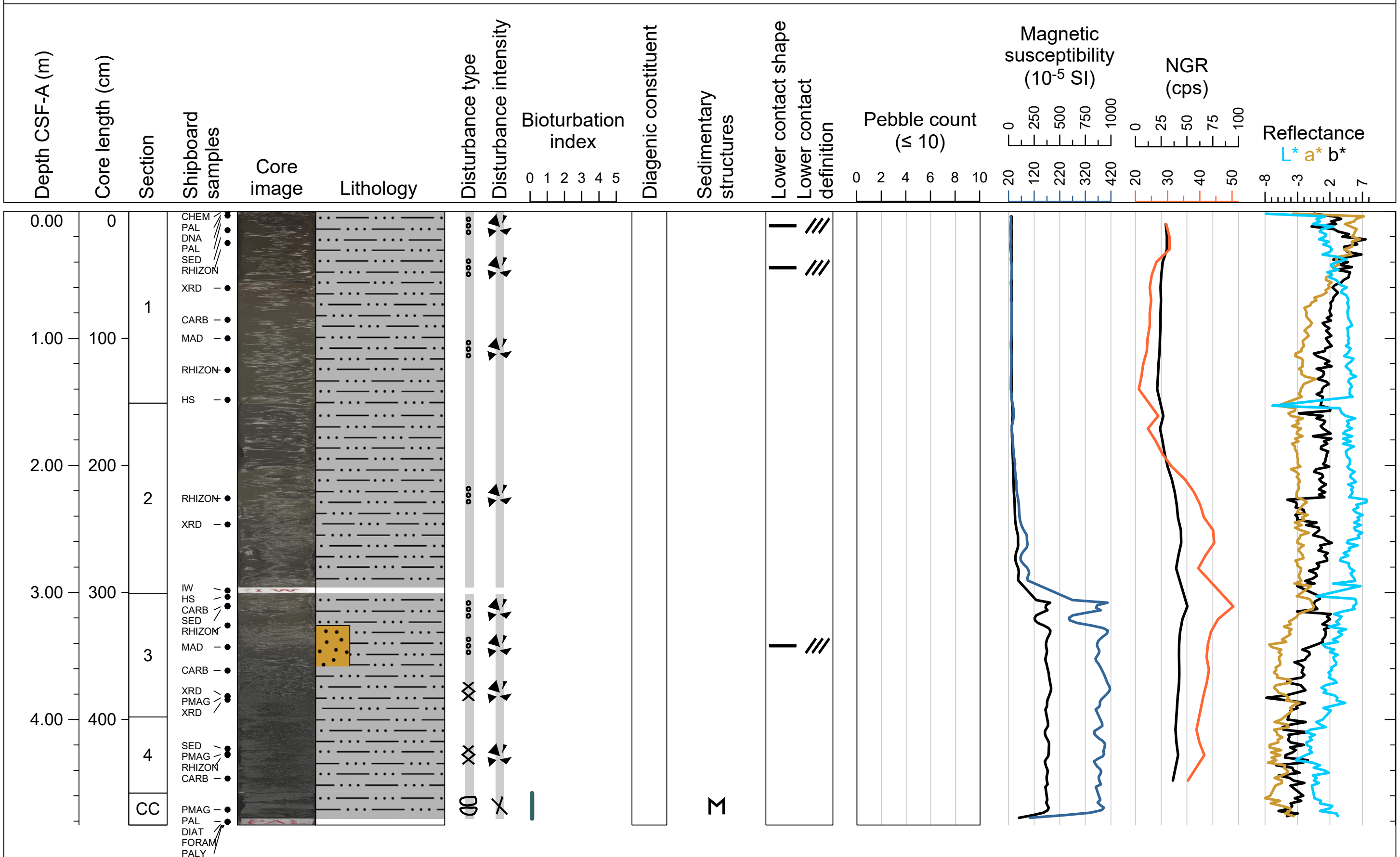
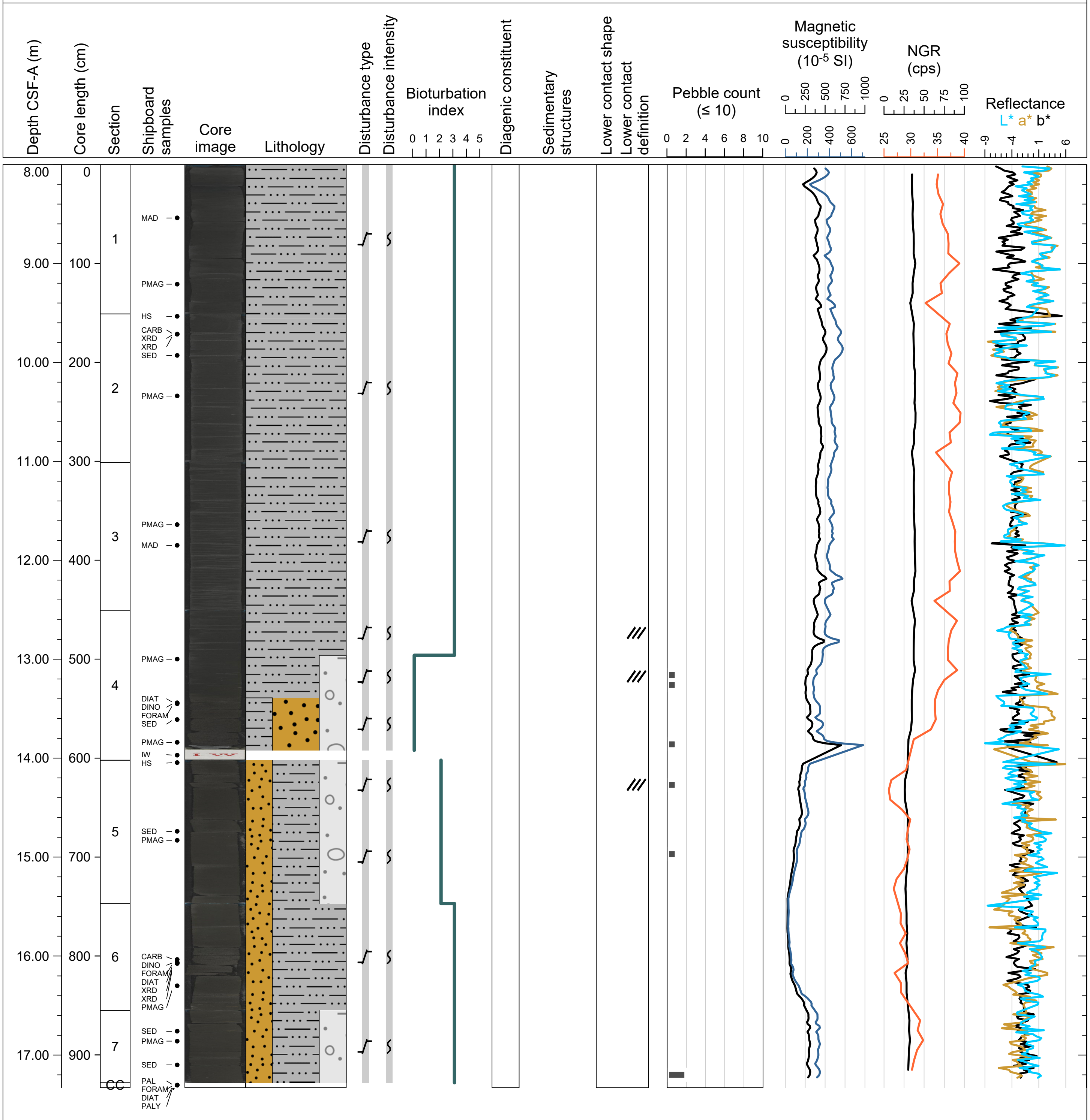
Hole 400-U1607A Core 1R, Interval 0.0-4.83 m (CSF-A)

Dark to medium brown and medium to dark grey mud. Gradational color contacts. Sections 1, 2, and the upper half of section 3 are soupy and highly disturbed. The dark grey mud, which has a gradual upper contact with soupy sandy mud in Section 3, is noticeably more lithified than overlying sediment. No bioturbation observed.



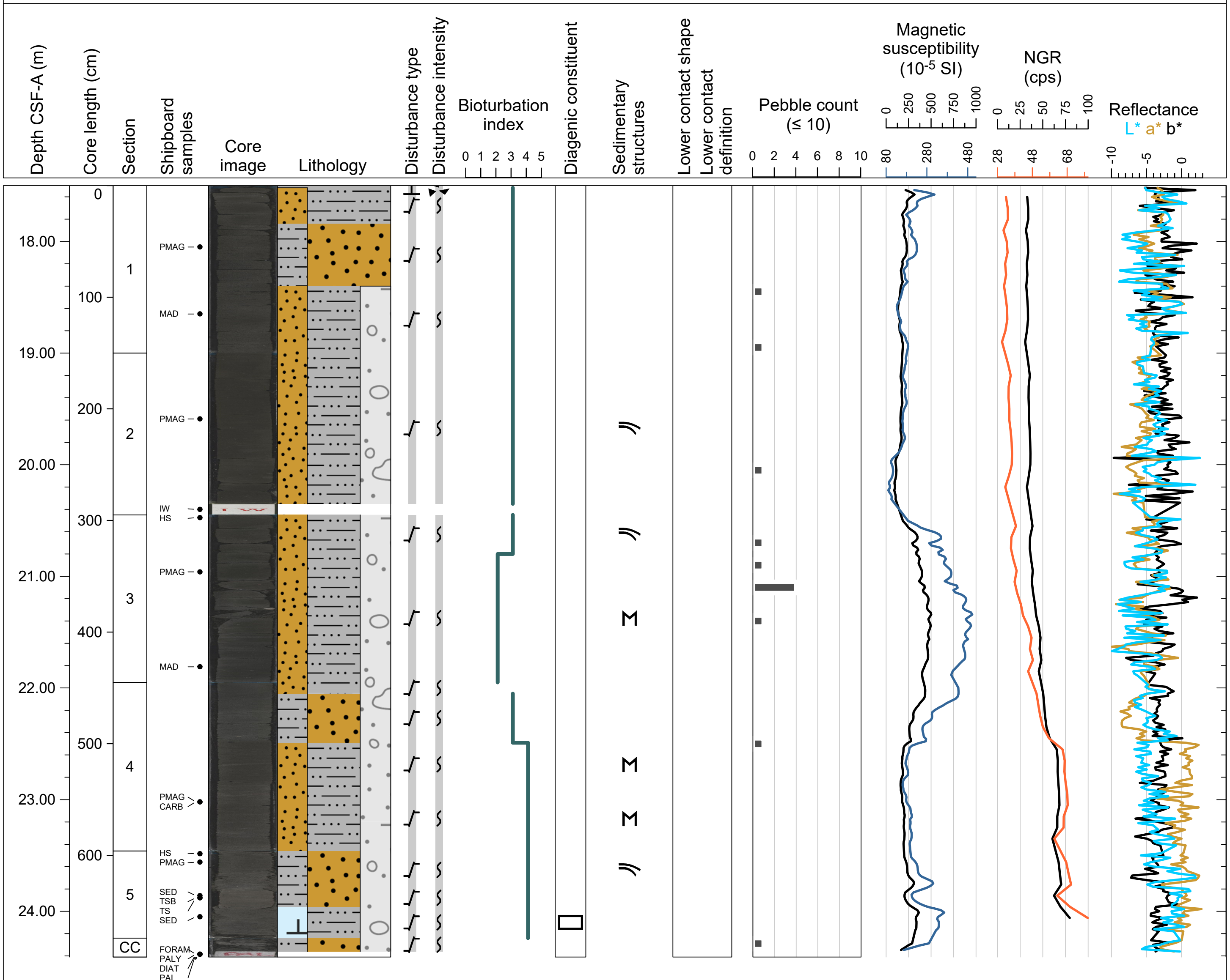
Hole 400-U1607A Core 2R, Interval 8.0-17.33 m (CSF-A)

Dark grey mud with rare sand grains (Sections 1-3) transitions downcore to greyish-dark brown sandy mud to muddy sand with dispersed clasts (Sections 4-7). Bioturbation is visible as 1-3 mm black ovals and 0.5-1.0 cm elongate rimmed ovals.



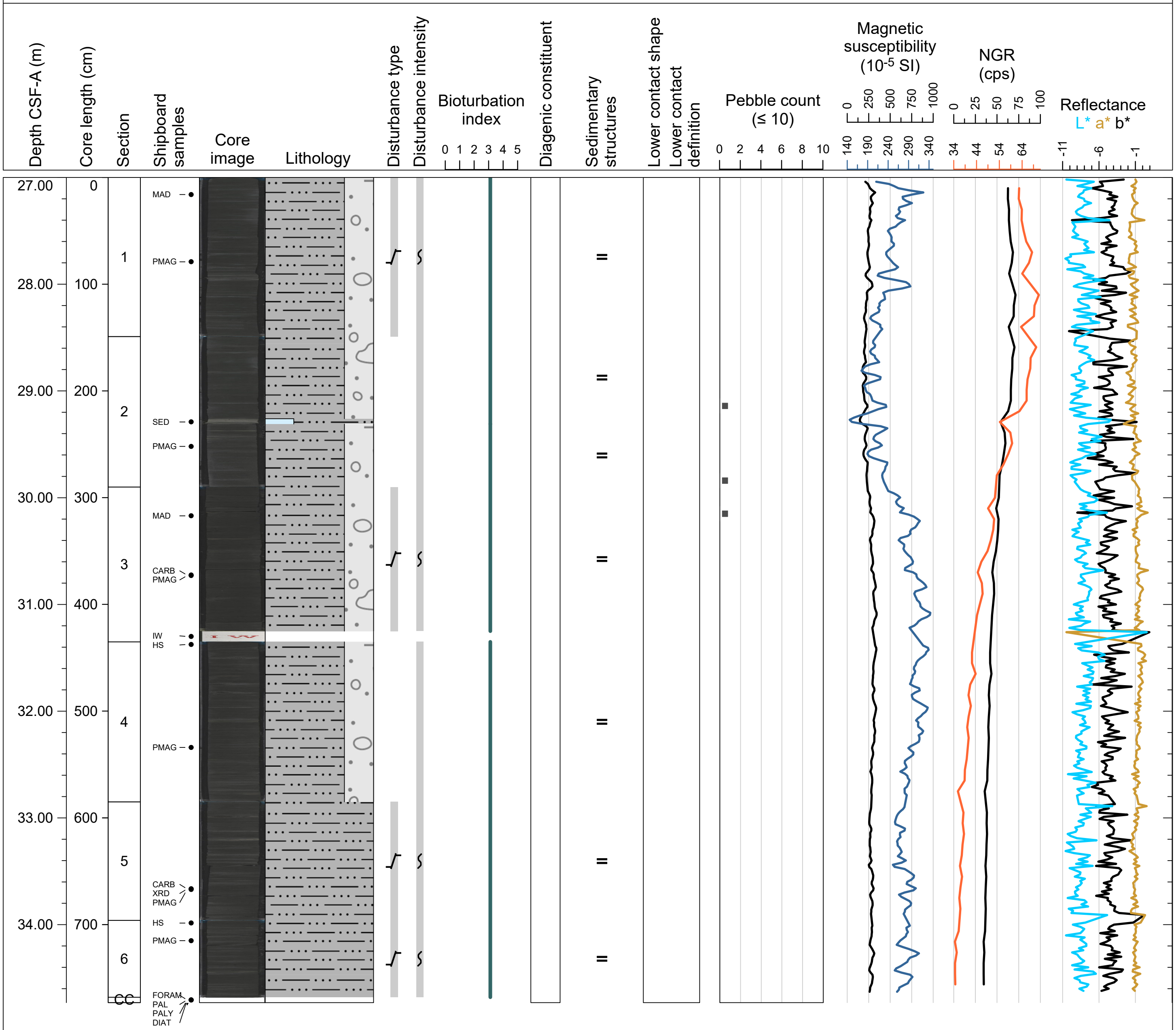
Hole 400-U1607A Core 3R, Interval 17.5-24.41 m (CSF-A)

Dark greenish grey sandy mud to muddy sand with dispersed clasts. Shell fragments and bioturbation are common. A color contact is found in Section 4 and a calcareous interval in Section 5. Clasts consist of quartzite, red ferruginous sandstone, purple mudstone, granite, gneiss, diorite and biotite. Bioturbation in Sections 1 and 2 is common and becomes uncommon in Section 3 before increasing downcore to common through Sections 4 and 5.



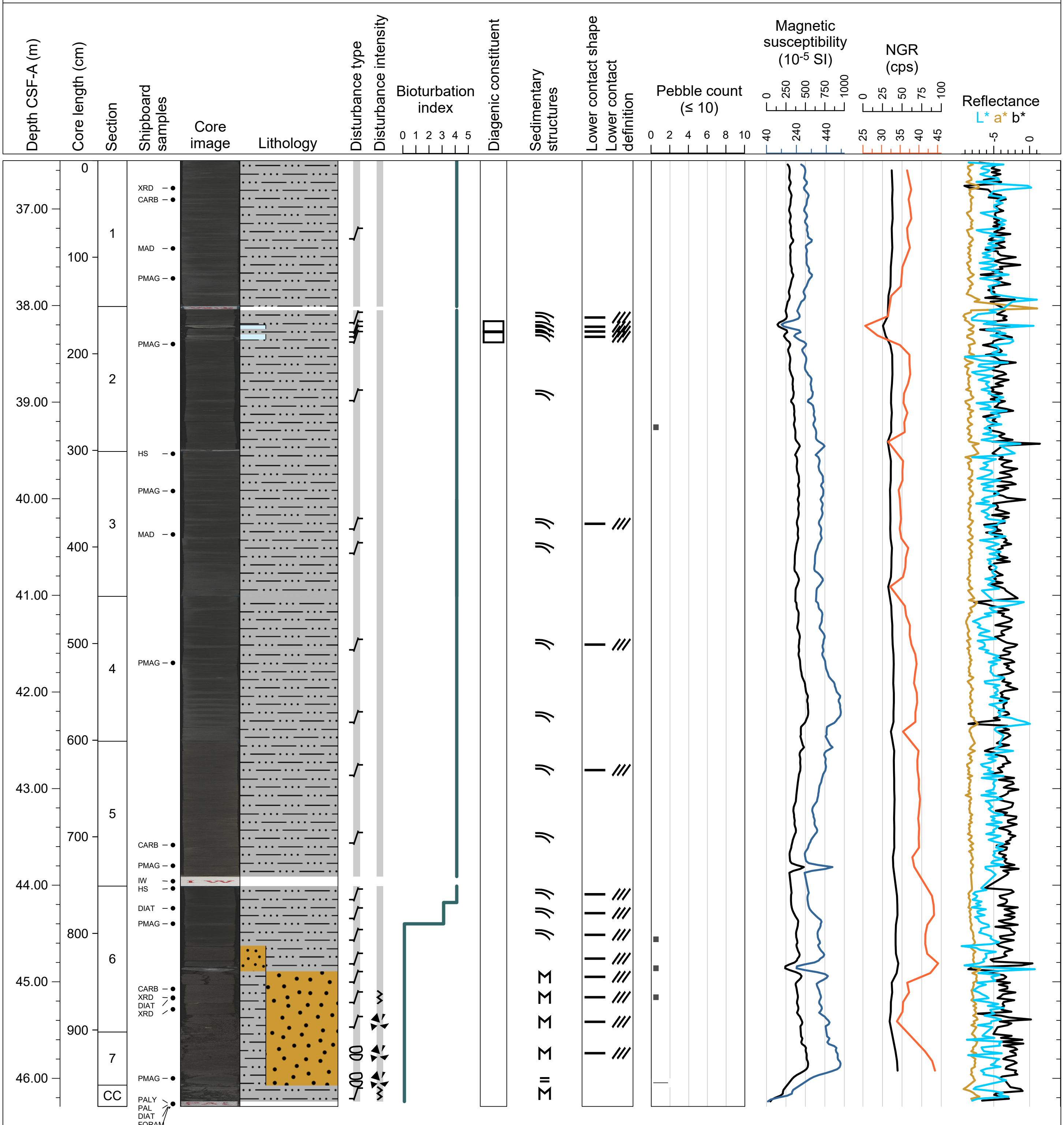
Hole 400-U1607A Core 4R, Interval 27.0-34.73 m (CSF-A)

Dark grey mud with dispersed clasts. Contains white to light grey (0.3 to 1 cm), thick calcareous laminae, and a 5 cm thick bed of calcareous light grey mud is present in Section 2. Bioturbation is moderate with vertical and horizontal burrows. Shells fragments are common. The drilling disturbance is slight to moderate.



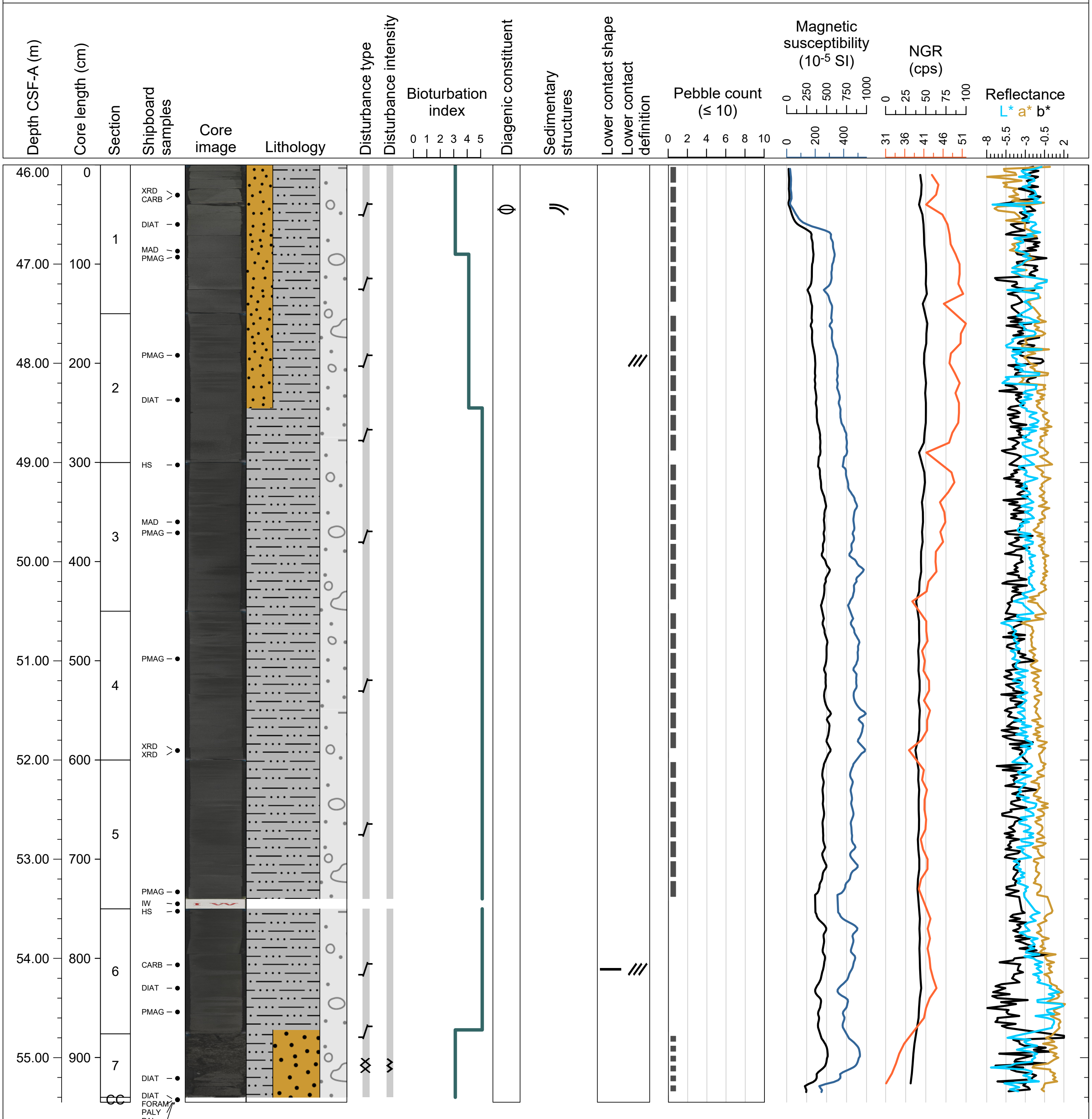
Hole 400-U1607A Core 5R, Interval 36.5-46.29 m (CSF-A)

Dark grey bioturbated and faintly stratified silty mud is pervasive through Sections 1-5 and the upper 20 cm of Section 6. Sections 1 and 2 also contain light brown, 1 cm thick calcareous mud laminae, which have been disrupted by bioturbation. The trace fossils in this core are dominantly small and of low diversity and filled with black mud; these overprint larger burrows that are lighter in color, possibly due to higher carbonate concentration. In Section 6, bioturbated silty mud grades downward into non-bioturbated dark greyish brown sandy mud and, lower in the section, poorly sorted muddy sand. The muddy sand continues into Section 7. The core catcher contains massive dark grey mud. Fossils, including bivalves and small ovoids (ostracods?) are scattered throughout the core. Scallop shell in Section 6 at 54 cm.



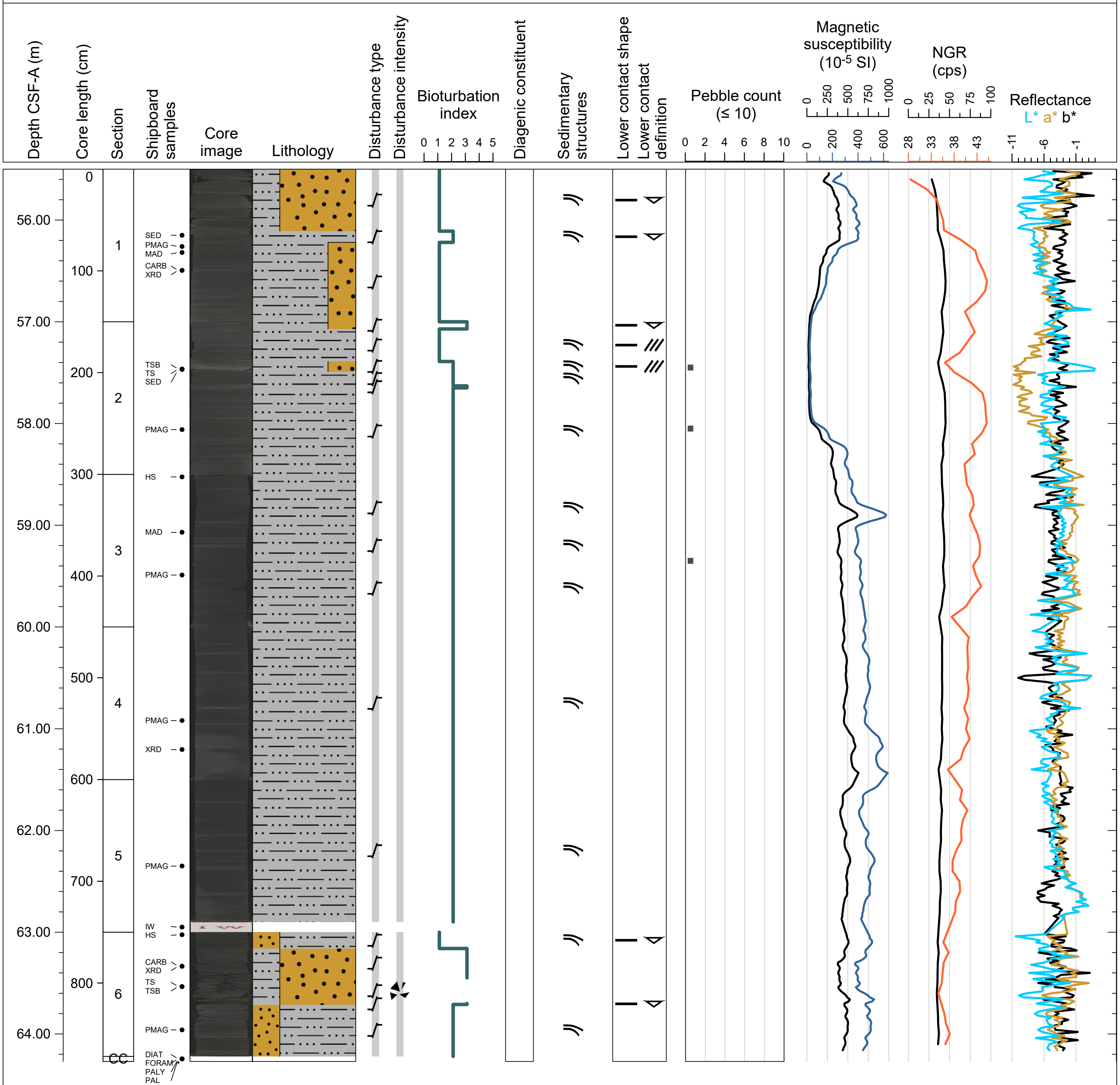
Hole 400-U1607A Core 6R, Interval 46.0-55.45 m (CSF-A)

Medium greenish grey sandy mud with dispersed clasts fining down core (over ~1 m) to dark greenish grey bioturbated mud with dispersed clasts. Toward the bottom of the core (Section 6, 123 cm offset), this mud transitions downward into dark brown muddy sand with dispersed clasts. Bioturbation intensity varies with grain size. Clasts are up to 5 mm and are generally large quartz crystals, which are more common (but still dispersed) in the muddy sand.



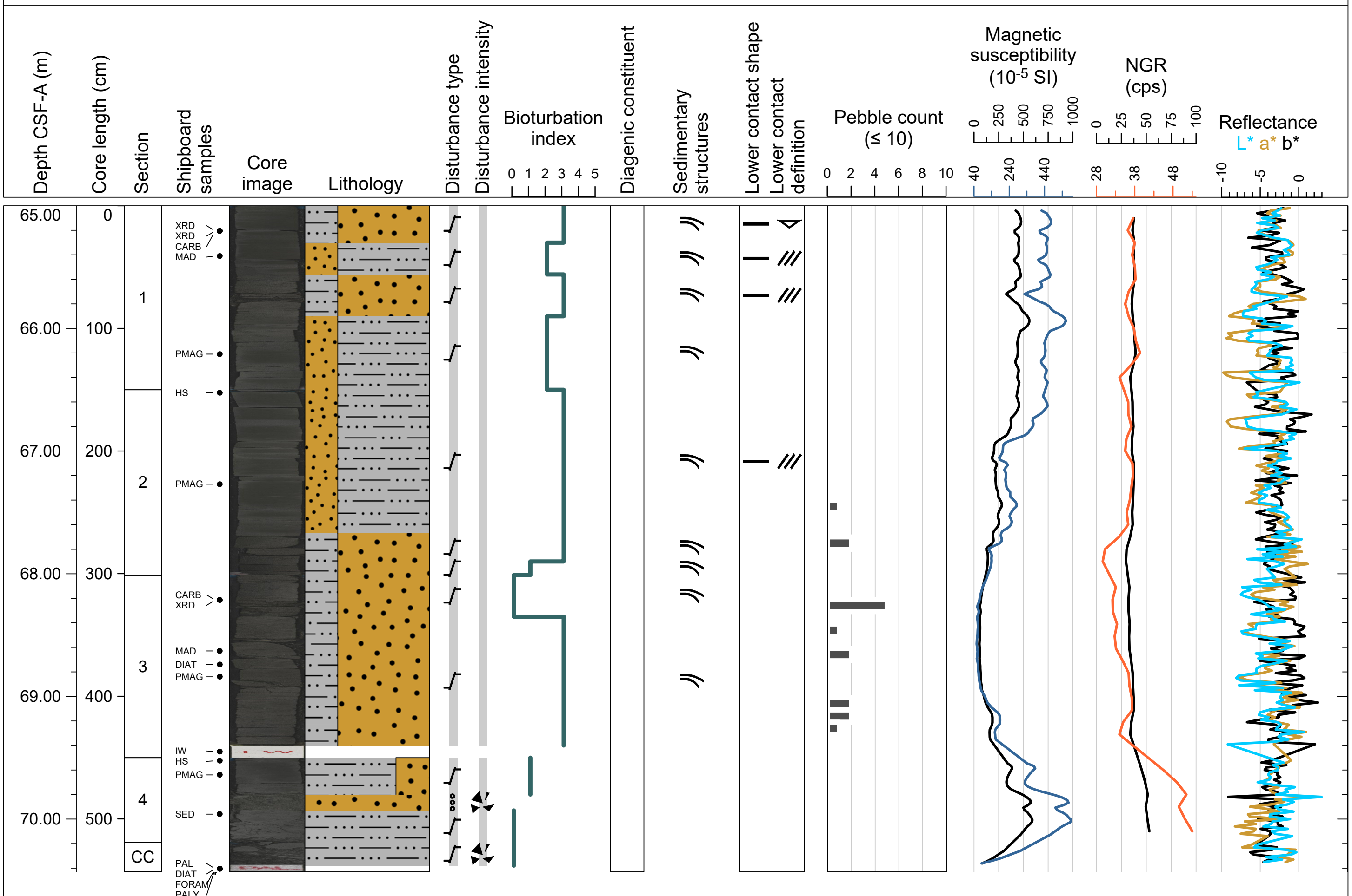
Hole 400-U1607A Core 7R, Interval 55.5-64.27 m (CSF-A)

Dark greyish brown muddy fine sand, sandy mud, and mud. Stratified throughout. Bioturbation is faint, varying from absent to common through the core. Some mm-scale pyritized features in Sections 2-4, which may be tiny fossils or burrows. Section 6 contains a coarsening upward sequence, from muddy sand (base at 70 cm) upwards into sandy mud.



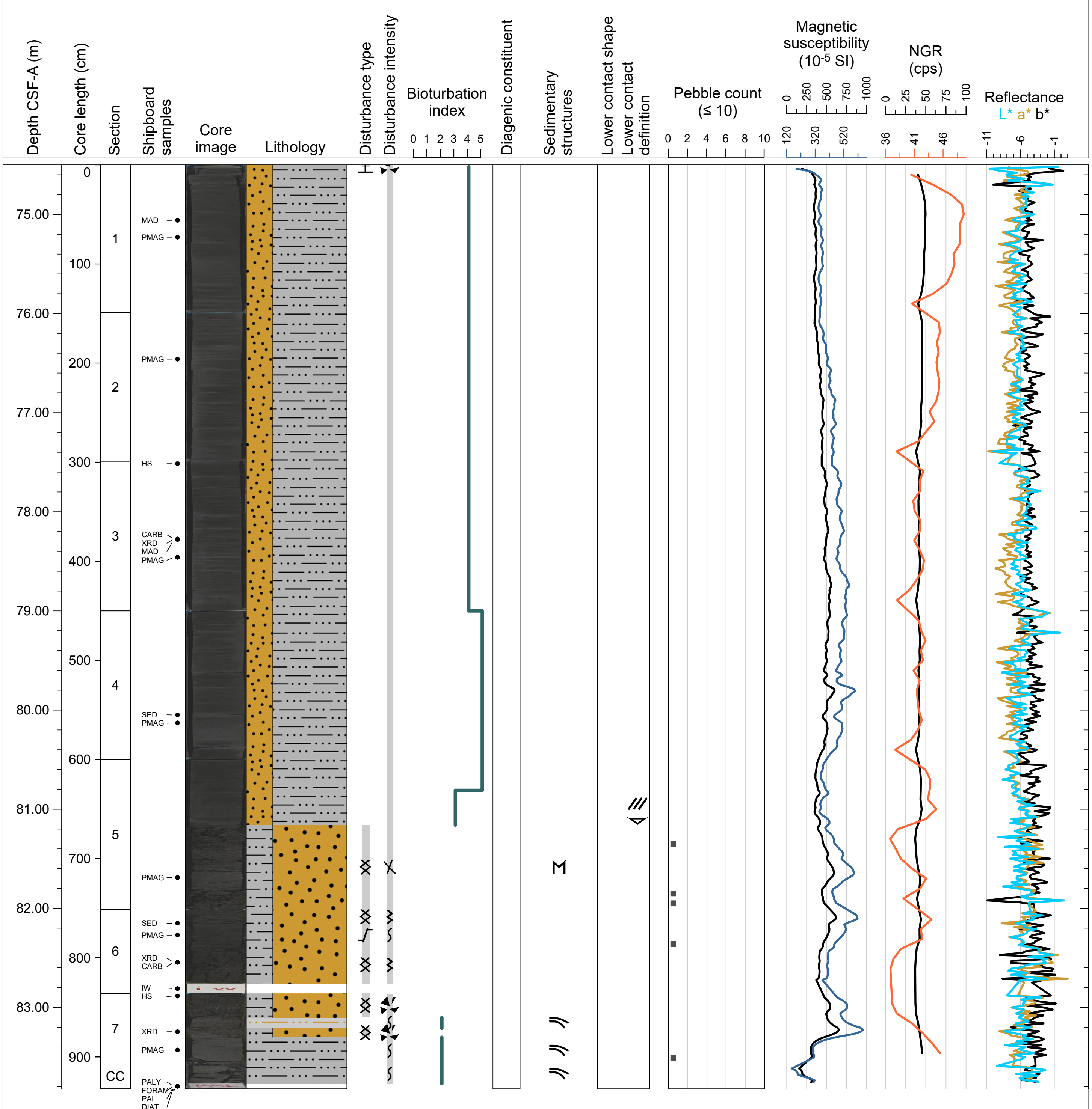
Hole 400-U1607A Core 8R, Interval 65.0-70.43 m (CSF-A)

Dark greenish grey stratified and variably bioturbated muddy sand and sandy mud. Fossil debris scattered througout. Some pyritization of shell debris and burrows throughout. Sediments become dark grey and bioturbation disappears in Sections 4 and Core Catcher.



