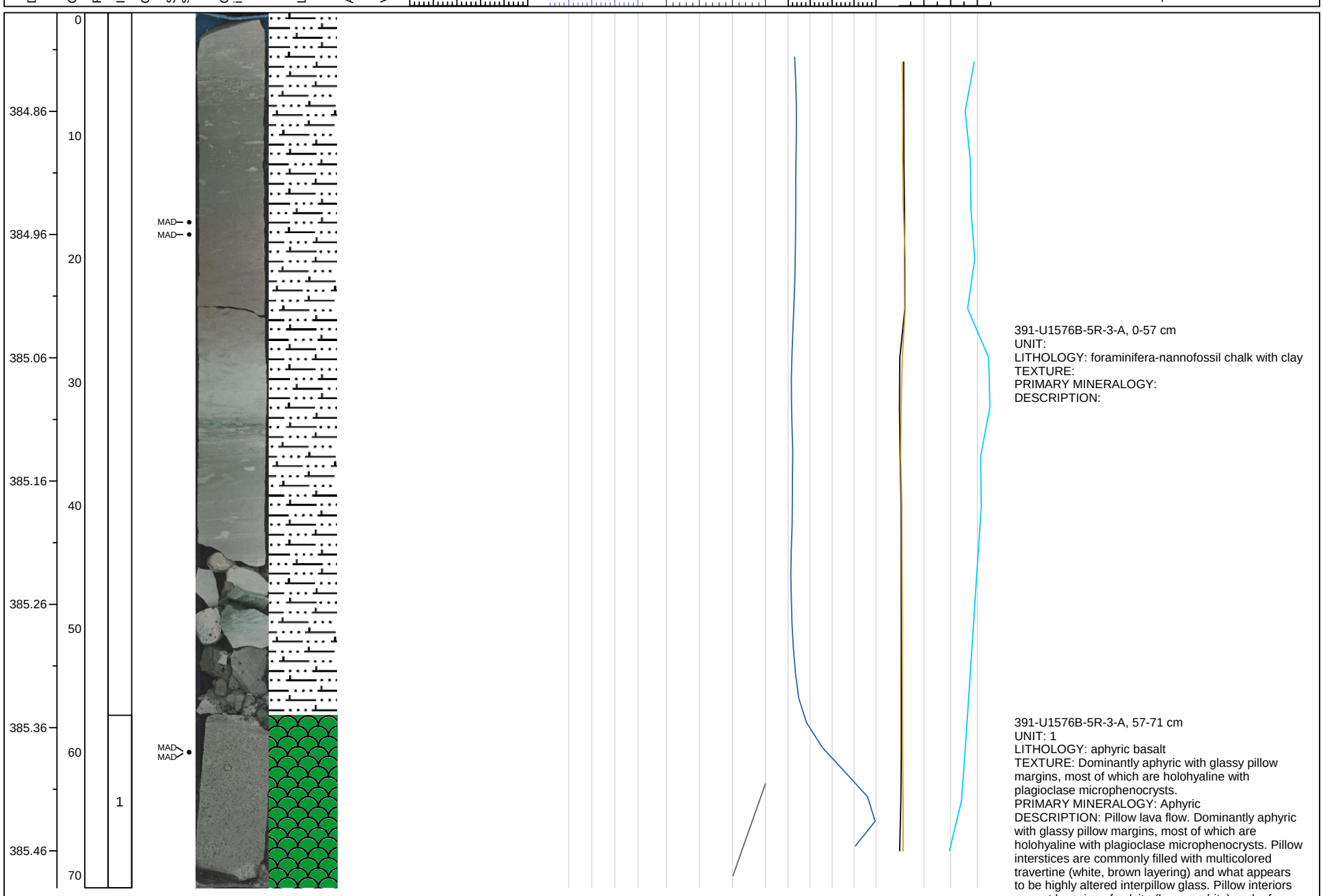


Hole 391-U1576B Core 5R, Interval 382.2-387.3 m (CSF-A)

Greenish gray to light gray foraminifera-nannofossil chalk with clay, with slight to moderate bioturbation. Slight drilling-induced fragmentation. Contact between the sedimentary cover and igneous basement was not recovered.



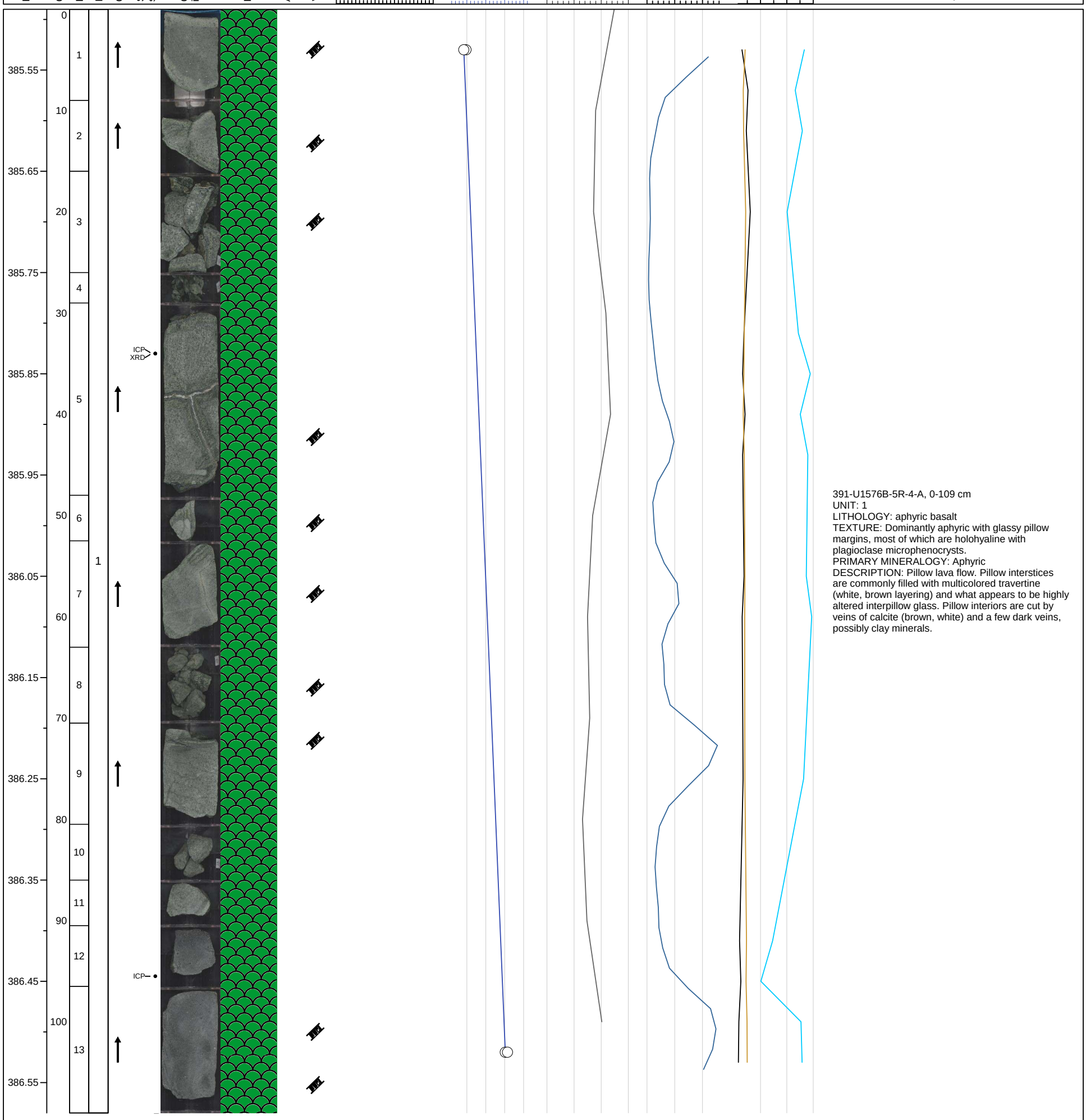
Hole 391-U1576B-5R Section 3, Top of Section: 384.78 m (CSF-A)



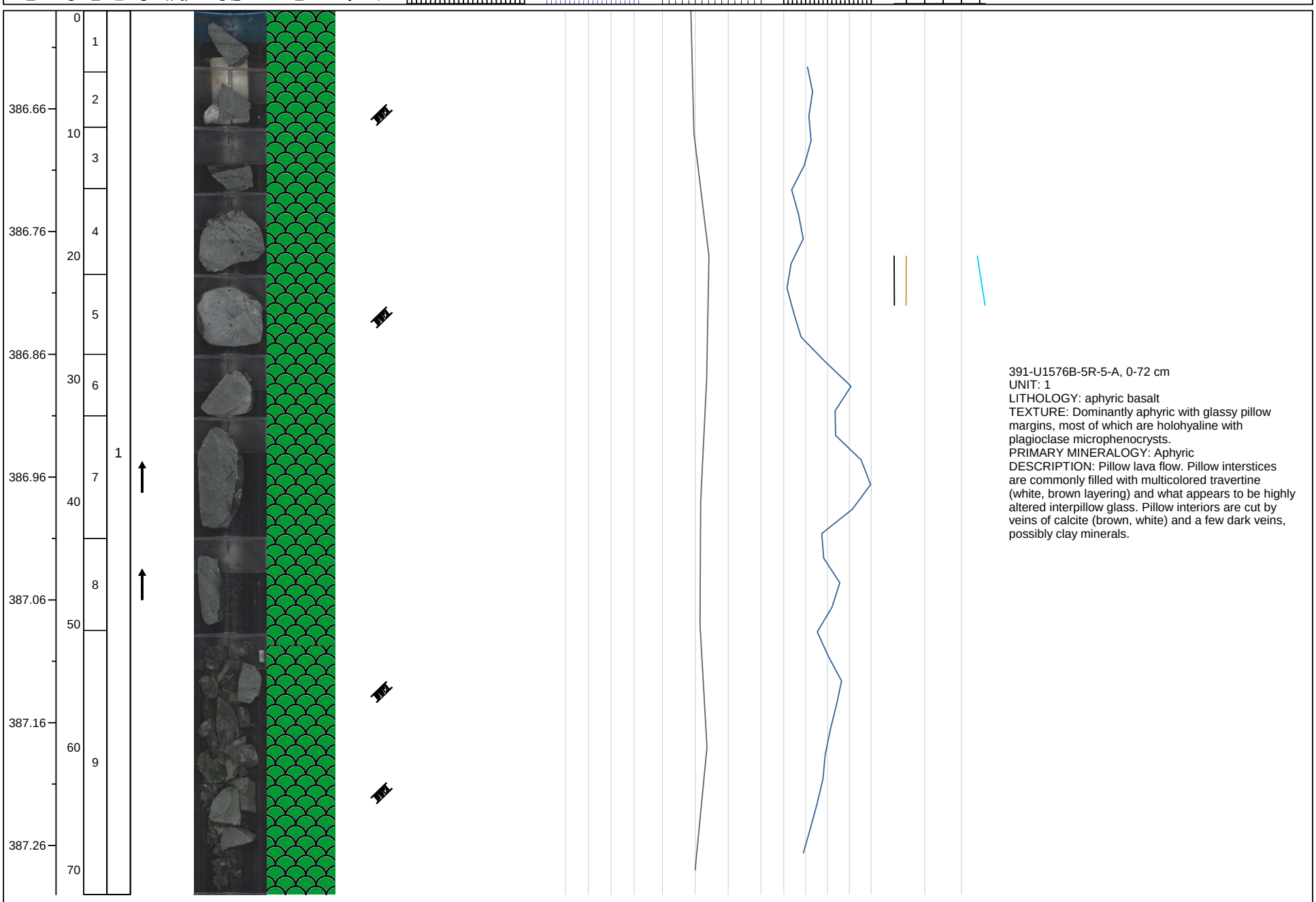
391-U1576B-5R-3-A, 0-57 cm
UNIT:
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

391-U1576B-5R-3-A, 57-71 cm
UNIT: 1
LITHOLOGY: aphyric basalt
TEXTURE: Dominantly aphyric with glassy pillow margins, most of which are holohyaline with plagioclase microphenocrysts.
PRIMARY MINERALOGY: Aphyric
DESCRIPTION: Pillow lava flow. Dominantly aphyric with glassy pillow margins, most of which are holohyaline with plagioclase microphenocrysts. Pillow interstices are commonly filled with multicolored travertine (white, brown layering) and what appears to be highly altered interpillow glass. Pillow interiors are cut by veins of calcite (brown, white) and a few dark veins, possibly clay minerals.

Hole 391-U1576B-5R Section 4, Top of Section: 385.49 m (CSF-A)



Hole 391-U1576B-5R Section 5, Top of Section: 386.58 m (CSF-A)



Hole 391-U1576B-6R Section 1, Top of Section: 386.9 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

386.90 | 0 | 1
387.00 | 10
387.10 | 20 | 2
387.20 | 30
387.30 | 40
387.40 | 50 | 3
387.50 | 60
387.60 | 70 | 4 | 1
387.70 | 80
387.80 | 90 | 5
387.80 | 90 | 6
387.80 | 90 | 7
387.90 | 100
388.00 | 110 | 8
388.00 | 110 | MAD
388.10 | 120 | 9
388.10 | 120 | TSB, TS, ICP
388.20 | 130 | 10
388.30 | 140 | 11

391-U1576B-6R-1-A, 0-146 cm
UNIT: 1
LITHOLOGY: aphyric basalt
TEXTURE: Dominantly aphyric with glassy pillow margins, most of which are holohyaline with plagioclase microphenocrysts.
PRIMARY MINERALOGY: Aphyric
DESCRIPTION: Pillow lava flow. Pillow interstices are commonly filled with multicolored travertine (white, brown layering) and what appears to be highly altered interpillow glass. Pillow interiors are cut by veins of calcite (brown, white) and a few dark veins, possibly clay minerals.