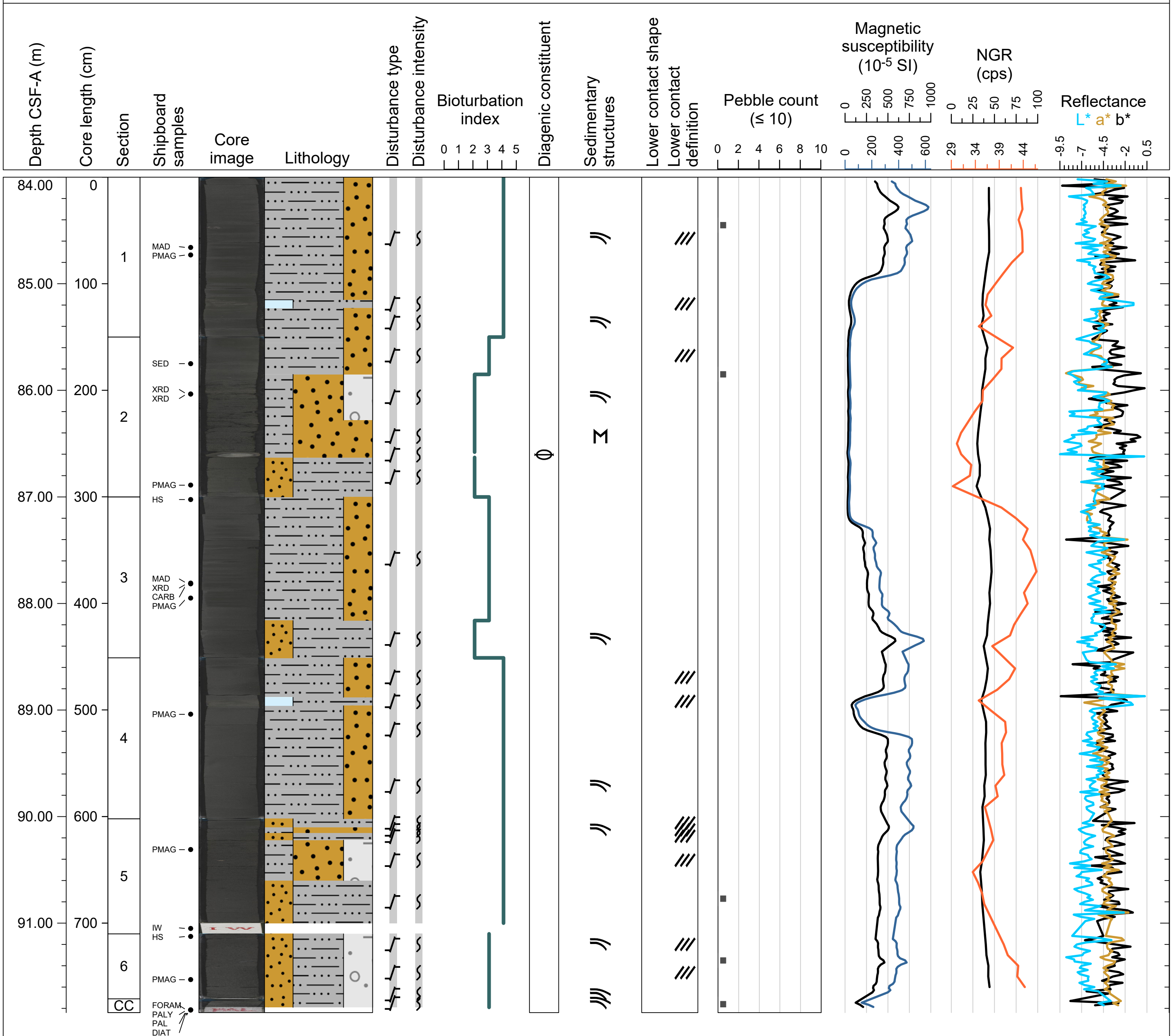
Hole 400-U1607A Core 9R, Interval 74.5-83.82 m (CSF-A)

Dark grey, strongly bioturbated sandy mud in Sections 1 through the upper part Section 5, and dark brown, structureless to faintly stratified muddy sand (mud component is mostly silt) and mud toward the bottom. Fossil debris scattered throughout. Pyritization of skeletal debris and burrows throughout. The sediments in Section 1 through the top of Section 7 (above the mud) show fluctuations in maximum grain size as well as a slight downward increase in bioturbation intensity and types of trace fossils.



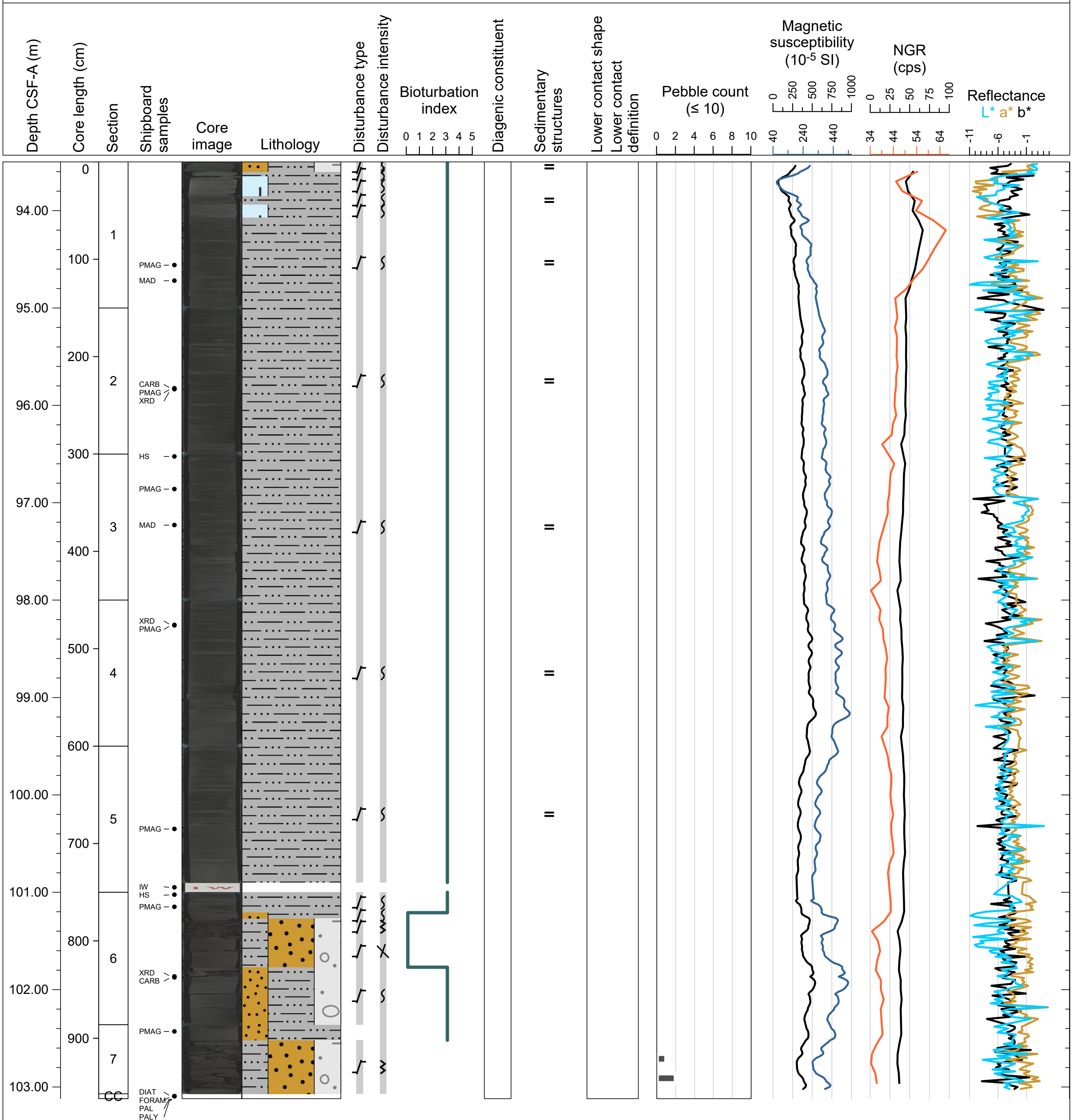
Hole 400-U1607A Core 10R, Interval 84.0-91.84 m (CSF-A)

Dark greyish-brown bioturbated mud with dispersed sand alternating with sandy mud to muddy sand (in some cases, with dispersed clasts). Some intervals are characterized by weak/faint stratification. Bioturbation ranges from moderate to strong with variable abundances and degree of pyritization.



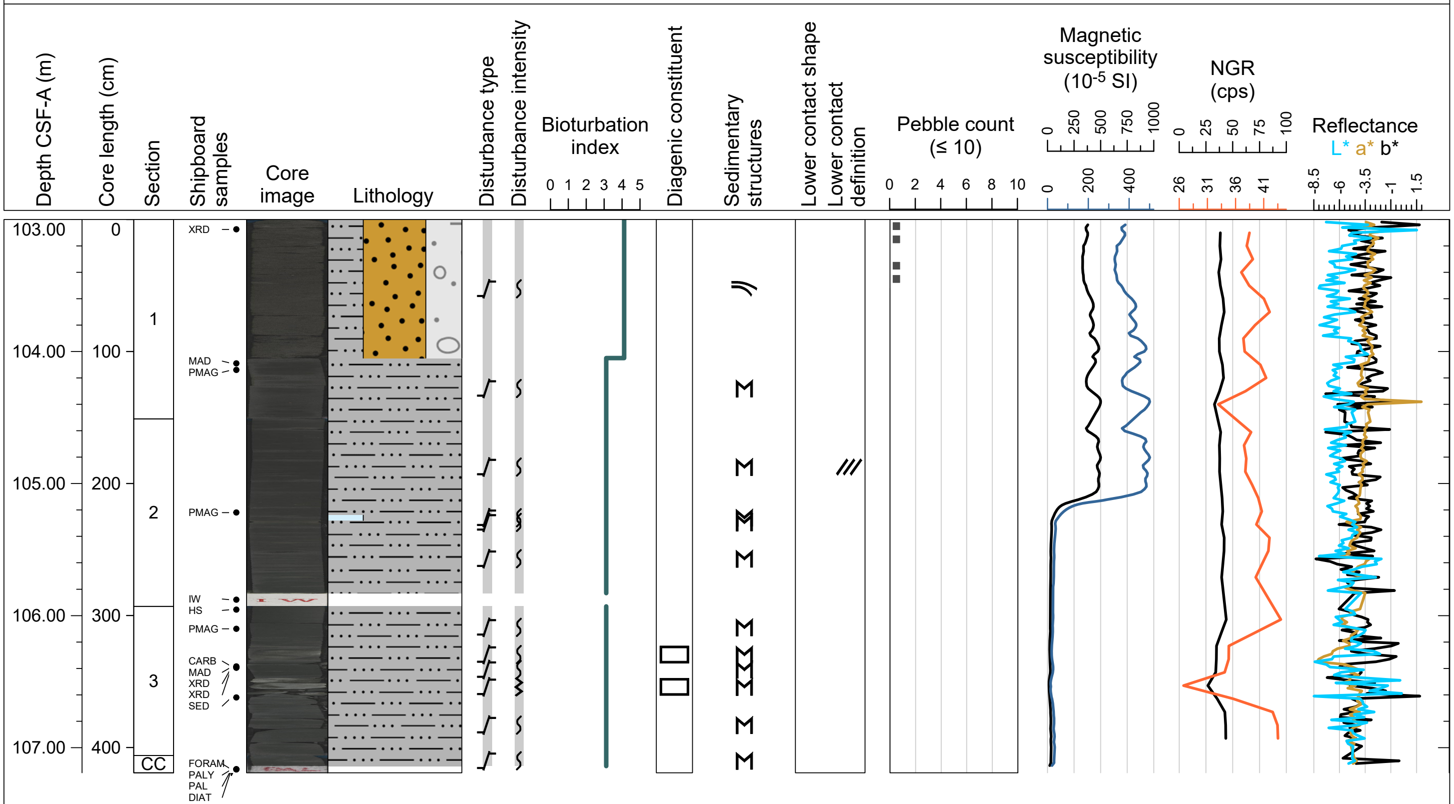
Hole 400-U1607A Core 11R, Interval 93.5-103.12 m (CSF-A)

Dark grey bioturbated mud with thin laminae or lenses of sand. Light grey bioturbated calcareous mud is present at the top of Section 1. The bottom of the core (Sections 6-7) is characterized by a transition downward towards dark grey sandy mud. Pyritization of burrows is common and sparse debris of shells are found. The drilling disturbance is moderate to slight.



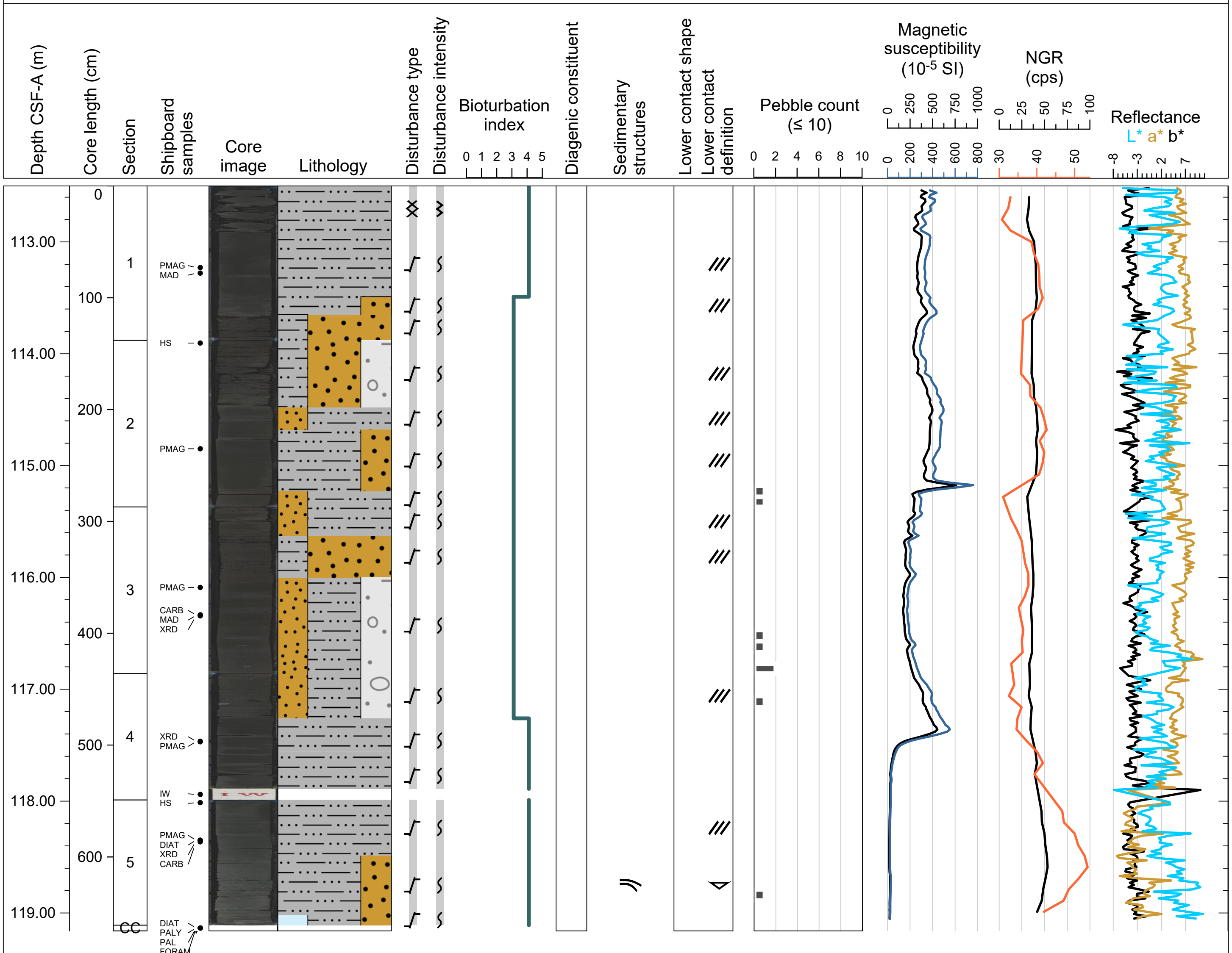
Hole 400-U1607A Core 12R, Interval 103.0-107.19 m (CSF-A)

Very dark greyish brown bioturbated and stratified muddy fine sand with dispersed clasts and greenish grey to bluish grey bioturbated mud. Rare shell fragments and a 3 cm yellowish calcareous mud bed are present in Section 2. Clasts (< 1 cm) are of mafic volcanic and granitic rock types, quartzite and biotite.



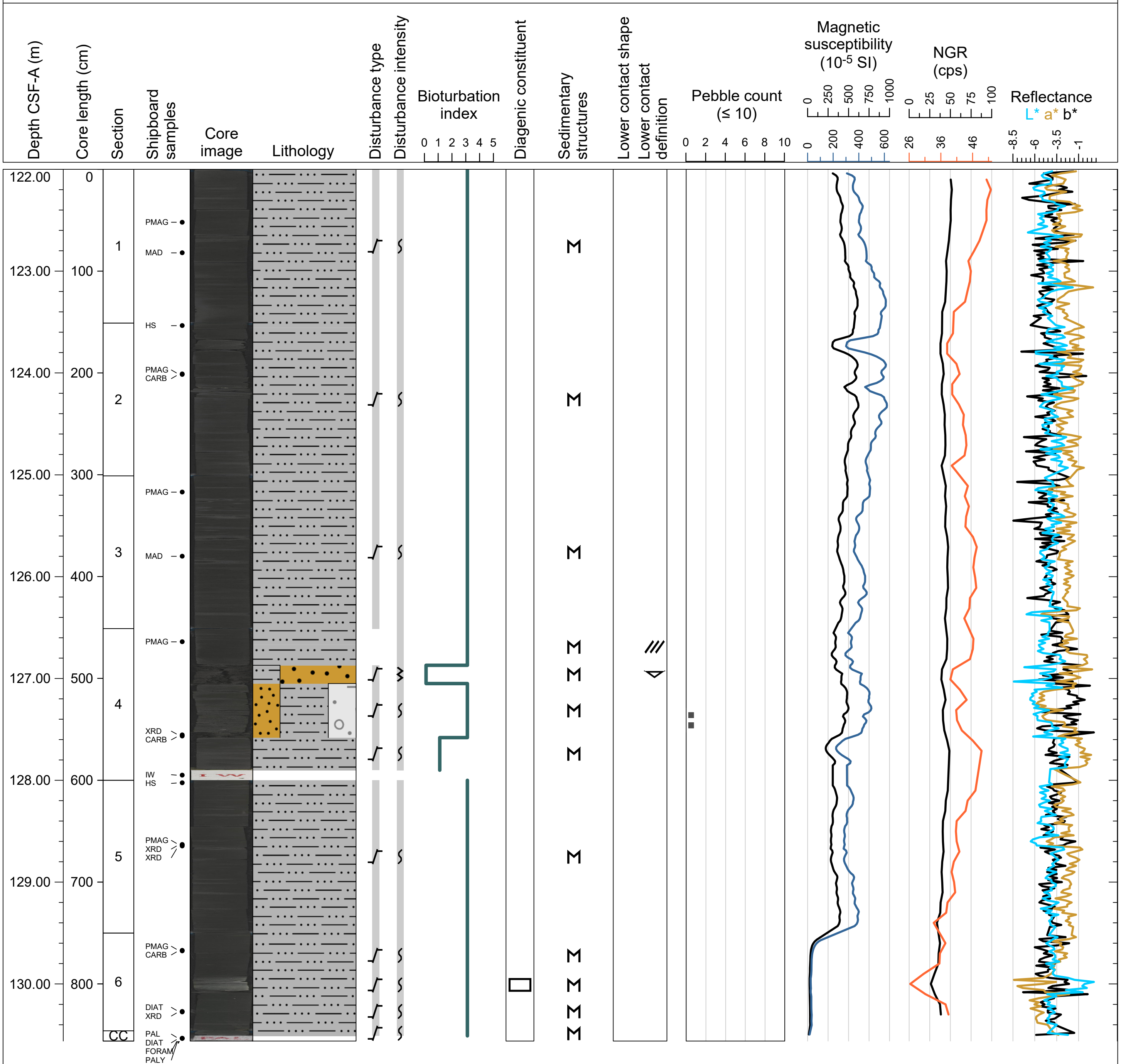
Hole 400-U1607A Core 13R, Interval 112.5-119.16 m (CSF-A)

Dark grey bioturbated mud to sandy mud alternating with dark brown muddy sand (in some cases, with dispersed clasts). The bottom of the core (Section 5) has a greenish-grey to light grey calcareous mud with dispersed sand. Bioturbation is common to strong throughout the core.



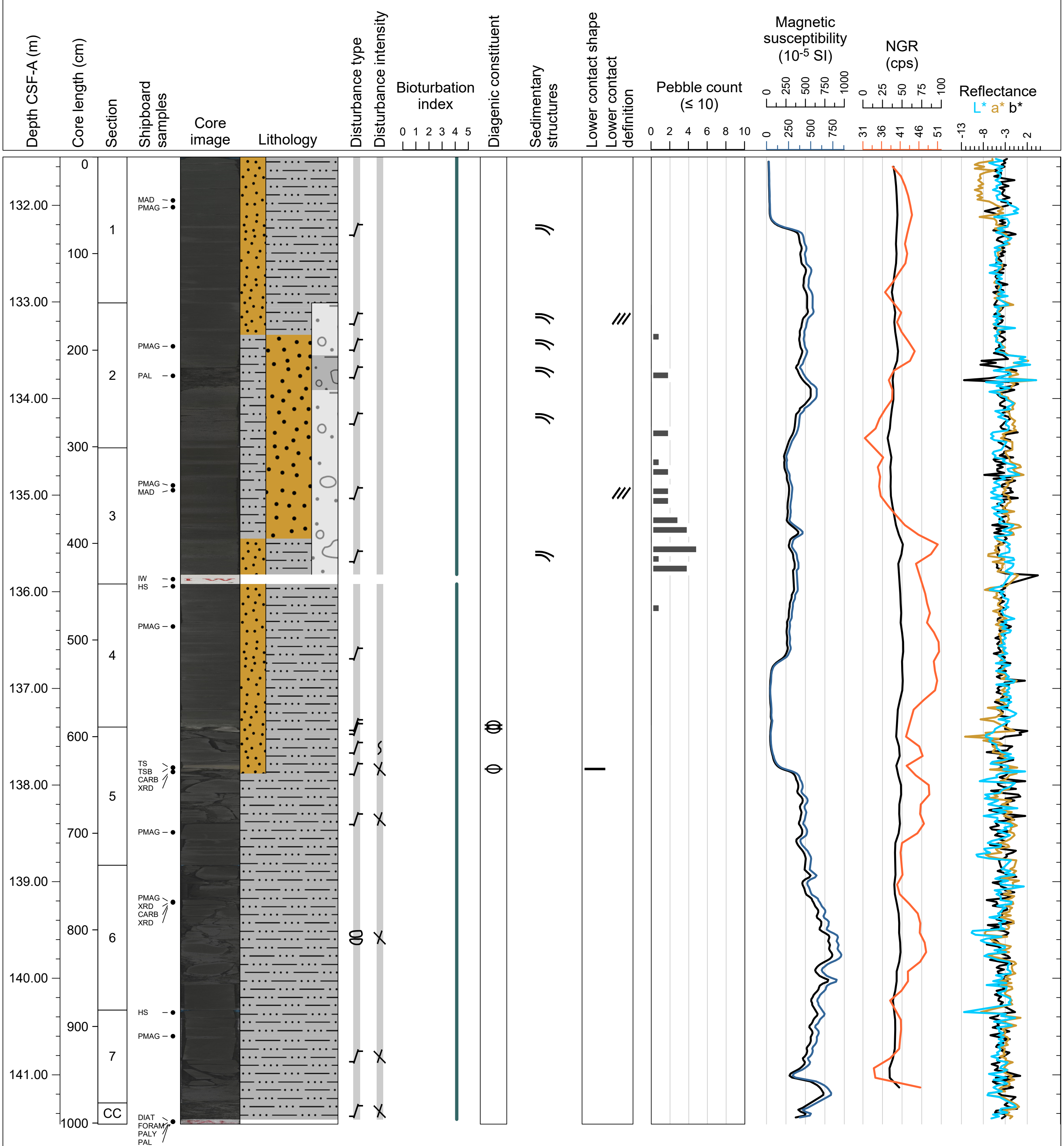
Hole 400-U1607A Core 14R, Interval 122.0-130.56 m (CSF-A)

Dark greyish brown to dark grey massive bioturbated mud. The only deviation from this lithology is Section 4, which contains one muddy sand bed and an interval of sandy mud with dispersed clasts. Shell fragments are common and rare clasts are also present. A cemented interval is present in Section 6.



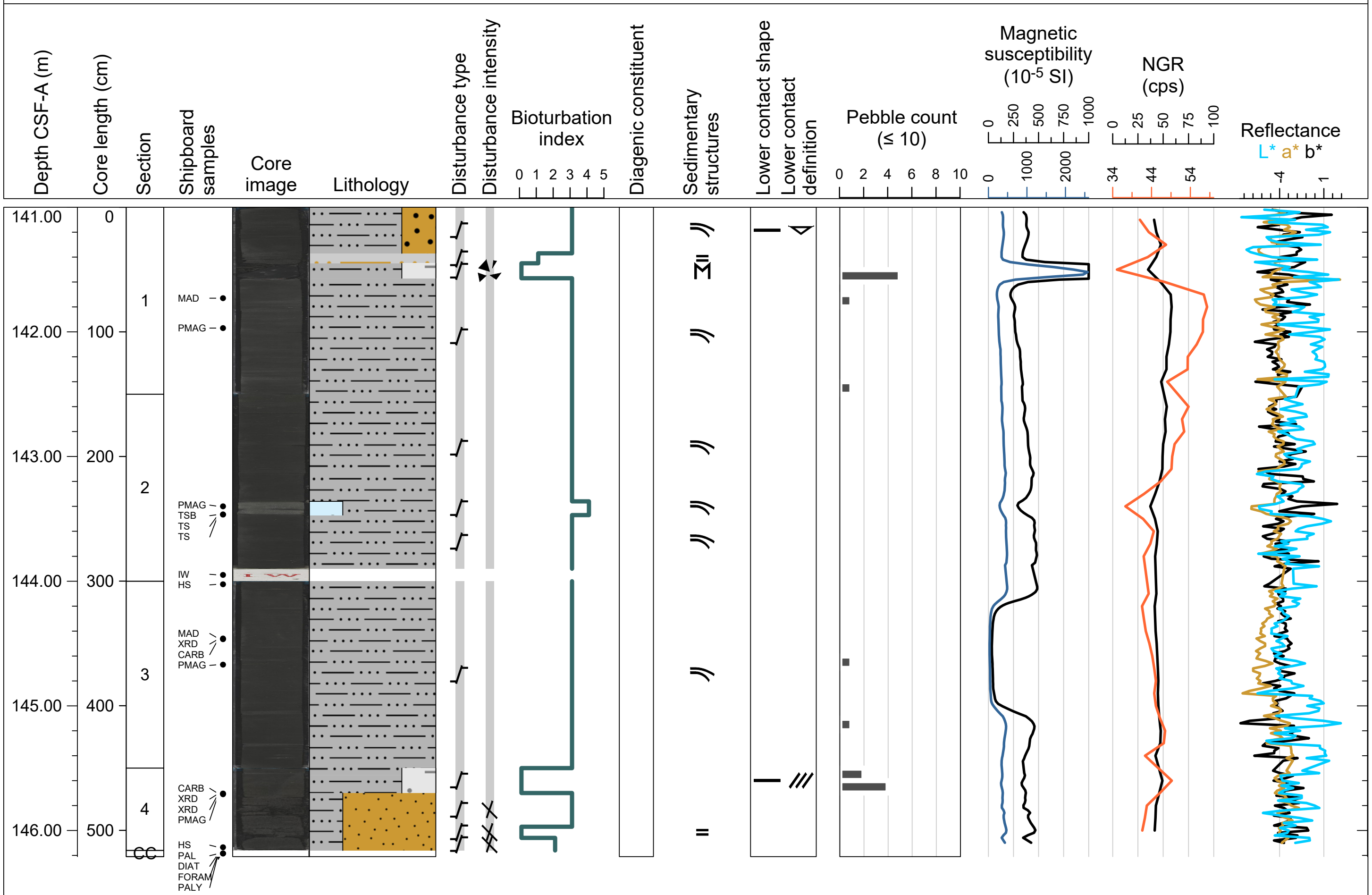
Hole 400-U1607A Core 15R, Interval 131.5-141.51 m (CSF-A)

Sections 1-2 are composed of dark greenish-grey sandy mud with dispersed clasts (2-5 mm), heavily bioturbated with pyritized burrows and faint stratification. Sections 2-3 are composed of dark greenish brown muddy sand with coarse sands and dispersed clasts that is weakly stratified. Sections 3-5 contain sandy mud, bioturbated with pyritized burrows and two calcareous intervals. The base of the core is very dark grey mud with black burrows. Shell fragments are few to common throughout.



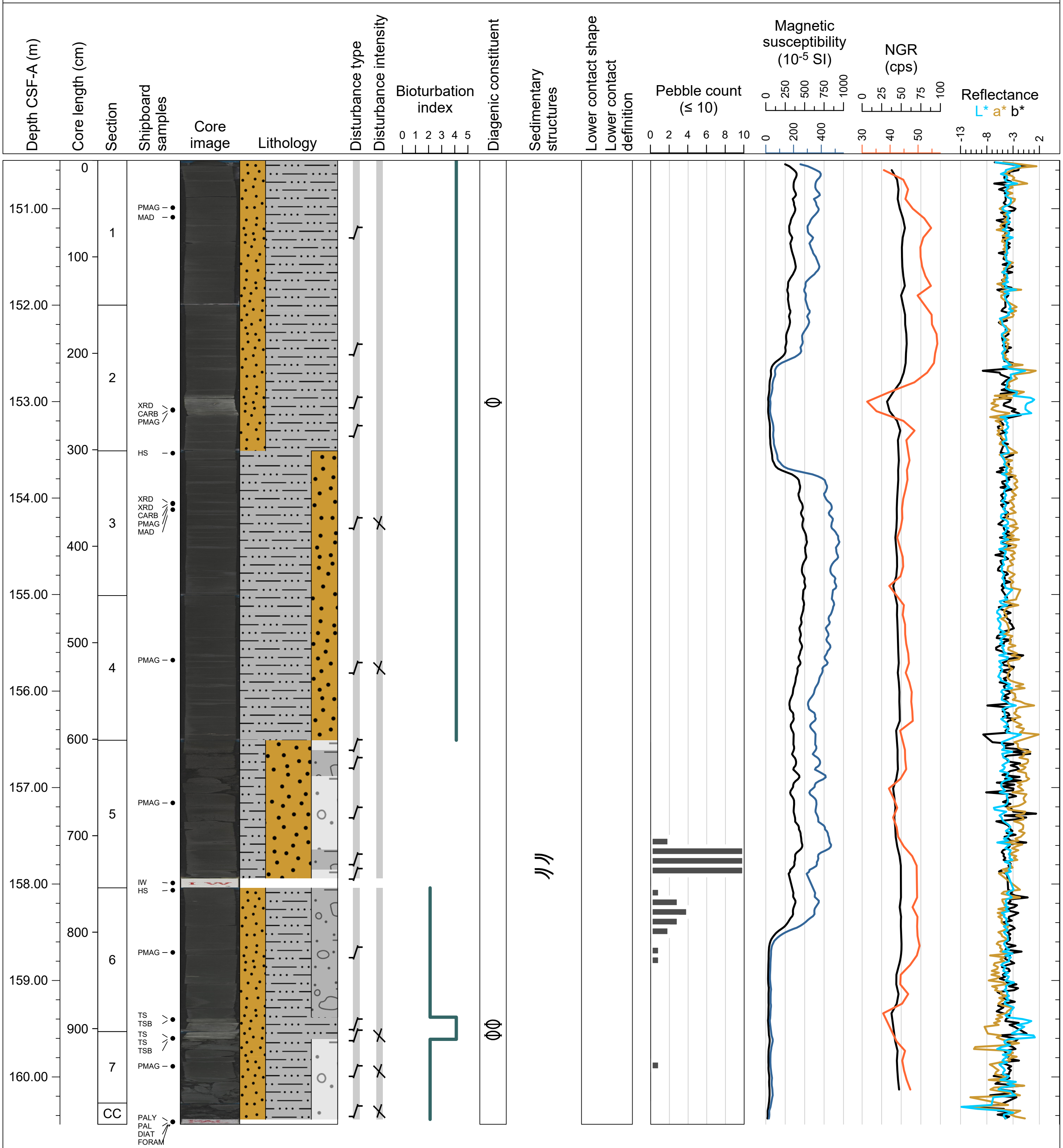
Hole 400-U1607A Core 16R, Interval 141.0-146.21 m (CSF-A)

Dark greyish brown and dark greenish grey bioturbated mud, mud with sand, and muddy sand. Pyritized shells and burrows in Sections 1-3. A 3 cm granite clast in Section 1 and granules in Section 4. Muddy sand intervals in Sections 1 and 4 are thinly bedded where not bioturbated. Section 2 contains an 11 cm thick interval of calcareous mud.



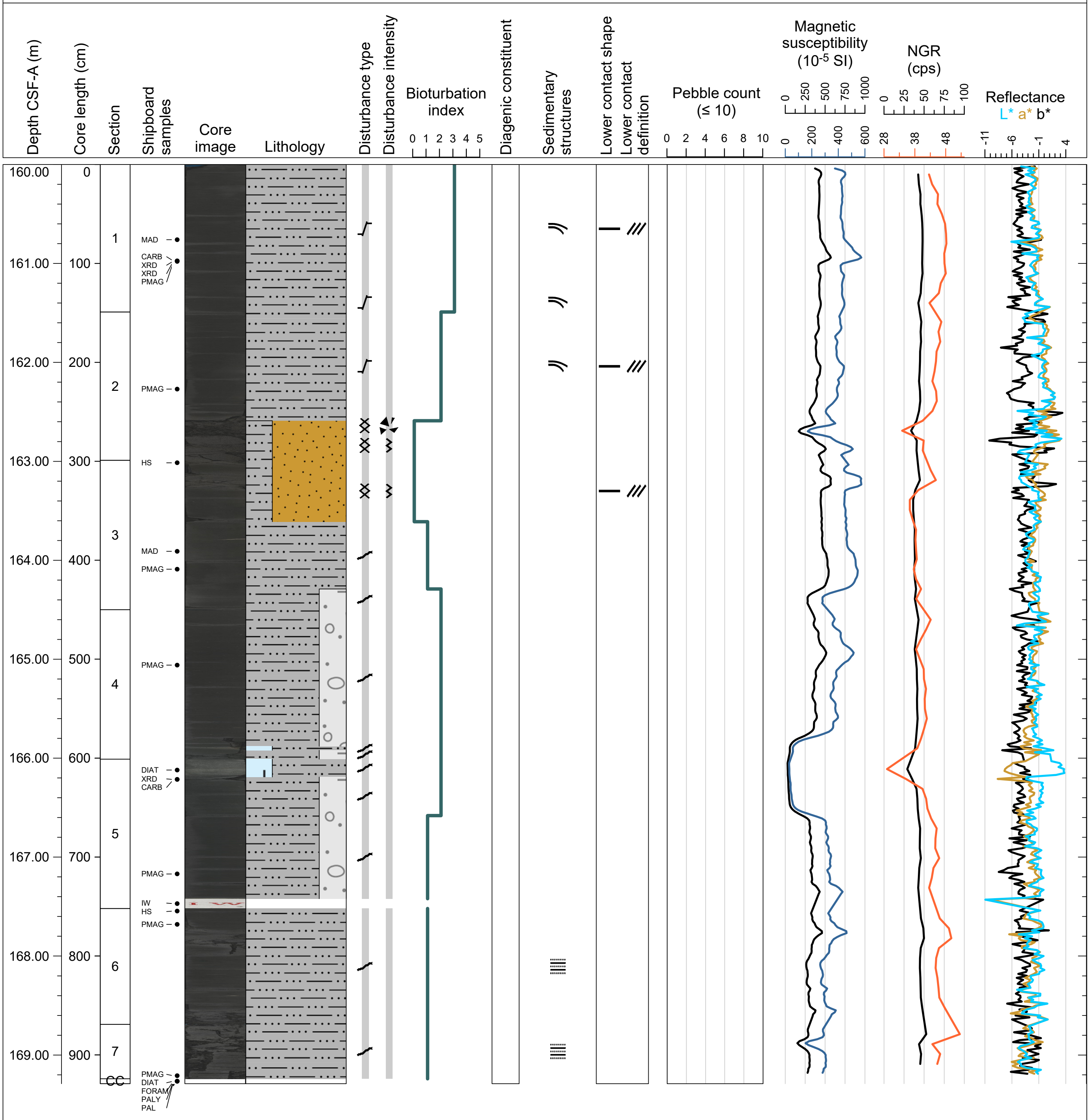
Hole 400-U1607A Core 17R, Interval 150.5-160.49 m (CSF-A)

Dark greyish green sandy mud that is heavily bioturbated with pyritized burrows, dark greenish grey sandy mud that is heavily bioturbated with black burrows and dark greenish brown sandy mud with dispersed to common clasts that is weakly stratified with absent to uncommon bioturbation. Clasts reach up to 2 cm and are large crystalline granular grains.



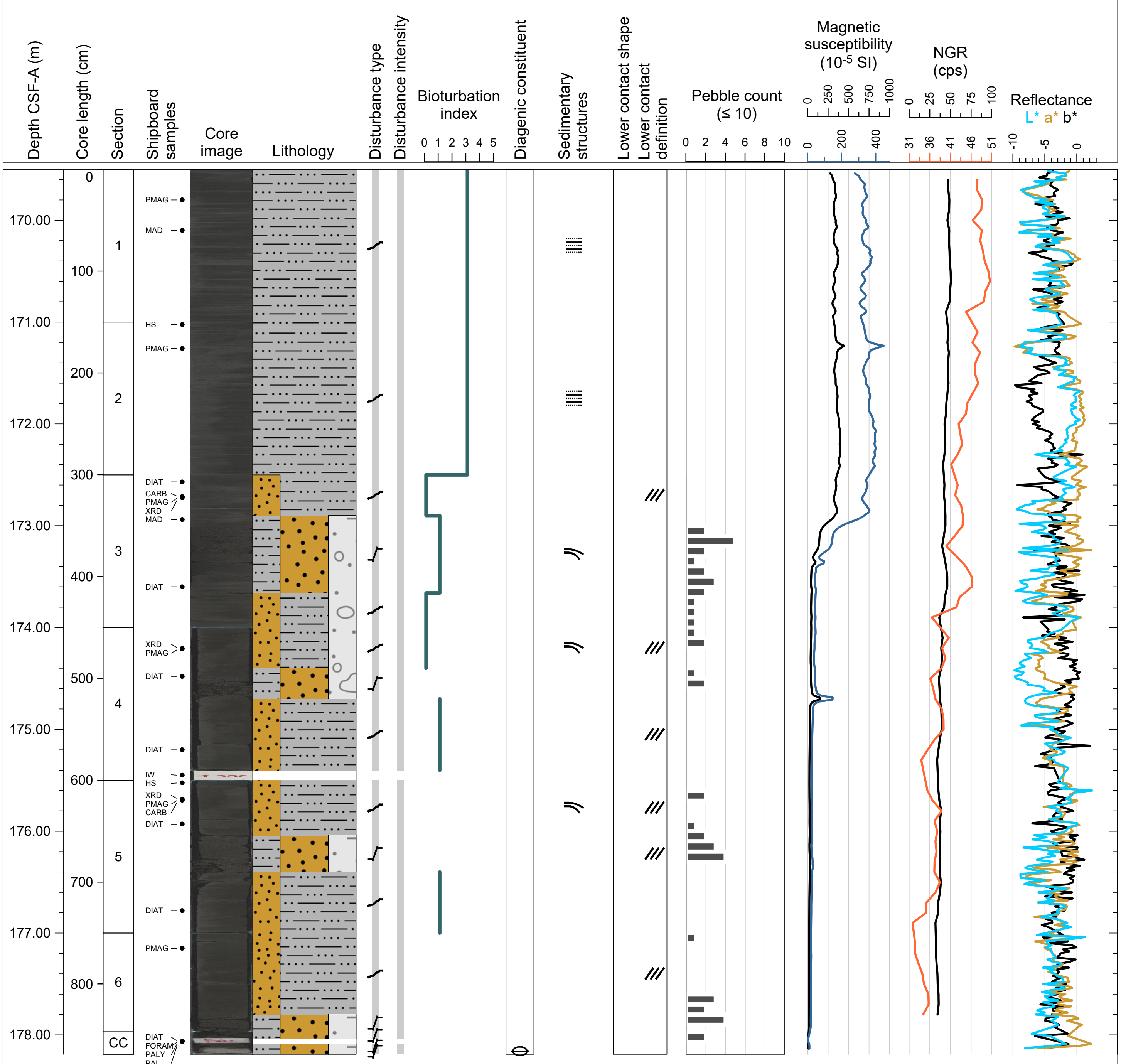
Hole 400-U1607A Core 18R, Interval 160.0-169.29 m (CSF-A)

Dark grey stratified mud with bioturbation grading downward through Section 1 and to 110 cm in Section 2 to dark brownish grey muddy sand that continues into the upper 60 cm of Section 3. Sections 4 and 5 contain dark grey mud with dispersed clasts and fossils with uncommon bioturbation. A calcareous mud occurs at the top of Section 5. The lower half of Section 5 and all of Section 6 contains laminated and color banded mud with sparse bioturbation. Burrows include chondrites and larger burrows with calcareous infill. Fossils and clasts are not present in this interval.



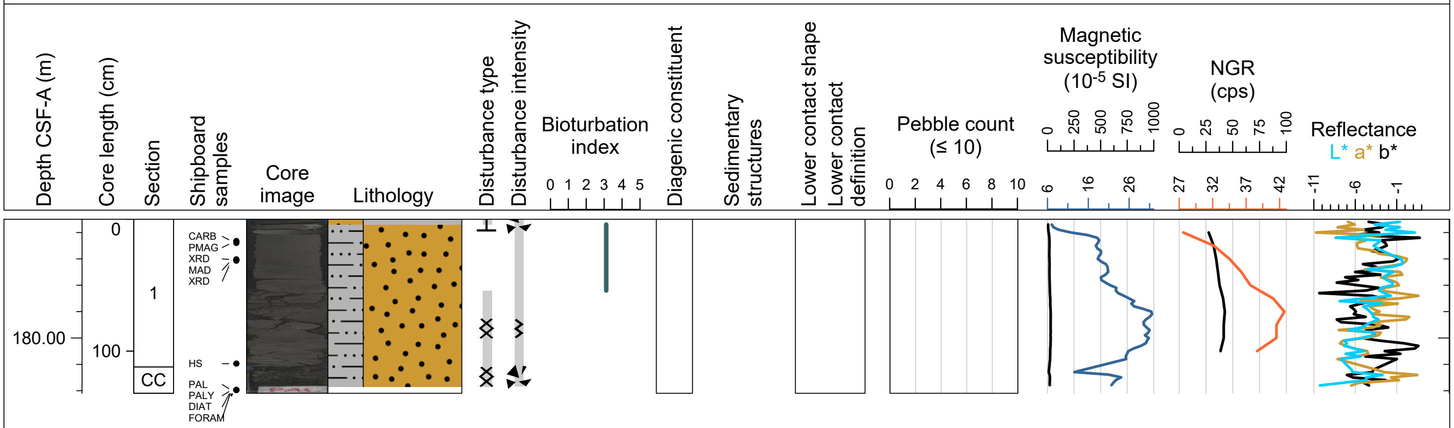
Hole 400-U1607A Core 19R, Interval 169.5-178.19 m (CSF-A)

Dark greenish grey mud, strongly bioturbated with black burrows and stratification presenting as color banding (creamy grey, dark grey and grey) in Sections 1 and 2, overlie alternating greyish brown sandy mud and muddy sand with dispersed clasts (up to 5 mm), few articulate bivalves and wispy coarse sand laminae. Bioturbation is largely absent or present as large backfilled burrows. One large fine grained black clast is observed in Section 3 at 86 cm and appears porphyritic or porous.



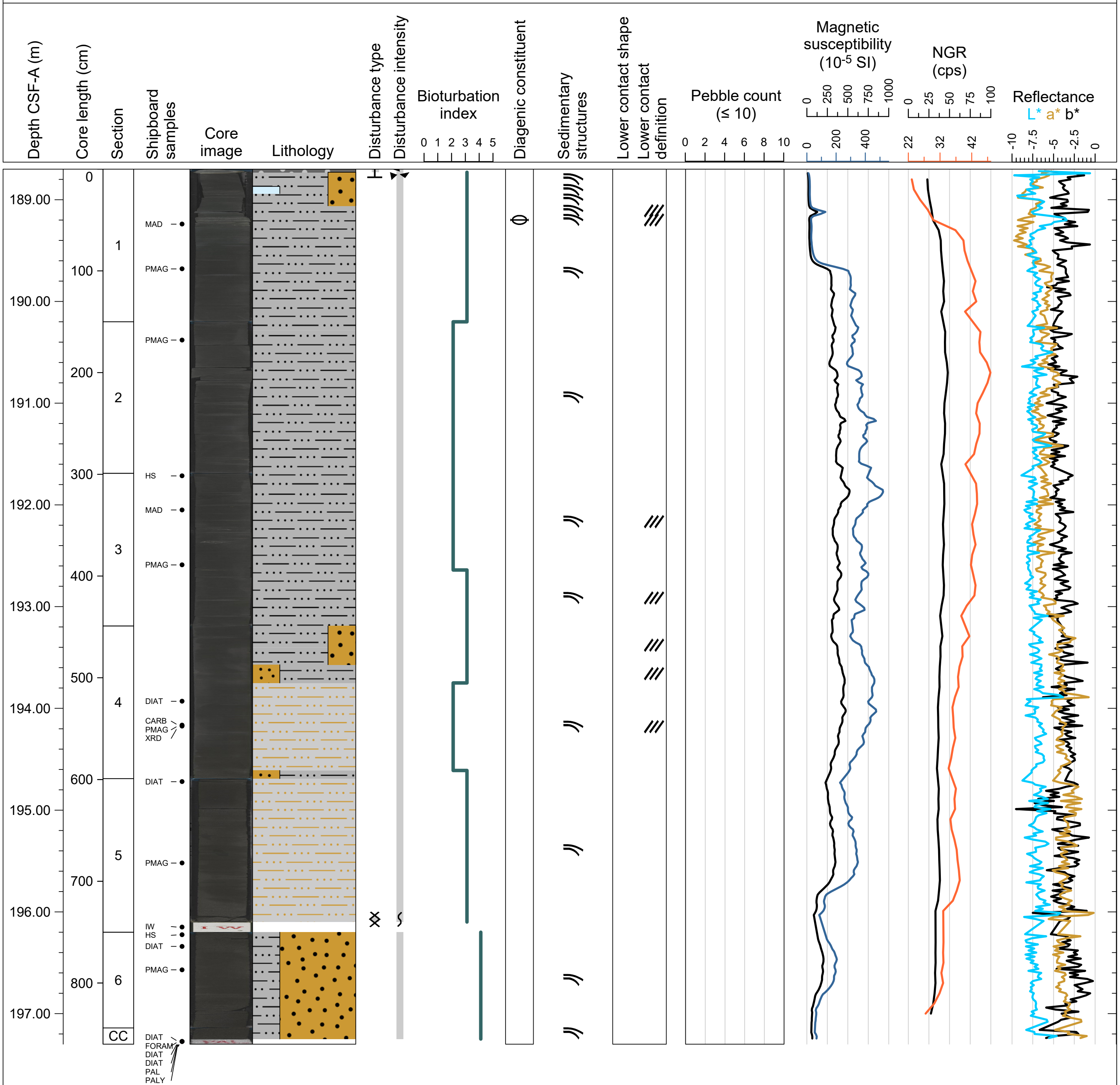
Hole 400-U1607A Core 20R, Interval 179.1-180.42 m (CSF-A)

Dark brown bioturbated muddy sand. Some intervals show subtle stratification of sand component. Sand component is generally moderately well-sorted medium grain size with rare granules. Shell fragments are present.



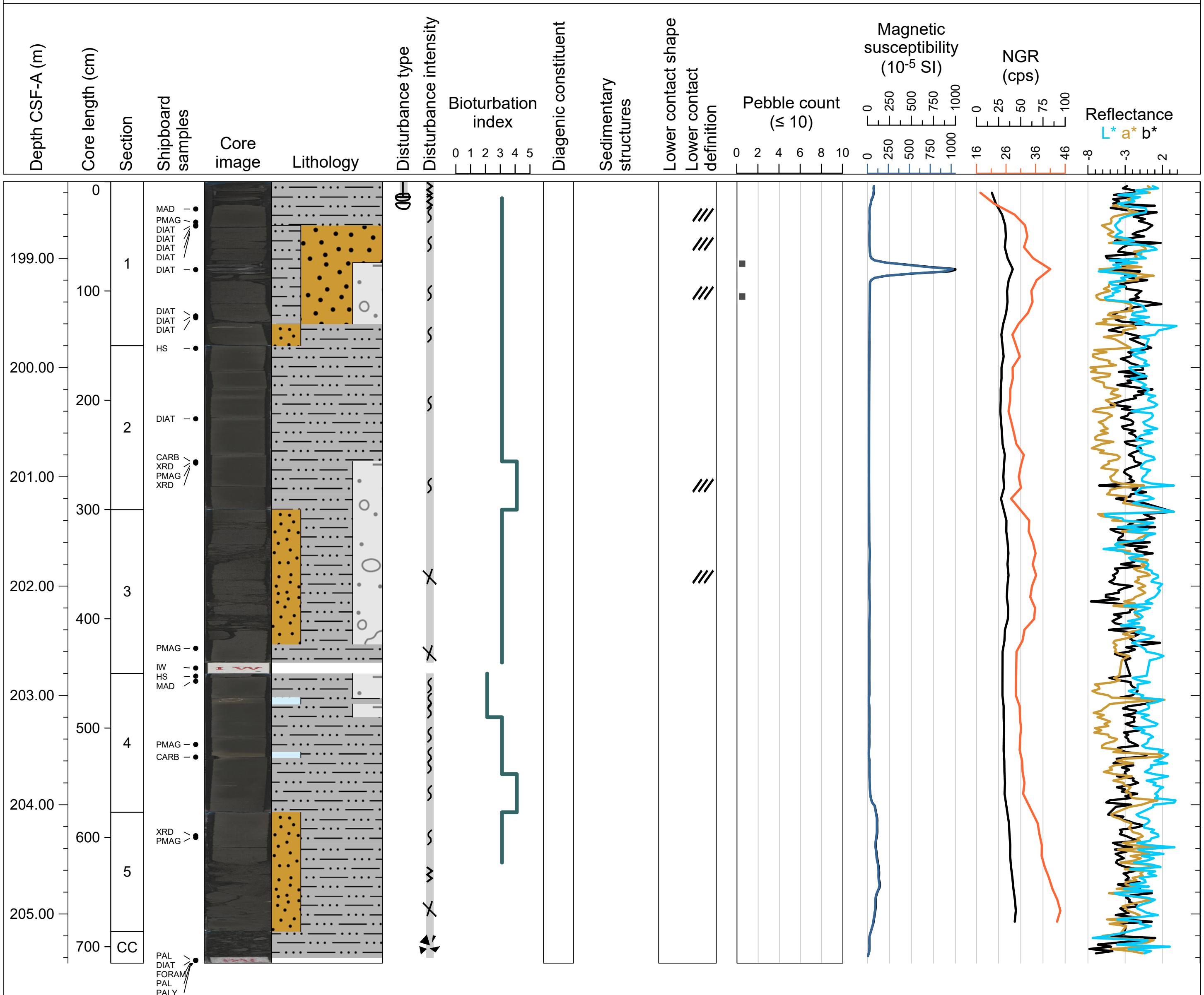
Hole 400-U1607A Core 21R, Interval 188.7-197.3 m (CSF-A)

Dark grey and greenish grey mud and mud with sand at the top of this core grades downward into dark brown to medium brown sandy mud that often shows strong hints of mm-scale stratification. The entire core is bioturbated and shell material is common. The size (width and length) and diversity of trace fossils generally increases down core, as do the sizes of the shells present. Burrows are pyritized throughout the core. In the upper grey mud intervals, pyritized and black-filled burrows co-occur, very fine to medium sand is common, and often occurs sorted in whispy laminae. Granules occur throughout the core, sometimes dispersed and sometimes in laminae. Yellow colored calcareous mud occurs in whisps and mixed in with all colors of mud in the upper half of the core (Section 3 and above).



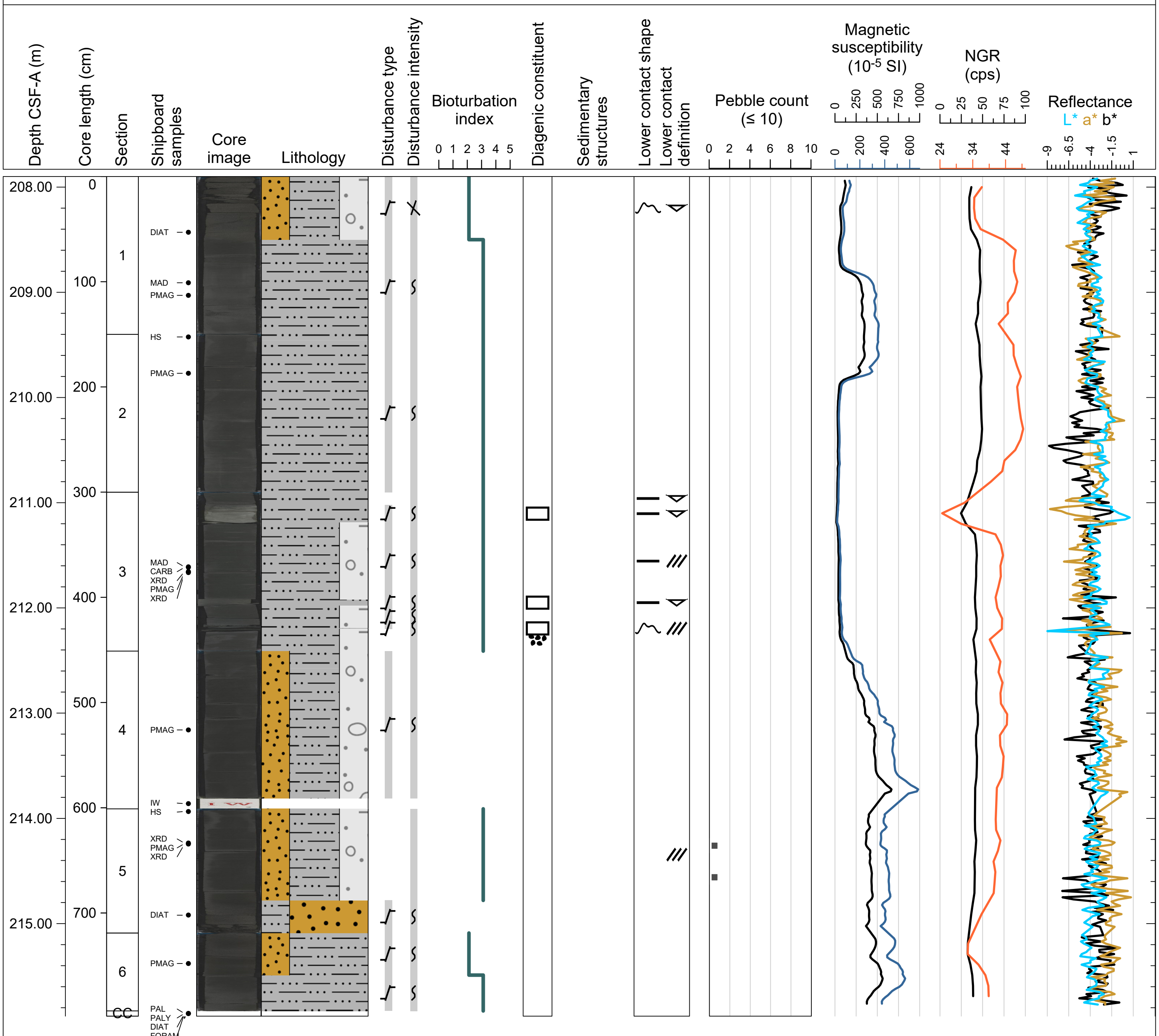
Hole 400-U1607A Core 22R, Interval 198.3-205.45 m (CSF-A)

Dark grey bioturbated muddy sand to sandy mud with dispersed clasts interbedded with dark greenish grey bioturbated mud. One garnet-bearing metamorphic cobble is present in Section 1 and large shells occur in Sections 1 and 4, where calcareous mud beds are also observed.



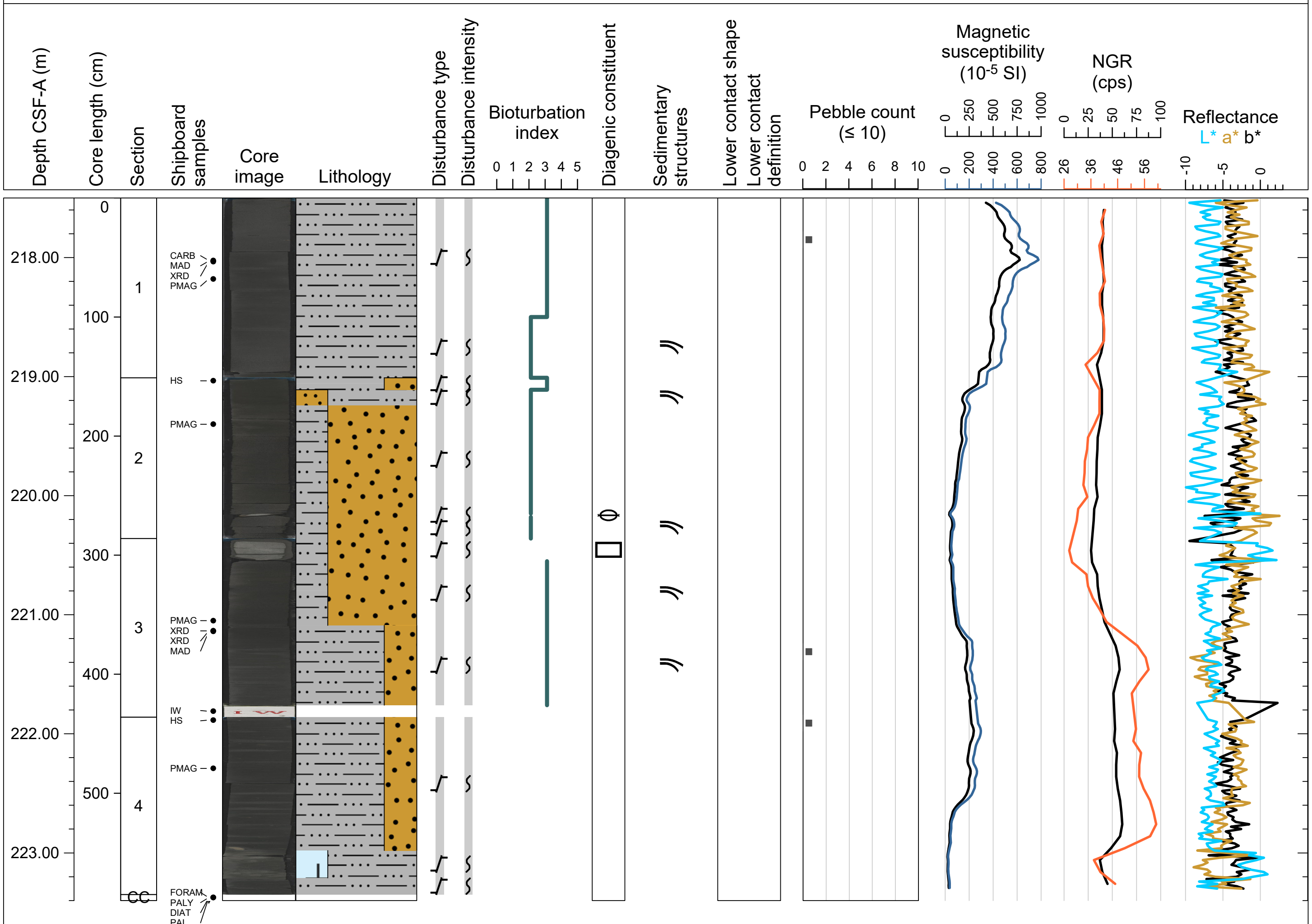
Hole 400-U1607A Core 23R, Interval 207.9-215.88 m (CSF-A)

Dark grey to greenish grey mud and mud with dispersed clasts. Light grey carbonate-cemented beds in Section 3. Bioturbation is present as pyritized burrows. Rare shell fragments throughout the core. The drilling disturbance is slight to moderate.



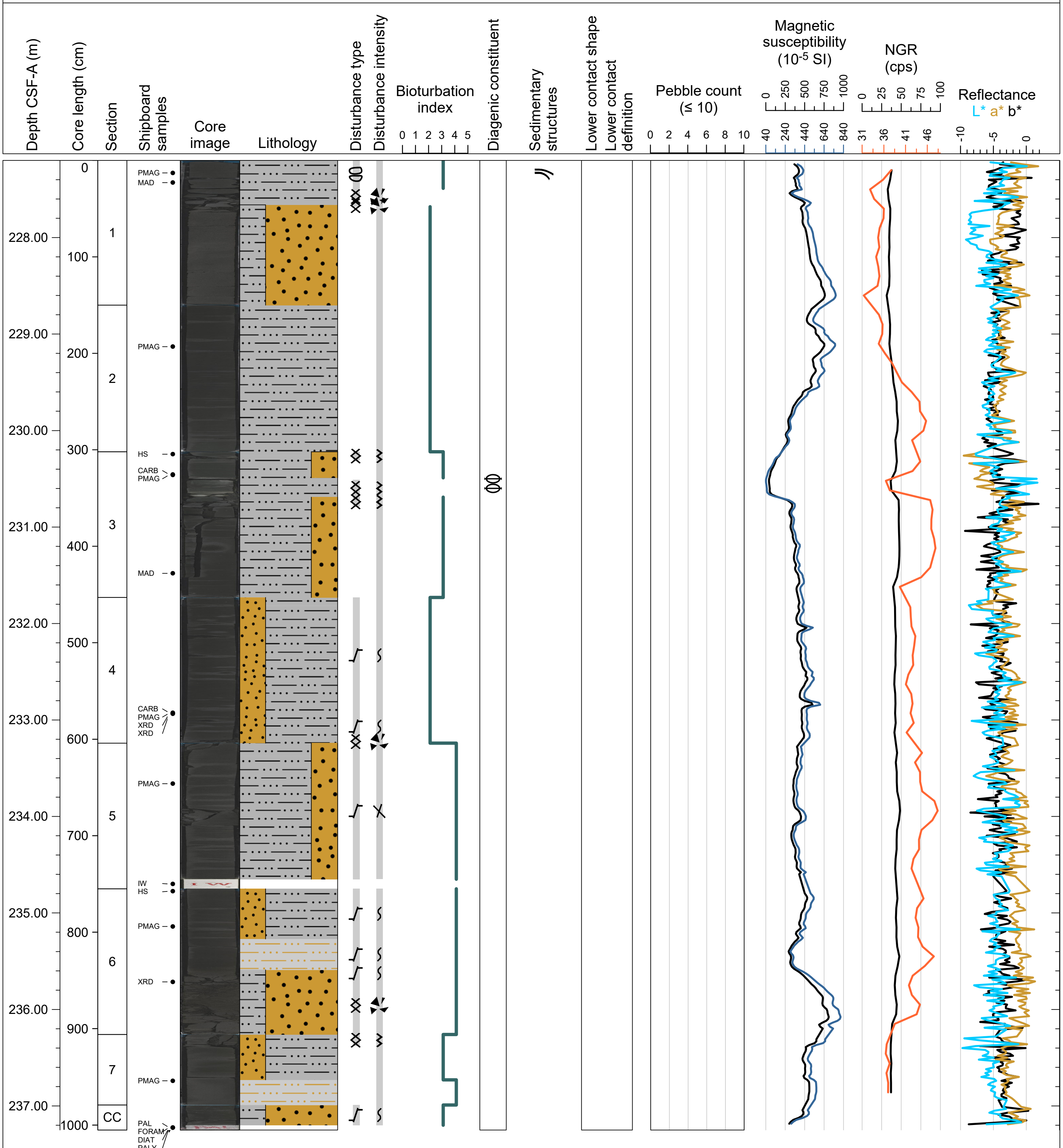
Hole 400-U1607A Core 24R, Interval 217.5-223.4 m (CSF-A)

Dark greyish brown mud, mud with sand and very rare clasts, and dark brown sandy mud to muddy sand (with sparse clasts in some intervals). Section 3 includes a 12 cm thick calcareous mud. Bioturbation is moderate to common throughout with pyritized burrow-fills in the mud lithology. Section 3 includes ~20 cm thick carbonate cemented interval.



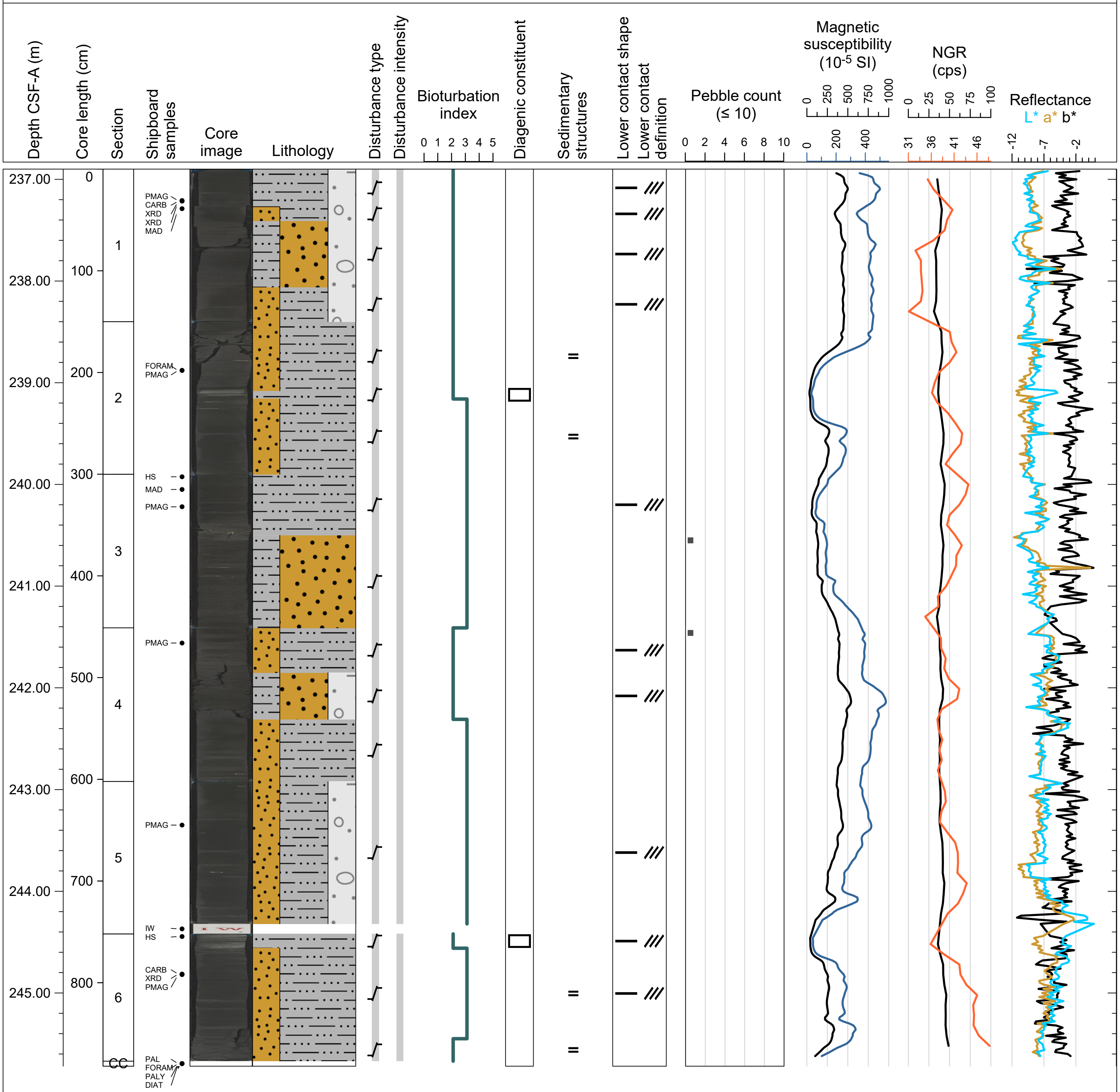
Hole 400-U1607A Core 25R, Interval 227.2-237.25 m (CSF-A)

This core contains diverse colors and grain sizes arranged in similar ways to the overlying cores, including dark grey, dark brown, and greenish grey mud to sandy mud sometimes with dispersed granules and rare thick intervals of dark brown muddy sand. Bioturbation is present throughout, and there is subtle indication of primary depositional stratification in all lithofacies present.



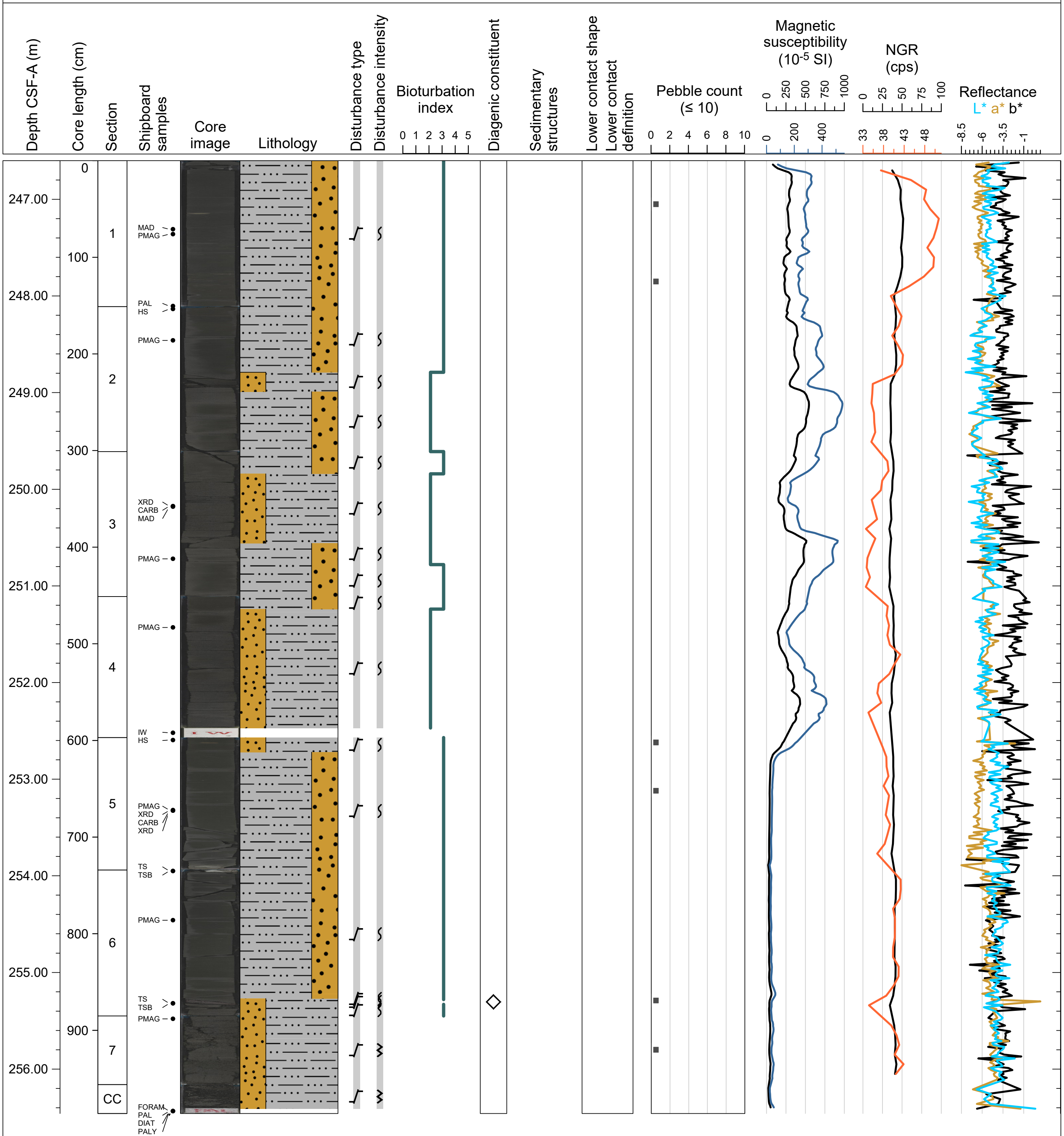
Hole 400-U1607A Core 26R, Interval 236.9-245.72 m (CSF-A)

Dark grey laminated mud and mud with dispersed clasts with interbeds of muddy sand in Sections 1, 3, and 4. Contacts between muddy and sandy intervals are gradational. Bioturbation varies from uncommon to common. Bivalve and gastropod shells up to 3 cm in size are prominent throughout the core. An interval of calcareous mud occurs in Section 2.



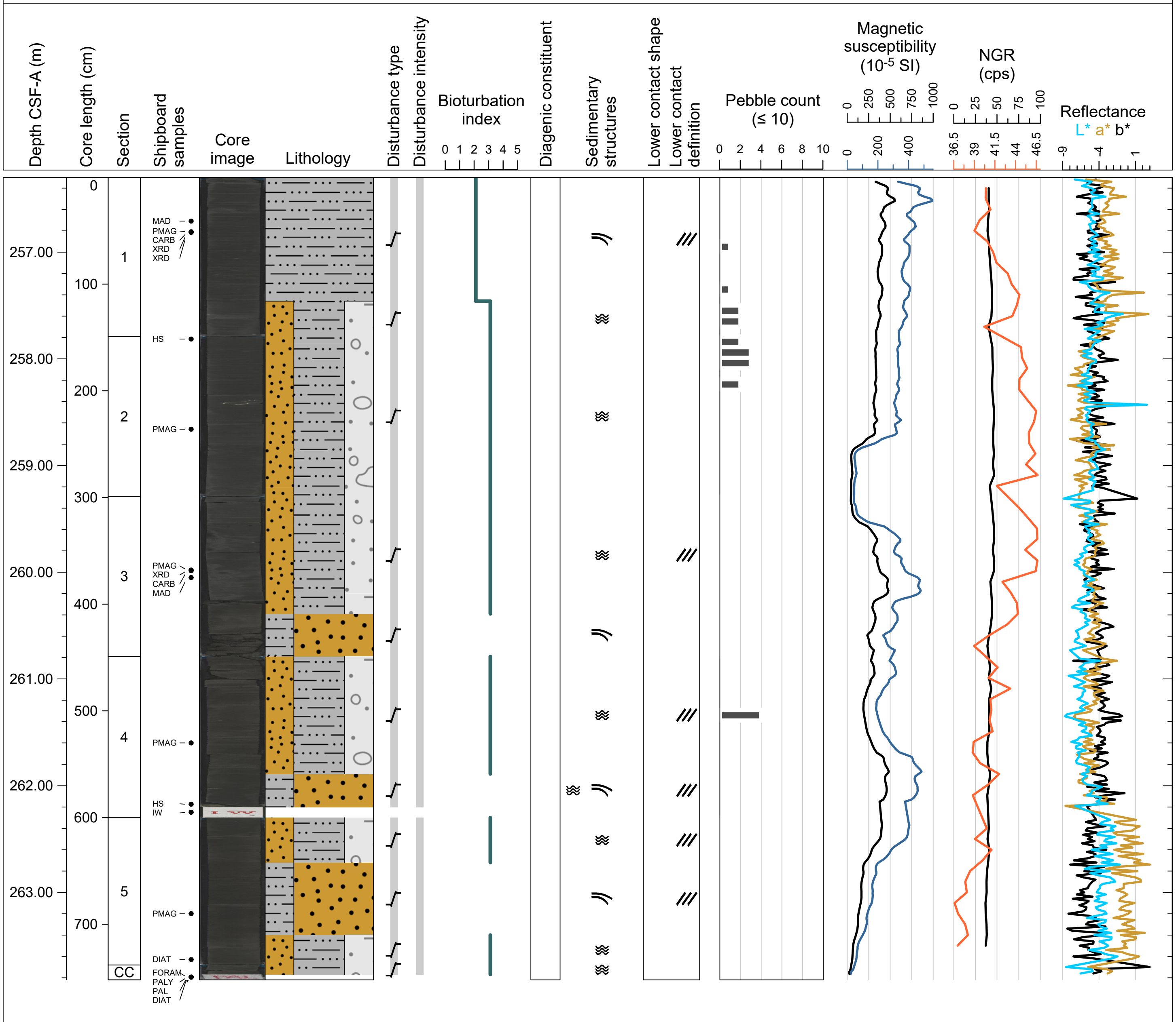
Hole 400-U1607A Core 27R, Interval 246.6-256.46 m (CSF-A)

Dark grey and greenish grey mud and mud with sand. Moderate bioturbation throughout with less bioturbation in the mud with sand intervals. Some intervals of pyritized burrows in Section 5 and 6. Small shell fragments are present. Some small clasts around 5 mm. One large clast roughly 6 cm in diameter that appears extrusive igneous. Drilling disturbance is low except for in Section 7 and the core catcher.



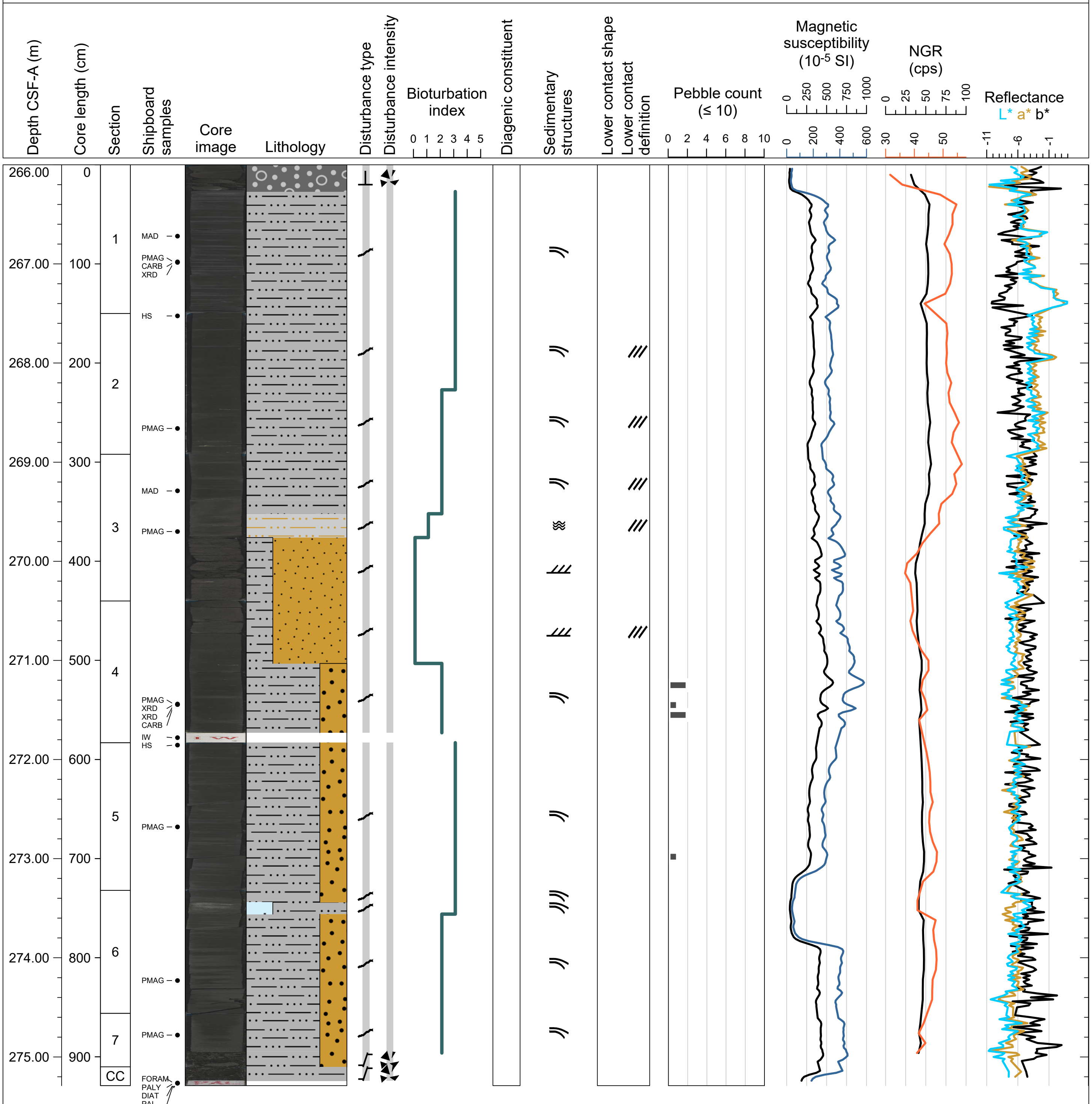
Hole 400-U1607A Core 28R, Interval 256.3-263.82 m (CSF-A)

Dark grey mud with burrows and rare clasts, overlying grey mud with coarse sand beds (~1 cm), dispersed clasts, containing pyritized burrows and articulate bivalves, alternating with stratified dark brown muddy sand. Fault with slickensides oriented at 45 degrees, in Section 3 at 98 cm.