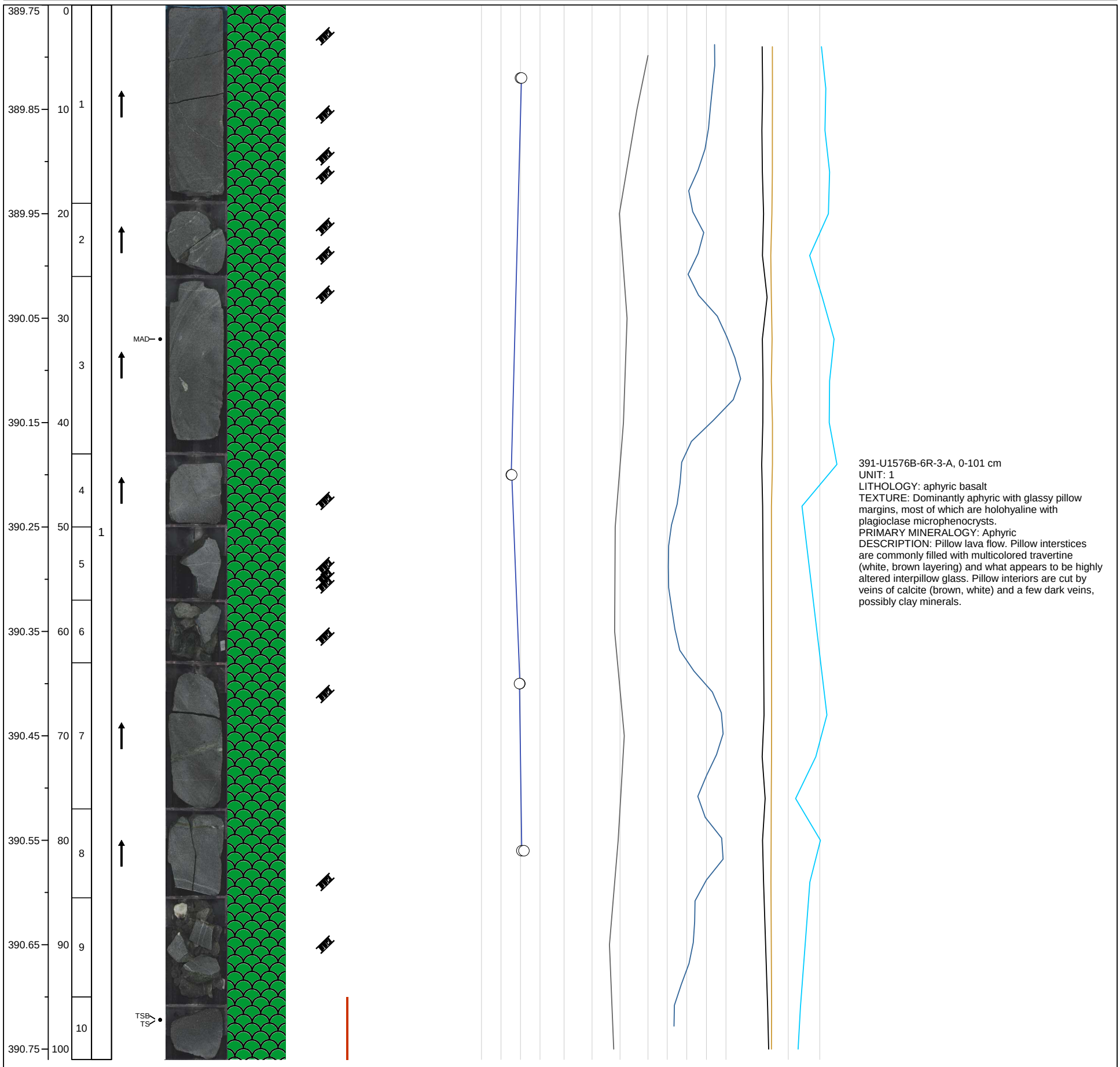
Hole 391-U1576B-6R Section 2, Top of Section: 388.36 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

MAD

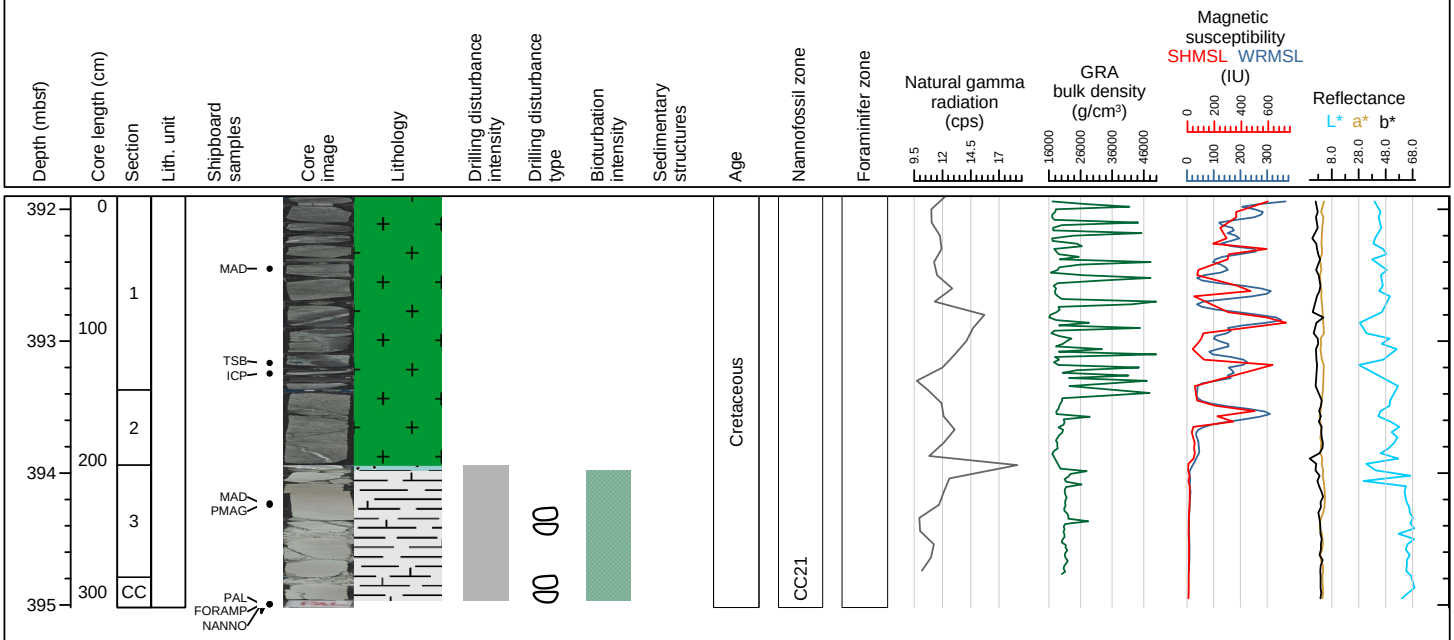
391-U1576B-6R-2-A, 0-139 cm
UNIT: 1
LITHOLOGY: aphyric basalt
TEXTURE: Dominantly aphyric with glassy pillow margins, most of which are holohyaline with plagioclase microphenocrysts.
PRIMARY MINERALOGY: Aphyric
DESCRIPTION: Pillow lava flow. Pillow interstices are commonly filled with multicolored travertine (white, brown layering) and what appears to be highly altered interpillow glass. Pillow interiors are cut by veins of calcite (brown, white) and a few dark veins, possibly clay minerals.

Hole 391-U1576B-6R Section 3, Top of Section: 389.75 m (CSF-A)



Hole 391-U1576B Core 7R, Interval 391.9-395.02 m (CSF-A)

Light greenish gray foraminifera-nannofossil chalk with clay, with locally slight to moderate bioturbation. Only subtle change in hue. Moderate drilling-induced fragmentation and “biscuiting”. The upper part of the sedimentary interval is fragmented due to the emplacement of overlying pillow lavas.



Hole 391-U1576B-7R Section 1, Top of Section: 391.9 m (CSF-A)

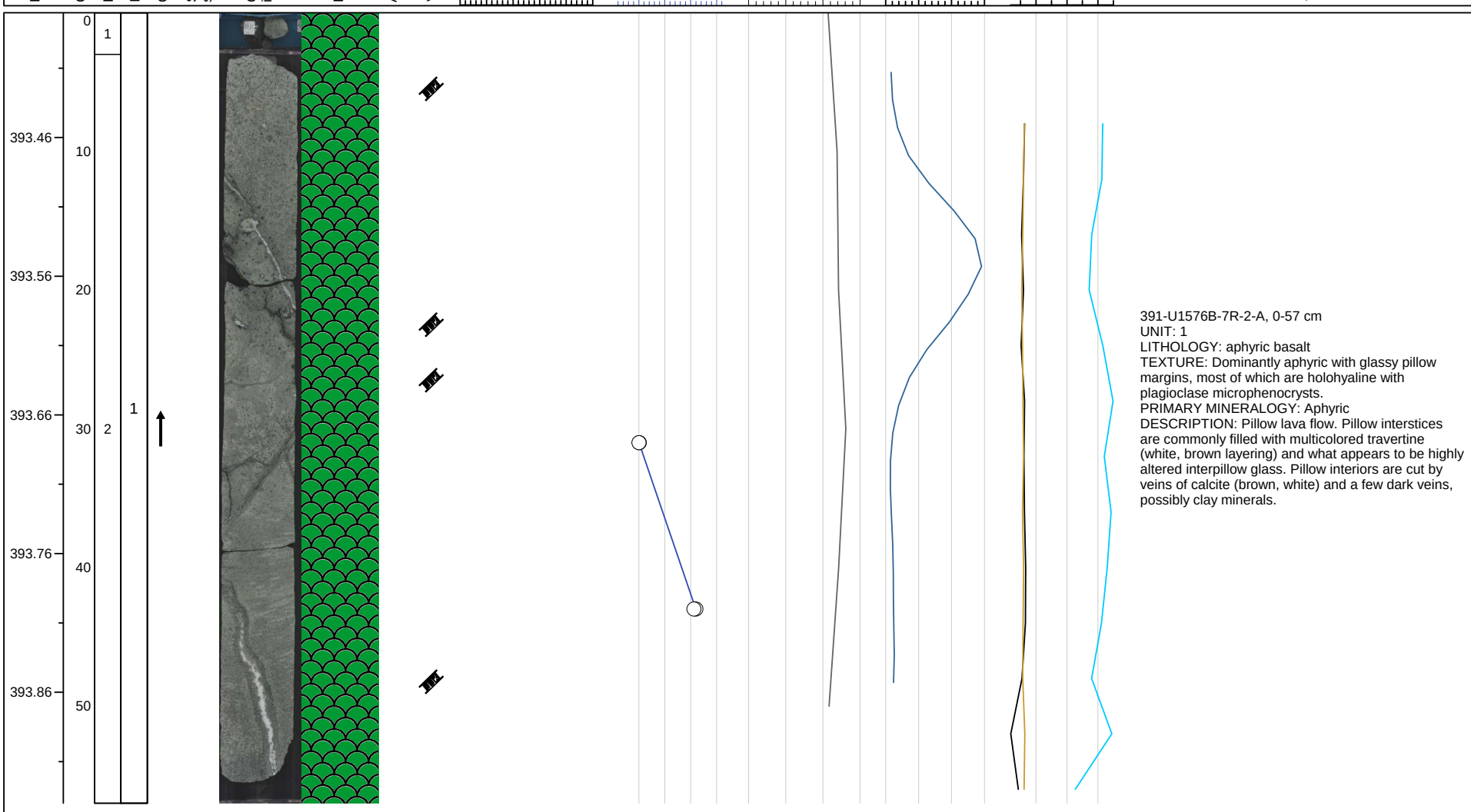
Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

391.90 | 0 | 1
392.00 | 10 | 2
392.10 | 20 | 3
392.20 | 30 | 4
392.30 | 40 | 5
392.40 | 50 | 6
392.50 | 60
392.60 | 70 | 7 | 1
392.70 | 80 | 8
392.80 | 90 | 9
392.90 | 100 | 10
393.00 | 110
393.10 | 120 | 11
393.20 | 130 | 12
393.30 | 140 | 13 | 14

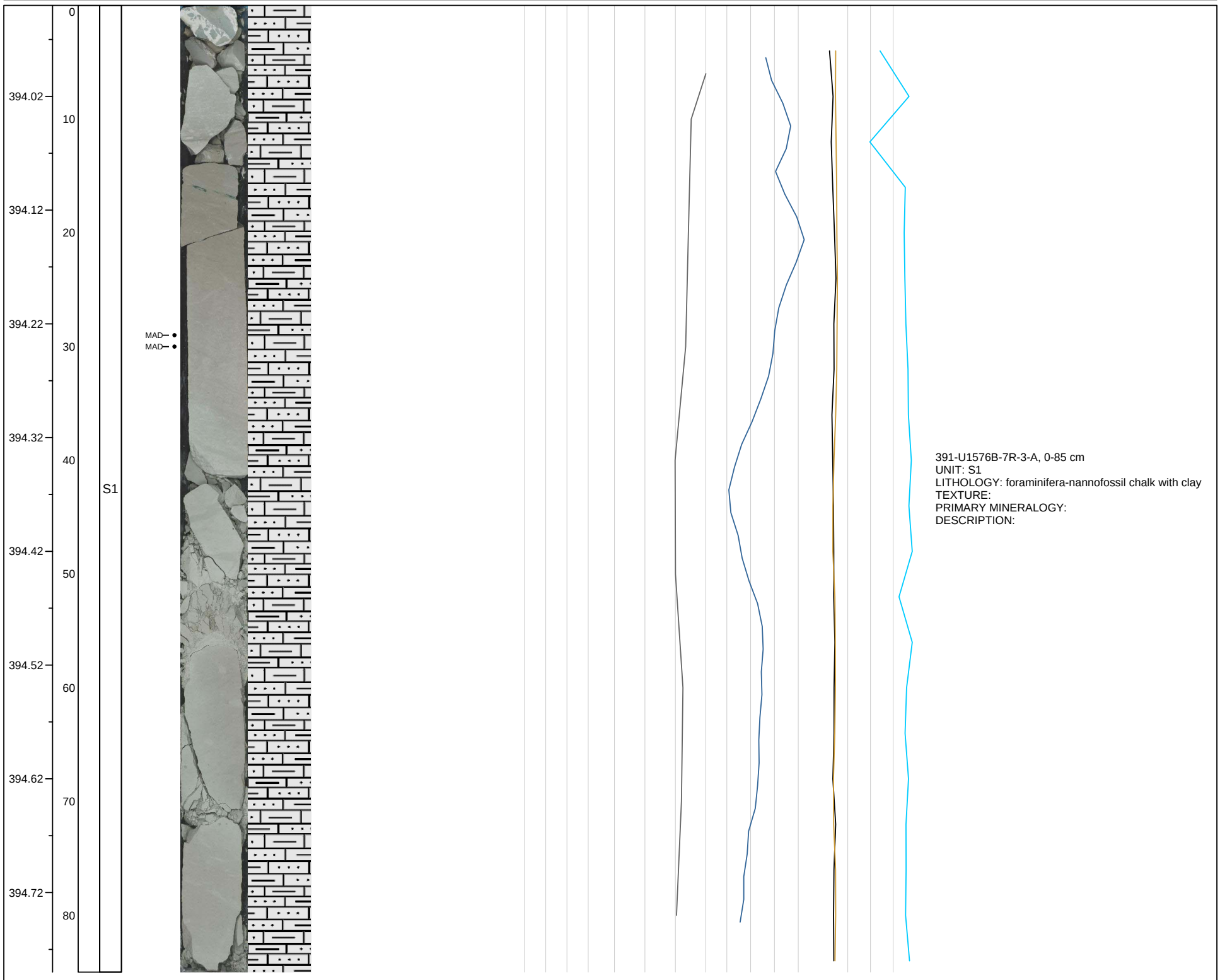
MAD
TS
TSB
ICP

391-U1576B-7R-1-A, 0-147 cm
UNIT: 1
LITHOLOGY: aphyric basalt
TEXTURE: Dominantly aphyric with glassy pillow margins, most of which are holohyaline with plagioclase microphenocrysts.
PRIMARY MINERALOGY: Aphyric
DESCRIPTION: Pillow lava flow. Pillow interstices are commonly filled with multicolored travertine (white, brown layering) and what appears to be highly altered interpillow glass. Pillow interiors are cut by veins of calcite (brown, white) and a few dark veins, possibly clay minerals.