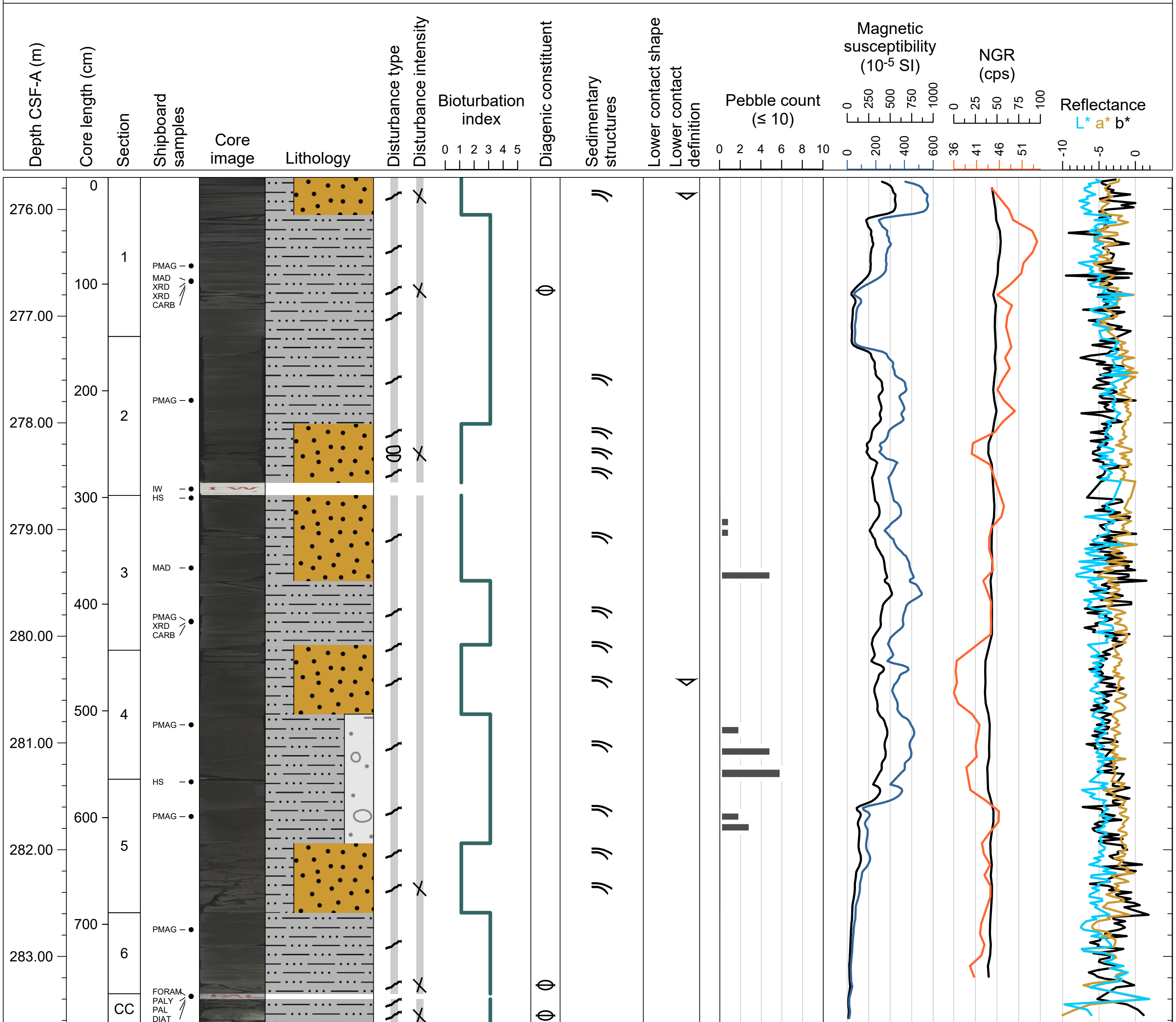
Hole 400-U1607A Core 29R, Interval 266.0-275.29 m (CSF-A)

Dark grey bioturbated mud and dark greyish brown muddy sand with cross stratification. There are prominent 2-3 cm bivalves in Sections 2-4. Pyritization of burrows and microfossils (foraminifera) is prominent in Section 5. Rare dispersed clasts occur in Sections 4 and 5. A 10 cm thick calcareous mud interval occurs in Section 6. Bioturbation ranges from absent to moderate.



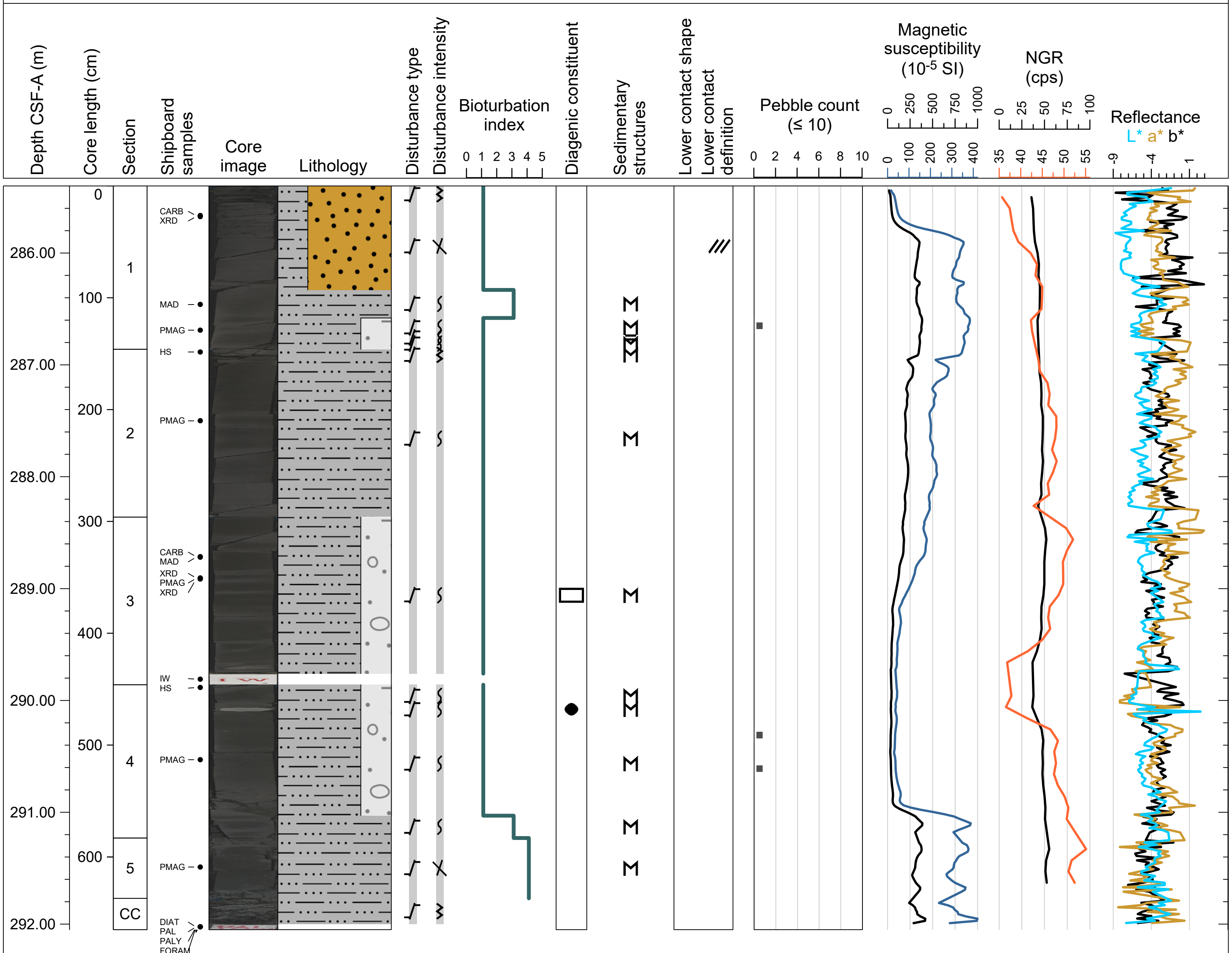
Hole 400-U1607A Core 30R, Interval 275.7-283.64 m (CSF-A)

Dark grey sandy mud with moderate bioturbation in Section 1-3, and dark grey sandy mud with dispersed clasts, moderate bioturbation (most often pyritized burrows) and creamy white calcareous concretions. Dark brown muddy sand that is weakly stratified occurs throughout. A large crystalline felsic plutonic clast occurs in Section 3 at 40 cm. Three faults were observed, generally at 60 degree to vertical (core liner) and at a 90 degree plane.



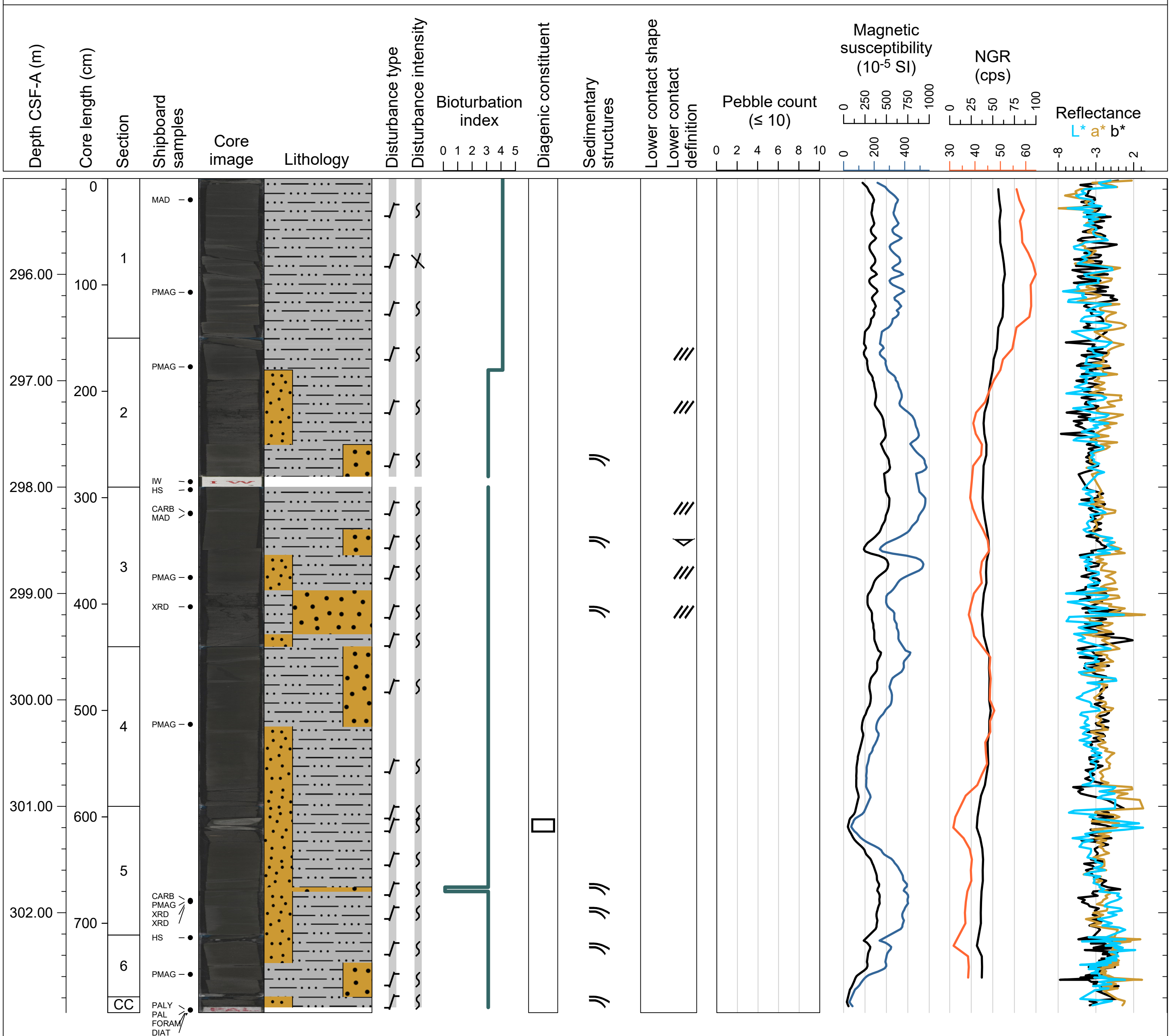
Hole 400-U1607A Core 31R, Interval 285.4-292.05 m (CSF-A)

Very dark grey to very dark greenish grey bioturbated mud and muddy sandy, often with dispersed clasts. The structure is predominantly massive except for crude bedding and lamination in Section 1. Horizontal 0.5 cm pyritized burrows and calcareous cement are common. Rare shell fragments are observed. High angle oriented fractures are present throughout.



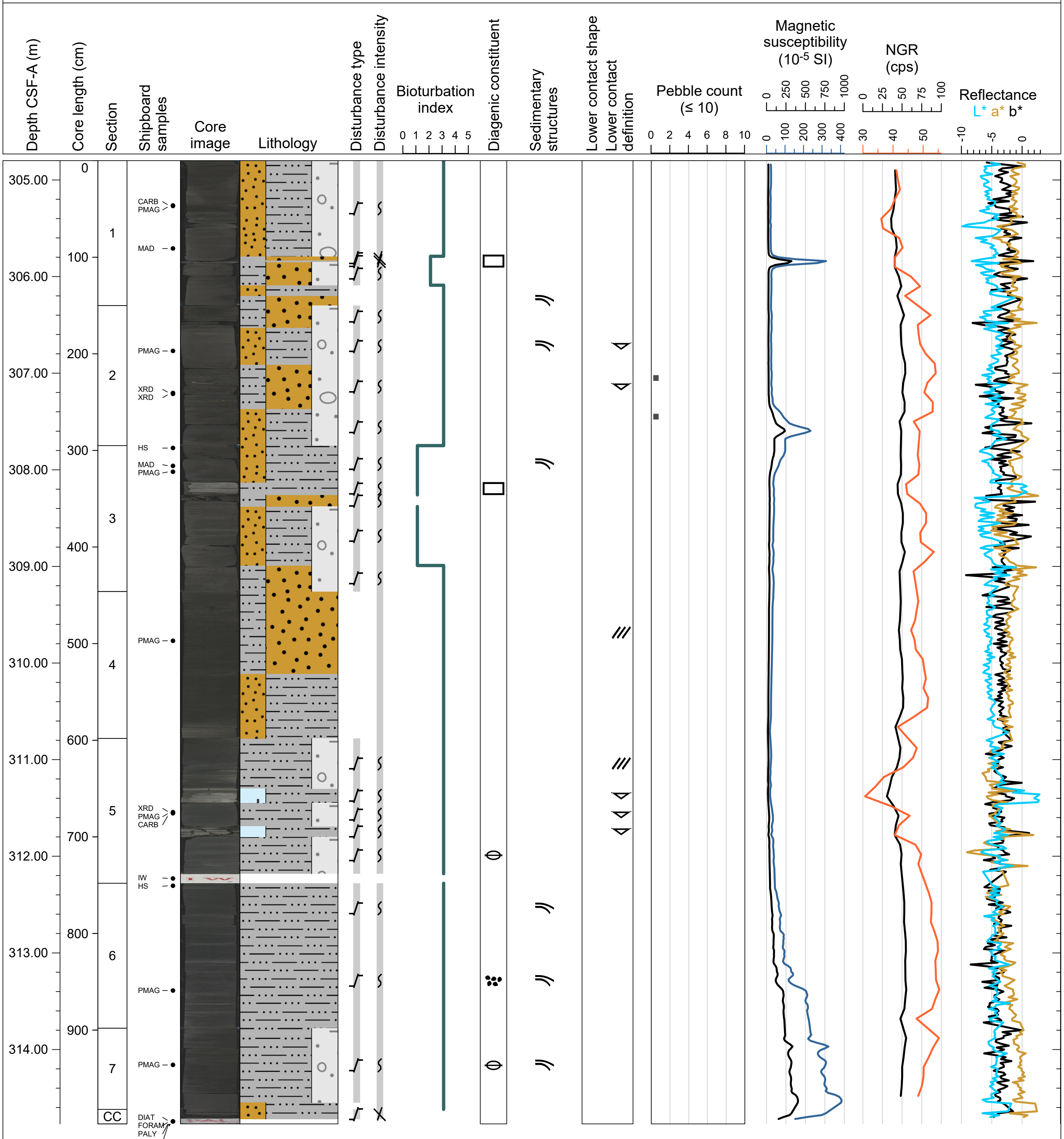
Hole 400-U1607A Core 32R, Interval 295.1-302.94 m (CSF-A)

Greyish dark-brown bioturbated mud transitioning downcore to alternating dark brown sandy mud and dark brown muddy sand. The intervals with sand include weak/faint stratification and one interval (in Section 5) of well-preserved angled stratification. Bioturbation ranges from moderate to common. Section 4 includes potential passive infill of large burrows with stratified sand. Section 5 includes a carbonate cemented interval.



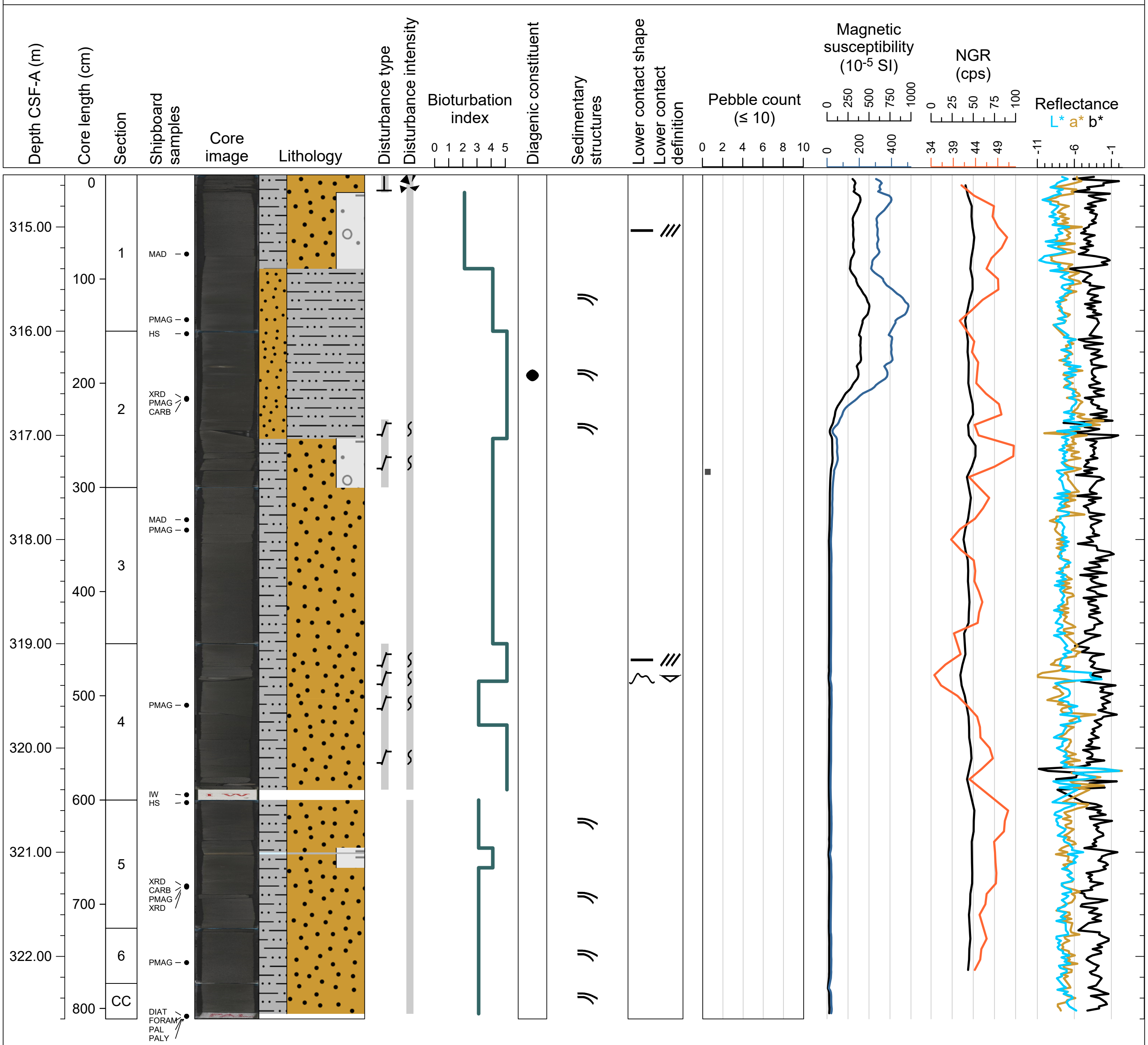
Hole 400-U1607A Core 33R, Interval 304.8-314.77 m (CSF-A)

Dark grey mud to greenish grey mud alternating with dark grey sandy mud bed, often with dispersed clasts, and carbonate cemented mud beds. Two calcareous layers are observed in Section 5. Bioturbation is common with rare shell fragments including bivalves and benthic foraminifera. The drilling disturbance is slight to moderate.



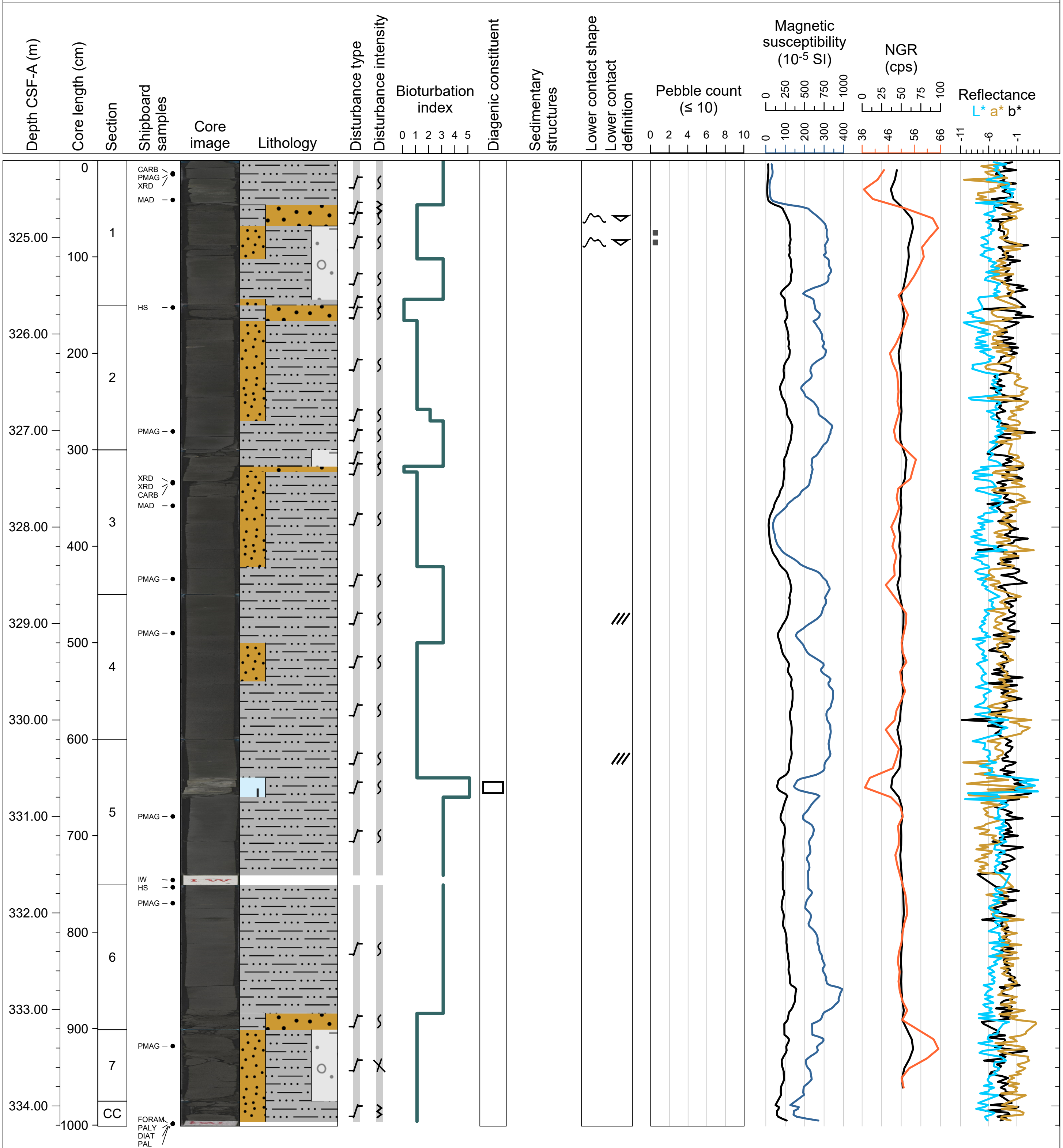
Hole 400-U1607A Core 34R, Interval 314.5-322.6 m (CSF-A)

Dark to medium brown, bioturbated sandy mud and muddy sand with rare, dispersed granules and clasts. Rare, high angle, mm-scale, normal offset faults with slickensides. Shell fragments and large agglutinated foraminifera present throughout core. Burrows are pyritized at top of core. Rare carbonate cemented nodules and beds.



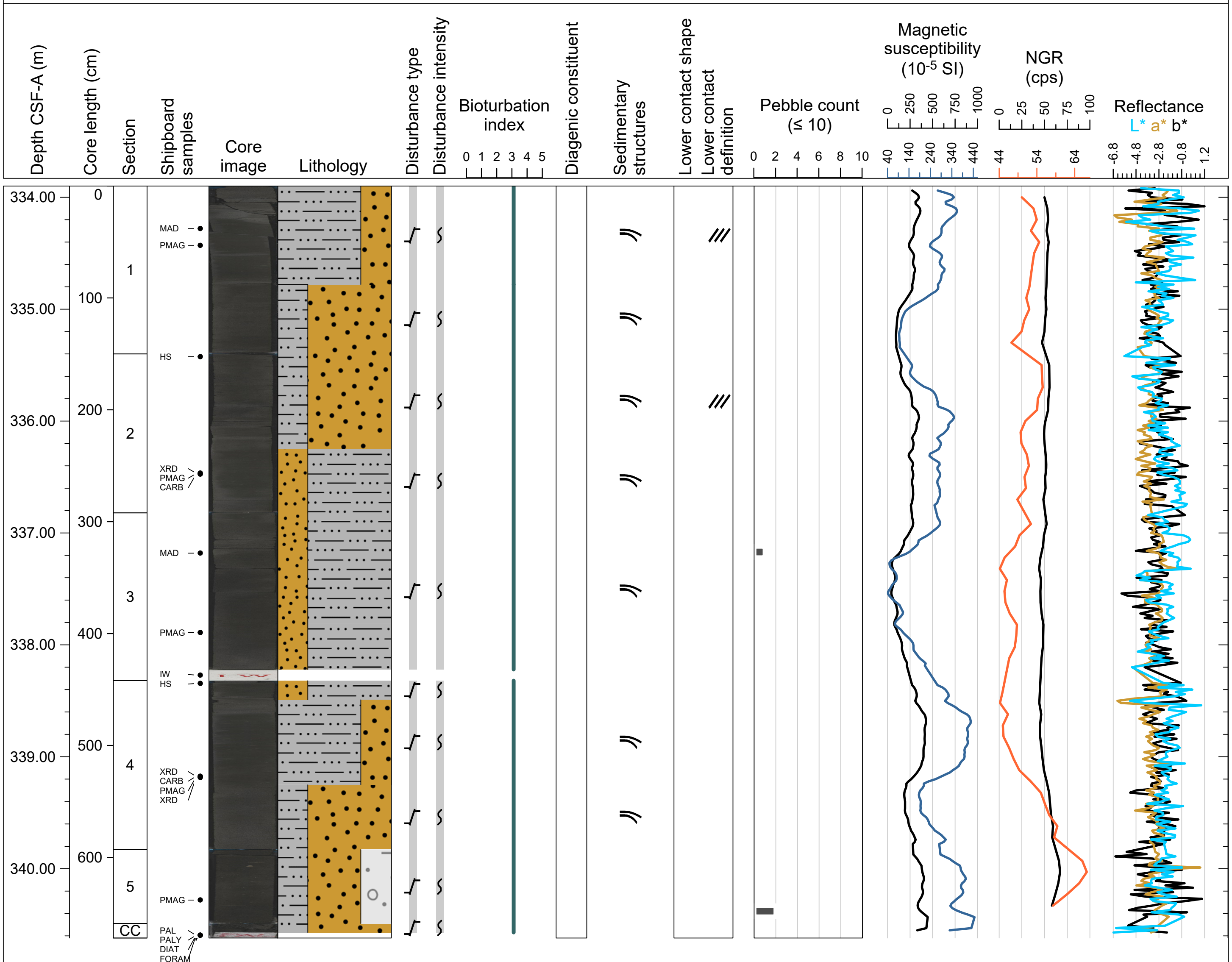
Hole 400-U1607A Core 35R, Interval 324.2-334.21 m (CSF-A)

Dark greenish grey bioturbated mud interbedded with dark greyish brown muddy sand and sandy mud with dispersed clasts. One bed of abundantly bioturbated calcareous mud is present in Section 5. Shell fragments are rare.



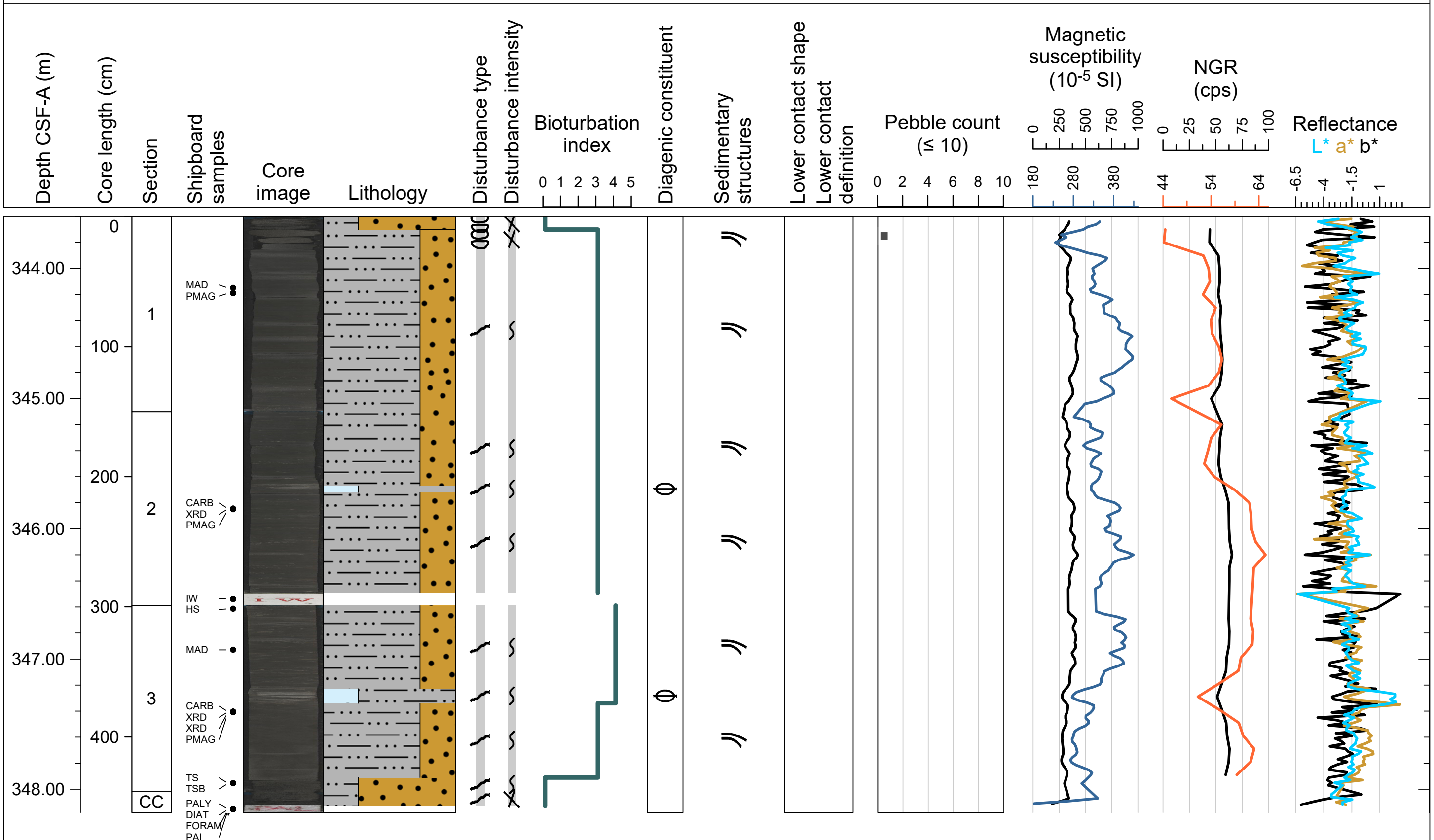
Hole 400-U1607A Core 36R, Interval 333.9-340.62 m (CSF-A)

Greyish, dark brown bioturbated mud with sand and sandy mud alternating with dark brown bioturbated muddy sand. Dispersed sand grains are present with rare clasts >5 mm. The sand component in these lithologies is dominantly very fine to lower fine in size. Bioturbation is moderate throughout.



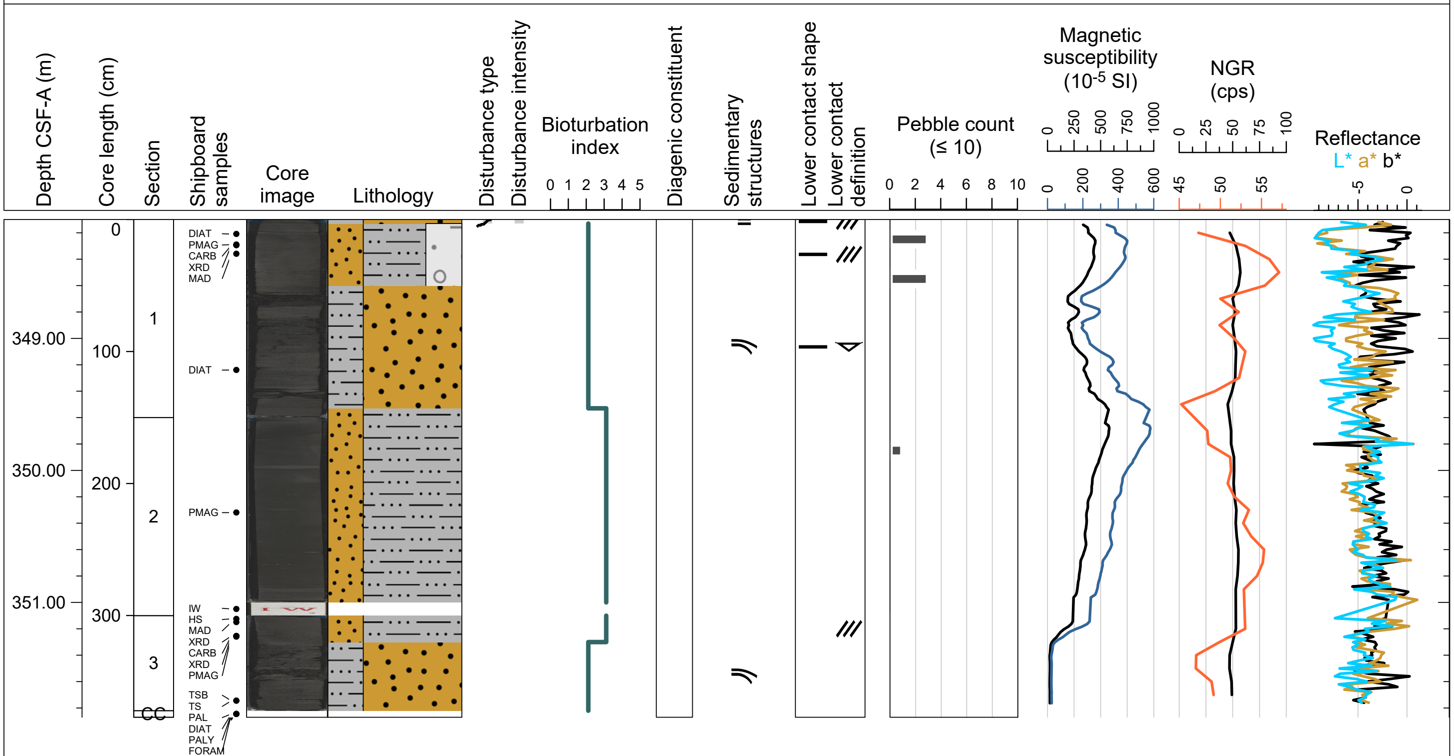
Hole 400-U1607A Core 37R, Interval 343.6-348.18 m (CSF-A)

Dark to medium greenish grey bioturbated mud with sand and dark brown muddy sand. There are intervals of calcareous mud (possible concretions). Dispersed sand grains and one outsized clast in Section 1. Some microfossils visible. Some pyritized burrows in Sections 1 and 2.