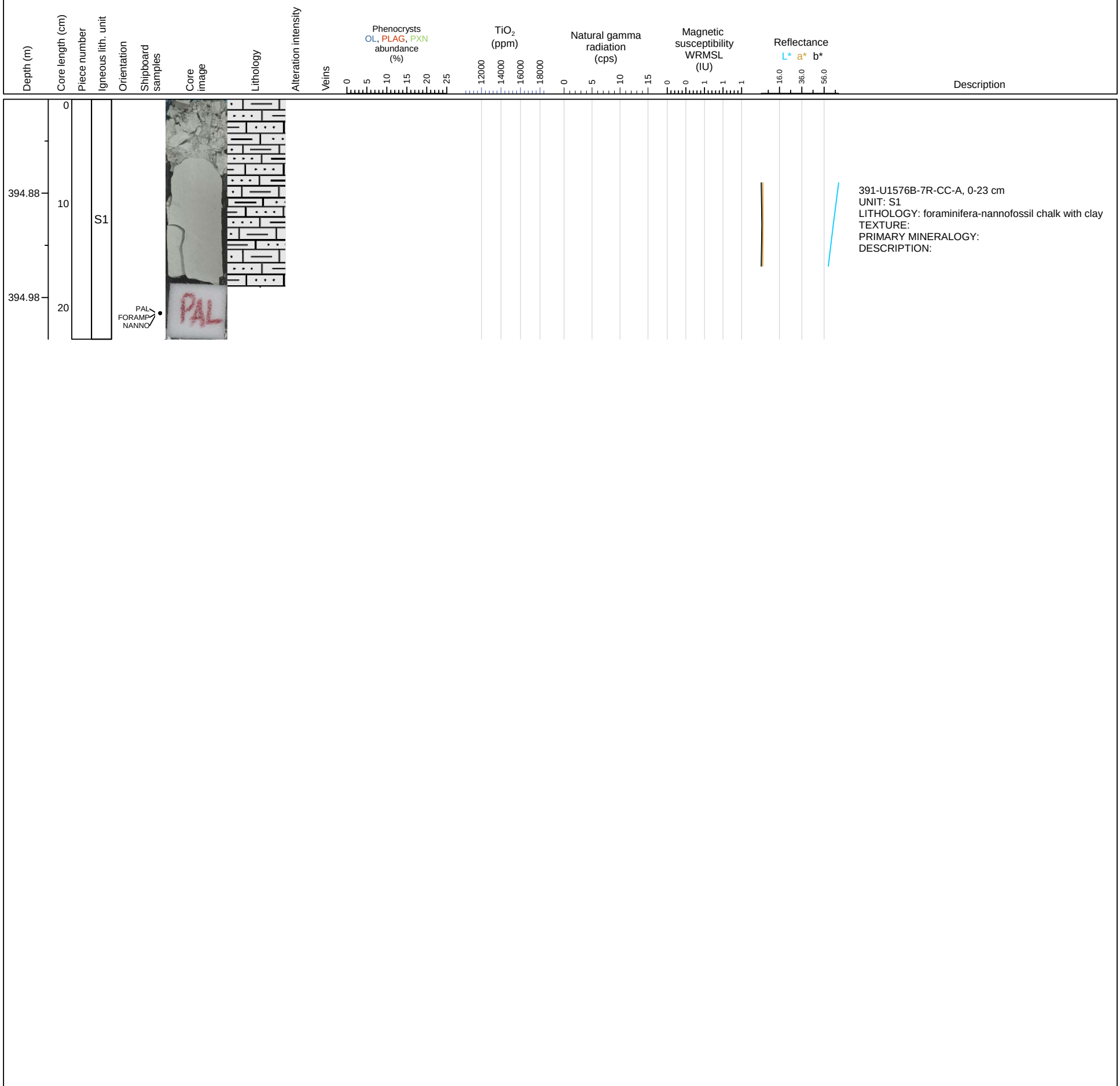
Hole 391-U1576B-7R Section 2, Top of Section: 393.37 m (CSF-A)



Hole 391-U1576B-7R Section 3, Top of Section: 393.94 m (CSF-A)

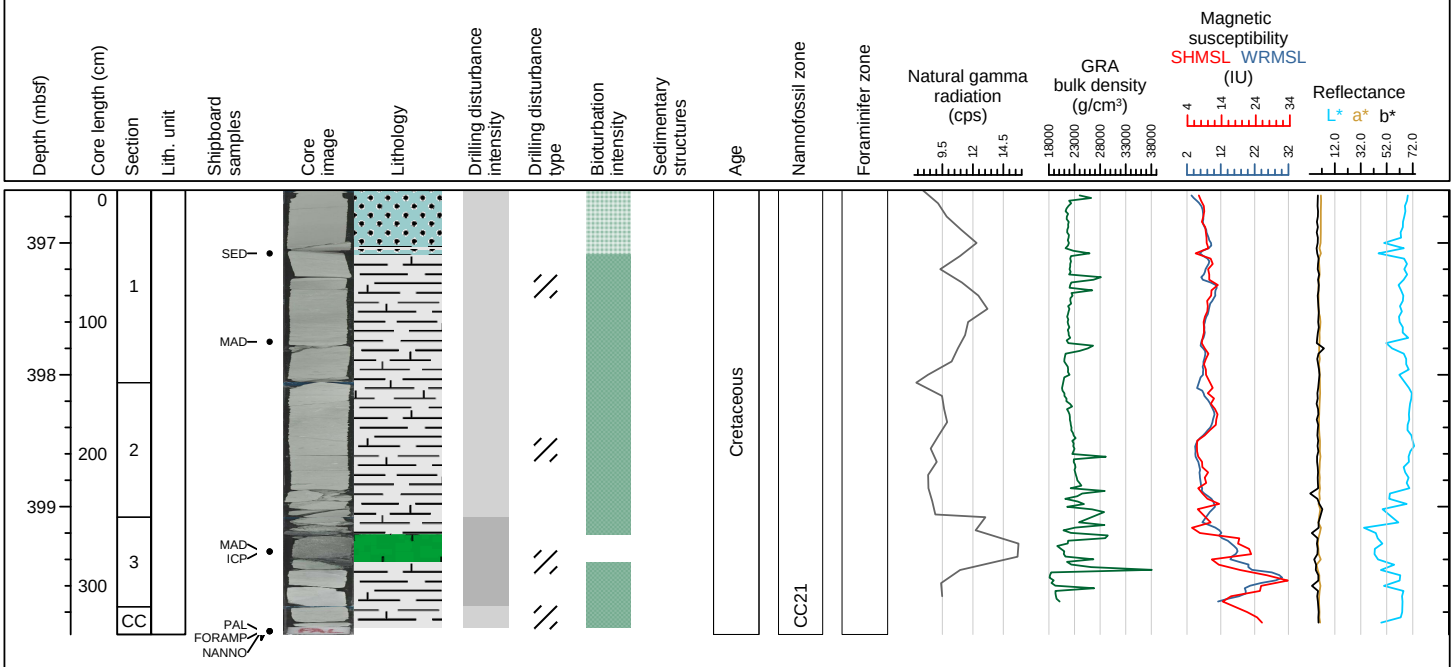


Hole 391-U1576B-7R Section CC, Top of Section: 394.79 m (CSF-A)



Hole 391-U1576B Core 8R, Interval 396.6-399.97 m (CSF-A)

Light greenish gray foraminifera-nannofossil chalk with clay, with locally slight to moderate bioturbation. The chalk locally grades to calcareous silty sandstone. There is one occurrence of pillow lava or lava lobe in Section 3. Moderate drilling-induced fragmentation.



Hole 391-U1576B-8R Section 1, Top of Section: 396.6 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

396.60 (0) | 396.70 (10) | 396.80 (20) | 396.90 (30) | 397.00 (40) | 397.10 (50) | 397.20 (60) | 397.30 (70) | 397.40 (80) | 397.50 (90) | 397.60 (100) | 397.70 (110) | 397.80 (120) | 397.90 (130) | 398.00 (140)

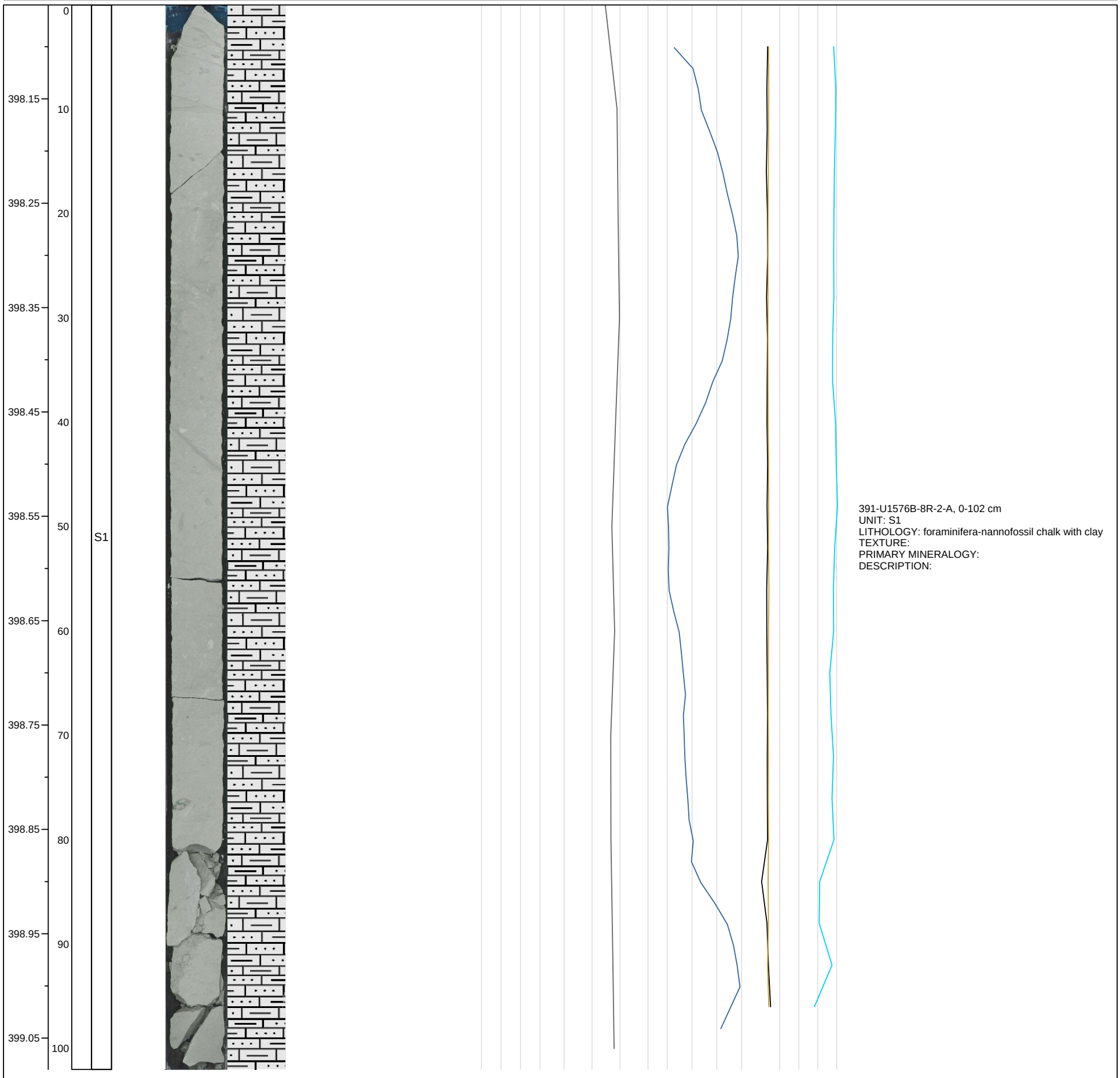
S1

SED

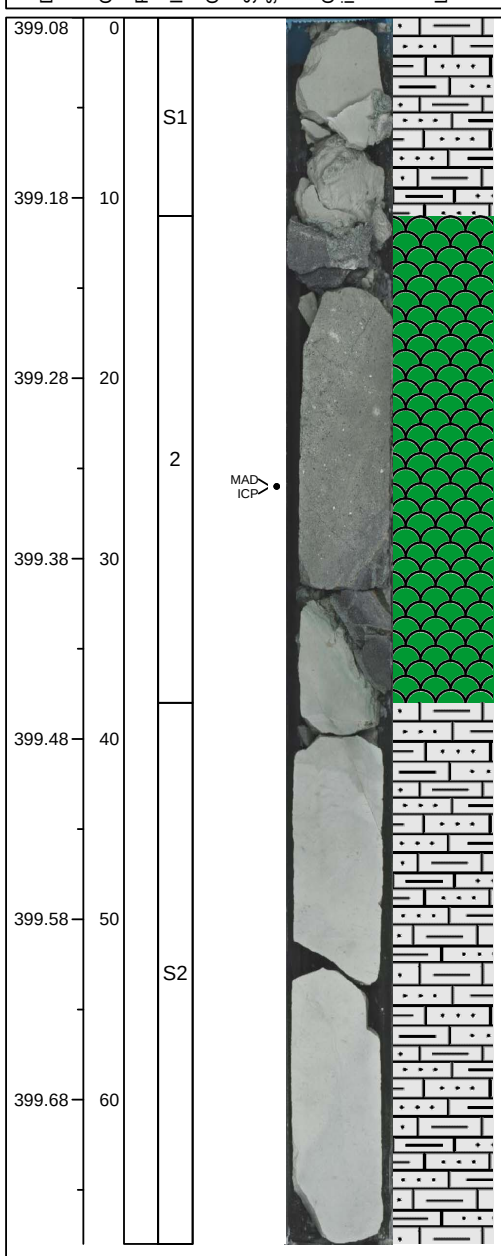
MAD

391-U1576B-8R-1-A, 0-43 cm
UNIT: S1
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

Hole 391-U1576B-8R Section 2, Top of Section: 398.06 m (CSF-A)



Hole 391-U1576B-8R Section 3, Top of Section: 399.08 m (CSF-A)

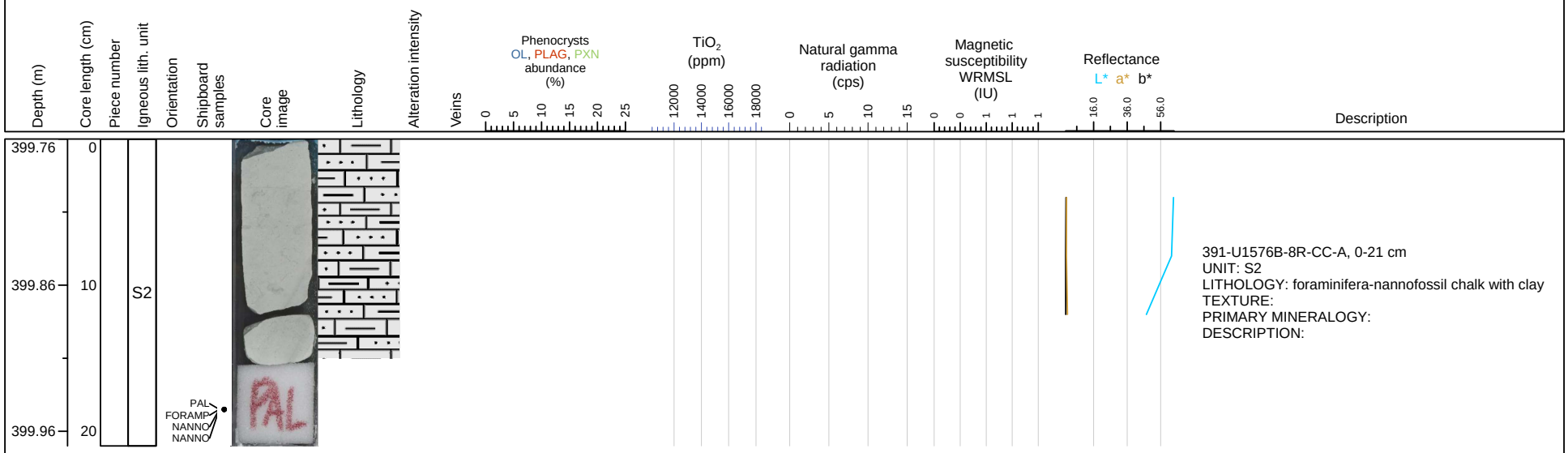


391-U1576B-8R-3-A, 0-11 cm
UNIT: S1
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

391-U1576B-8R-3-A, 11-38 cm
UNIT: 2
LITHOLOGY: aphyric basalt
TEXTURE: Dominantly aphyric with glassy pillow margins, most of which are holohyaline with plagioclase microphenocrysts.
PRIMARY MINERALOGY: Aphyric
DESCRIPTION: Pillow lava flow. The pillow interior is altered to pale green color and cut by veins of calcite. Sparsely vesicular with clay infilling.

391-U1576B-8R-3-A, 38-68 cm
UNIT: S2
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

Hole 391-U1576B-8R Section CC, Top of Section: 399.76 m (CSF-A)



Hole 391-U1576B-9R Section 1, Top of Section: 401.6 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

MAD

391-U1576B-9R-1-A, 0-138 cm
UNIT: 3
LITHOLOGY: aphyric basalt
TEXTURE: Dominantly aphyric with glassy pillow margins, most of which are holohyaline with plagioclase microphenocrysts.
PRIMARY MINERALOGY: Aphyric
DESCRIPTION: pillow lava flow

Hole 391-U1576B-9R Section 2, Top of Section: 402.98 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

391-U1576B-9R-2-A, 0-39 cm
UNIT: 3
LITHOLOGY: aphyric basalt
TEXTURE: Dominantly aphyric with glassy pillow margins, most of which are holohyaline with plagioclase microphenocrysts.
PRIMARY MINERALOGY: Aphyric
DESCRIPTION: pillow lava flow

391-U1576B-9R-2-A, 39-147 cm
UNIT: 4
LITHOLOGY: aphyric basalt
TEXTURE: Equigranular, fine-grained with very sparse pyroxene phenocrysts.
PRIMARY MINERALOGY:
DESCRIPTION: Massive lava flow. Altered to a light brown color. Sparse, filled vesicles. Pyrite is visible in vesicles and in matrix.

Hole 391-U1576B-9R Section 3, Top of Section: 404.45 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

391-U1576B-9R-3-A, 0-137 cm
UNIT: 4
LITHOLOGY: aphyric basalt
TEXTURE: Equigranular, fine-grained with very sparse pyroxene phenocrysts.
PRIMARY MINERALOGY:
DESCRIPTION: Massive lava flow. Altered to a light brown color. Sparse, filled vesicles. Pyrite is visible in vesicles and in matrix.

Hole 391-U1576B-10R Section 1, Top of Section: 406.4 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

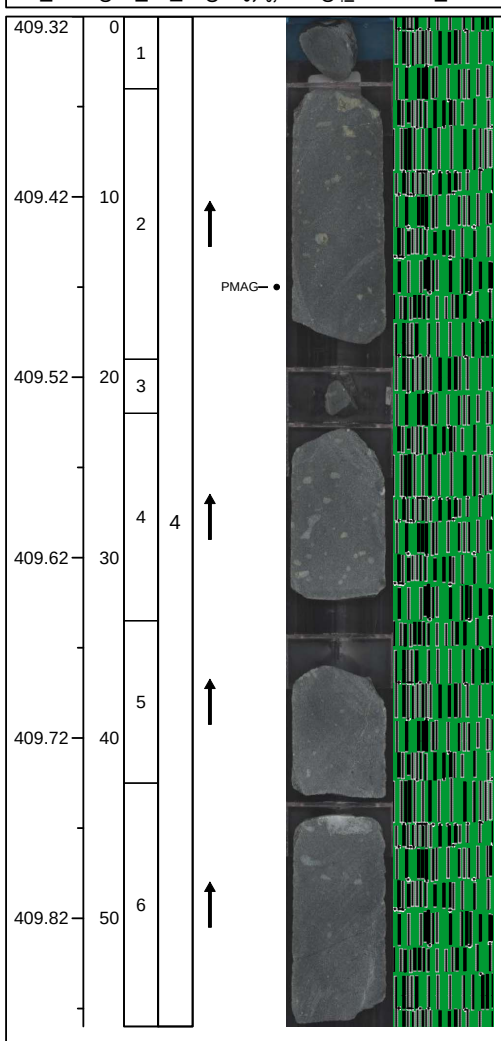
391-U1576B-10R-1-A, 0-150 cm
UNIT: 4
LITHOLOGY: aphyric basalt
TEXTURE: Equigranular, fine-grained with very sparse pyroxene phenocrysts.
PRIMARY MINERALOGY:
DESCRIPTION: Massive lava flow. Altered to a light brown color. Sparse, filled vesicles. Pyrite is visible in vesicles and in matrix.

Hole 391-U1576B-10R Section 2, Top of Section: 407.9 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

391-U1576B-10R-2-A, 0-142 cm
UNIT: 4
LITHOLOGY: aphyric basalt
TEXTURE: Equigranular, fine-grained with very sparse pyroxene phenocrysts.
PRIMARY MINERALOGY:
DESCRIPTION: Massive lava flow. Altered to a light brown color. Sparse, filled vesicles. Pyrite is visible in vesicles and in matrix.

Hole 391-U1576B-10R Section 3, Top of Section: 409.32 m (CSF-A)



391-U1576B-10R-3-A, 0-56 cm
UNIT: 4
LITHOLOGY: aphyric basalt
TEXTURE: Equigranular, fine-grained with very sparse pyroxene phenocrysts.
PRIMARY MINERALOGY:
DESCRIPTION: Massive lava flow. Altered to a light brown color. Sparse, filled vesicles. Pyrite is visible in vesicles and in matrix.

Hole 391-U1576B-11R Section 1, Top of Section: 411.4 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

411.40 | 0 | 1
411.50 | 10 | 2
411.60 | 20
411.70 | 30
411.80 | 40
411.90 | 50 | 3
412.00 | 60
412.10 | 70 | 5
412.20 | 80
412.30 | 90
PMAG
412.40 | 100 | 4
5
412.50 | 110 | 6
412.60 | 120
7
412.70 | 130
412.80 | 140 | 8

391-U1576B-11R-1-A, 0-142 cm
UNIT: 5
LITHOLOGY: aphyric basalt
TEXTURE: Aphyric and equigranular.
PRIMARY MINERALOGY: Aphyric
DESCRIPTION: Massive lava flow. Top of unit marked by quenched margin. Contains significant secondary mineralization (e.g. pyrite). The sheet flow is sparsely to moderately vesicular with vesicles up to 20 mm in diameter with average sizes ranging from 2-5 mm.

Hole 391-U1576B-11R Section 2, Top of Section: 412.82 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

412.90 | 0 | 1
413.00 | 10
413.10 | 20 | 2
413.20 | 30
413.30 | 40 | 3 | 4 | MAD
413.40 | 50
413.50 | 60 | 5
413.60 | 70 | 6
413.70 | 80 | 7 | 5 | TS, TSB, ICP
413.80 | 90 | 8
413.90 | 100
414.00 | 110 | 9
414.10 | 120 | 10
414.20 | 130
414.30 | 140 | 11 | 12

391-U1576B-11R-2-A, 0-149 cm
UNIT: 5
LITHOLOGY: aphyric basalt
TEXTURE: Aphyric and equigranular.
PRIMARY MINERALOGY: Aphyric
DESCRIPTION: Massive lava flow. Contains significant secondary mineralization (e.g. pyrite). The flow is sparsely to moderately vesicular with vesicles up to 20 mm in diameter with average sizes ranging from 2-5 mm.

Hole 391-U1576B-11R Section 3, Top of Section: 414.31 m (CSF-A)

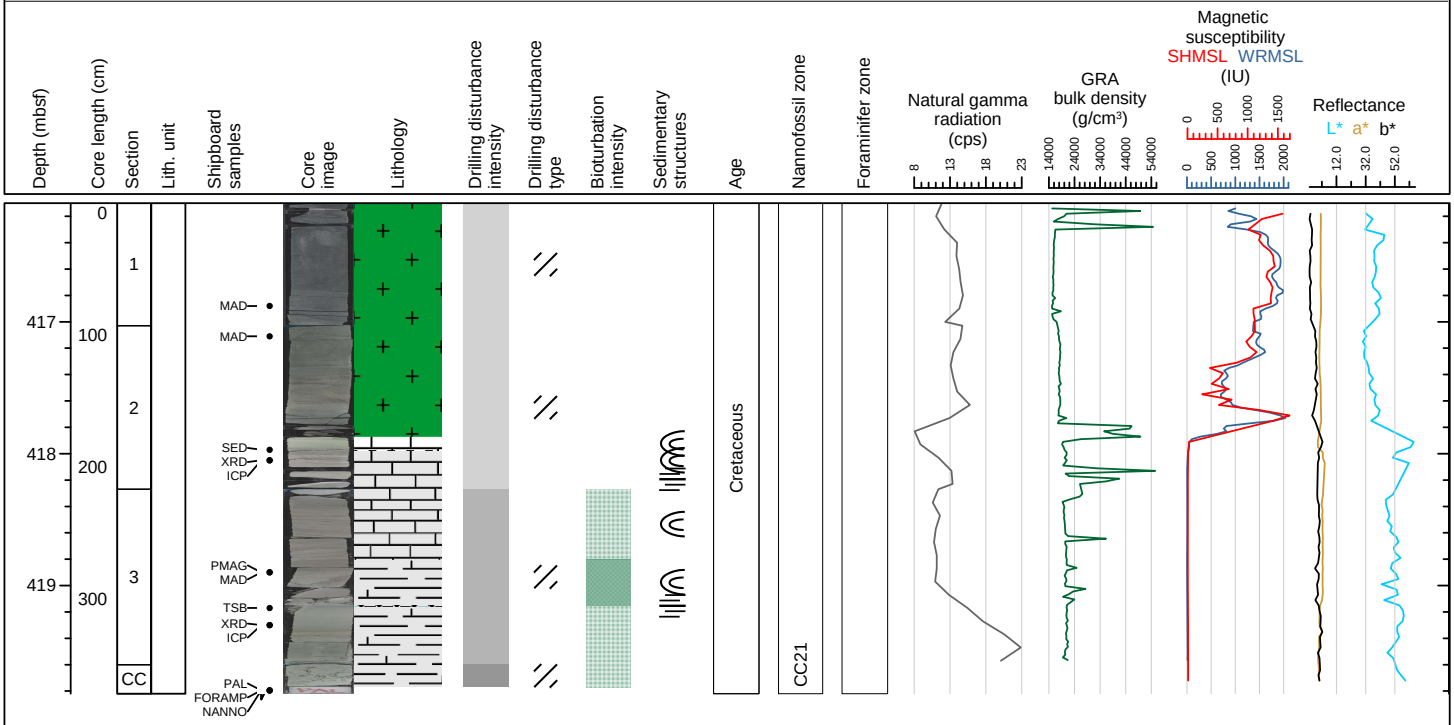
Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