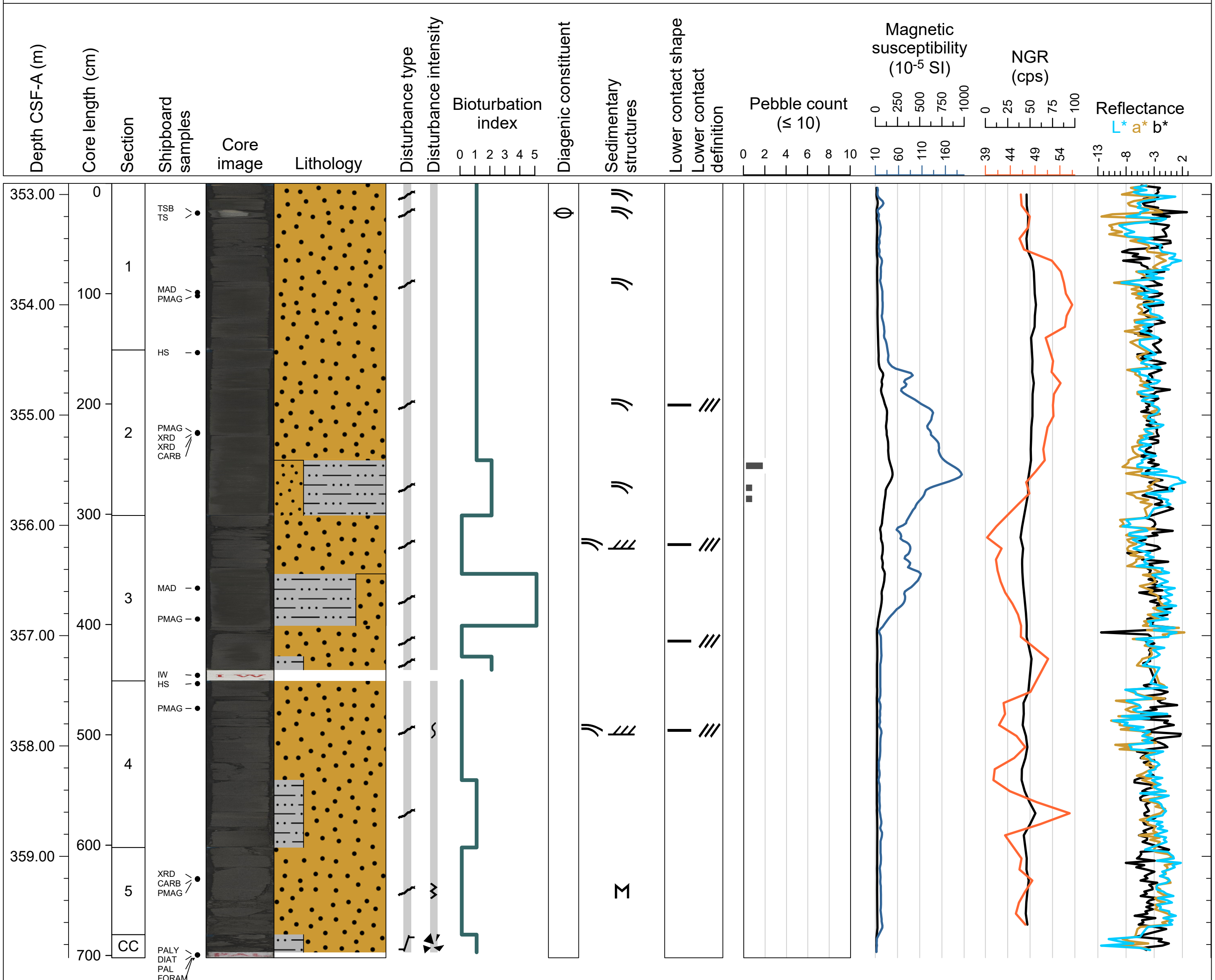
Hole 400-U1607A Core 38R, Interval 348.1-351.87 m (CSF-A)

Dark to medium greenish grey bioturbated fine sandy mud with dispersed clasts and dark grey muddy sand with some stratification.



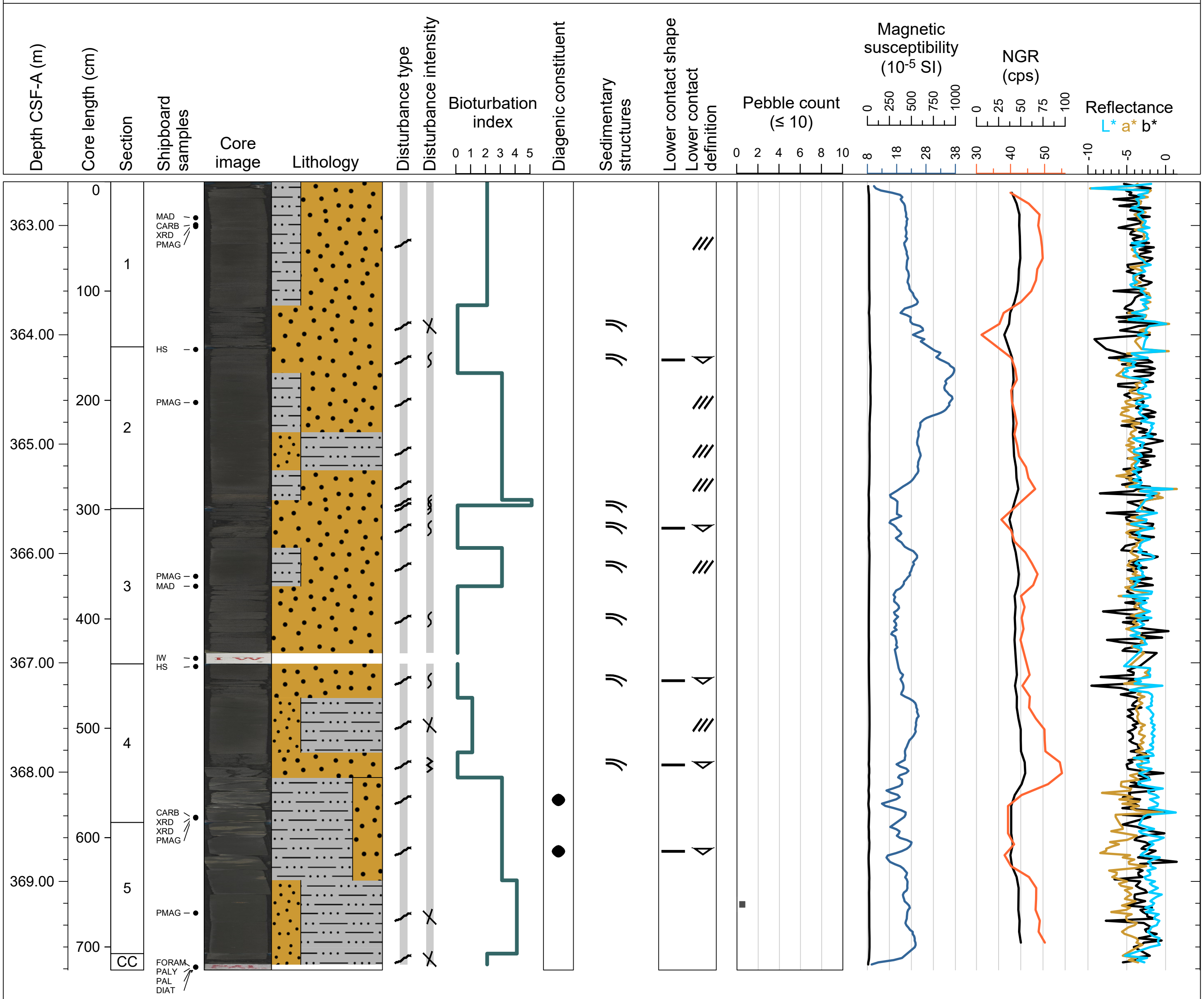
Hole 400-U1607A Core 39R, Interval 352.9-359.92 m (CSF-A)

Dark brownish grey very fine to fine sand is the dominant lithology. The sand is stratified, with a few intervals showing lamination and cross-lamination. Bioturbation in this lithology includes cm-scale vertical to inclined burrows that tend to be filled with the host sediment. Some show backfill structures (aka spreiten). There are short intervals of bioturbated sandy mud in Sections 2-4. Overall, the muddier lithologies tend to be more intensely bioturbated, with bioturbation expressed as mm-scale burrows filled with light or dark brown mud.



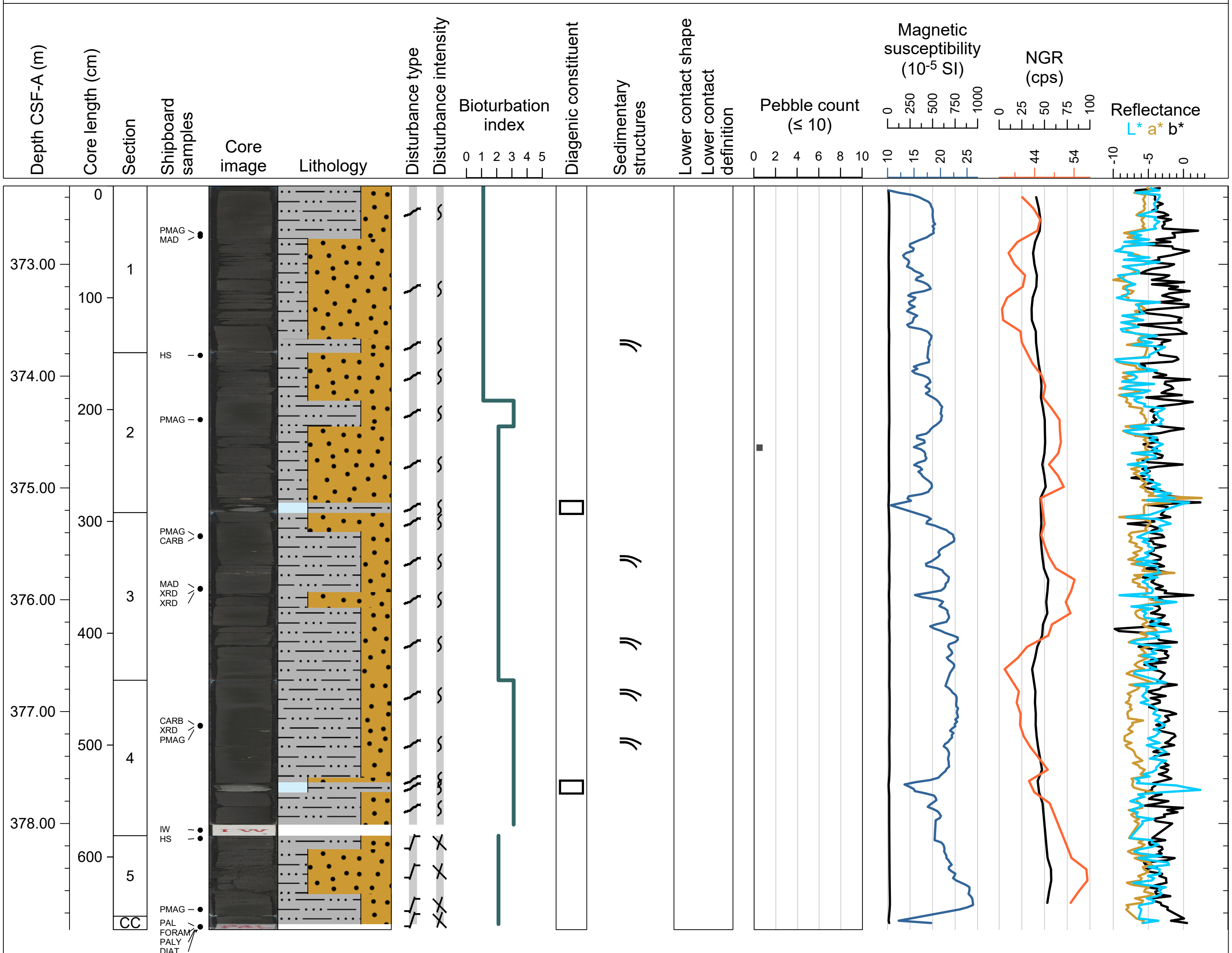
Hole 400-U1607A Core 40R, Interval 362.6-369.81 m (CSF-A)

Dark brownish grey stratified very fine sand, bioturbated muddy sand, and bioturbated sandy mud. Bioturbation ranges from being absent in sands to abundant in other lithologies. Section 4 contains two sand beds with sharp lower contacts. In both cases, sand-filled burrows subtend from those contacts into underlying, finer grained sediment. An interval of grey mud with sand extends from Section 4, 104 cm to Section 5, 53 cm. This interval contains prominent 1-3 cm diameter burrows that are light brown due to calcareous precipitation.



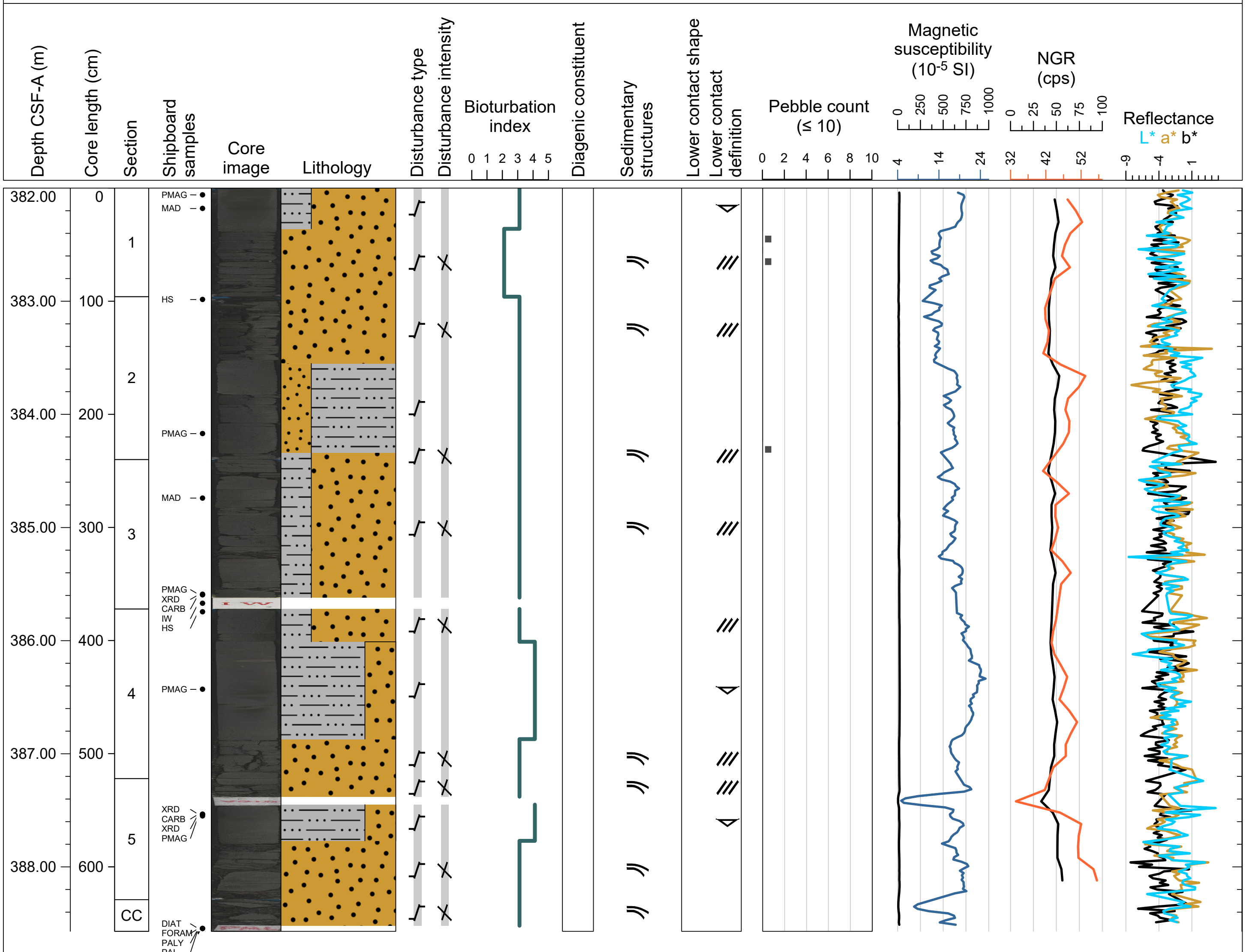
Hole 400-U1607A Core 41R, Interval 372.3-378.95 m (CSF-A)

Dark brown to dark greyish brown mud with sand and muddy sand. The mud with sand has intervals of stratification with weak/faint laminations. Bioturbation is prevalent throughout the core. There are intervals of cemented calcareous mud in Section 2 and 4. Shell fragments/pieces can be found in both the mud with sand and muddy sand.



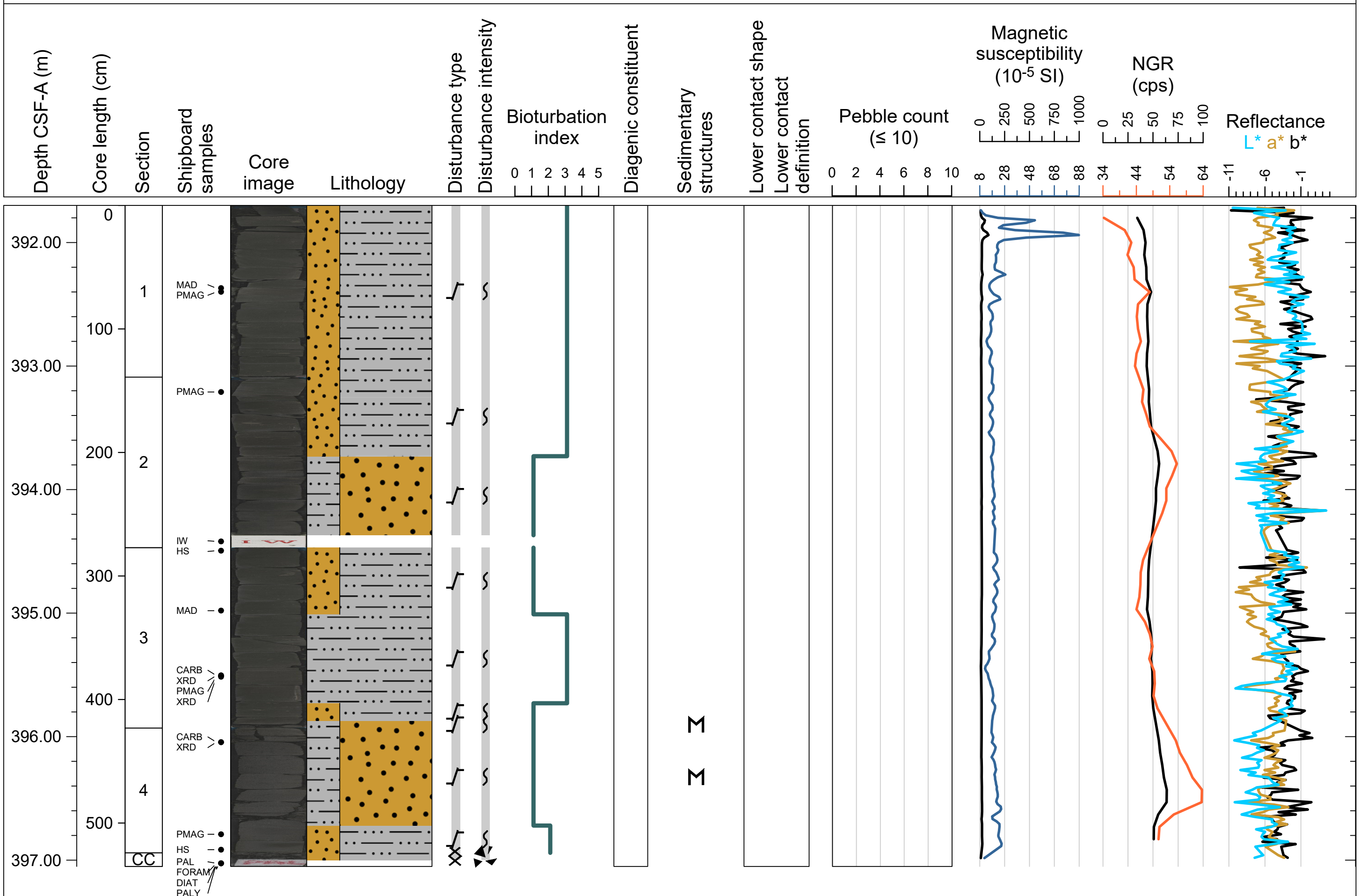
Hole 400-U1607A Core 42R, Interval 382.0-388.57 m (CSF-A)

Dark brown moderately bioturbated muddy sand, weakly stratified dark brown sand with rare clasts (~2-5 mm) and greenish grey heavily bioturbated mud with sand. Light brown carbonate concretions are present.



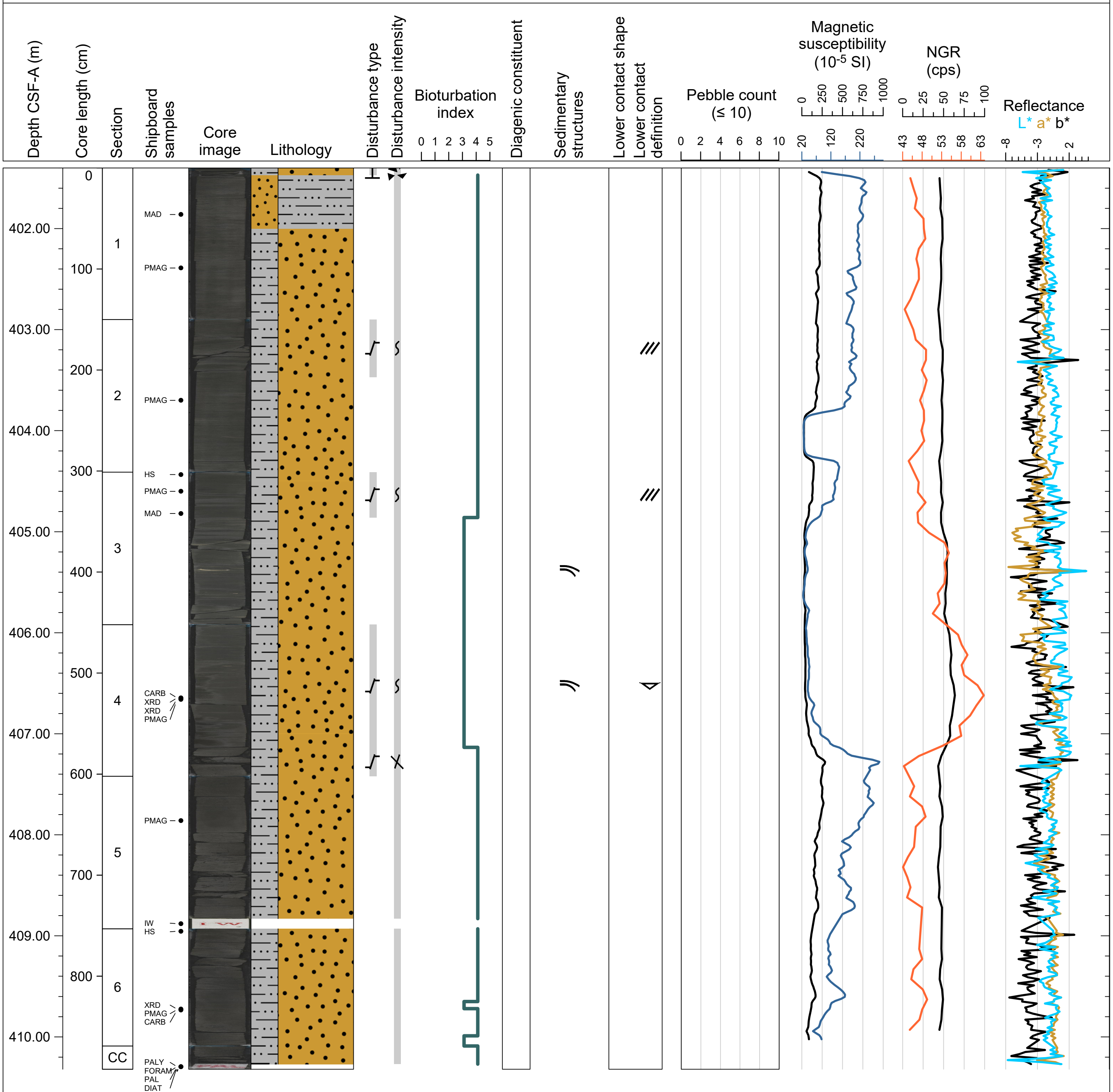
Hole 400-U1607A Core 43R, Interval 391.7-397.05 m (CSF-A)

Dark greenish grey bioturbated sandy mud interbedded with massive very dark greyish brown to grey muddy sand. Pyritized burrows are common throughout and rare shell fragments are observed in Section 2.



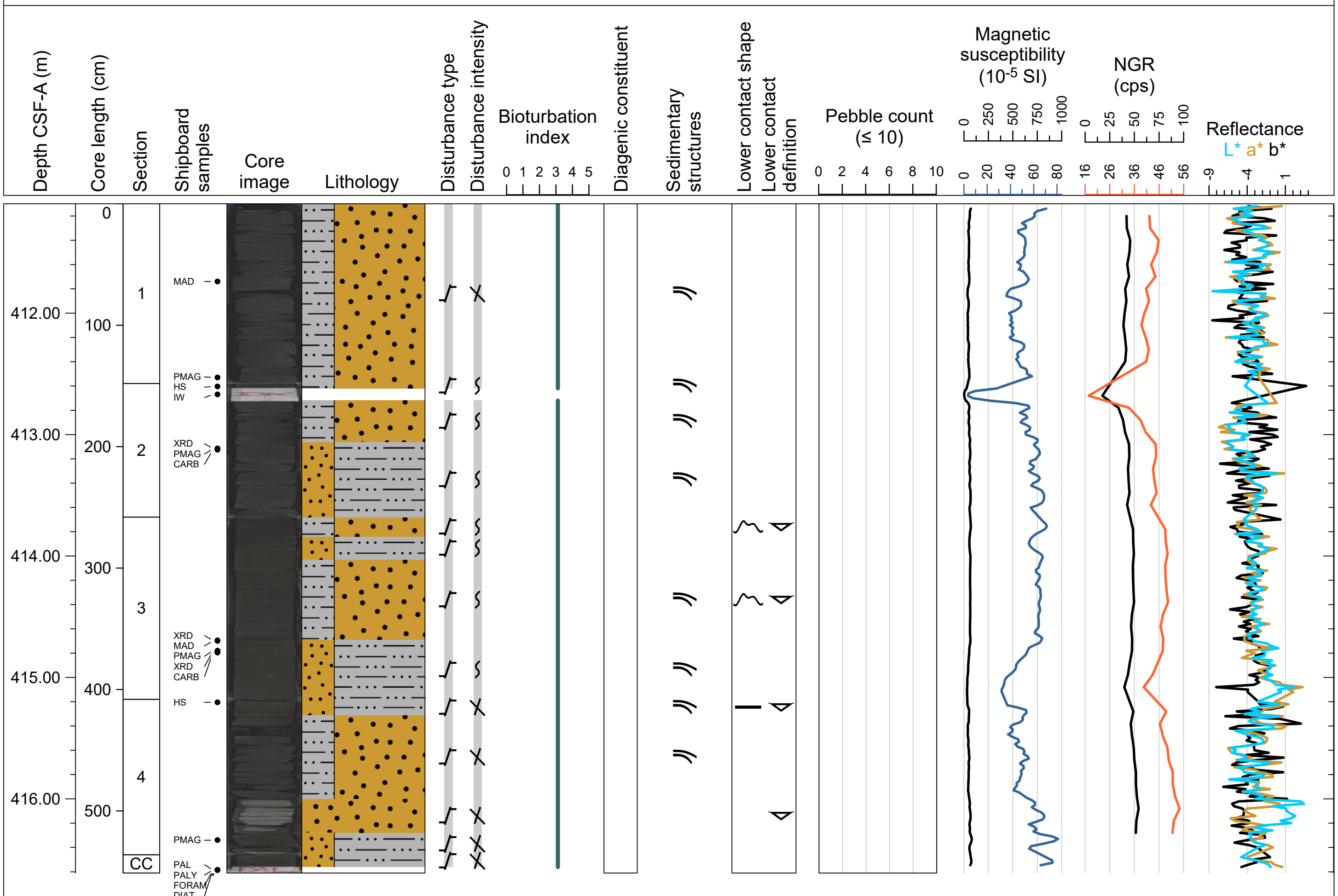
Hole 400-U1607A Core 44R, Interval 401.4-410.32 m (CSF-A)

Dark brown to medium grey bioturbated sandy mud and muddy sand. Variable bioturbation. Stratification begins to become more coherent in Section 3 and below.



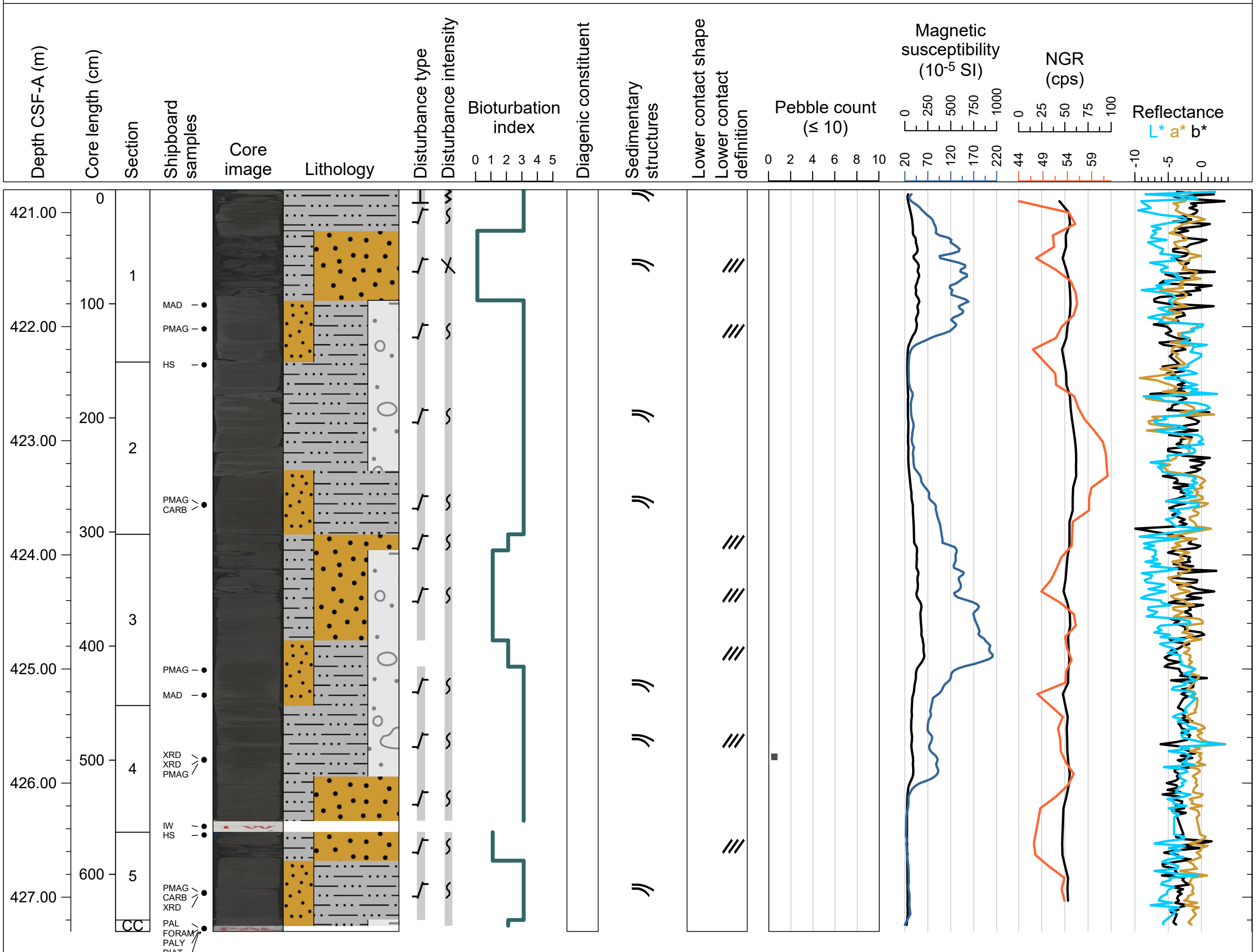
Hole 400-U1607A Core 45R, Interval 411.1-416.61 m (CSF-A)

Dark brown, bioturbated muddy sand alternating with dark brown, bioturbated sandy mud. Weak/faint stratification occurs throughout. Notably sharp irregular contacts of sand overlying mud (Section 3) and mud overlying sand (Section 4). Bioturbation is moderate throughout.



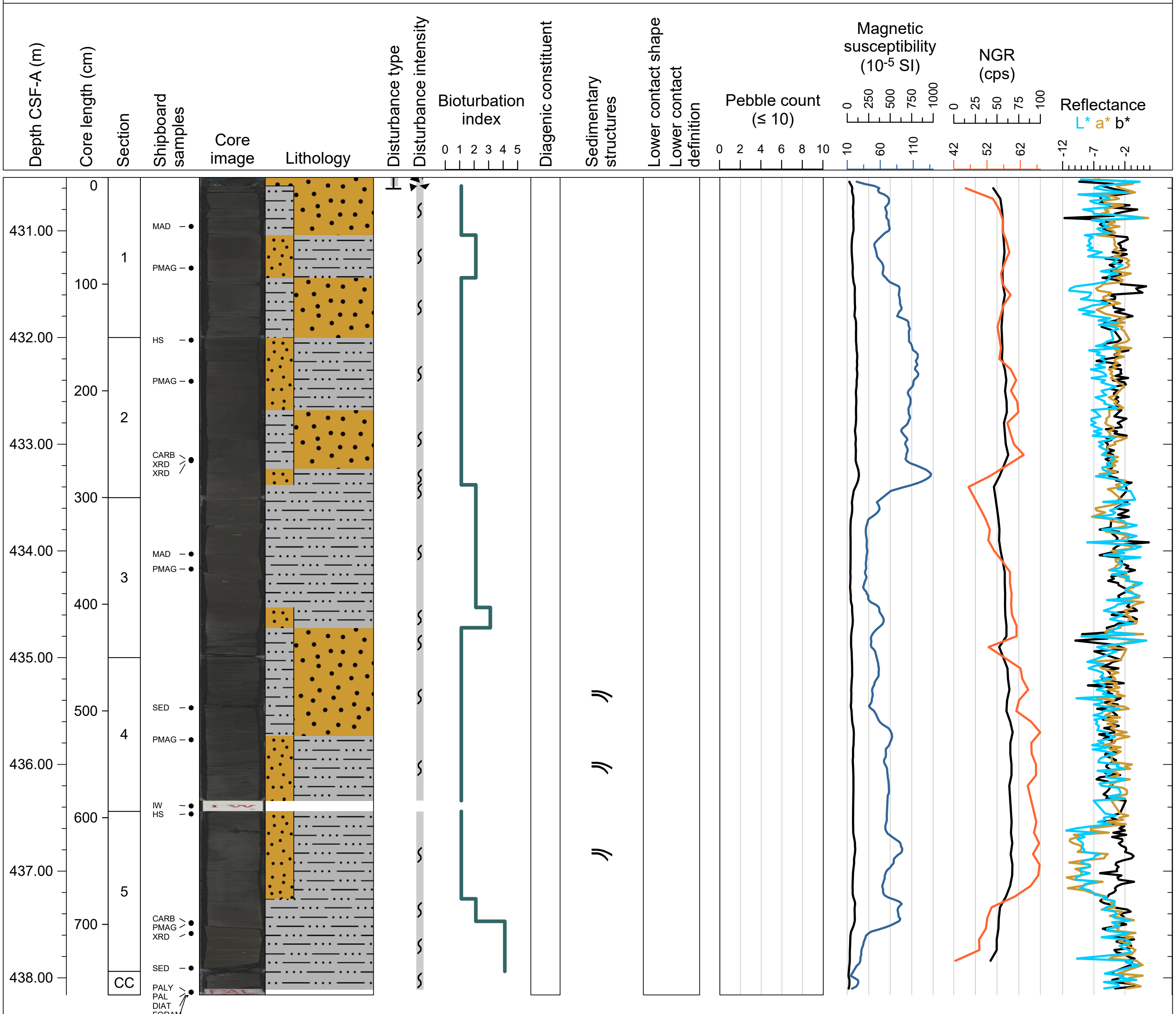
Hole 400-U1607A Core 46R, Interval 420.8-427.3 m (CSF-A)

Dark grey to medium grey muddy sand alternating with sandy mud. Pyritized burrows and rare shell fragments occur throughout. The drilling disturbance is slight to moderate.



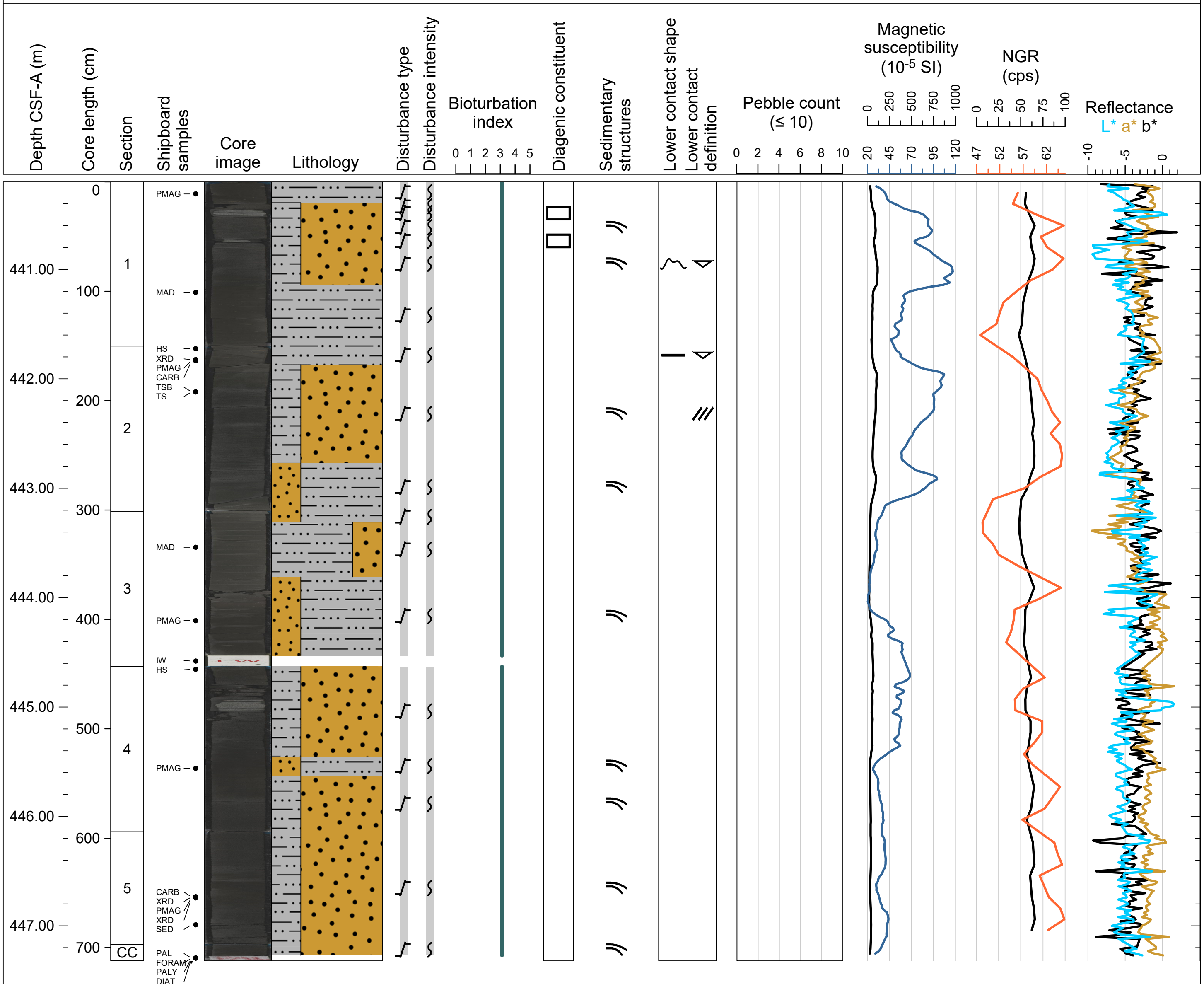
Hole 400-U1607A Core 47R, Interval 430.5-438.16 m (CSF-A)

Dark grey sparsely bioturbated muddy sand and sandy mud interbedded with dark greyish brown bioturbated mud. The sand component includes abundant black grains, and glauconite was observed in a smear slide in Section 4. Pyritized burrows are present throughout. A fault with slickensides is present in the core catcher.