PMAG

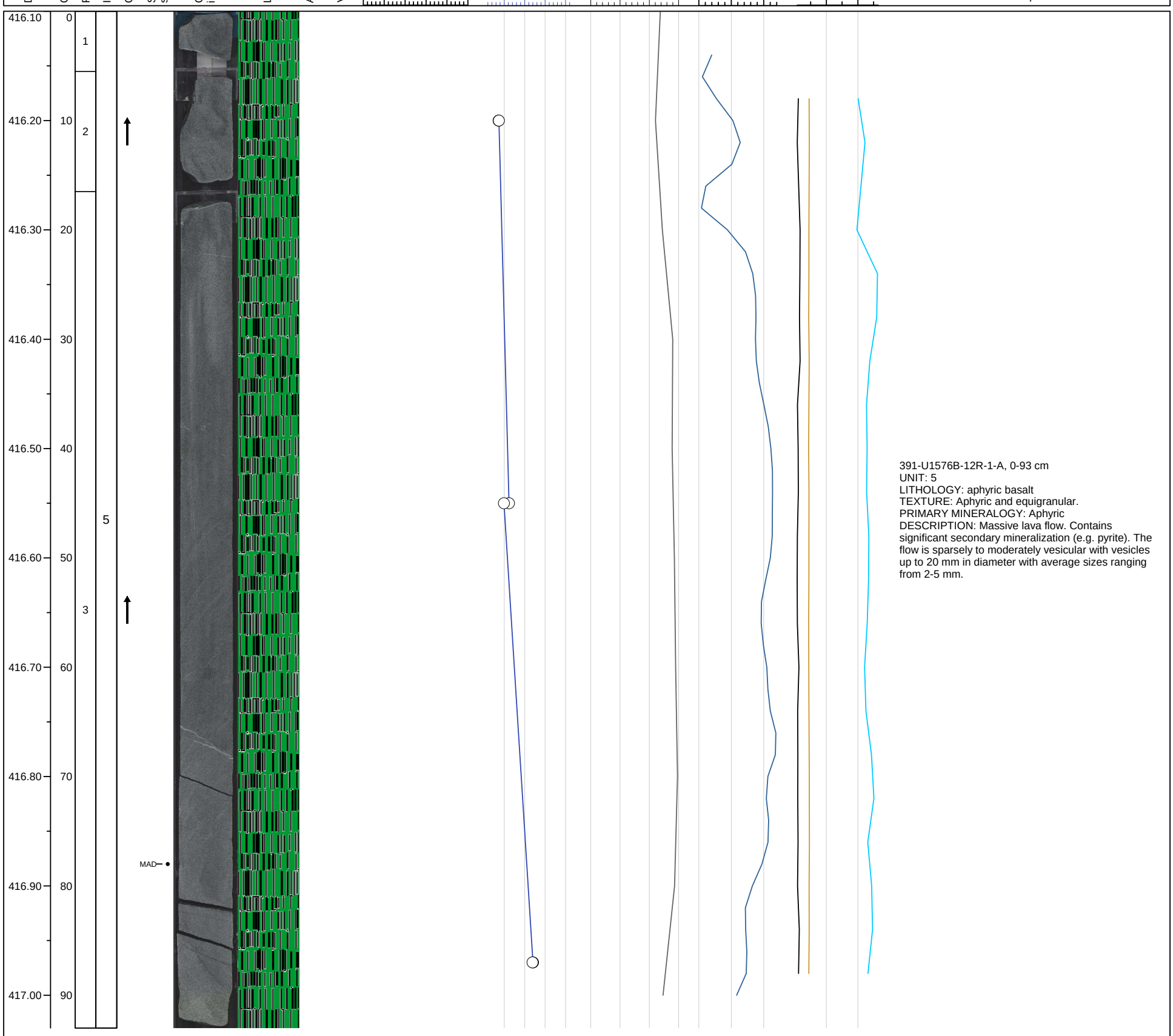
391-U1576B-11R-3-A, 0-130 cm
UNIT: 5
LITHOLOGY: aphyric basalt
TEXTURE: Aphyric and equigranular.
PRIMARY MINERALOGY: Aphyric
DESCRIPTION: Massive lava flow. Contains significant secondary mineralization (e.g. pyrite). The flow is sparsely to moderately vesicular with vesicles up to 20 mm in diameter with average sizes ranging from 2-5 mm.

Hole 391-U1576B Core 12R, Interval 416.1-419.82 m (CSF-A)

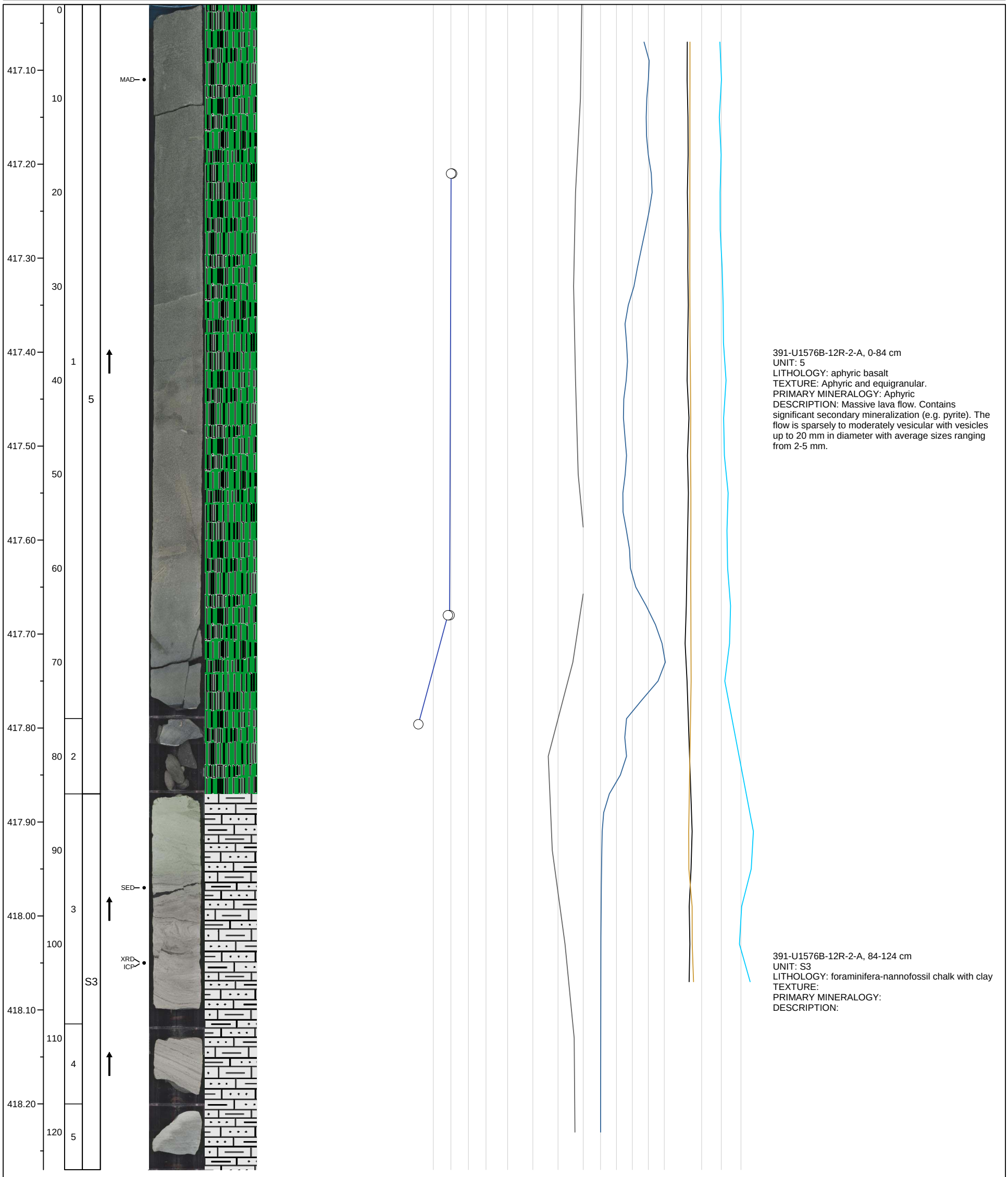
Greenish gray to light gray foraminifera-nannofossil chalk with clay, with locally slight to moderate bioturbation. The sediment exhibits common thin layering with rarer convolute bedding; the convolute bedding is likely due to loading by the overlying lava stack. The composition of the thinely layered deposits determined by portable XRF support calcareous (lighter gray) to metalliferous (darker gray) sedimentation. The chalk locally grades to calcareous sandstone. Moderate to slight drilling-induced fragmentation.



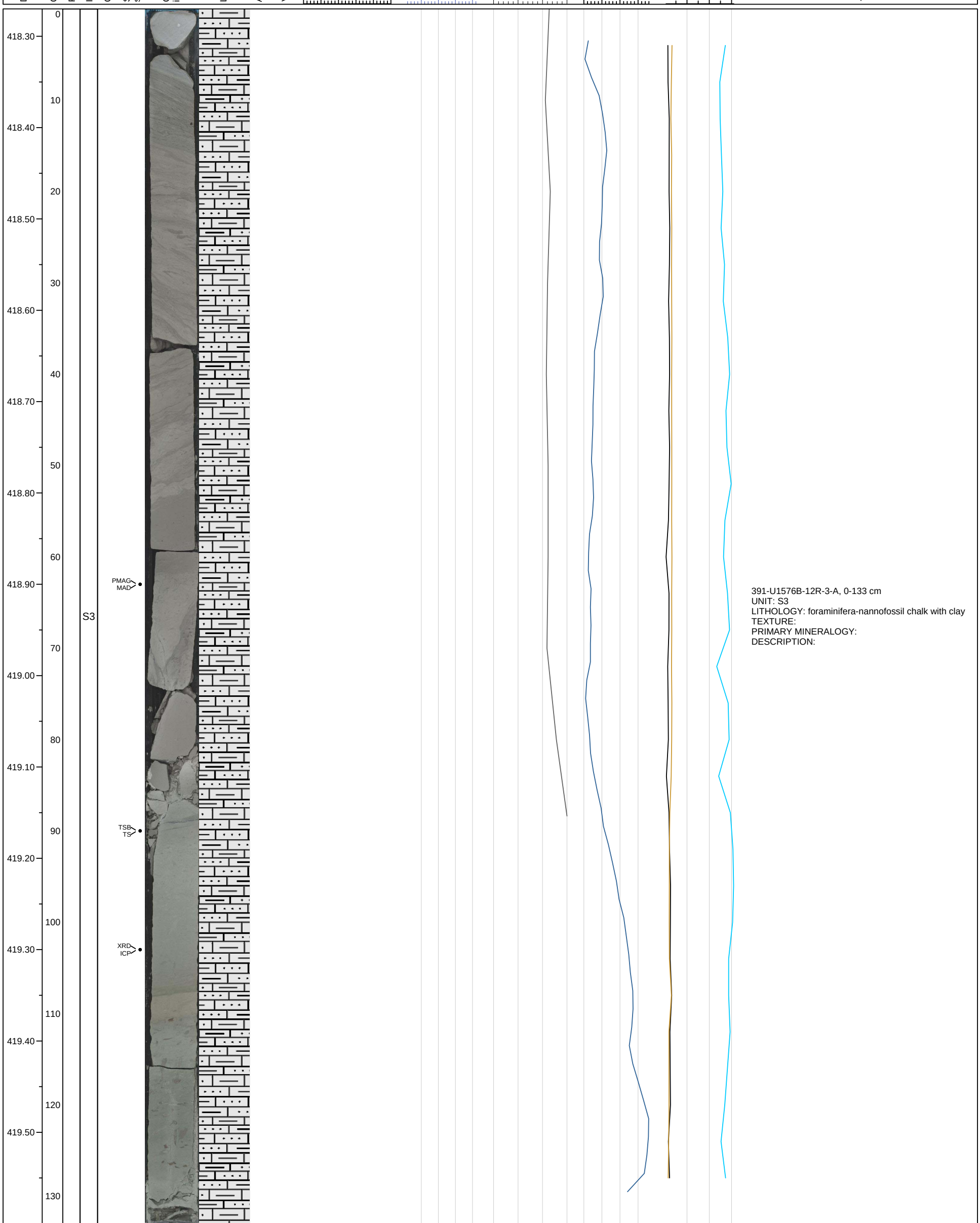
Hole 391-U1576B-12R Section 1, Top of Section: 416.1 m (CSF-A)



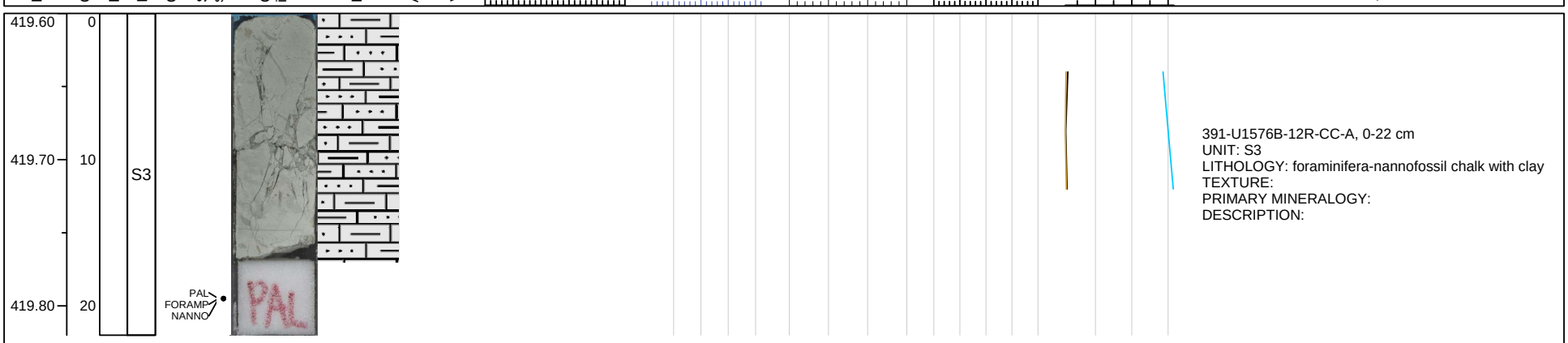
Hole 391-U1576B-12R Section 2, Top of Section: 417.03 m (CSF-A)



Hole 391-U1576B-12R Section 3, Top of Section: 418.27 m (CSF-A)

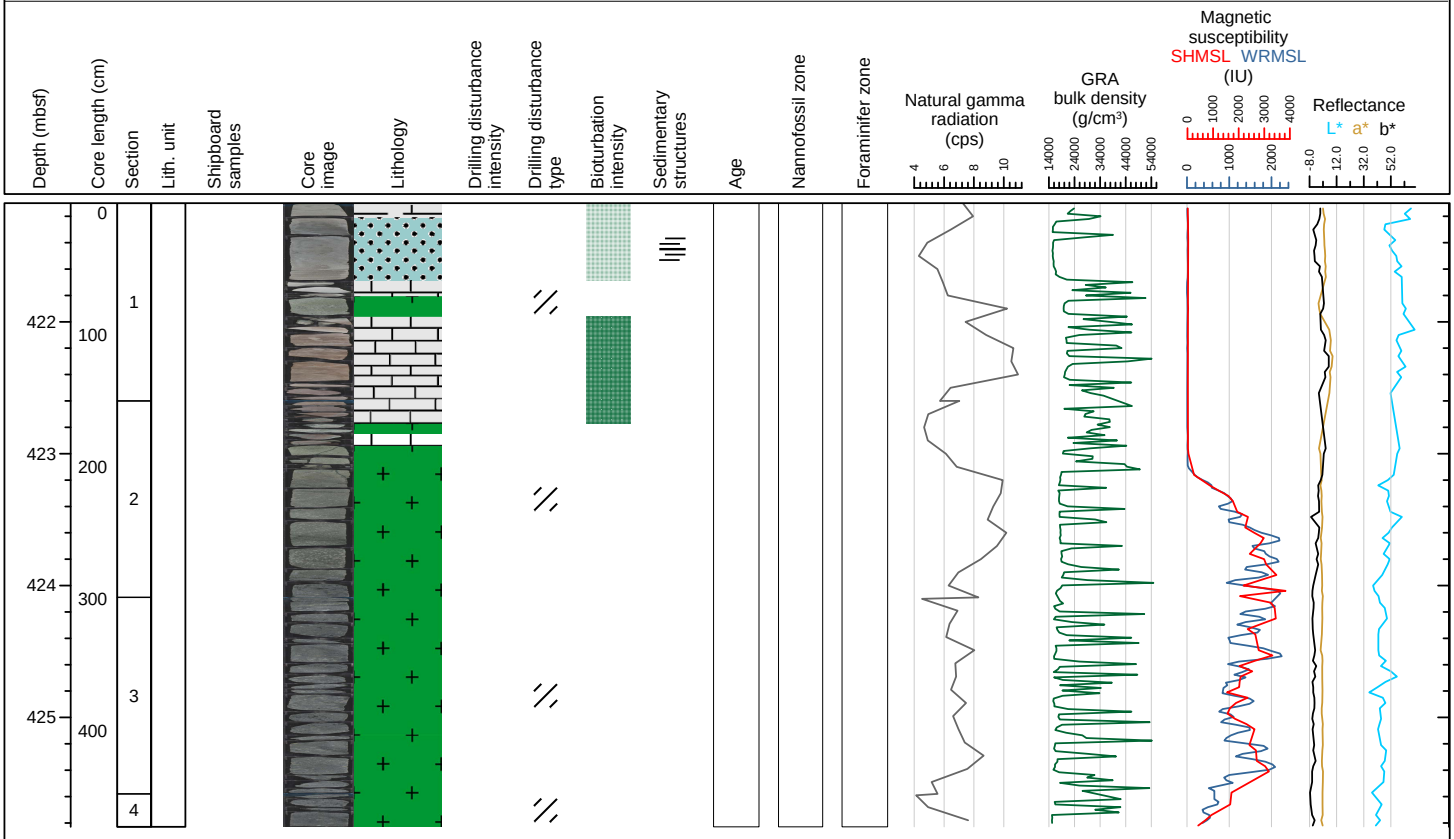


Hole 391-U1576B-12R Section CC, Top of Section: 419.6 m (CSF-A)

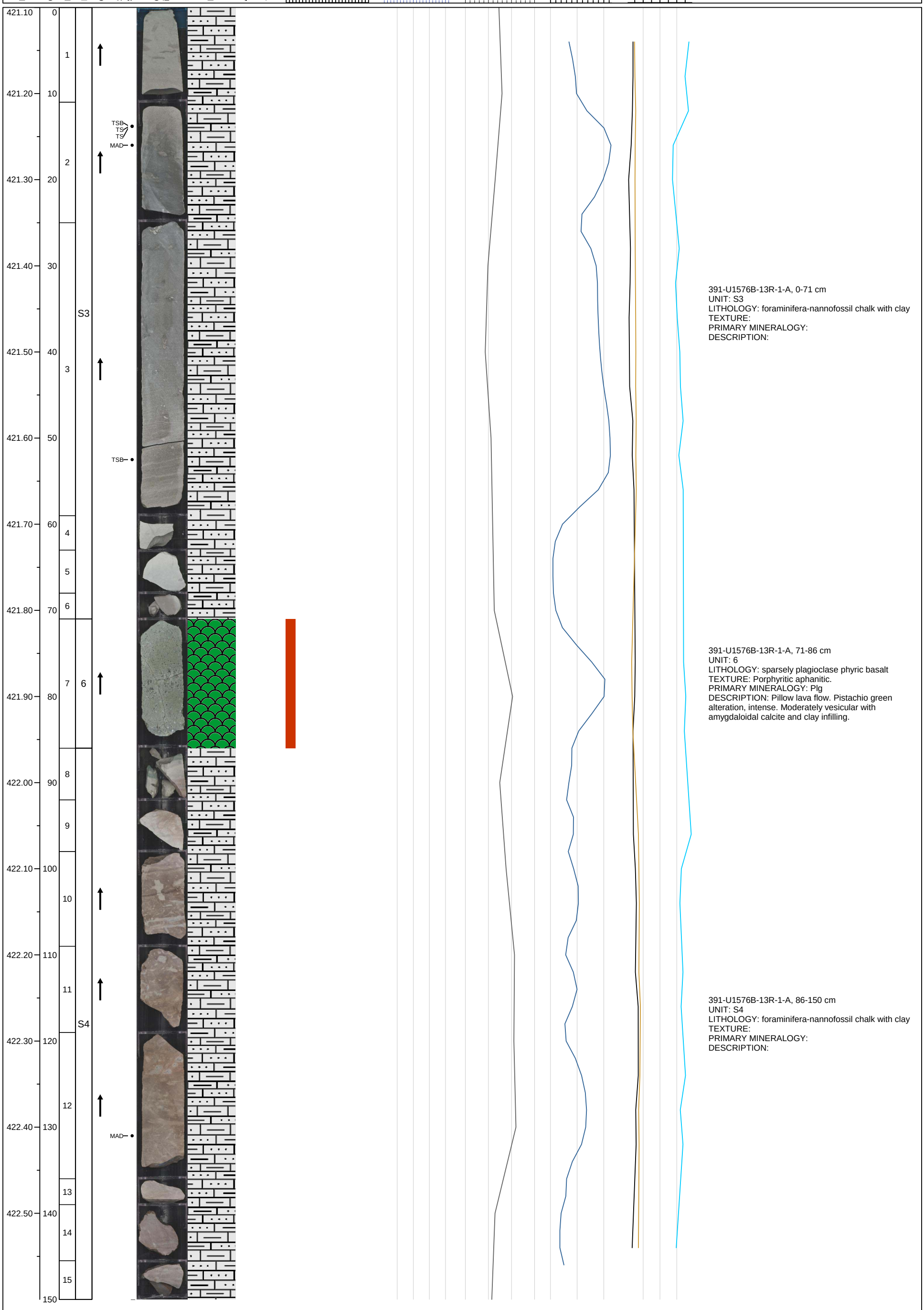


Hole 391-U1576B Core 13R, Interval 421.1-425.83 m (CSF-A)

Gray to light reddish-brown foraminifera-nannofossil chalk with clay interbedded with basalt. The sediment is locally slightly to moderately bioturbated or exhibit thin layering. The chalk locally grades to calcareous sandstone. Moderate to slight drilling-induced fragmentation. Lighter to reddish coloration is likely due to thermal effect at the contact with the lavas.



Hole 391-U1576B-13R Section 1, Top of Section: 421.1 m (CSF-A)



Hole 391-U1576B-13R Section 2, Top of Section: 422.6 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

422.60 | 0 | 1 | S4
422.70 | 10 | 2 | S4
3
4
422.80 | 20 | 5 | S4
6
7
422.90 | 30 | 8 | S4
423.00 | 40 | 9 | S4
10
423.10 | 50 | 11 | S4
423.20 | 60 | 12 | S4
423.30 | 70 | 13 | S4
423.40 | 80 | 14 | 7 | MAD
423.50 | 90 | 7
423.60 | 100 | 15 | 7
423.70 | 110 | 7
423.80 | 120 | 16 | 7
423.90 | 130 | 17 | 7
424.00 | 140 | 18 | 7

391-U1576B-13R-2-A, 0-17 cm
UNIT: S4
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

391-U1576B-13R-2-A, 17-149 cm
UNIT: 7
LITHOLOGY: sparsely plagioclase (+/-pyroxene) phyric basalt
TEXTURE: Porphyritic aphanitic with holocrystalline groundmass.
PRIMARY MINERALOGY: Plag>Px
DESCRIPTION: Massive lava flow. Alteration colors range from pale gray-green to medium gray. The massive flow ranges from sparsely to highly vesicular, with vesicles concentrated in the middle of the flow. Vesicles are rounded to subrounded and, on average, range between 1-4mm in diameter. Most vesicles are filled with clay, zeolite, and/or radial pyrite.

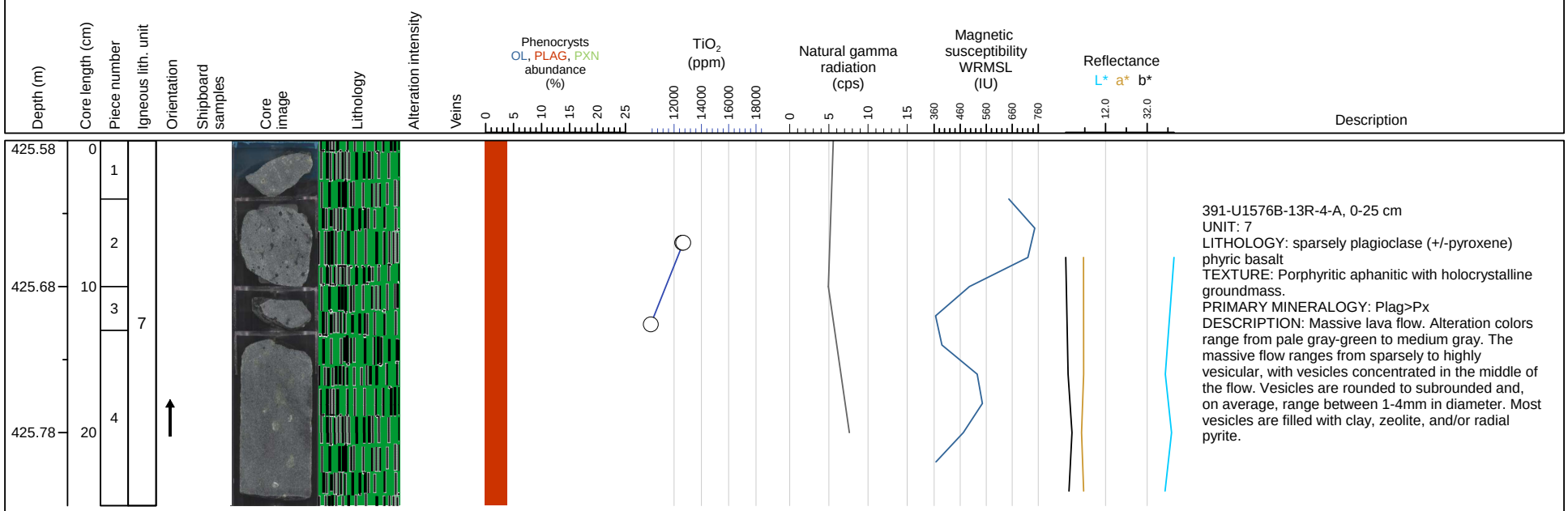
Hole 391-U1576B-13R Section 3, Top of Section: 424.09 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

PMAG
TSB
XRD

391-U1576B-13R-3-A, 0-149 cm
UNIT: 7
LITHOLOGY: sparsely plagioclase (+/-pyroxene) phyric basalt
TEXTURE: Porphyritic aphanitic with holocrystalline groundmass.
PRIMARY MINERALOGY: Plag>Px
DESCRIPTION: Massive lava flow. Alteration colors range from pale gray-green to medium gray. The massive flow ranges from sparsely to highly vesicular, with vesicles concentrated in the middle of the flow. Vesicles are rounded to subrounded and, on average, range between 1-4mm in diameter. Most vesicles are filled with clay, zeolite, and/or radial pyrite.