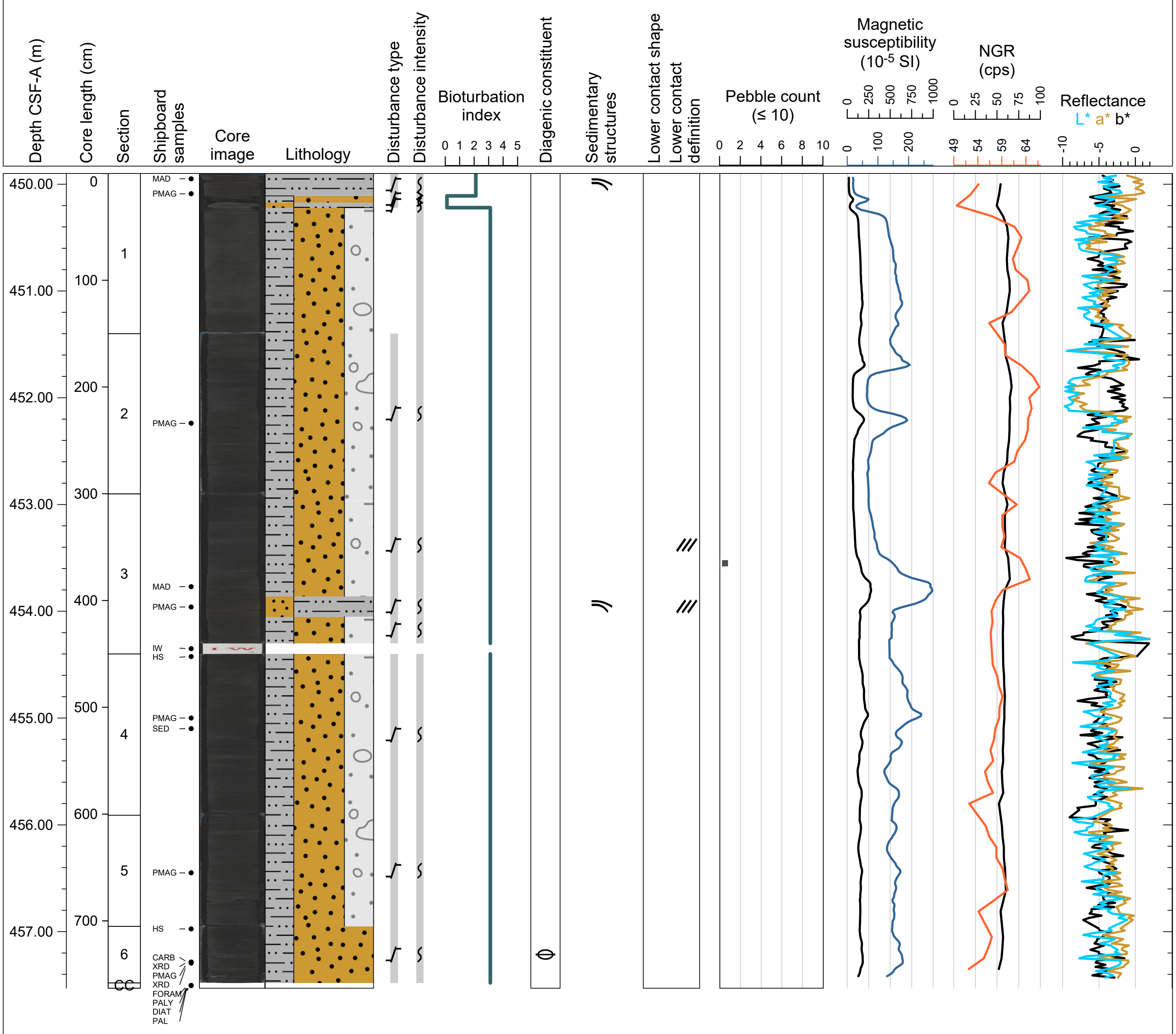
Hole 400-U1607A Core 48R, Interval 440.2-447.32 m (CSF-A)

Greyish-brown bioturbated mud, dark brown bioturbated mud, dark brown bioturbated sandy mud, and dark brown bioturbated muddy sand intervals alternating throughout the core. Many intervals include weak/faint stratification within slightly less bioturbated fabric. Three faults (each with slickensides) are present in Sections 2 and 3. Bioturbation is moderate throughout. Multiple thin (<20 cm) carbonate cemented intervals are present.



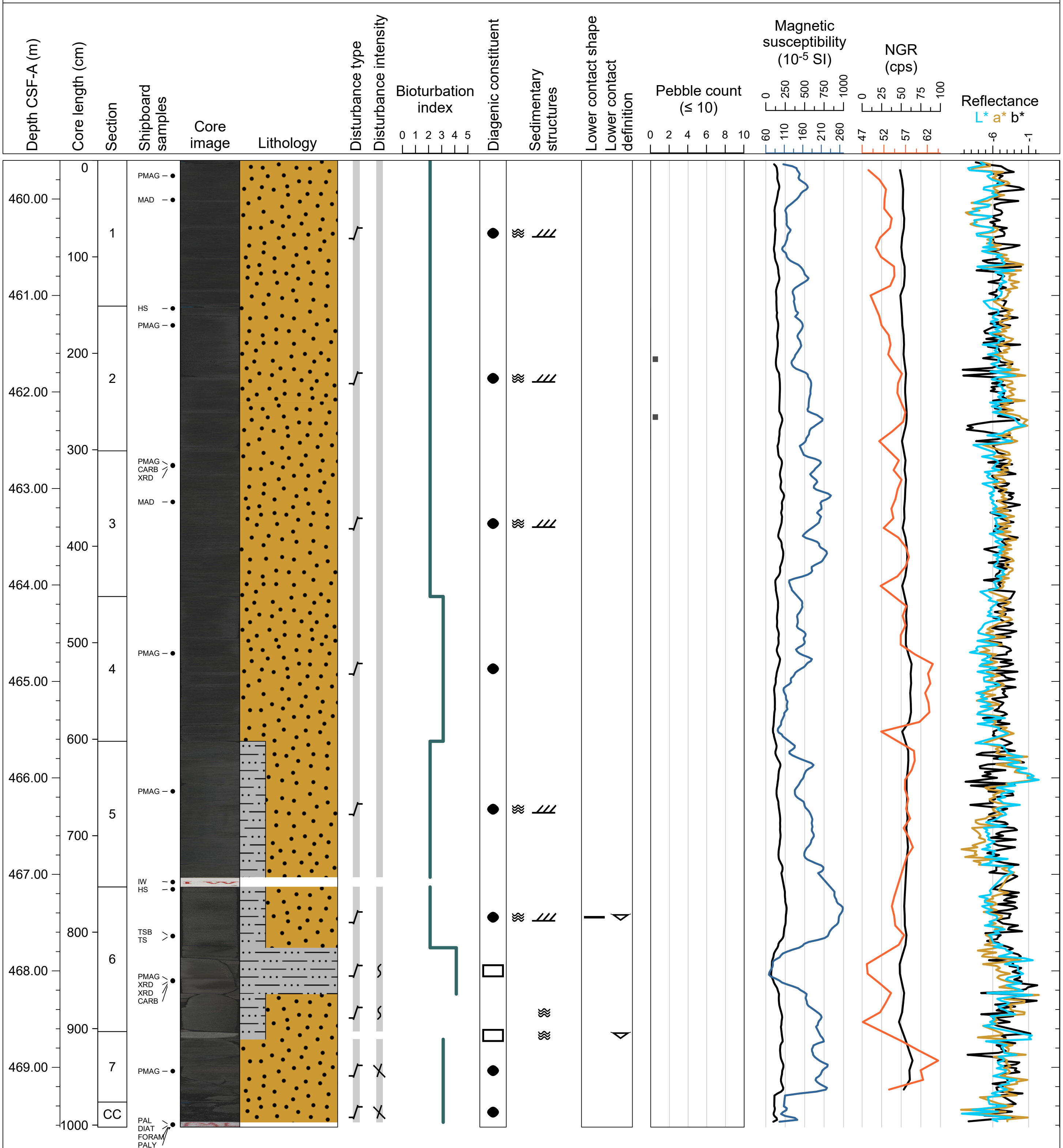
Hole 400-U1607A Core 49R, Interval 449.9-457.53 m (CSF-A)

Very dark grey muddy sand to sandy mud with 1-2 mm dispersed clasts. The mud matrix is dark greyish brown while the sand component is black to dark green and identified as glauconite. Burrows tend to be filled with black to dark green material. The drilling disturbance is slight. A calcareous concretion occurs in Section 6.



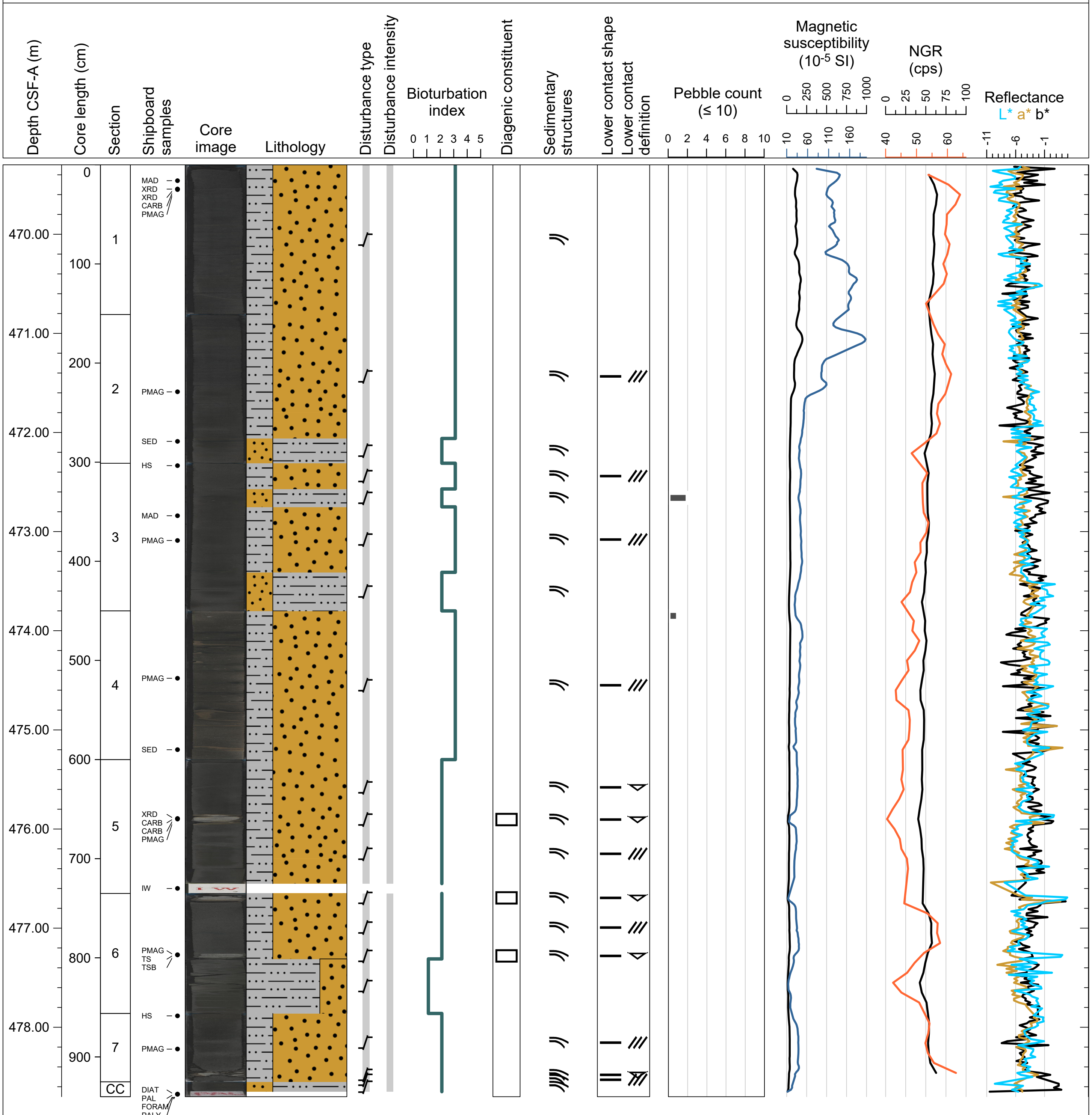
Hole 400-U1607A Core 50R, Interval 459.6-469.62 m (CSF-A)

Dark green sand (colors to black with exposure) with wavy and cross stratified laminae and strongly bioturbated dark greenish brown muddy sand. A significant contact occurs at 63 cm in Section 6 between dark green glauconitic muddy sands overlying light grey mud that is lightly cemented. The contact is burrowed into containing glauconitic rich sands from the above lithology and has glauconitic filled burrows above.



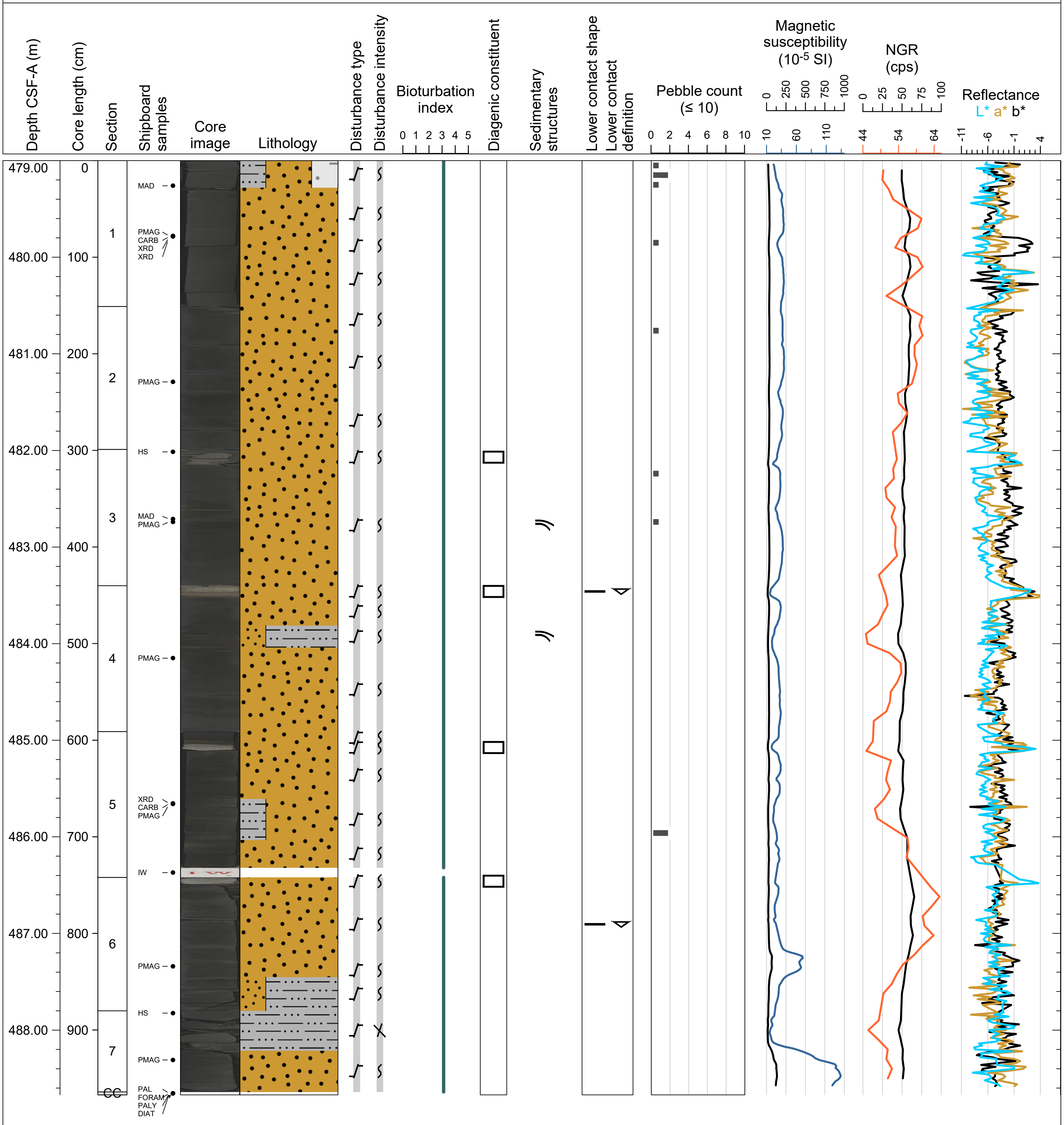
Hole 400-U1607A Core 51R, Interval 469.3-478.7 m (CSF-A)

Very dark green to black very fine bioturbated glauconite-rich sand and muddy sand, all with faint laminations and possible cross stratification. Sand intervals contain large discrete burrows that may be either nearly vertical or horizontal. A strong color contrast with enclosing sediments is created by carbonate cement (light brown) or the development of black, glauconite and pyrite rich haloes. Muddy sand intervals contain scattered coarse sand grains and granules, along with small unidentifiable fossil debris. In Section 6, there is a sharp contact between muddy sand and grey mud below. Below the contact, burrows are filled with overlying sand. There are several carbonate cemented horizons or concretions, in Sections 5-7. One contains cracks along its margins that are reminiscent of those found in septarian concretions.



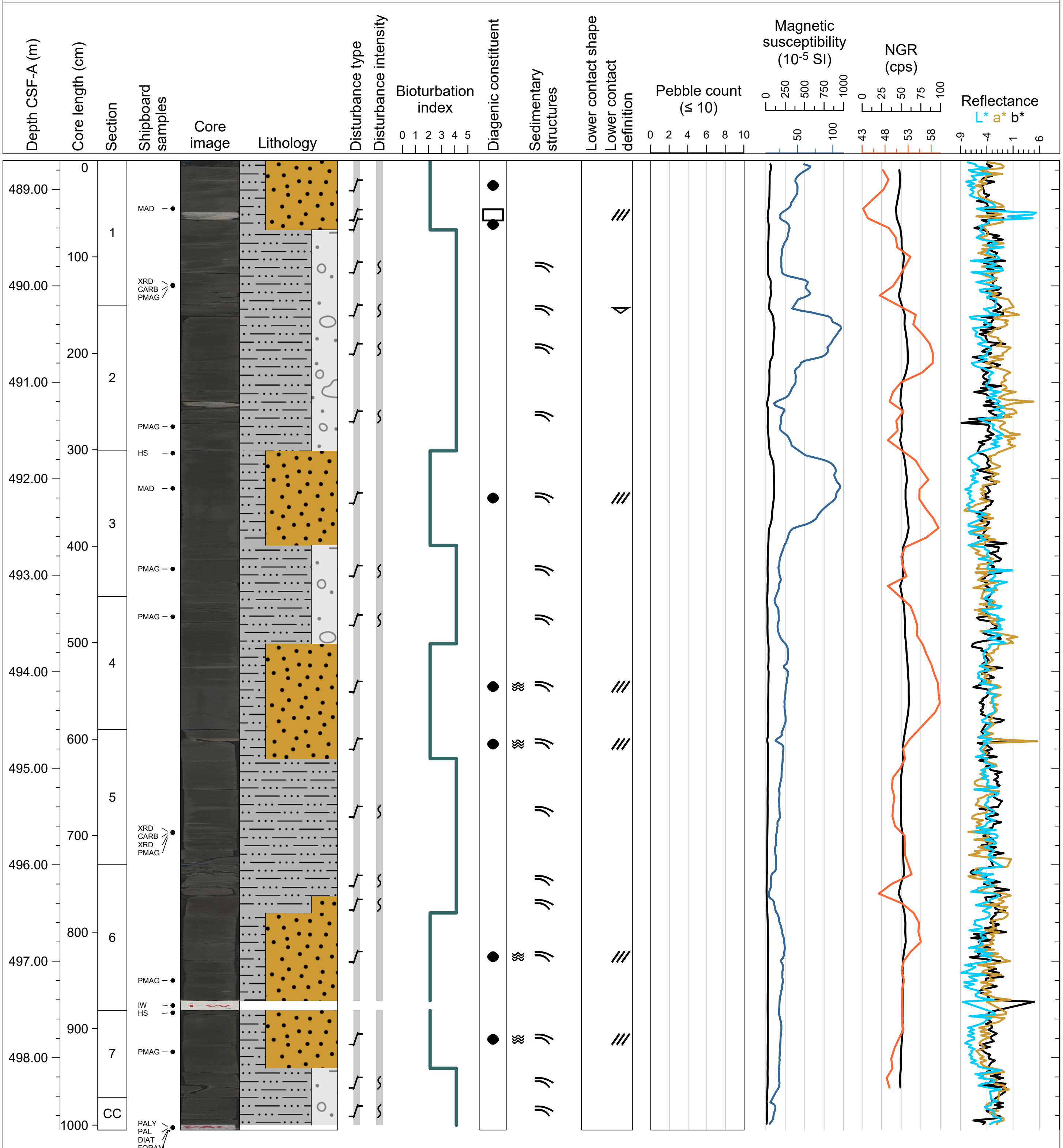
Hole 400-U1607A Core 52R, Interval 479.0-488.67 m (CSF-A)

Dark green, brown, and grey bioturbated sand and muddy sand, with faint laminations and possible cross stratification. One interval of mud in Section 7. A strong color contrast with enclosing sediments is created by carbonate cement (light brown) or the development of black, glauconite. Pyrite is present with some burrows pyritized. The pyrite appears more concentrated in the earlier sections of this core. In Section 4 there is a hard contact within the calcareous cement. In Section 6 there is a sharp contact between two sand intervals. There are calcareous cemented horizons or concretions, in Sections 3, 4, 5 and 6.



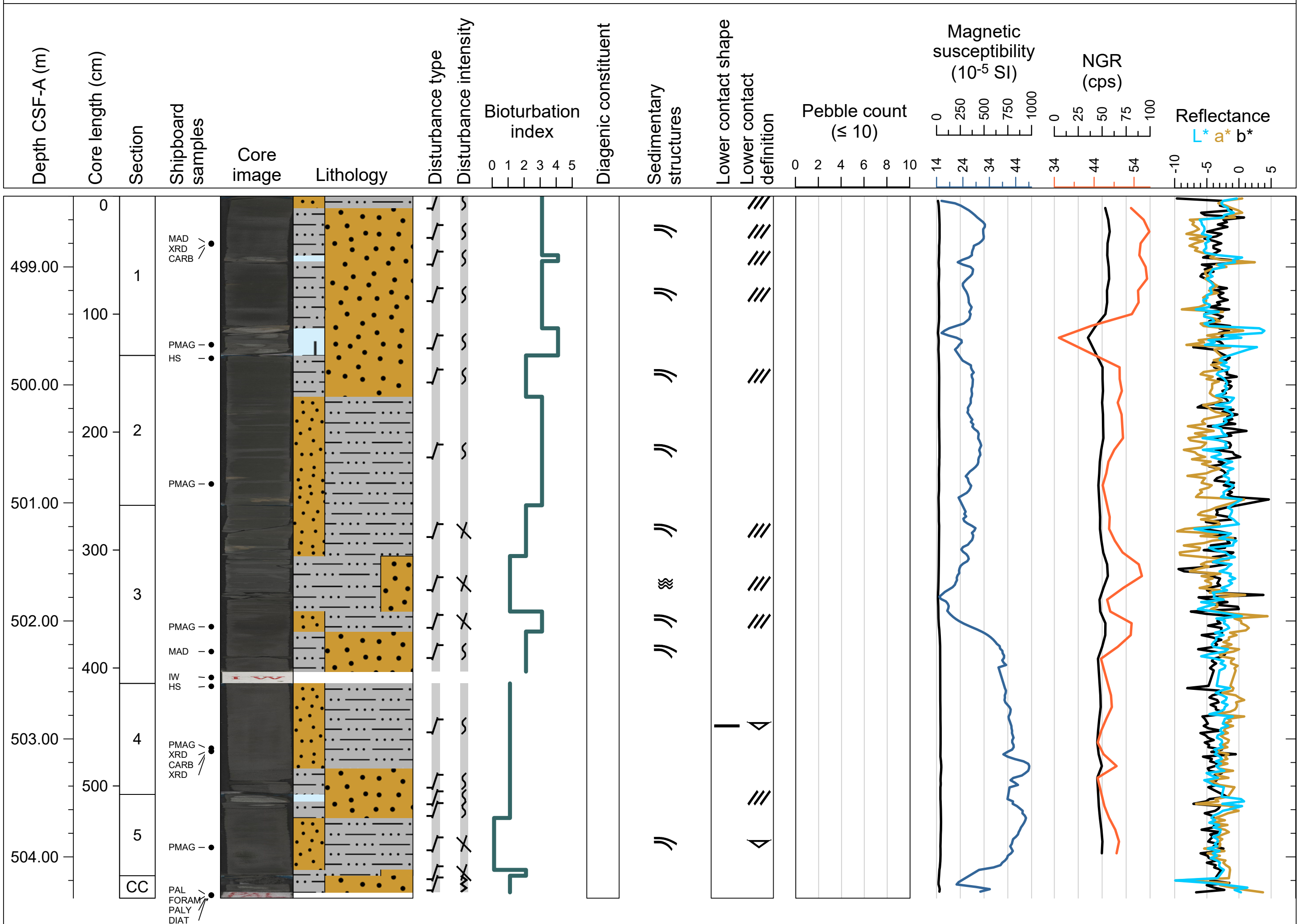
Hole 400-U1607A Core 53R, Interval 488.7-498.75 m (CSF-A)

Dark greyish green muddy sand that shows faint cm-scale wavy and cross stratification, sparsely to moderately bioturbated with angular glauconite deposited in bedding with sand and ~1 cm glauconite grains grown in place interrupting bedding planes. There is also an interval of weakly stratified greyish brown mud with sand with dispersed clasts (2-5 mm) in Section 2-3. Faulting observed in Section 2, 4, 5 and 6 with no evidence of significant offset. There are carbonate cemented concretions in Section 1 and 2.



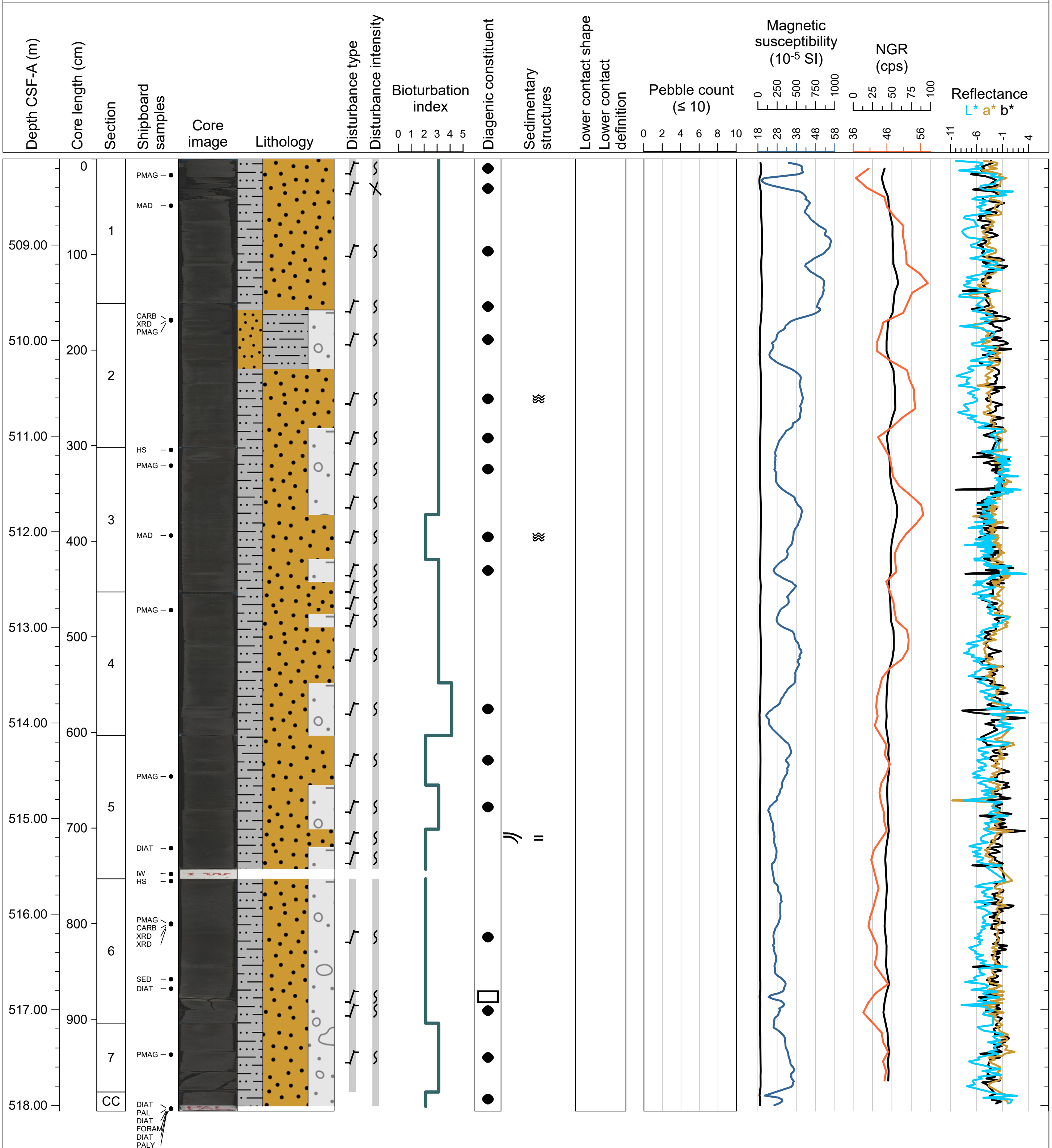
Hole 400-U1607A Core 54R, Interval 498.4-504.35 m (CSF-A)

Dark brownish grey to dark grey stratified to bioturbated sandy mud, muddy sand, and sand with mud. Throughout the core, large discrete burrows are highlighted by glauconitic/pyritic haloes or pale brown calcareous infill. There are carbonate-cemented intervals in Sections 1 and 5. In Section 1, these intervals preserve a record of more intense bioturbation. Scattered fossils, coarse sand grains, and glauconite throughout the core.



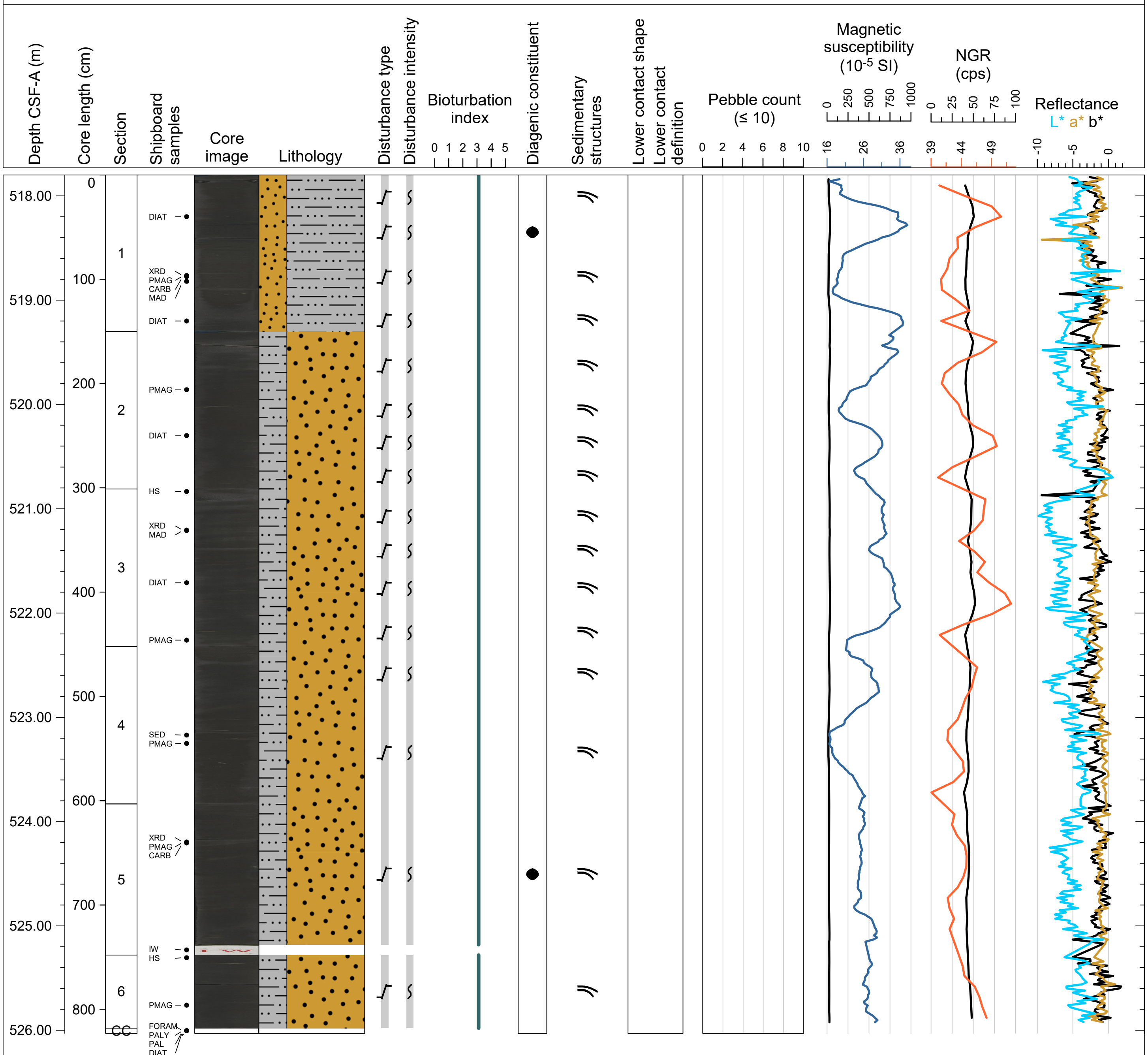
Hole 400-U1607A Core 55R, Interval 508.1-518.06 m (CSF-A)

Medium to dark brown muddy sand with one interval of sandy mud. Intervals of lighter colored sand tend to have dispersed clast and shell fragments. The dark brown muddy sand has more glauconite throughout than the medium brown muddy sand intervals. Throughout the core, large discrete burrows are highlighted by glauconite. Scattered fossils with one macrofossil shell fragment in Section 4. One interval of calcite cement in Section 6.



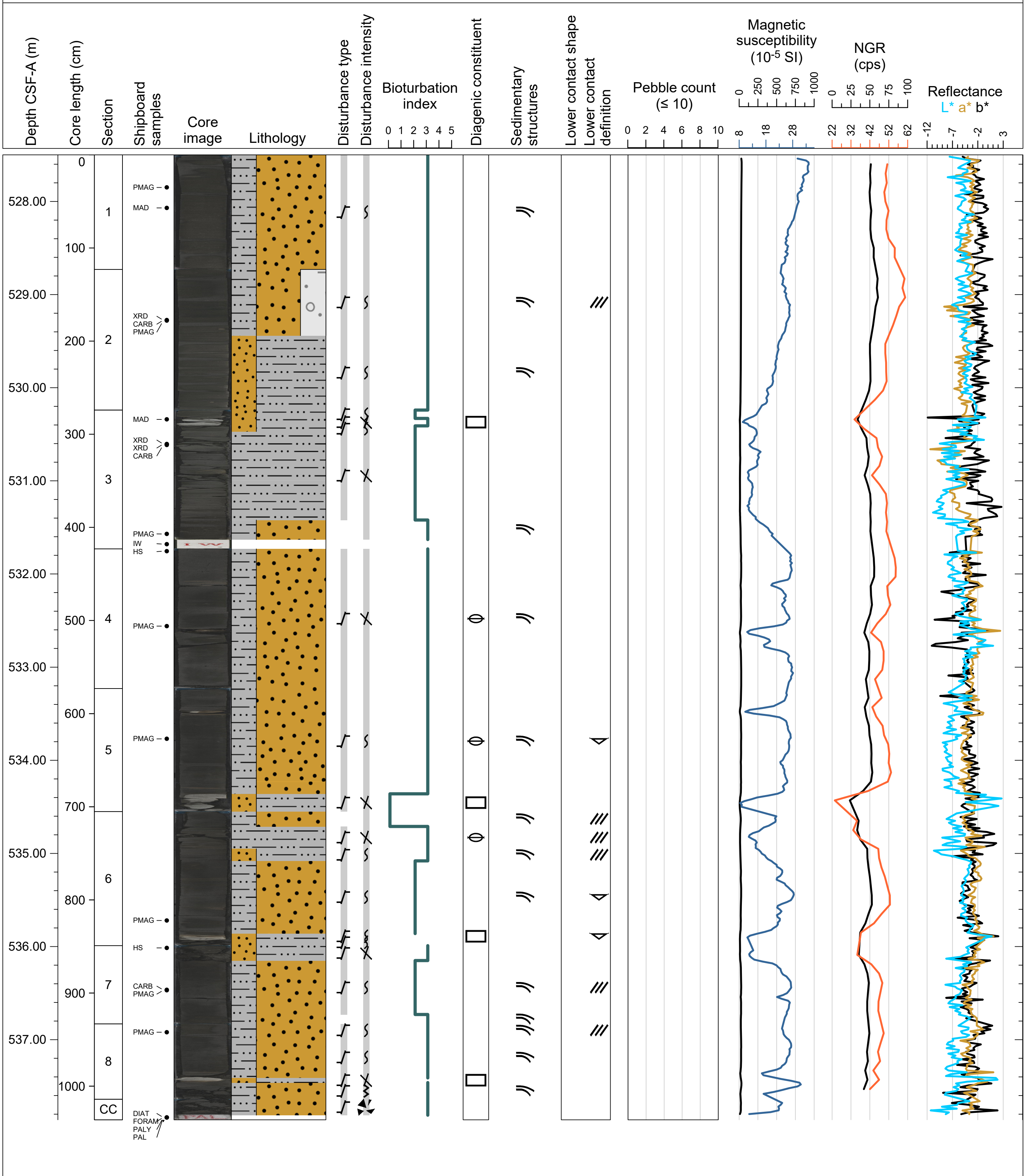
Hole 400-U1607A Core 56R, Interval 517.8-526.03 m (CSF-A)

Medium to dark brown bioturbated, weakly stratified muddy sand with lesser amounts of sandy mud. The medium brown to dark brown coloration alternates at dm- to m-scale. Bioturbation is moderate throughout. Glauconite occurs as both sand-sized particles (within a muddy sand) and as sub-horiztonal, cm-scale layers that is likely in situ/authigenic occurrence.



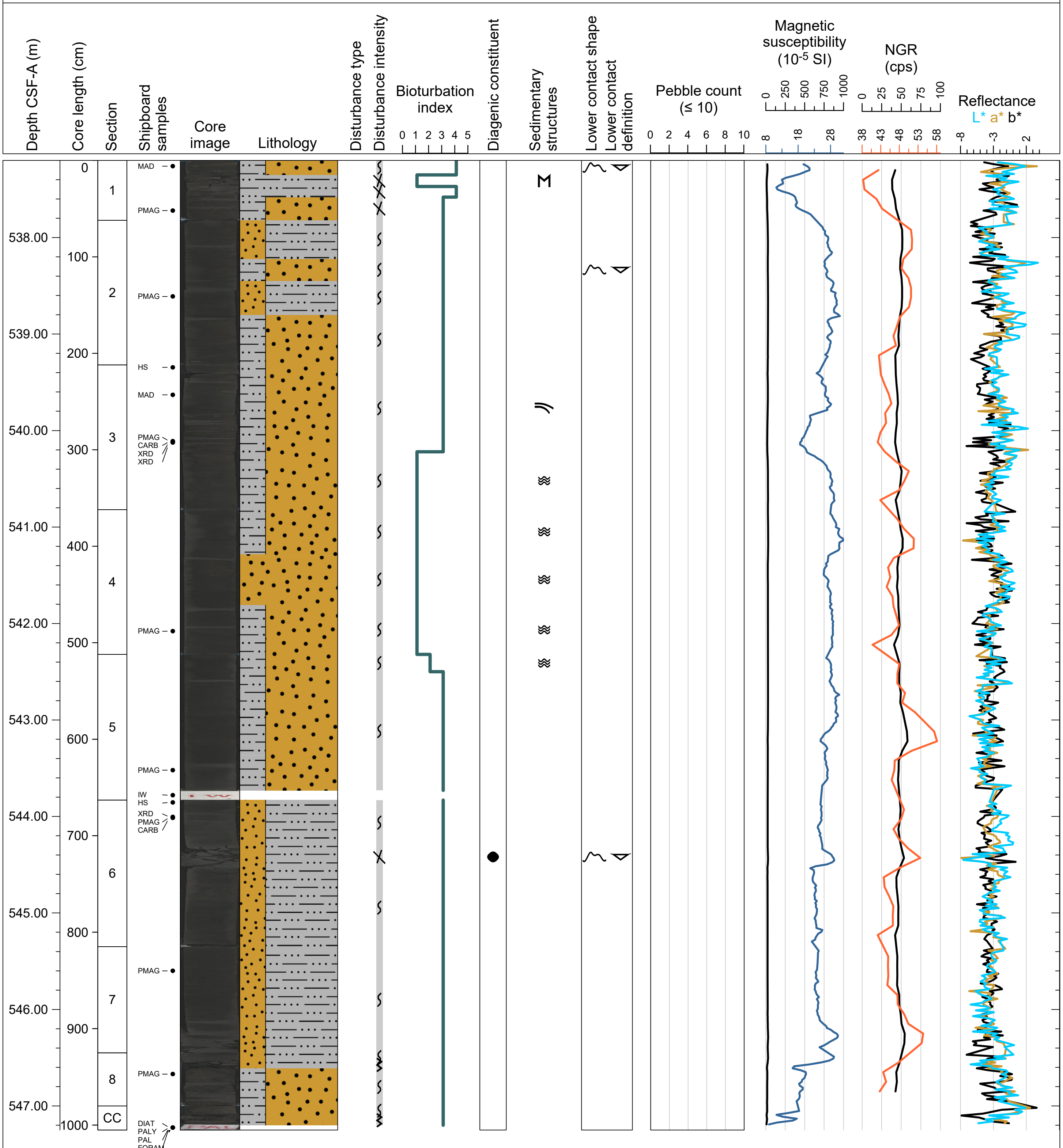
Hole 400-U1607A Core 57R, Interval 527.5-537.86 m (CSF-A)

Dark to medium grey sandy mud and muddy sand weakly stratified interbedded with light grey carbonate cemented sandy mud. The sand particles are black to dark green, and dark green patches are noted. Bioturbation is present and burrows are filled commonly by either very fine sorted sand, dark green material or calcareous yellow mud. The drilling disturbance is slight to moderate.



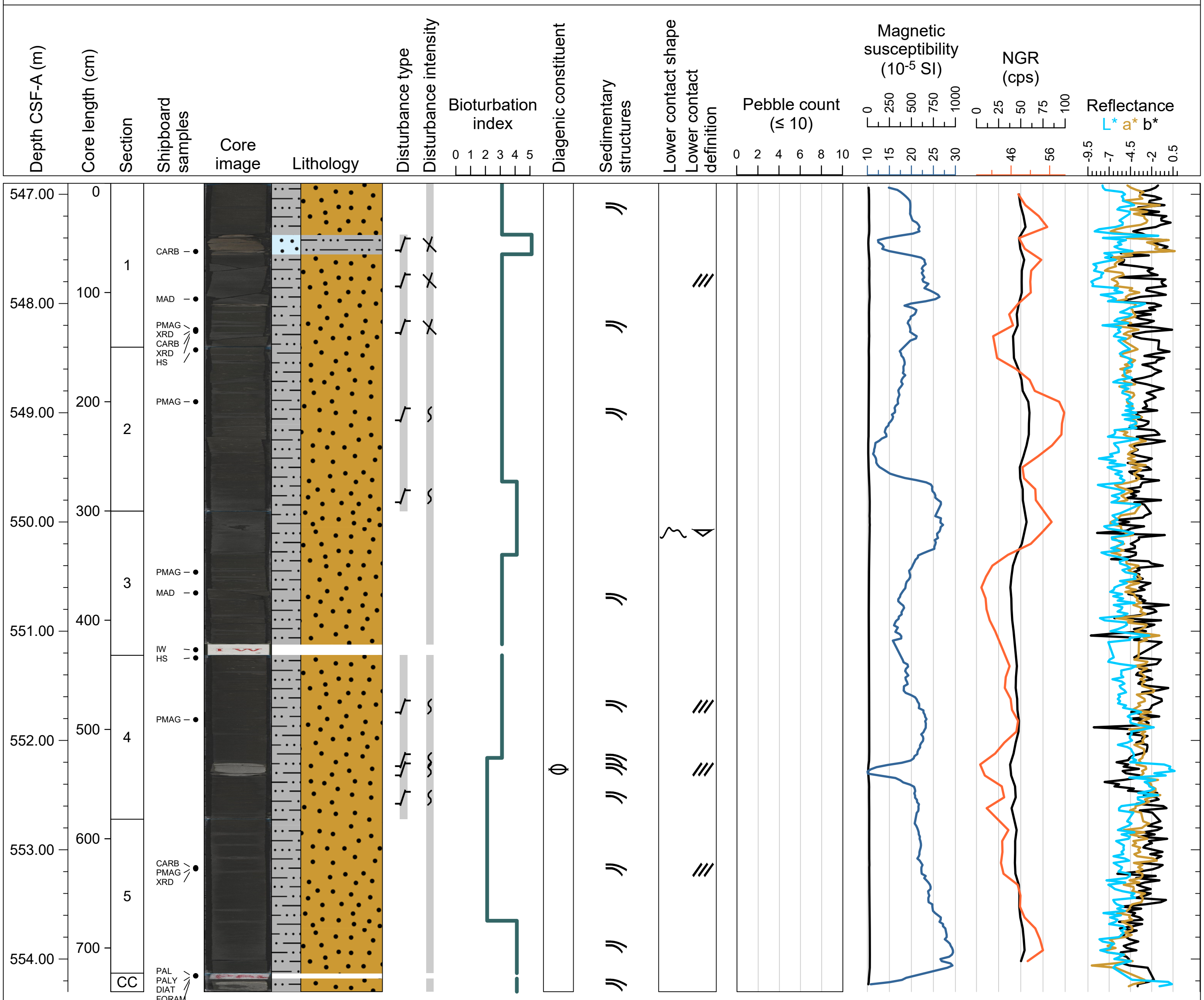
Hole 400-U1607A Core 58R, Interval 537.2-547.25 m (CSF-A)

Greyish brown bioturbated muddy sand interbedded with dark brown bioturbated sandy mud and mud. Sand beds are weakly laminated or stratified. Burrows are commonly pyritized or filled with a green-colored mineral (likely glauconite). Shell fragments are rare.



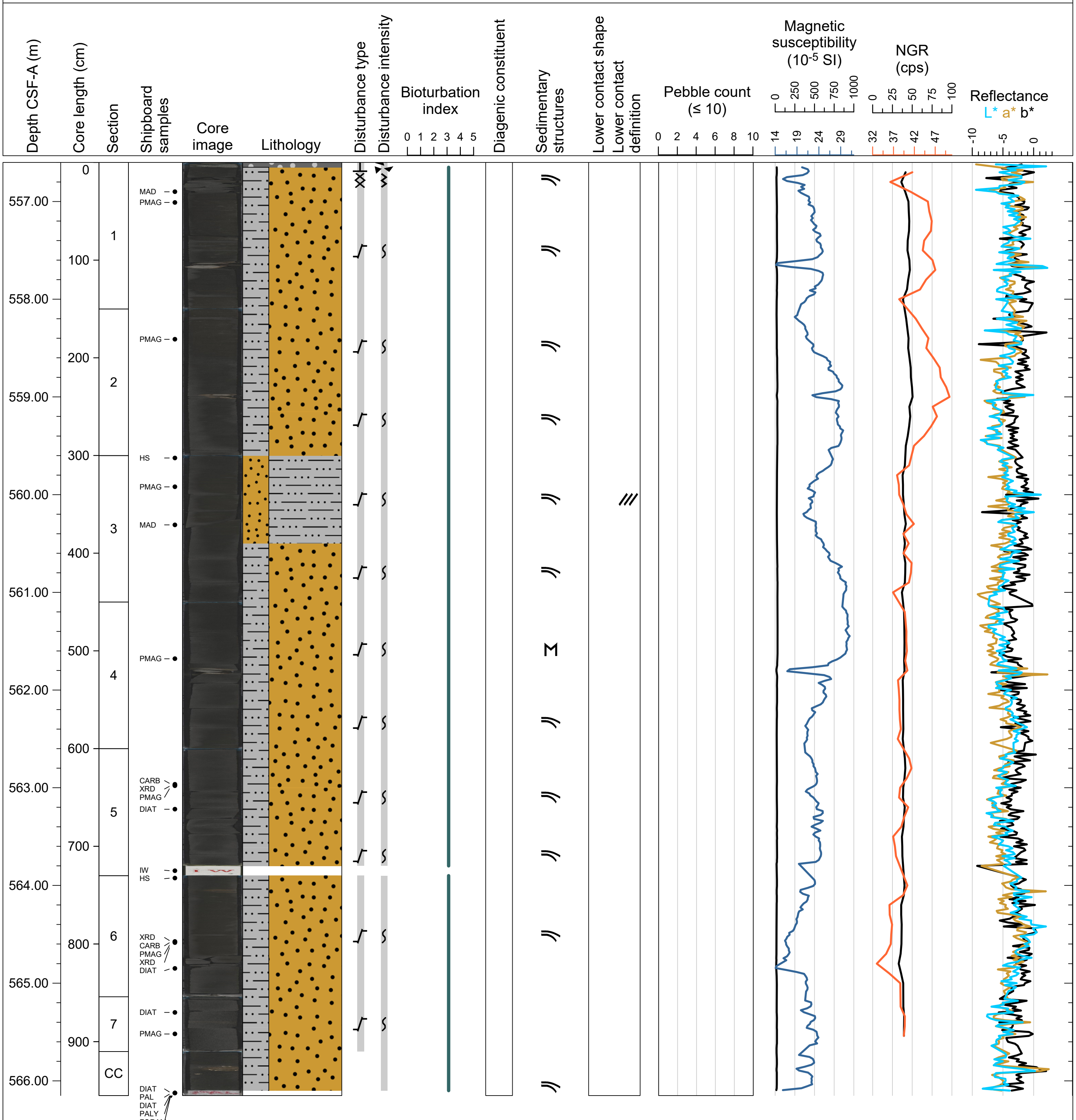
Hole 400-U1607A Core 59R, Interval 546.9-554.3 m (CSF-A)

Interstratified, decimeter-thick intervals of dark brown, bioturbated, structureless to subtly laminated muddy sand that is rich in detrital glauconite grains and medium brown, bioturbated muddy sand with dispersed shell fragments, thin, disrupted laminae and commonly pyritized burrows. 15 cm thick interval in Section 1 is a calcareous sandy mud.



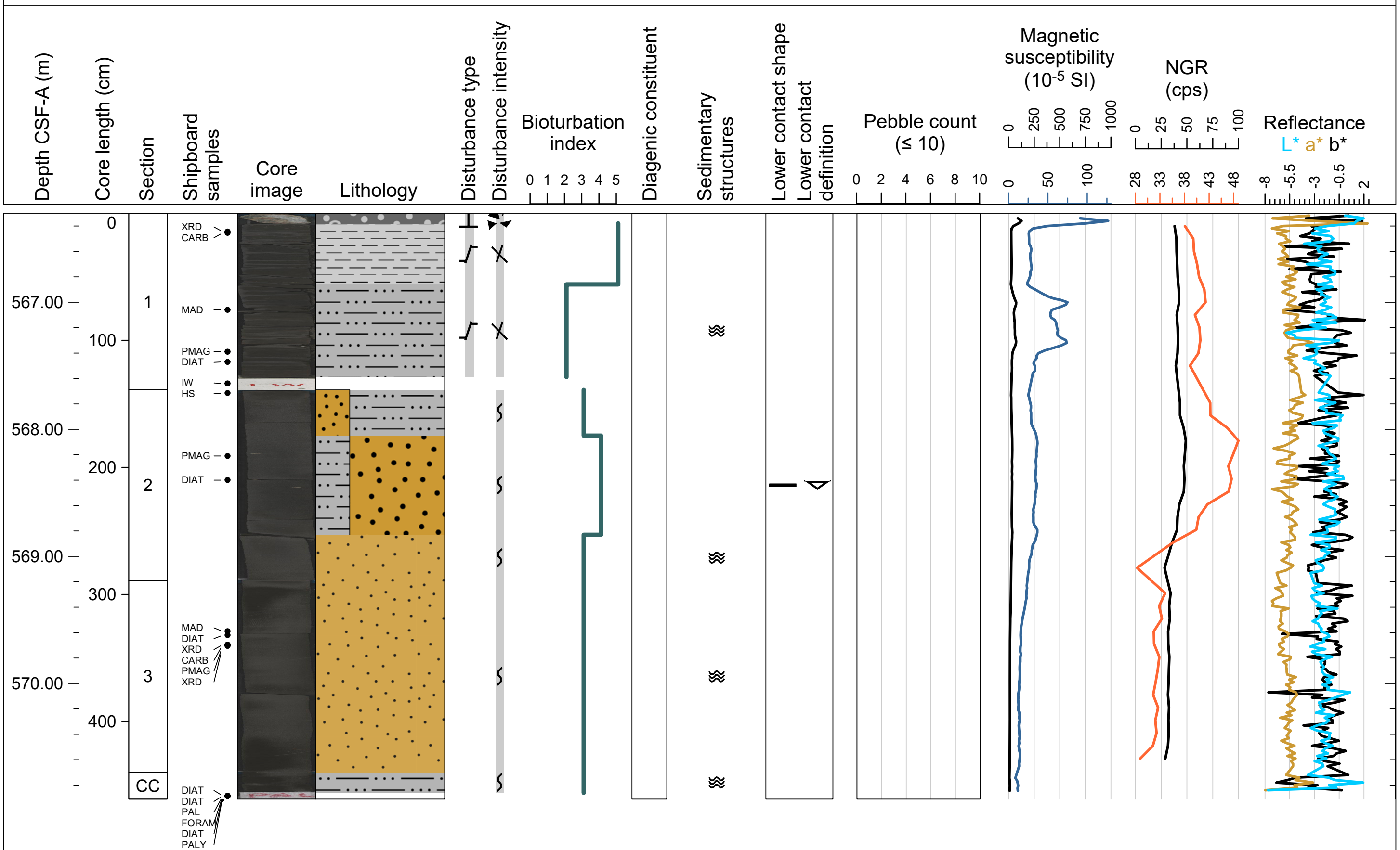
Hole 400-U1607A Core 60R, Interval 556.6-566.15 m (CSF-A)

Medium to dark brown, bioturbated, and weakly stratified muddy sand with one interval of medium brown, bioturbated sandy mud (in Section 3). Stratification expression is highly variable, strongly disrupted by bioturbation, which is moderate throughout the core. Sand-sized particles of dark green glauconite are sparsely distributed. Sand sized pyrite is abundant and disseminated through much of the succession. Faults are present in Sections 1 and 3.



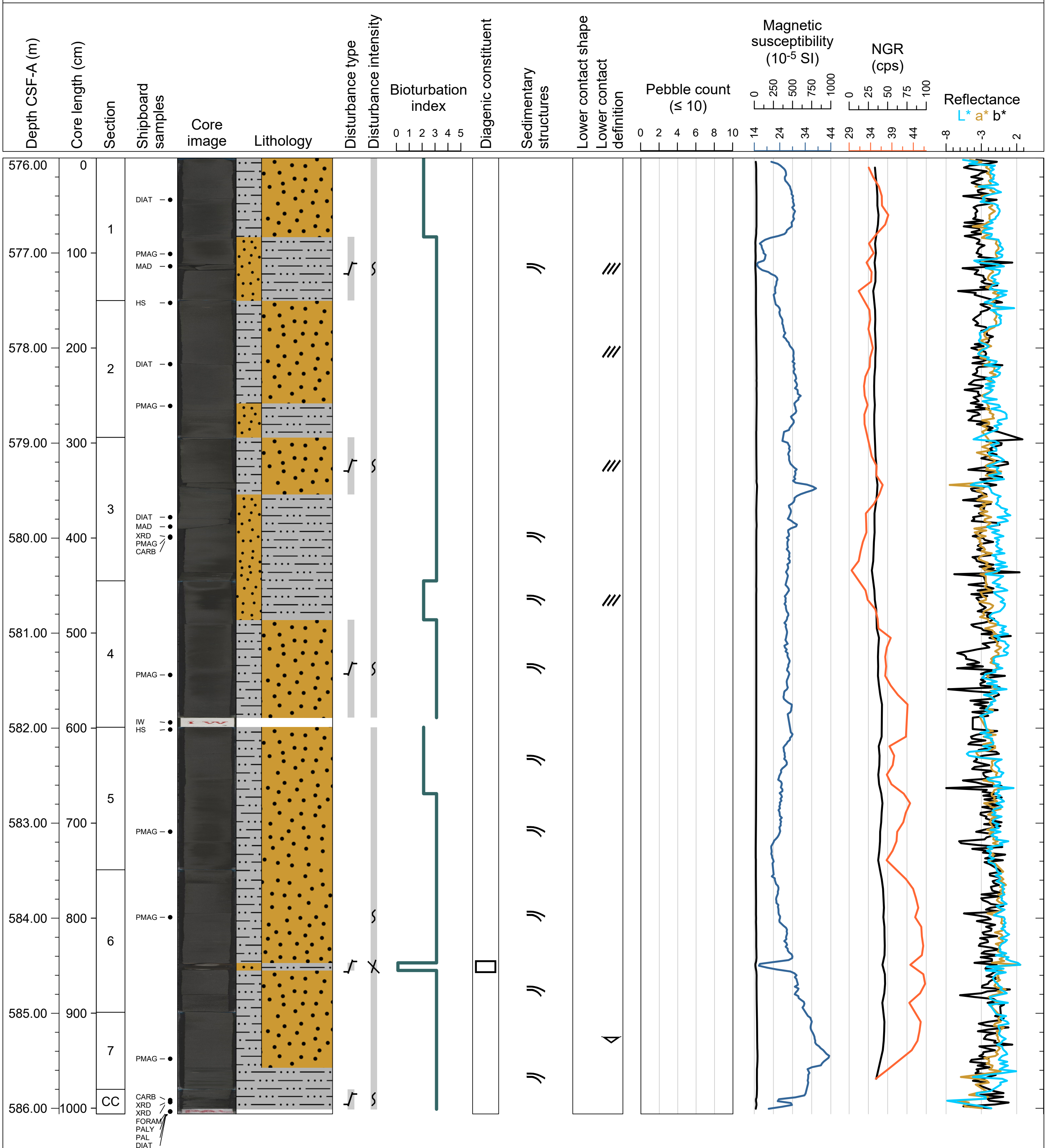
Hole 400-U1607A Core 61R, Interval 566.3-570.91 m (CSF-A)

Very dark greyish brown bioturbated mud and sandy mud with one interbed of muddy sand in Section 2. Bioturbation intensity is variable with an interval of burrows with greenish and pyritized fill in Section 1. Few shell fragments, as well as fault planes with slickensides are present in Sections 2 and 3.



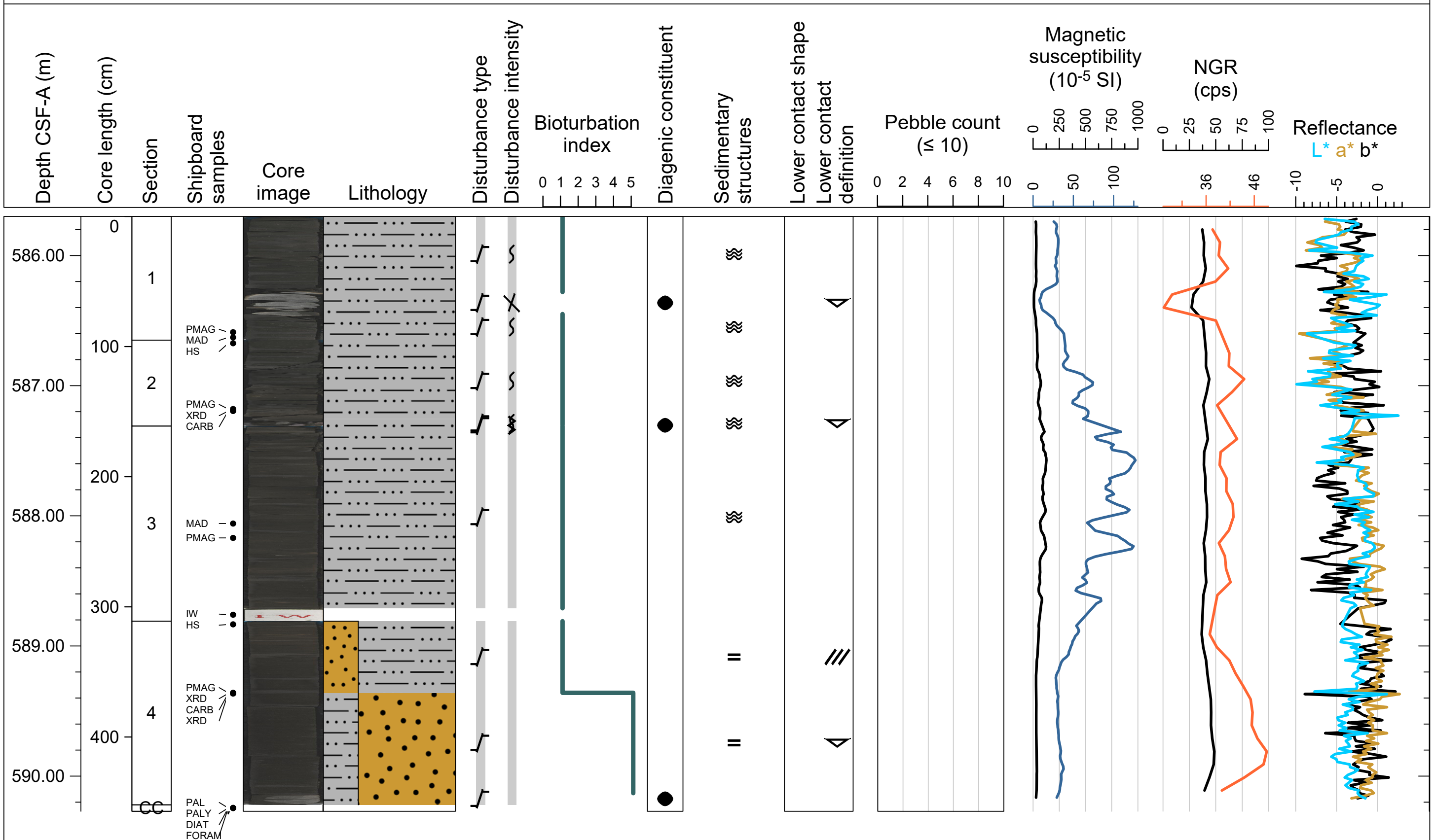
Hole 400-U1607A Core 62R, Interval 576.0-586.06 m (CSF-A)

Dark to medium grey, bioturbated muddy sand and sandy mud with gradational and bioturbated contacts.Green burrow fills and patches of green sediment are observed. Shell fragments are sparse and tiny. The core is slightly disturbed.



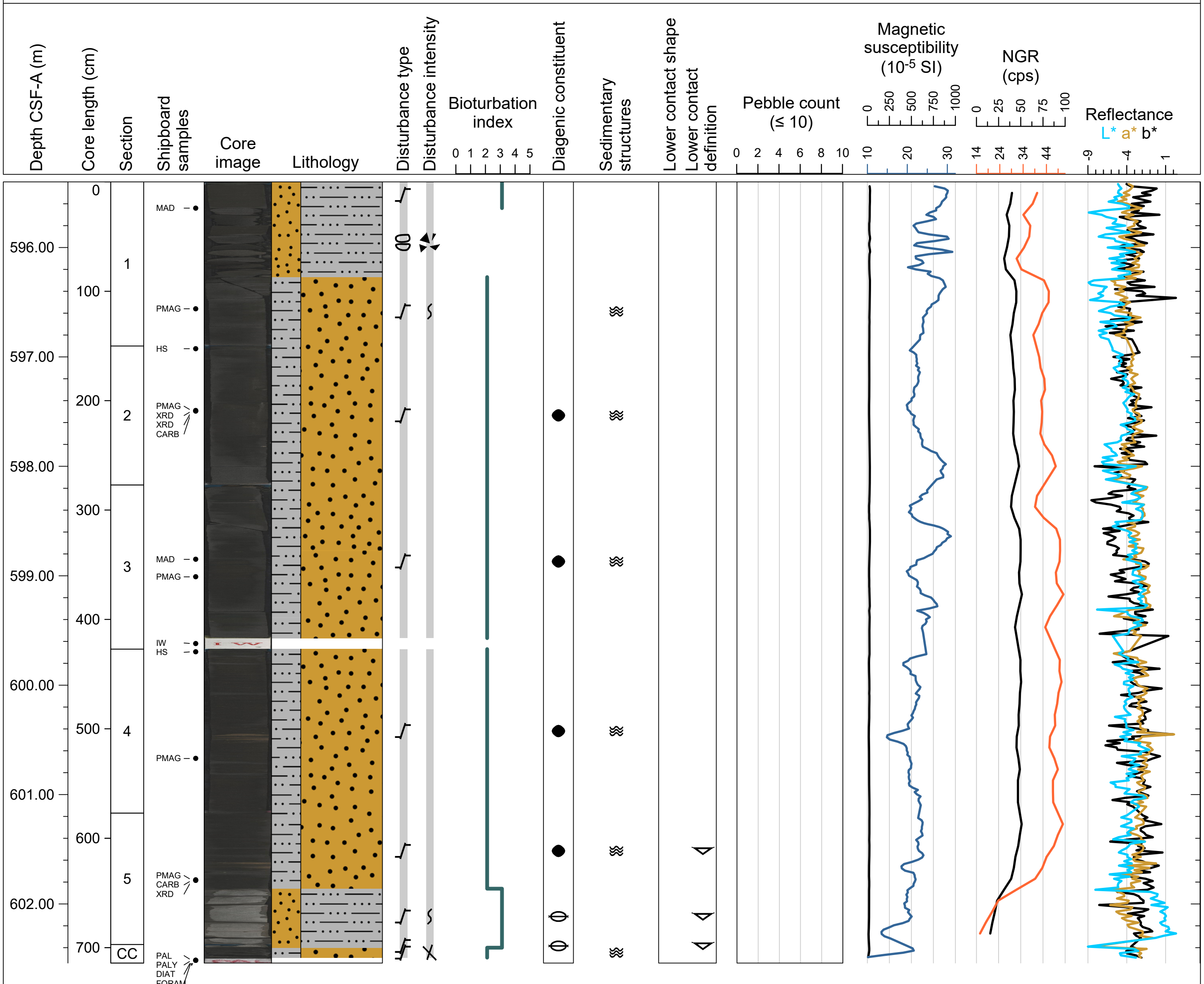
Hole 400-U1607A Core 63R, Interval 585.7-590.27 m (CSF-A)

Grey sparsely bioturbated, thickly laminated mud in Sections 1-3, transitioning downward in Section 4 to sandy mud and muddy sand. The muddy sand in the lower half of Section 4 has abundant bioturbation, with windows of physical lamination preserved. Otherwise, bioturbation is sparse. Carbonate concretions in Sections 1 and 4.



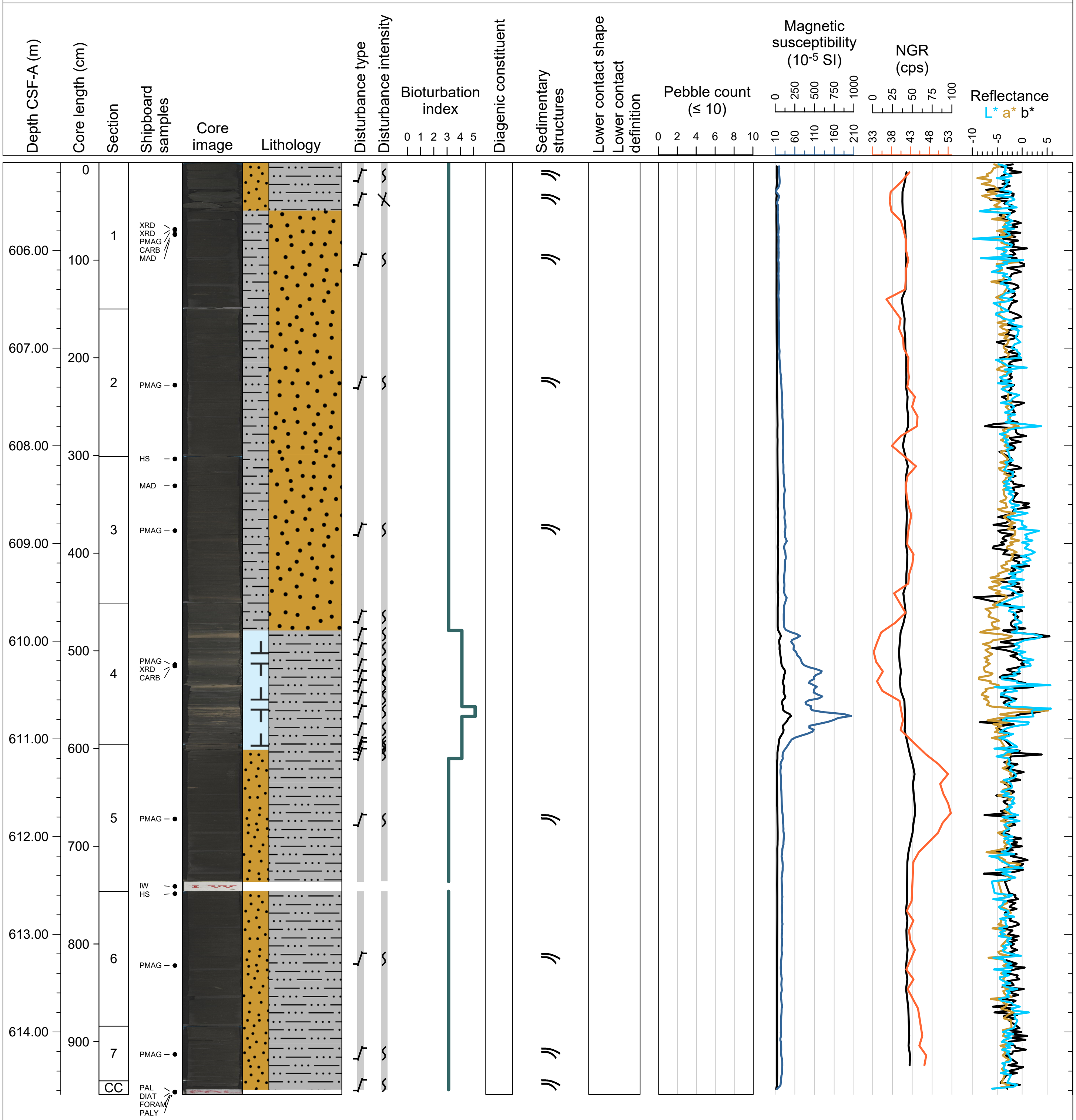
Hole 400-U1607A Core 64R, Interval 595.4-602.54 m (CSF-A)

Dark to medium greyish brown muddy sand, weakly stratified with wavy thin bedding and bioturbated with glauconite filled, calcareous mud-filled and sand-lined burrows. There was also a small interval of sandy mud moderately bioturbated and carbonate cemented concretions in Section 5.



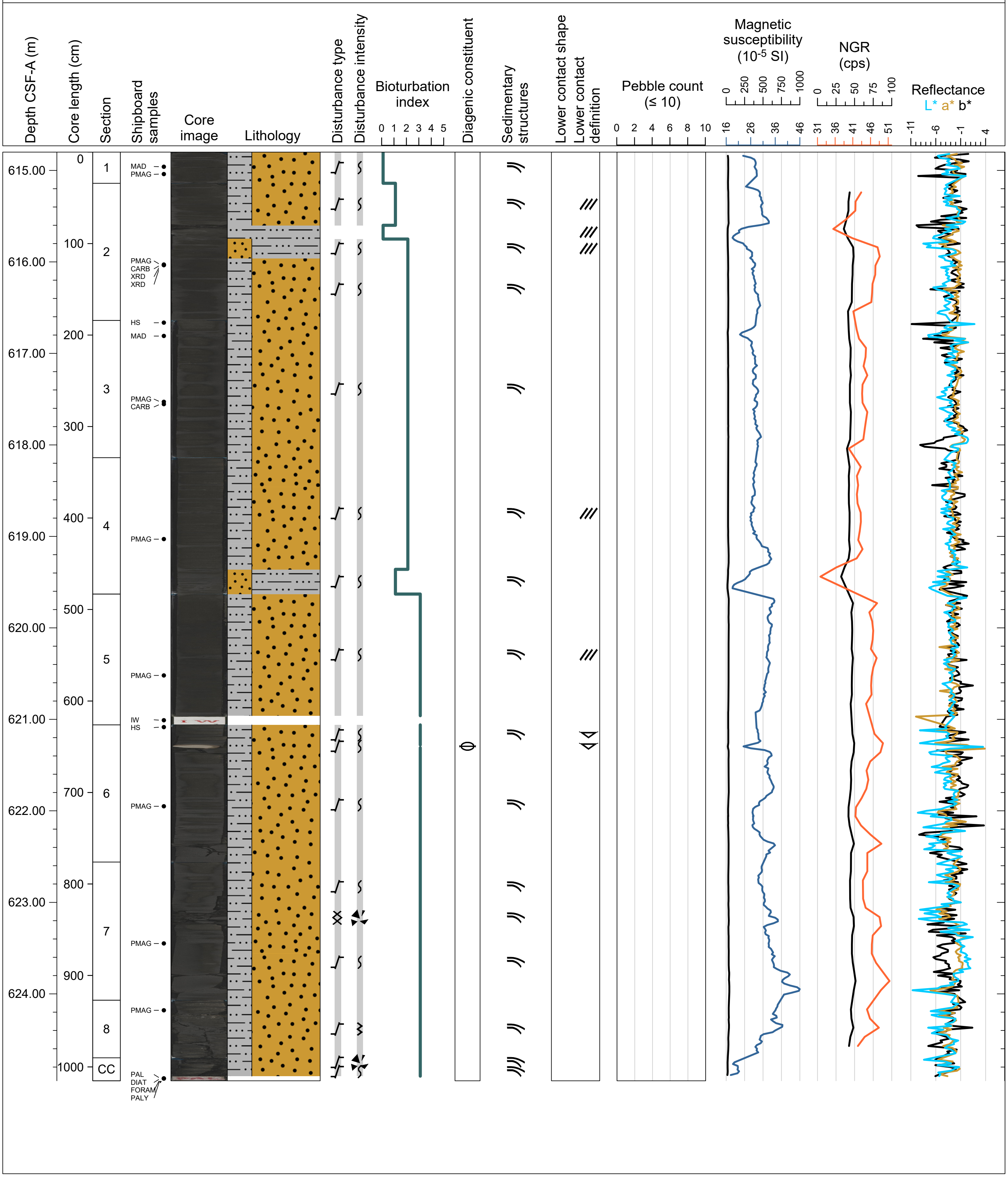
Hole 400-U1607A Core 65R, Interval 605.1-614.64 m (CSF-A)

Greyish brown to greenish grey muddy sand and sandy mud with macrofossils concentrated in burrows such as a visible foraminifera. Section 4 consists of light yellow to dark greyish green calareous mud. Calcite also found in burrows with some intervals with pyrite as well. Thickly to weakly stratified with weak/faint laminations. Bioturbation throughout with higher bioturbation in a calcareous mud interval. Shells are found in Section 3, 6, and 7.