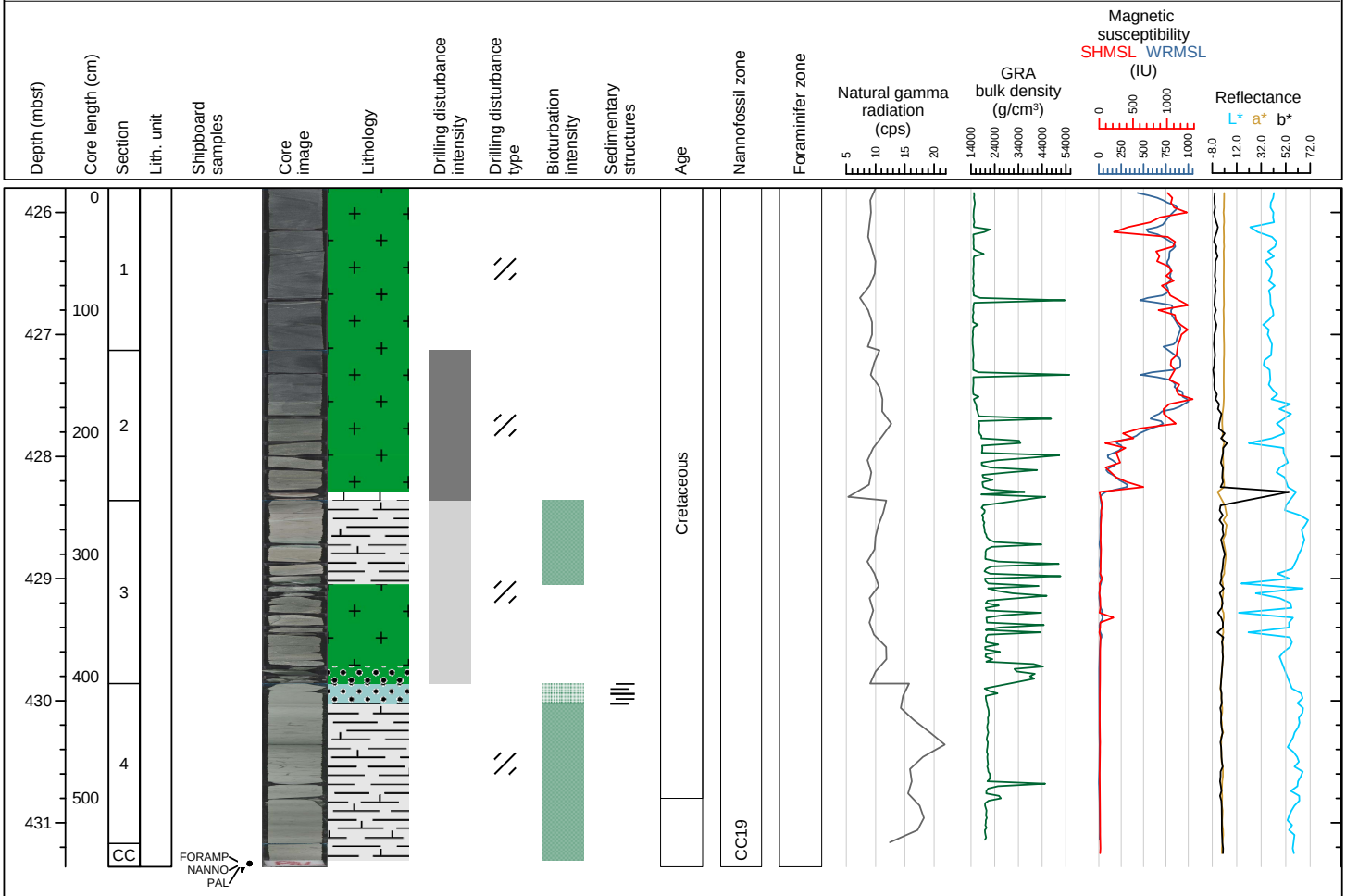
Hole 391-U1576B-13R Section 4, Top of Section: 425.58 m (CSF-A)



391-U1576B-13R-4-A, 0-25 cm
UNIT: 7
LITHOLOGY: sparsely plagioclase (+/-pyroxene) phyric basalt
TEXTURE: Porphyritic aphanitic with holocrystalline groundmass.
PRIMARY MINERALOGY: Plag>Px
DESCRIPTION: Massive lava flow. Alteration colors range from pale gray-green to medium gray. The massive flow ranges from sparsely to highly vesicular, with vesicles concentrated in the middle of the flow. Vesicles are rounded to subrounded and, on average, range between 1-4mm in diameter. Most vesicles are filled with clay, zeolite, and/or radial pyrite.

Hole 391-U1576B Core 14R, Interval 425.8-431.36 m (CSF-A)

Gray to light reddish-brown foraminifera-nannofossil chalk with clay interbedded with basalt. The sediment is commonly moderately bioturbated. The chalk locally grades to calcareous/volcanic sandstone. Moderate to slight drilling-induced fragmentation. Whitish to reddish coloration is likely due to thermal effect at the contact with the lavas.



Hole 391-U1576B-14R Section 1, Top of Section: 425.8 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

391-U1576B-14R-1-A, 0-133 cm
UNIT: 7
LITHOLOGY: sparsely plagioclase (+/-pyroxene) phyric basalt
TEXTURE: Porphyritic aphanitic with holocrystalline groundmass.
PRIMARY MINERALOGY: Plag>Px
DESCRIPTION: Massive lava flow. Alteration colors range from pale gray-green to medium gray. The massive flow ranges from sparsely to highly vesicular, with vesicles concentrated in the middle of the flow. Vesicles are rounded to subrounded and, on average, range between 1-4mm in diameter. Most vesicles are filled with clay, zeolite, and/or radial pyrite.

Hole 391-U1576B-14R Section 2, Top of Section: 427.13 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

427.20 | 0 | 10 | 1 | TS TSB | ICP MAD
427.30 | 20
427.40 | 30
427.50 | 2 | 40
427.60 | 50
427.70 | 7 | 60 | S5 | 3
427.80 | 70
427.90 | 4 | 80
428.00 | 90 | 5
428.10 | 100
428.20 | 6 | 110
428.30 | 7 | 120 | 8

391-U1576B-14R-2-A, 0-115.5 cm
UNIT: 7
LITHOLOGY: sparsely plagioclase (+/-pyroxene) phyric basalt
TEXTURE: Porphyritic aphanitic with holocrystalline groundmass.
PRIMARY MINERALOGY: Plag>Px
DESCRIPTION: Massive lava flow. Alteration colors range from pale gray-green to medium gray. The massive flow ranges from sparsely to highly vesicular, with vesicles concentrated in the middle of the flow. Vesicles are rounded to subrounded and, on average, range between 1-4mm in diameter. Most vesicles are filled with clay, zeolite, and/or radial pyrite.

391-U1576B-14R-2-A, 0-123 cm
UNIT: S5
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

Hole 391-U1576B-14R Section 3, Top of Section: 428.36 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

391-U1576B-14R-3-A, 0-70 cm
UNIT: S5
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

391-U1576B-14R-3-A, 70-135.5 cm
UNIT: 8
LITHOLOGY: sparsely plagioclase phyric basalt
TEXTURE: Porphyritic aphanitic with glassy rim.
PRIMARY MINERALOGY: Plagioclase: 2-4%
DESCRIPTION: Pillow lava flow. Glass is completely replaced. The basalt is sparsely vesicular with round, ~1mm diameter, partially to completely filled vesicles.

391-U1576B-14R-3-A, 135.5-150 cm
UNIT: S6
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

Hole 391-U1576B-14R Section 4, Top of Section: 429.86 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

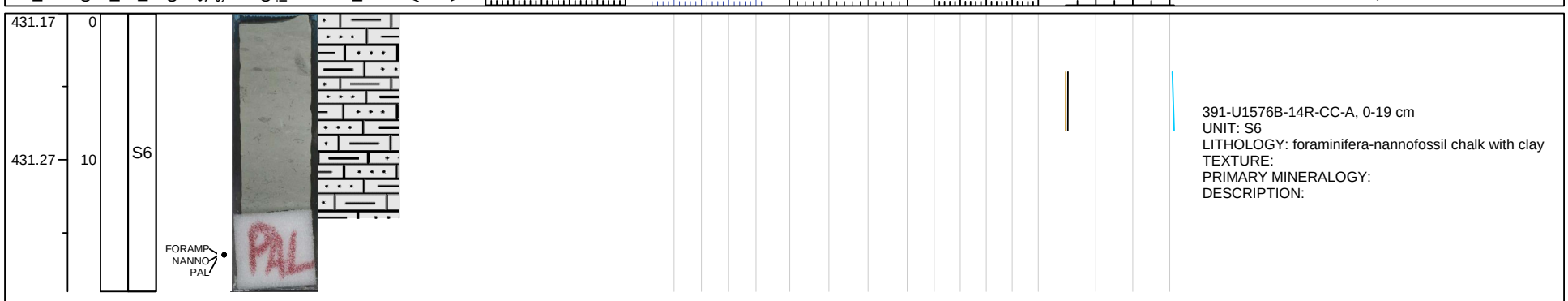
429.90 | 0
430.00 | 10
430.10 | 20
430.20 | 30
430.30 | 40
430.40 | 50
430.50 | 60
430.60 | 70
430.70 | 80
430.80 | 90
430.90 | 100
431.00 | 110
431.10 | 120
130

S6

MAD

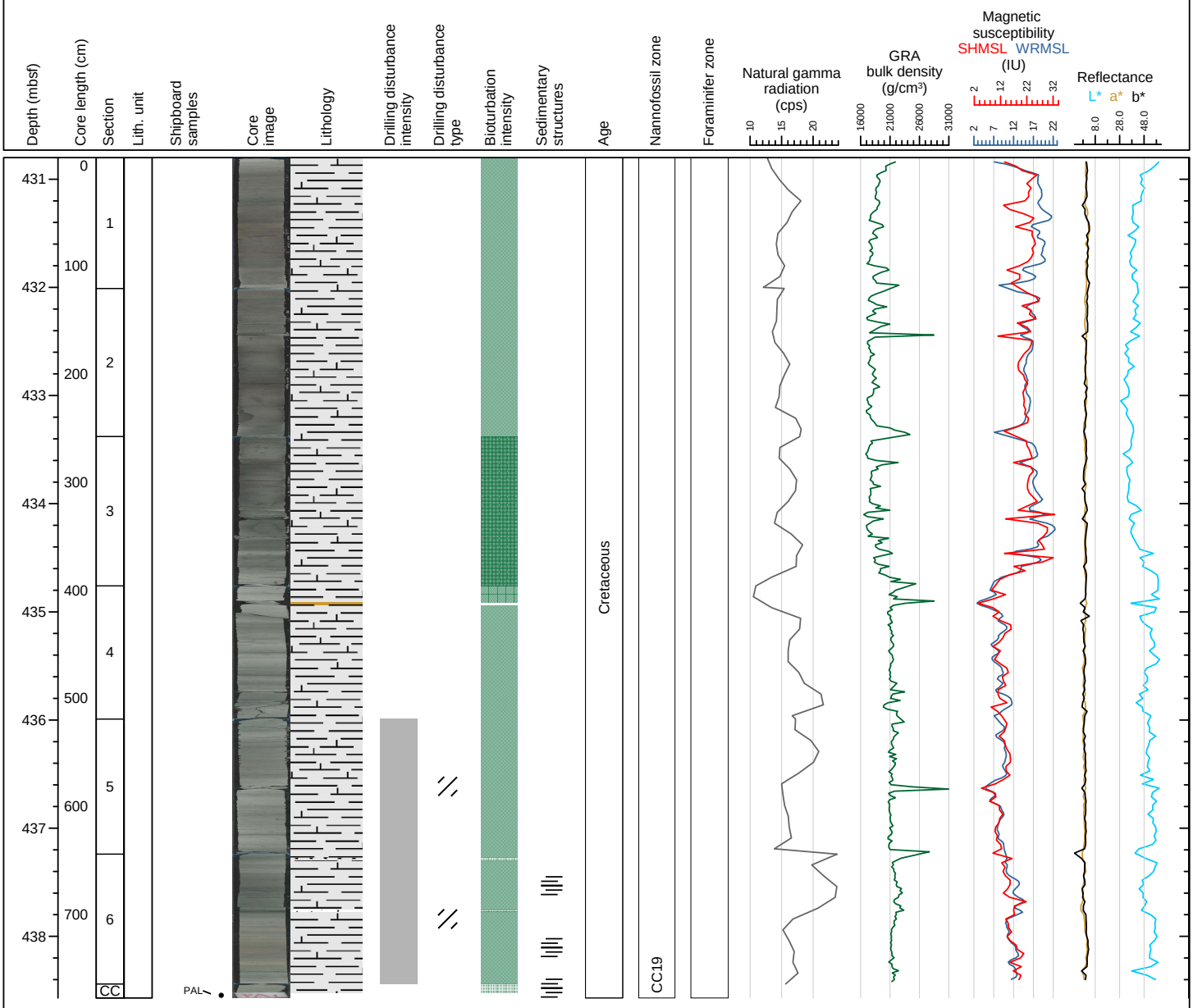
391-U1576B-14R-4-A, 0-131 cm
UNIT: S6
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

Hole 391-U1576B-14R Section CC, Top of Section: 431.17 m (CSF-A)



Hole 391-U1576B Core 15R, Interval 430.8-438.57 m (CSF-A)

Dark greenish gray to light gray foraminifera-nannofossil chalk with clay, with one ~3cm thick layer of gray siliceous chalk (Section 4), and rare gray laminated calcareous sandstone to siltstone (Section 6). The sediment is commonly slightly to heavily bioturbated or locally exhibits thin layering. The chalk locally grades to calcareous/volcanic sandstone. Moderate to slight drilling-induced fragmentation.



Hole 391-U1576B-15R Section 1, Top of Section: 430.8 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

430.80 (0) | 430.90 (10) | 431.00 (20) | 431.10 (30) | 431.20 (40) | 431.30 (50) | 431.40 (60) | 431.50 (70) | 431.60 (80) | 431.70 (90) | 431.80 (100) | 431.90 (110) | 432.00 (120)

S6

XRD
MAD

391-U1576B-15R-1-A, 0-121 cm
UNIT: S6
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

Hole 391-U1576B-15R Section 2, Top of Section: 432.01 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

S6

MAD

391-U1576B-15R-2-A, 0-137 cm
UNIT: S6
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

Hole 391-U1576B-15R Section 3, Top of Section: 433.38 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

433.40 | 0
433.50 | 10
433.60 | 20
433.70 | 30
433.80 | 40
433.90 | 50
434.00 | 60
434.10 | 70
434.20 | 80
434.30 | 90
434.40 | 100
434.50 | 110
434.60 | 120
434.70 | 130

PMAG
TS
TSB
S6

391-U1576B-15R-3-A, 0-138 cm
UNIT: S6
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

Hole 391-U1576B-15R Section 4, Top of Section: 434.76 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

MAD

S6

391-U1576B-15R-4-A, 0-123 cm
UNIT: S6
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

Hole 391-U1576B-15R Section 5, Top of Section: 435.99 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

436.00 | 0
436.10 | 10
436.20 | 20
436.30 | 30
436.40 | 40
436.50 | 50
436.60 | 60
436.70 | 70
436.80 | 80
436.90 | 90
437.00 | 100
437.10 | 110
437.20 | 120

MAD

S6

391-U1576B-15R-5-A, 0-125 cm
UNIT: S6
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

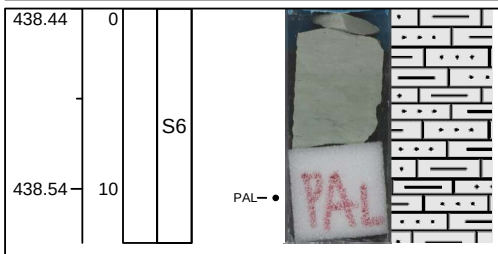
Hole 391-U1576B-15R Section 6, Top of Section: 437.24 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

437.30 | 0 | 10 | 437.40 | 20 | 437.50 | 30 | 437.60 | 40 | 437.70 | 50 | 437.80 | 60 | S6 | 437.90 | 70 | 438.00 | 80 | MAD | 438.10 | 90 | 438.20 | 100 | 438.30 | 110 | 438.40 | 120

391-U1576B-15R-6-A, 0-120 cm
UNIT: S6
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

Hole 391-U1576B-15R Section CC, Top of Section: 438.44 m (CSF-A)

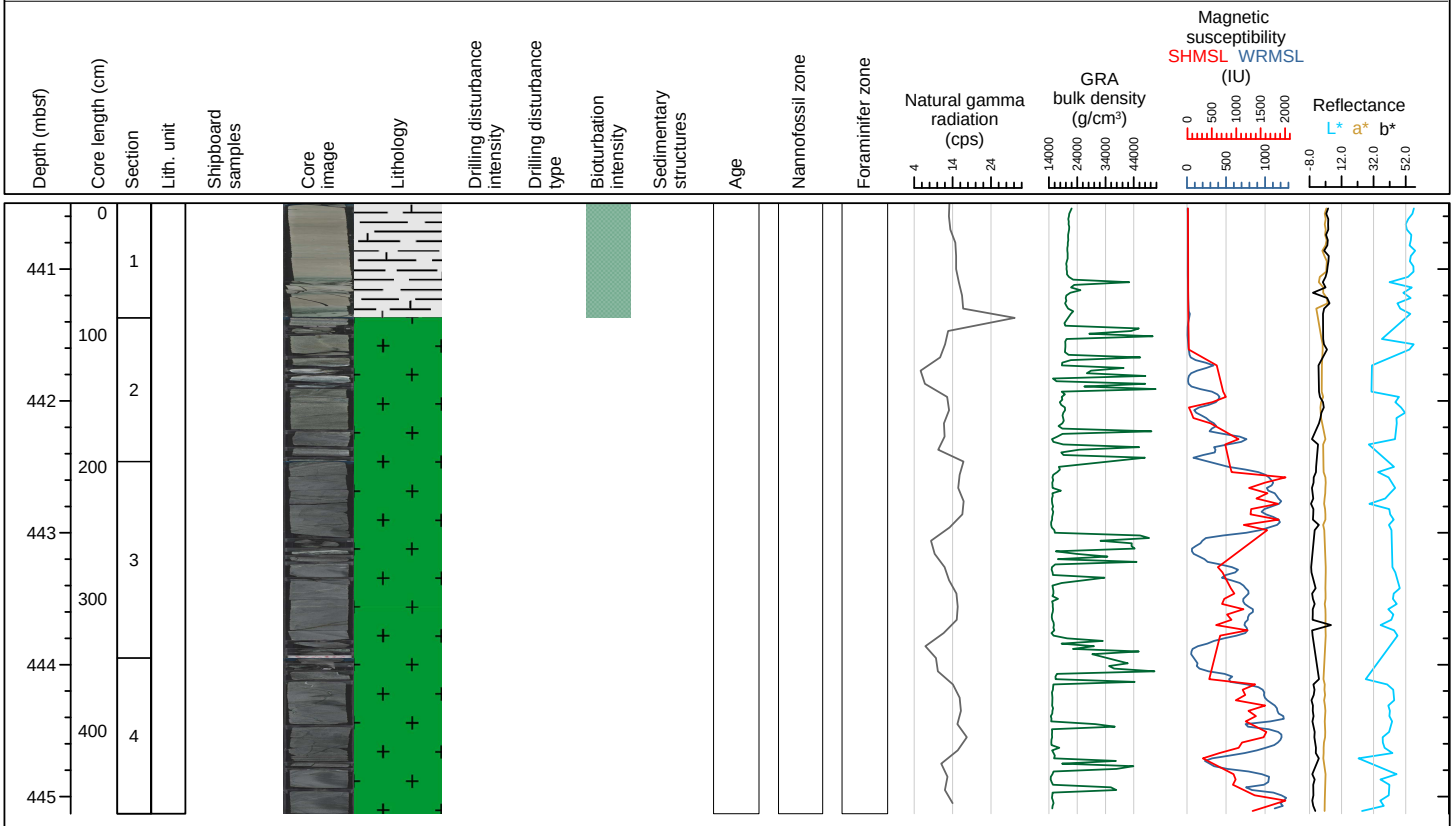


Description

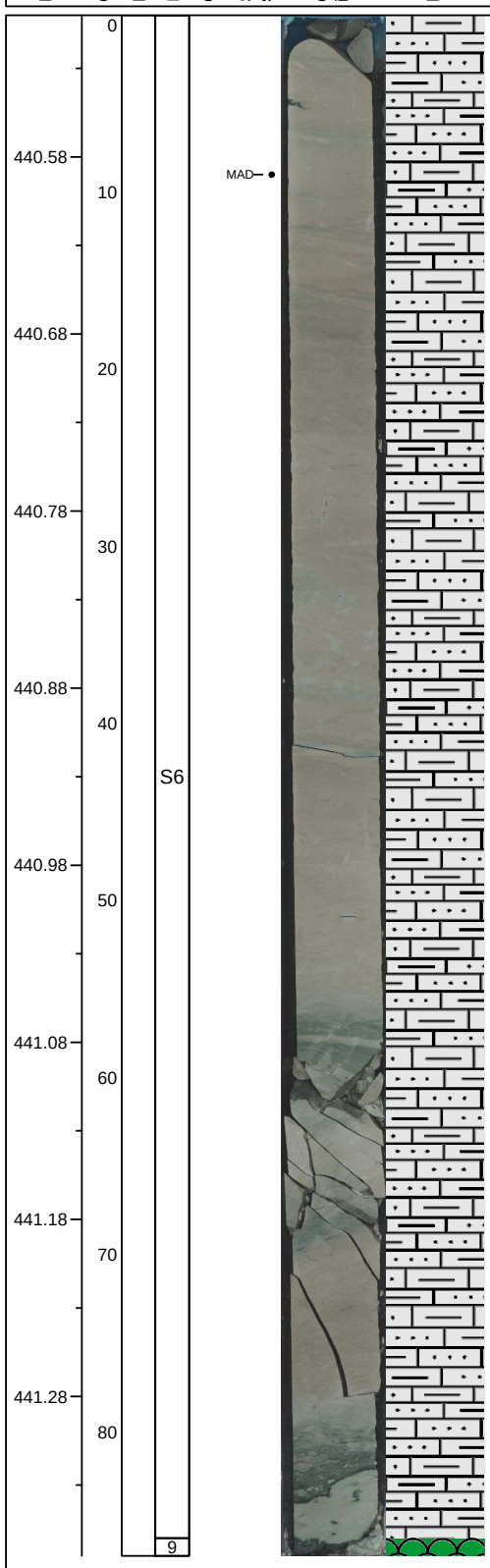
391-U1576B-15R-CC-A, 0-13 cm
UNIT: S6
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

Hole 391-U1576B Core 16R, Interval 440.5-445.13 m (CSF-A)

Dark greenish gray to light gray bioturbated foraminifera-nannofossil chalk with clay at the top of a lava stack. Thin layering is locally preserved. Moderate to slight drilling-induced fragmentation.



Hole 391-U1576B-16R Section 1, Top of Section: 440.5 m (CSF-A)



391-U1576B-16R-1-A, 0-86 cm
UNIT: S6
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

391-U1576B-16R-1-A, 86-87 cm
UNIT: 9
LITHOLOGY: aphyric basalt
TEXTURE: Holohyaline with plagioclase microphenocrysts.
PRIMARY MINERALOGY:
DESCRIPTION: Pillow lava flow. Glassy margins mark the top and bottom of the pillow. Glass partly altered to palagonite. Medium-grained, microcrystalline groundmass. Sparsely vesicular with subround vesicles filled with botryoidal secondary mineral.

Hole 391-U1576B-16R Section 2, Top of Section: 441.37 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

441.45 | 0 | 1 | 9
441.55 | 20 | 3
441.65 | 30 | 4
441.75 | 40 | 5 | S7
441.85 | 50 | 6
441.95 | 60 | 7 | 10
442.05 | 70 | 8
442.15 | 80 | 9
442.25 | 90 | 10
442.35 | 100 | 11
442.45

MAD

391-U1576B-16R-2-A, 0-38 cm
UNIT: 9
LITHOLOGY: aphyric basalt
TEXTURE: Holohyaline with plagioclase microphenocrysts.
PRIMARY MINERALOGY:
DESCRIPTION: Pillow lava flow. Glassy margins mark the top and bottom of the pillow. Glass partly altered to palagonite. Medium-grained, microcrystalline groundmass. Sparsely vesicular with subround vesicles filled with botryoidal secondary mineral.

391-U1576B-16R-2-A, 38-53 cm
UNIT: S7
LITHOLOGY: foraminifera-nannofossil chalk with clay
TEXTURE:
PRIMARY MINERALOGY:
DESCRIPTION:

391-U1576B-16R-2-A, 53-109 cm
UNIT: 10
LITHOLOGY: sparsely plagioclase phyric basalt
TEXTURE: Porphyritic aphanitic to aphyric.
PRIMARY MINERALOGY: Plagioclase: 1-2%
DESCRIPTION: Pillow lava flow. Alteration colors range from pale gray (highly altered) to dark gray (slightly altered). Glassy rims are found throughout the sequence. Cryptocrystalline to fine-grained and equigranular. Pillow interstices are filled with dark green, thoroughly altered hyaloclastite (likely glass spalled from pillows

Hole 391-U1576B-16R Section 3, Top of Section: 442.46 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

391-U1576B-16R-3-A, 0-149 cm
UNIT: 10
LITHOLOGY: sparsely plagioclase phyric basalt
TEXTURE: Porphyritic aphanitic to aphyric.
PRIMARY MINERALOGY: Plagioclase: 1-2%
DESCRIPTION: Pillow lava flow. Alteration colors range from pale gray (highly altered) to dark gray (slightly altered). Glassy rims are found throughout the sequence. Cryptocrystalline to fine-grained and equigranular. Pillow interstices are filled with dark green, thoroughly altered hyaloclastite (likely glass spalled from pillows

Hole 391-U1576B-16R Section 4, Top of Section: 443.95 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

391-U1576B-16R-4-A, 0-118 cm
UNIT: 10
LITHOLOGY: sparsely plagioclase phyric basalt
TEXTURE: Porphyritic aphanitic to aphyric.
PRIMARY MINERALOGY: Plagioclase: 1-2%
DESCRIPTION: Pillow lava flow. Alteration colors range from pale gray (highly altered) to dark gray (slightly altered). Glassy rims are found throughout the sequence. Cryptocrystalline to fine-grained and equigranular. Pillow interstices are filled with dark green, thoroughly altered hyaloclastite (likely glass spalled from pillows

Hole 391-U1576B-17R Section 1, Top of Section: 444.8 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

444.80 | 0 | 1
444.90 | 10
445.00 | 20
445.10 | 30 | 2
445.20 | 40
445.30 | 50
445.40 | 60 | 3 | 10
445.50 | 70 | 4
445.60 | 80 | 5
445.70 | 90
445.80 | 100 | 6
445.90 | 110

PMAG

391-U1576B-17R-1-A, 0-118 cm
UNIT: 10
LITHOLOGY: sparsely plagioclase pyroxene phyric basalt
TEXTURE: Porphyritic aphanitic to aphyric.
PRIMARY MINERALOGY: Plagioclase: 1-2%
DESCRIPTION: Pillow lava flow. Alteration colors range from pale gray (highly altered) to dark gray (slightly altered). Glassy rims are found throughout the sequence. Cryptocrystalline to fine-grained and equigranular. Pillow interstices are filled with dark green, thoroughly altered hyaloclastite (likely glass spalled from pillows

Hole 391-U1576B-17R Section 2, Top of Section: 445.98 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

391-U1576B-17R-2-A, 0-139 cm
UNIT: 10
LITHOLOGY: sparsely plagioclase pyroxene phyric basalt
TEXTURE: Porphyritic aphanitic to aphyric.
PRIMARY MINERALOGY: Plagioclase: 1-2%
DESCRIPTION: Pillow lava flow. Alteration colors range from pale gray (highly altered) to dark gray (slightly altered). Glassy rims are found throughout the sequence. Cryptocrystalline to fine-grained and equigranular. Pillow interstices are filled with dark green, thoroughly altered hyaloclastite (likely glass spalled from pillows

Hole 391-U1576B-17R Section 3, Top of Section: 447.37 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

391-U1576B-17R-3-A, 0-87 cm
UNIT: 10
LITHOLOGY: sparsely plagioclase pyroxene phyric basalt
TEXTURE: Porphyritic aphanitic to aphyric.
PRIMARY MINERALOGY: Plagioclase: 1-2%
DESCRIPTION: Pillow lava flow. Alteration colors range from pale gray (highly altered) to dark gray (slightly altered). Glassy rims are found throughout the sequence. Cryptocrystalline to fine-grained and equigranular. Pillow interstices are filled with dark green, thoroughly altered hyaloclastite (likely glass spalled from pillows

391-U1576B-17R-3-A, 87-116 cm
UNIT: 11
LITHOLOGY: sparsely plagioclase pyroxene phyric basalt
TEXTURE: Hypocrystalline porphyritic.
PRIMARY MINERALOGY: Plagioclase: 1-2%
DESCRIPTION: Sheet flow. Sparse glomerocrysts of plagioclase. A glassy upper margin marks the beginning of the flow. Fine-grained. Equigranular. The upper contact with Unit 10 pillow lava is marked by a glass selvage on the flow top. The bottom of the unit was not recovered because drilling stopped. The flow is nonvesicular overall except near the top where it is sparsely vesicular, with vesicles ~1 mm or less.

Hole 391-U1576B-17R Section 4, Top of Section: 448.53 m (CSF-A)

Depth (m) | Core length (cm) | Piece number | Igneous lith. unit | Orientation | Shipboard samples | Core image | Lithology | Alteration intensity | Veins | Phenocrysts OL, PLAG, PXN abundance (%) | TiO_2 (ppm) | Natural gamma radiation (cps) | Magnetic susceptibility WRMSL (IU) | Reflectance L* a* b* | Description

391-U1576B-17R-4-A, 0-117 cm
UNIT: 11
LITHOLOGY: sparsely plagioclase pyroxene phyric basalt
TEXTURE: Hypocrystalline porphyritic.
PRIMARY MINERALOGY: Plagioclase: 1-2%
DESCRIPTION: Sheet flow. Sparse glomerocrysts of plagioclase. A glassy upper margin marks the beginning of the flow. Fine-grained. Equigranular. The upper contact with Unit 10 pillow lava is marked by a glass selvage on the flow top. The bottom of the unit was not recovered because drilling stopped. The flow is nonvesicular overall except near the top where it is sparsely vesicular, with vesicles ~1 mm or less.

Hole 391-U1576B-17R Section 5, Top of Section: 449.7 m (CSF-A)