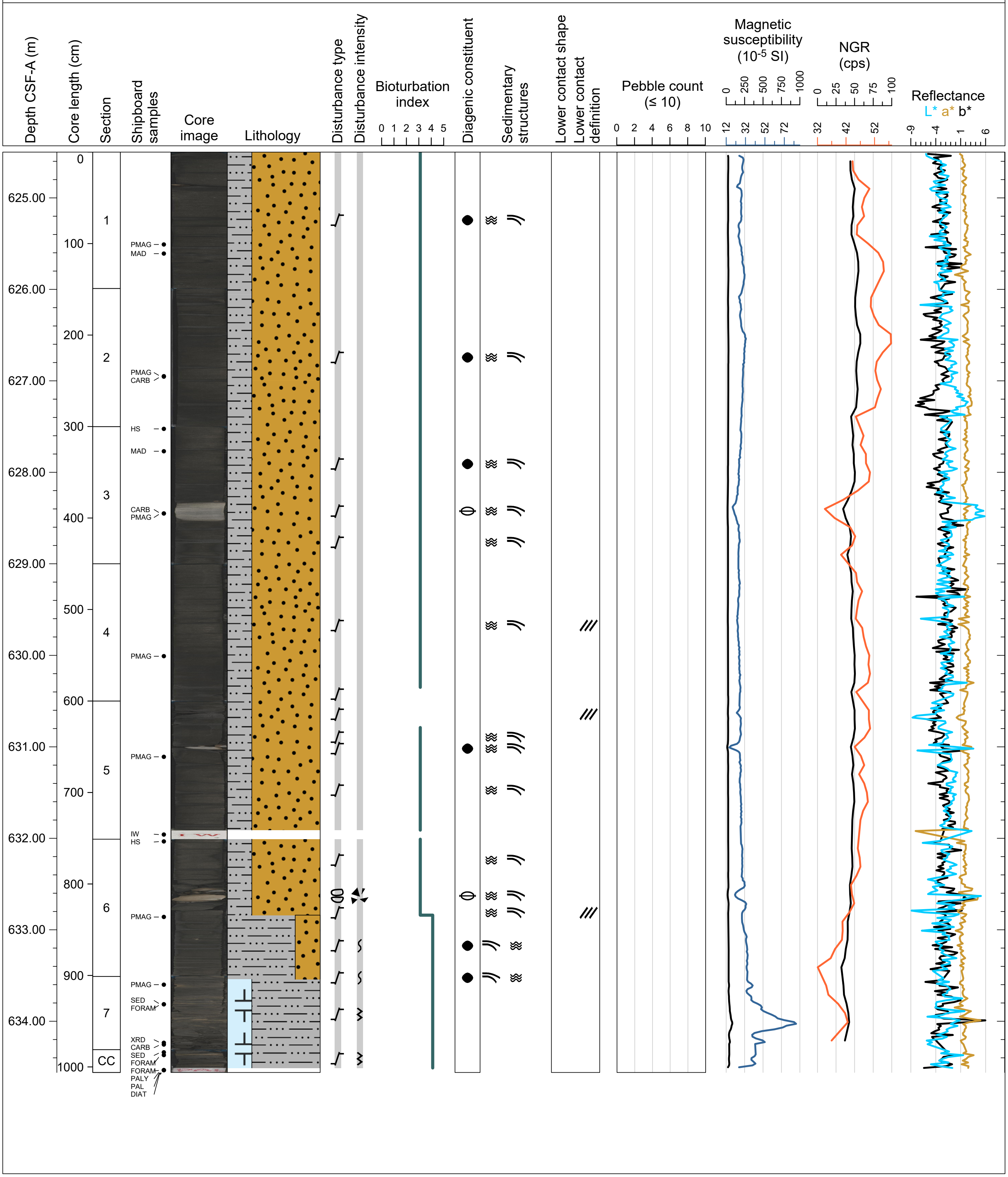
Hole 400-U1607A Core 66R, Interval 614.8-624.95 m (CSF-A)

Dark brownish grey, bioturbated laminated sand dominates this core. Some lamination appears to be cross stratified. One carbonate concretion occurs in Section 6.



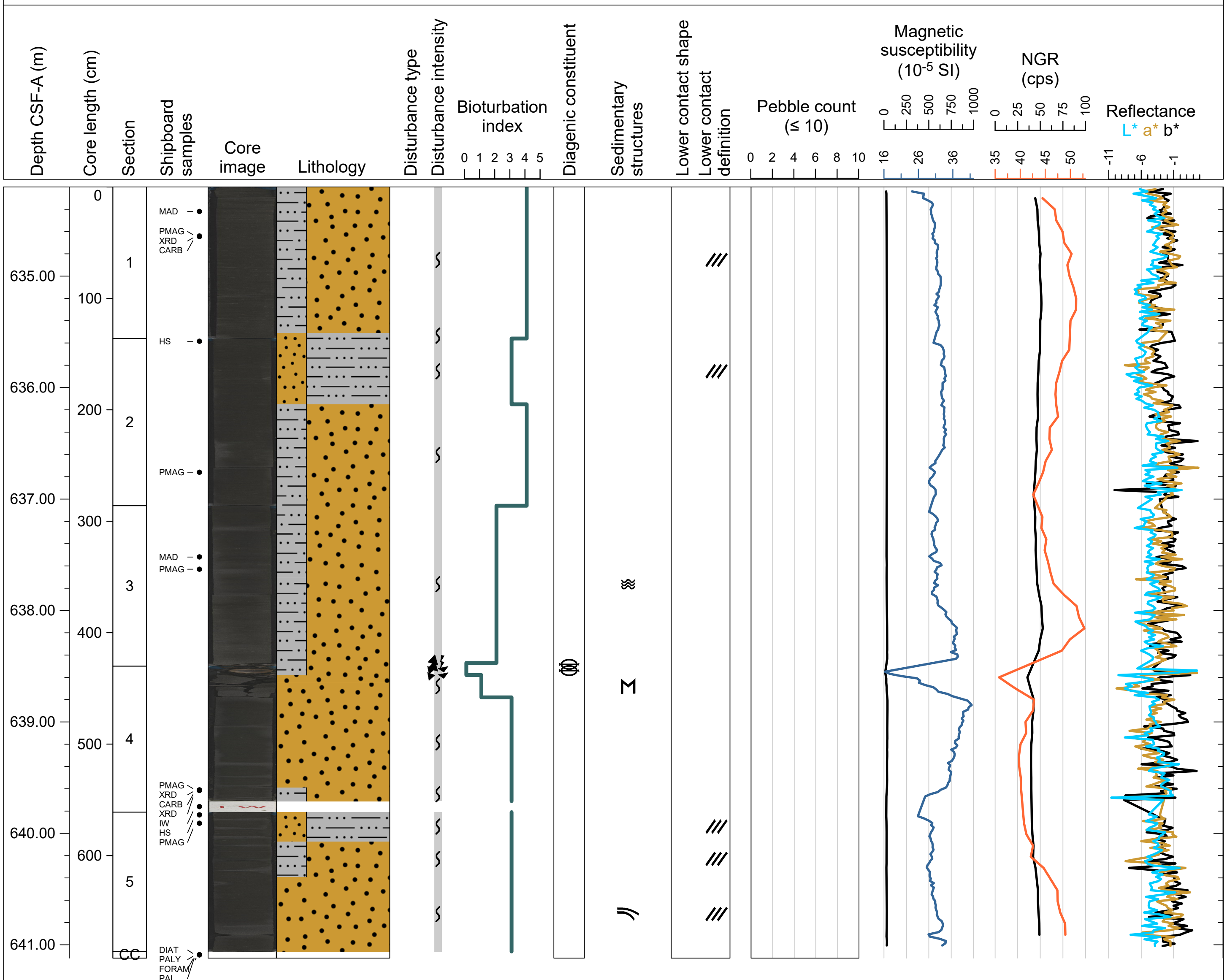
Hole 400-U1607A Core 67R, Interval 624.5-634.56 m (CSF-A)

Medium greyish brown muddy sand with faint thin wavy bedding and bioturbation, with a short interval of dark brown featureless muddy sand in Section 5. Weakly stratified grey mud with sand containing pyritized burrows and sparse shell fragments <5 mm in size occur through Section 6. Light brown and grey calcareous mud in Sections 7 and CC. Carbonate concretions and carbonate cemented intervals present throughout.



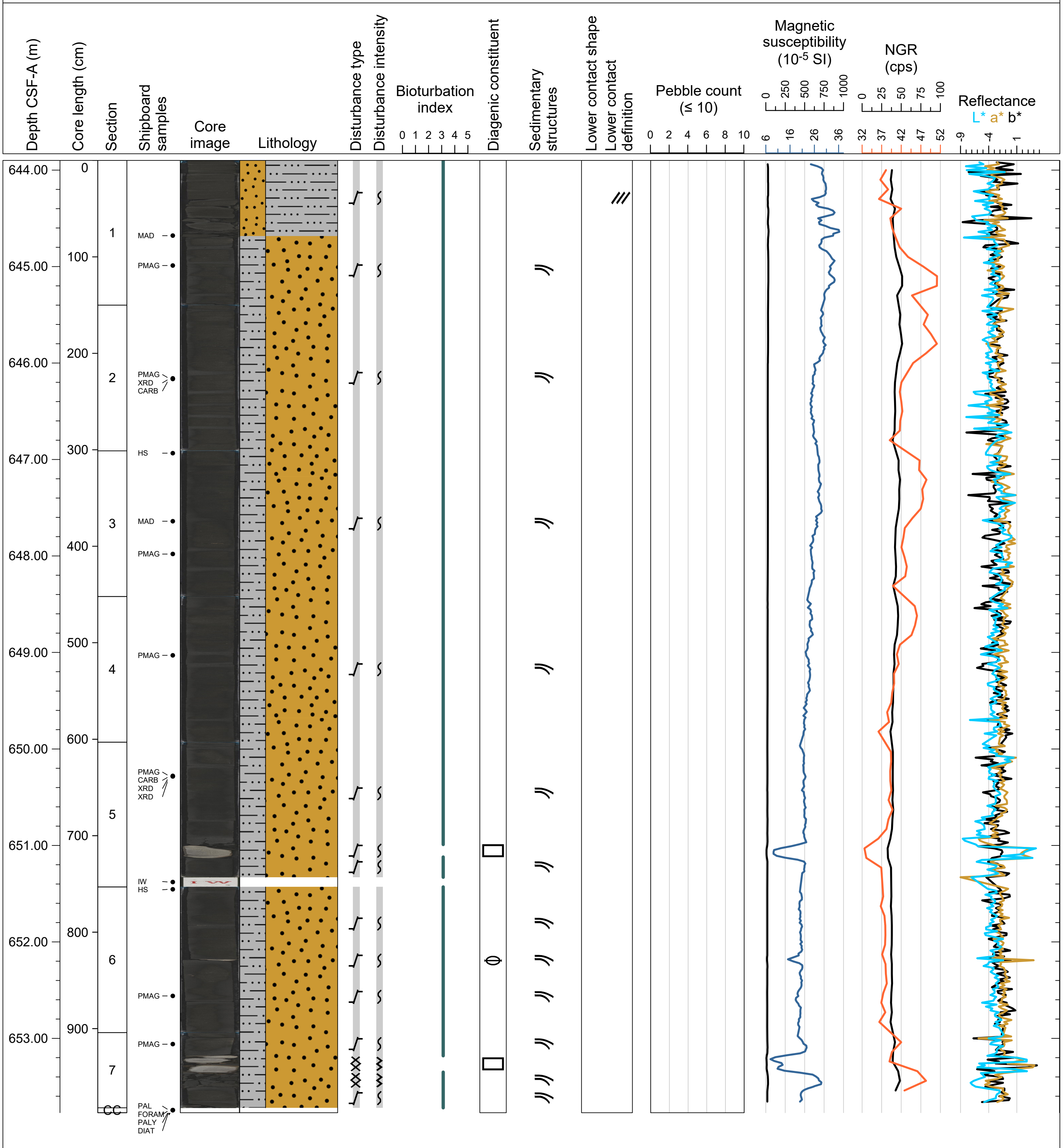
Hole 400-U1607A Core 68R, Interval 634.2-641.12 m (CSF-A)

Greyish brown bioturbated sand, muddy sand and sandy mud. Weak stratification is visible in Sections 2, 3 and 5. Yellow carbonate nodules are present at the bottom of Section 3 and at the top of Section 4. Dark green grains are present throughout the bottom of the core.



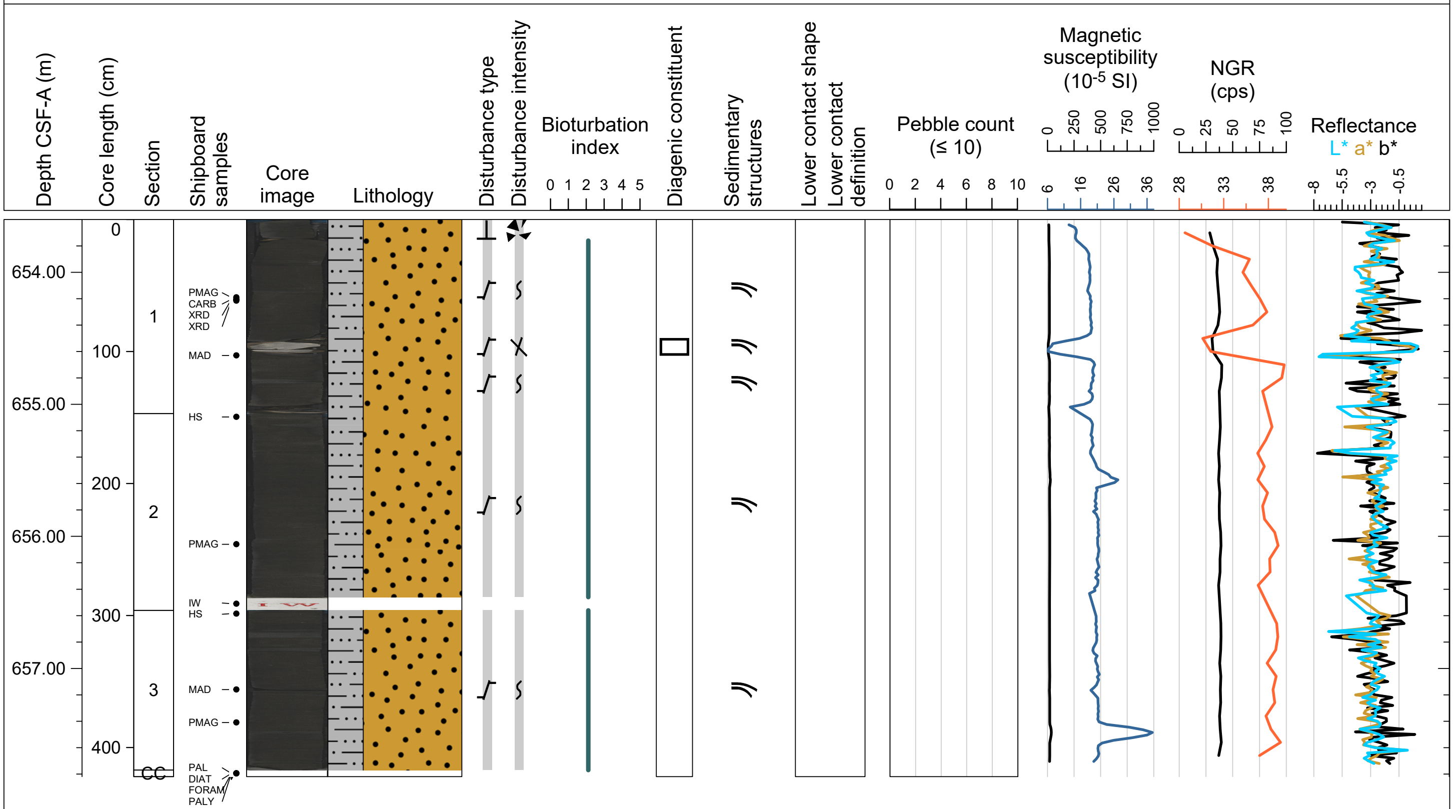
Hole 400-U1607A Core 69R, Interval 643.9-653.77 m (CSF-A)

Medium-brown bioturbated, weakly stratified muddy sand throughout core, except for an interval of dark brown, bioturbated sandy mud at the top of Section 1. Sand-sized glauconite grains are present in Sections 1 and 2. Calcite-cemented intervals and a concretion are present in Sections 5-7.



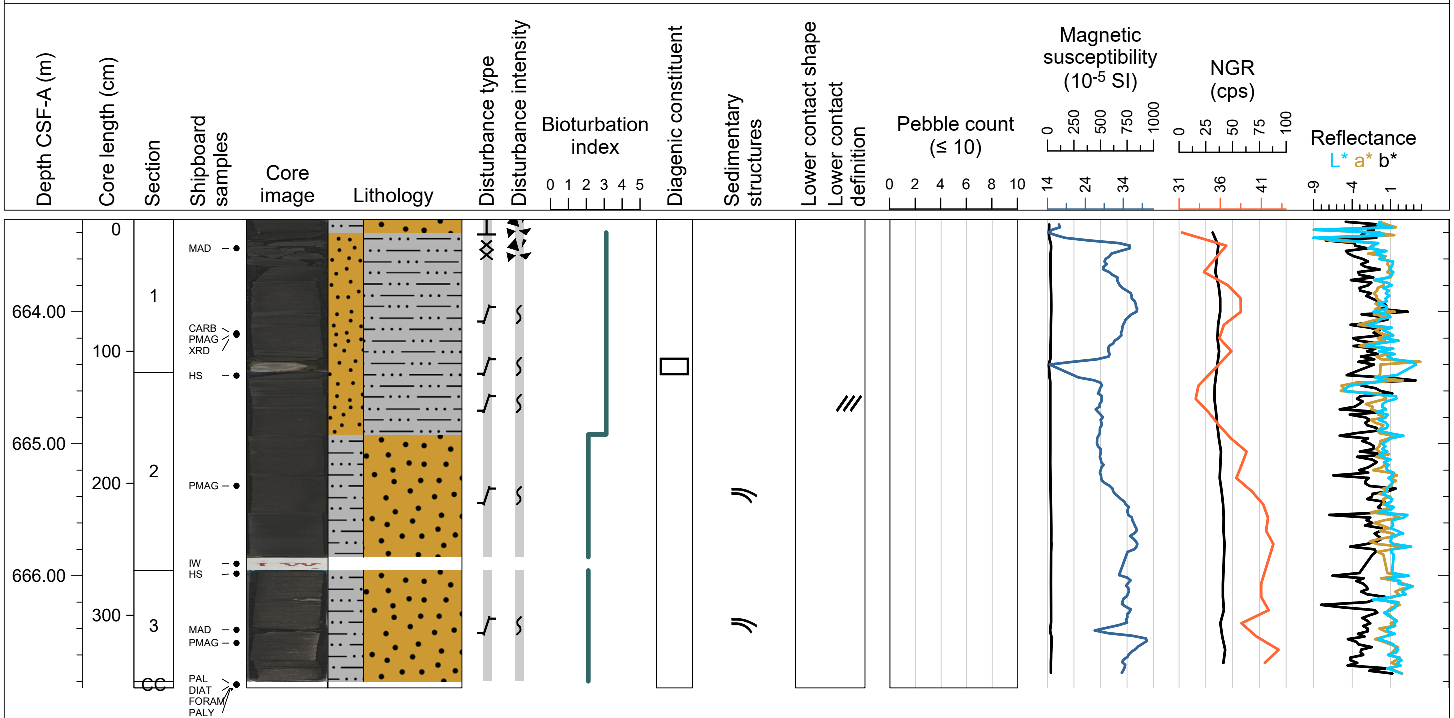
Hole 400-U1607A Core 70R, Interval 653.6-657.82 m (CSF-A)

Medium brown, bioturbated, thinly laminated muddy sand. A ~ 10 cm thick carbonate-cemented interval occurs in Section 1. The sand component is very fine grained and light tan in color. The mud component is dark brown.



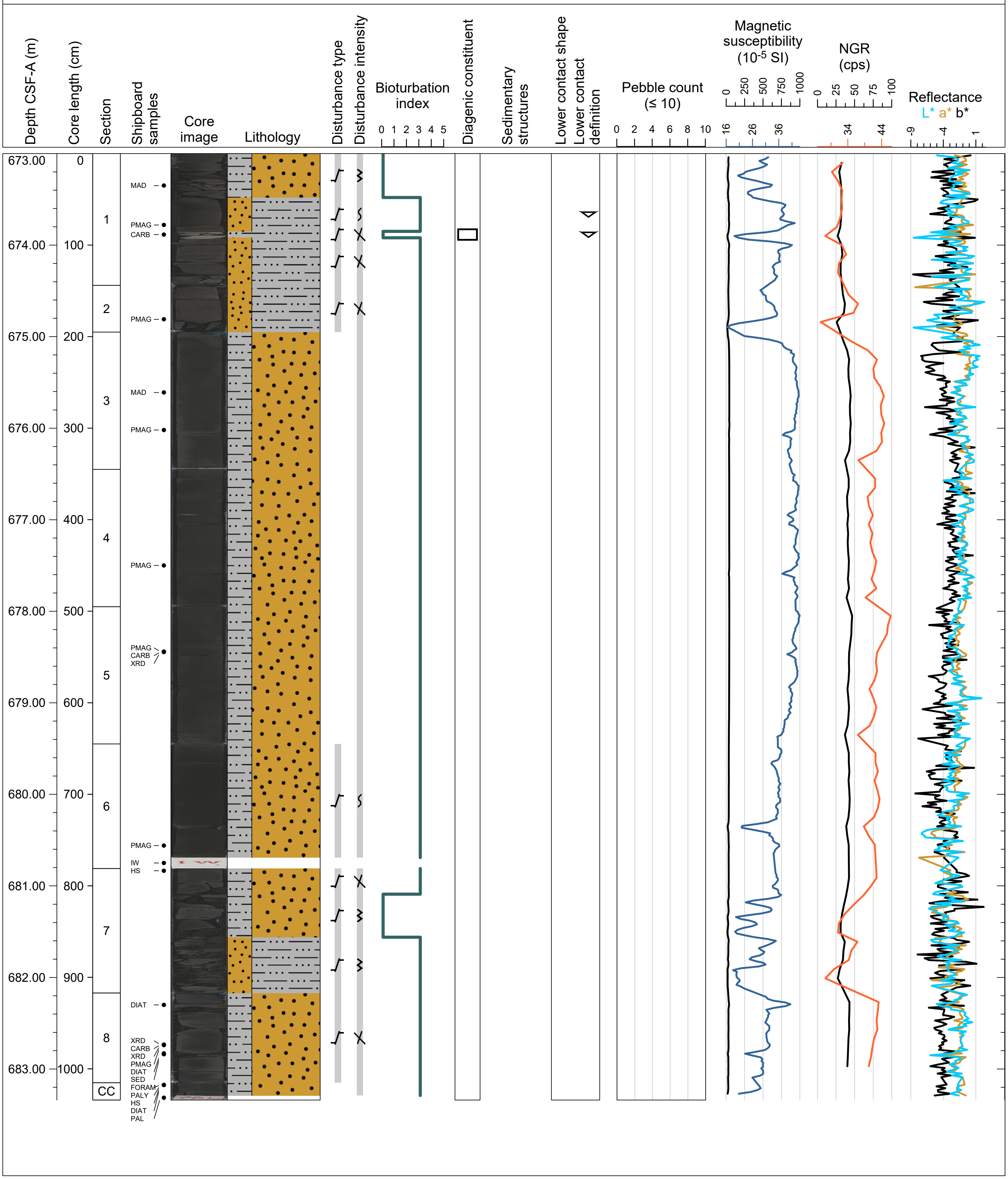
Hole 400-U1607A Core 71R, Interval 663.3-666.85 m (CSF-A)

Interstratified intervals of medium brown muddy sand and dark brown sandy mud. The sand component is very fine grained and light tan in color. The mud component is dark brown. A glauconitic burrow fill occurs in Section 3. Sandy intervals in Sections 3 and 4 contain detrital glauconite sand grains.



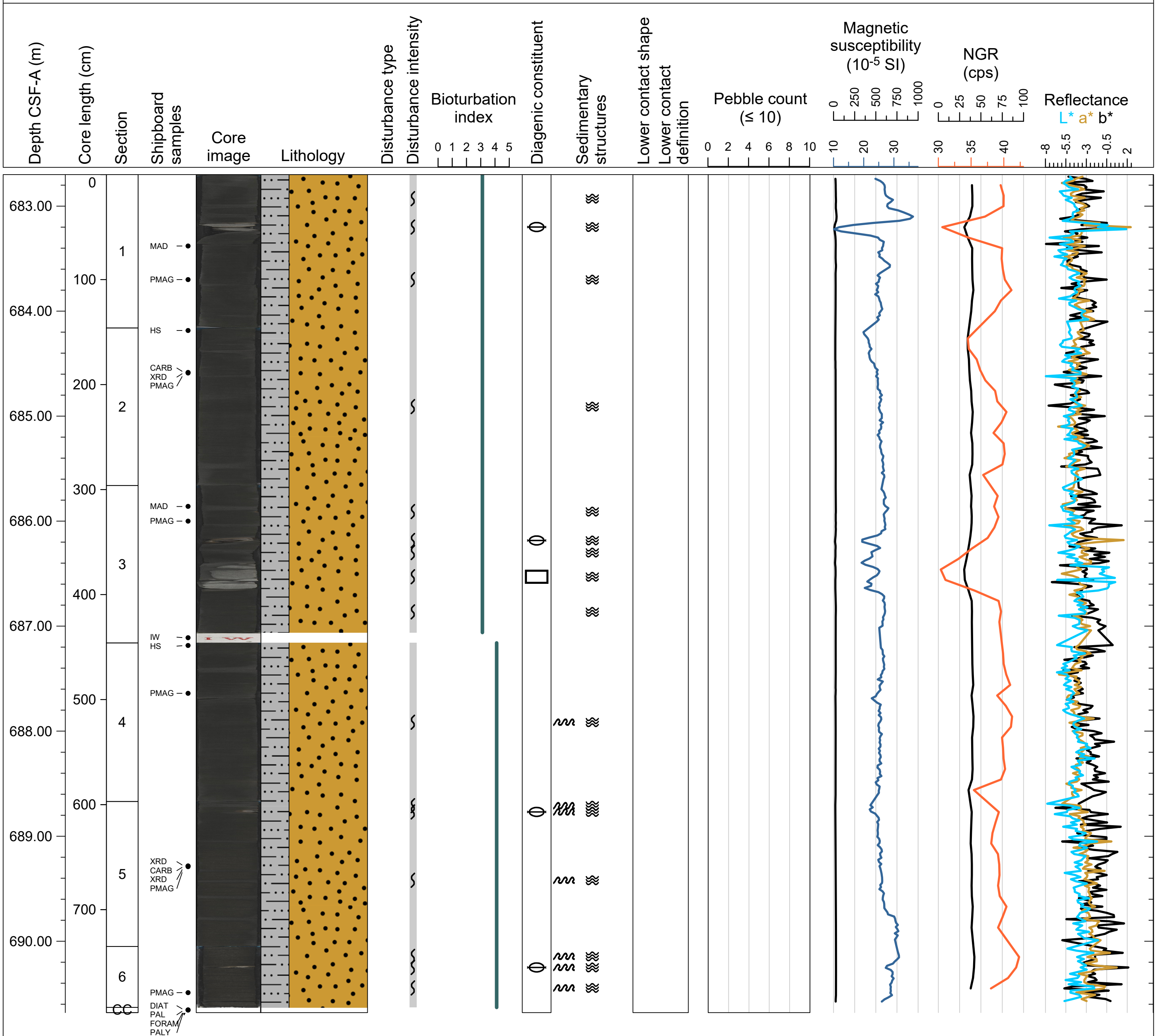
Hole 400-U1607A Core 72R, Interval 673.0-683.34 m (CSF-A)

Dark to medium grey sandy mud and muddy sand highly bioturbated. Some greenish dark patches (1-2 mm) and blebs of calcareous yellow mud are observed. A calcite cemented bed is present in section 1. The drilling disturbance is slight to moderate except for Section 7 which is highly disturbed.



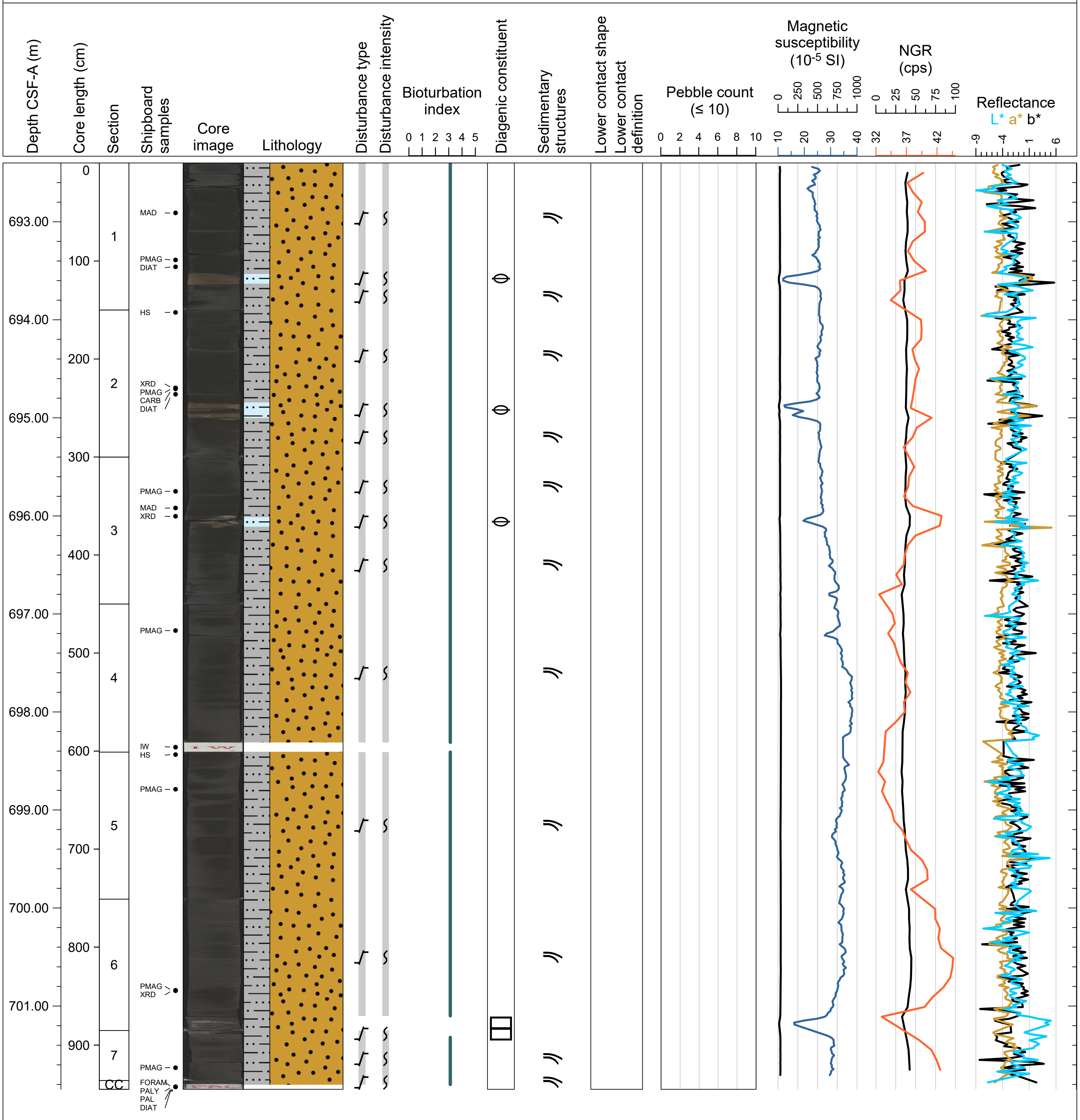
Hole 400-U1607A Core 73R, Interval 682.7-690.68 m (CSF-A)

Dark greyish brown bioturbated and very weakly stratified muddy sand. Yellowish grey carbonate concretions are common throughout.



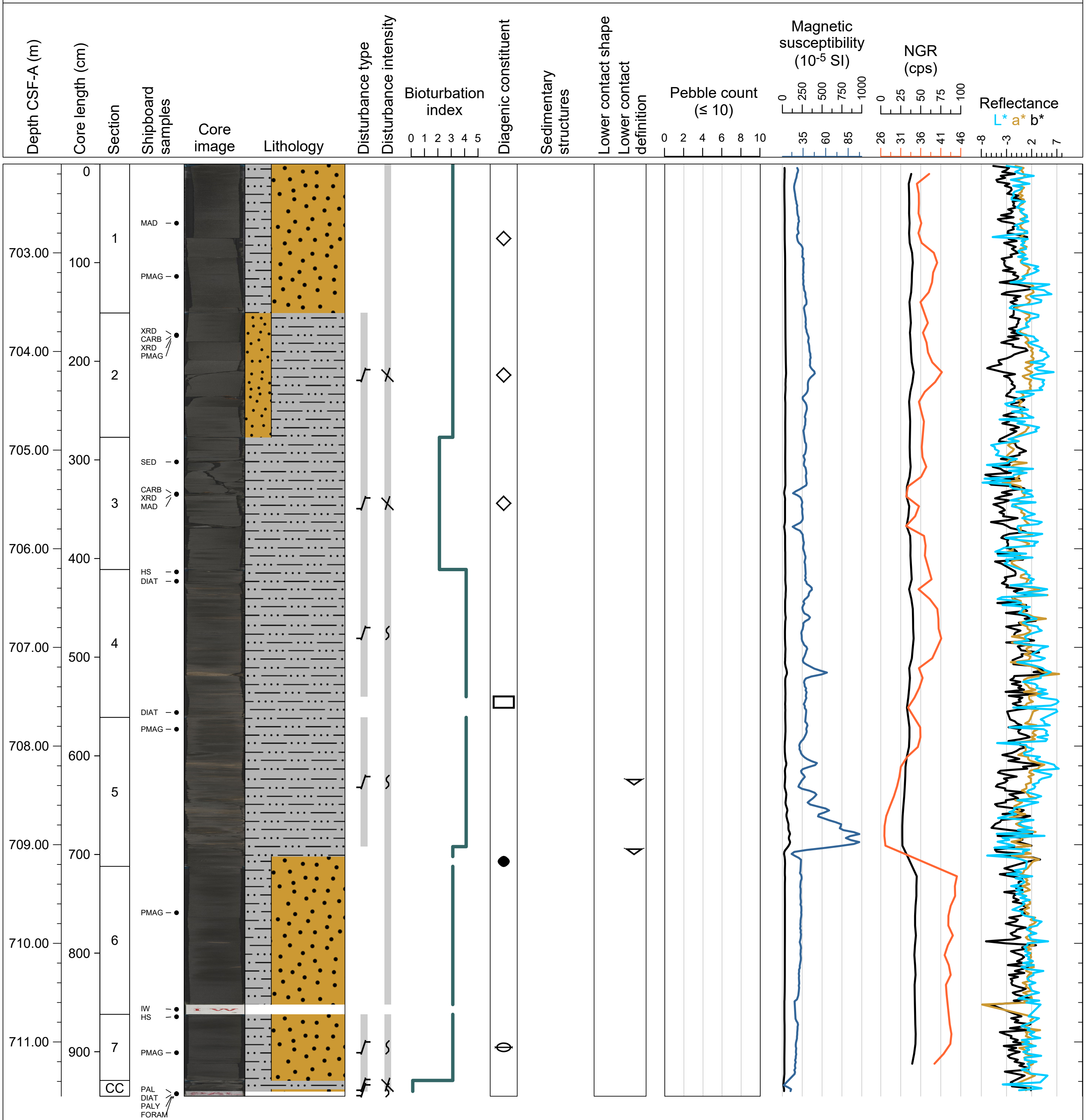
Hole 400-U1607A Core 74R, Interval 692.4-701.85 m (CSF-A)

Medium-brown bioturbated, weakly stratified muddy sand throughout with three calcareous muddy sand intervals of ~10-20 cm thickness each (in Sections 1-3) with concretion morphology.



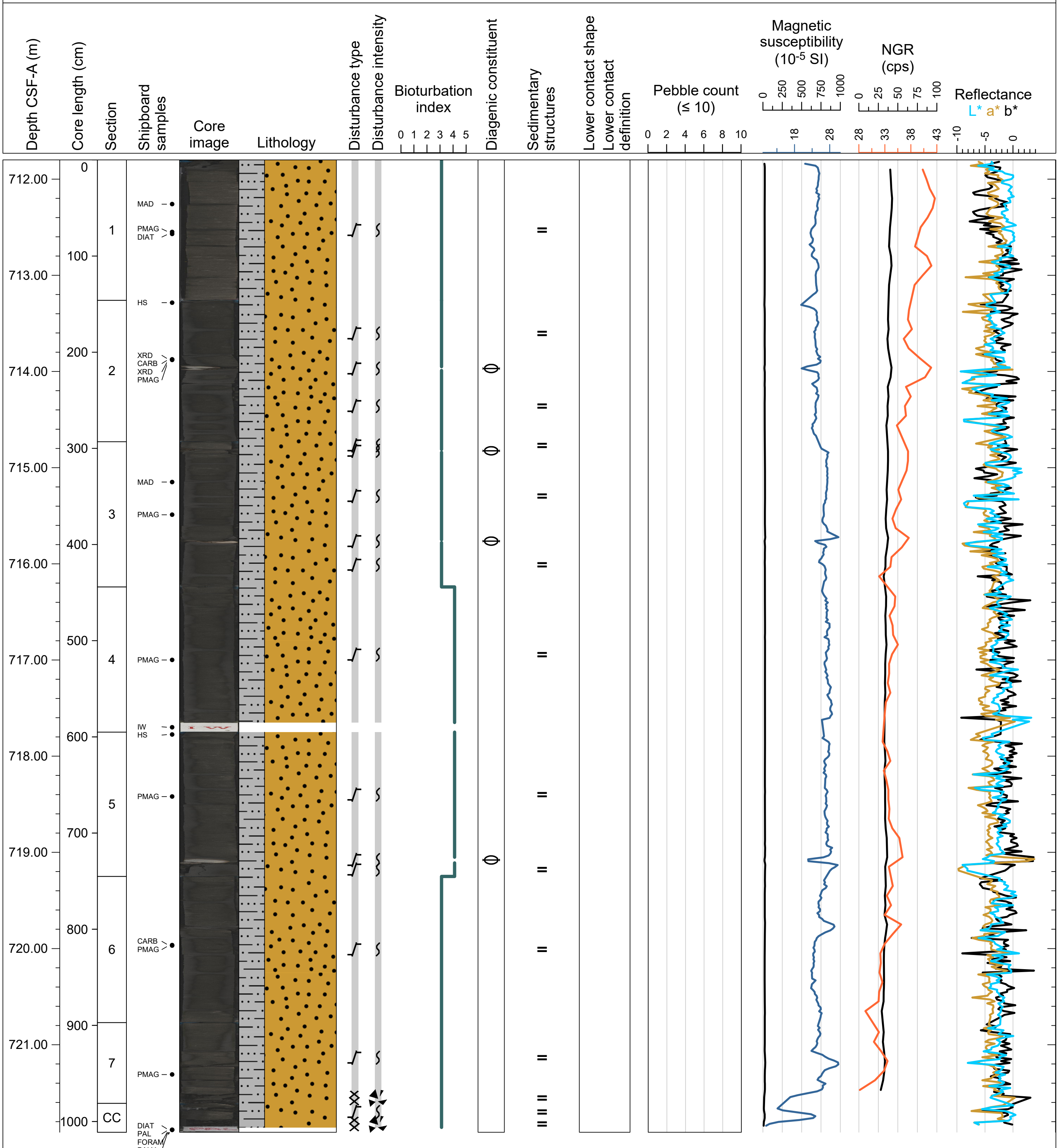
Hole 400-U1607A Core 75R, Interval 702.1-711.55 m (CSF-A)

Medium grey sandy bioturbated mud alternating with medium yellow bioturbated mud with calcareous component. Ikaite pseudomorphs in Sections 1-3. The drilling disturbance is slight.



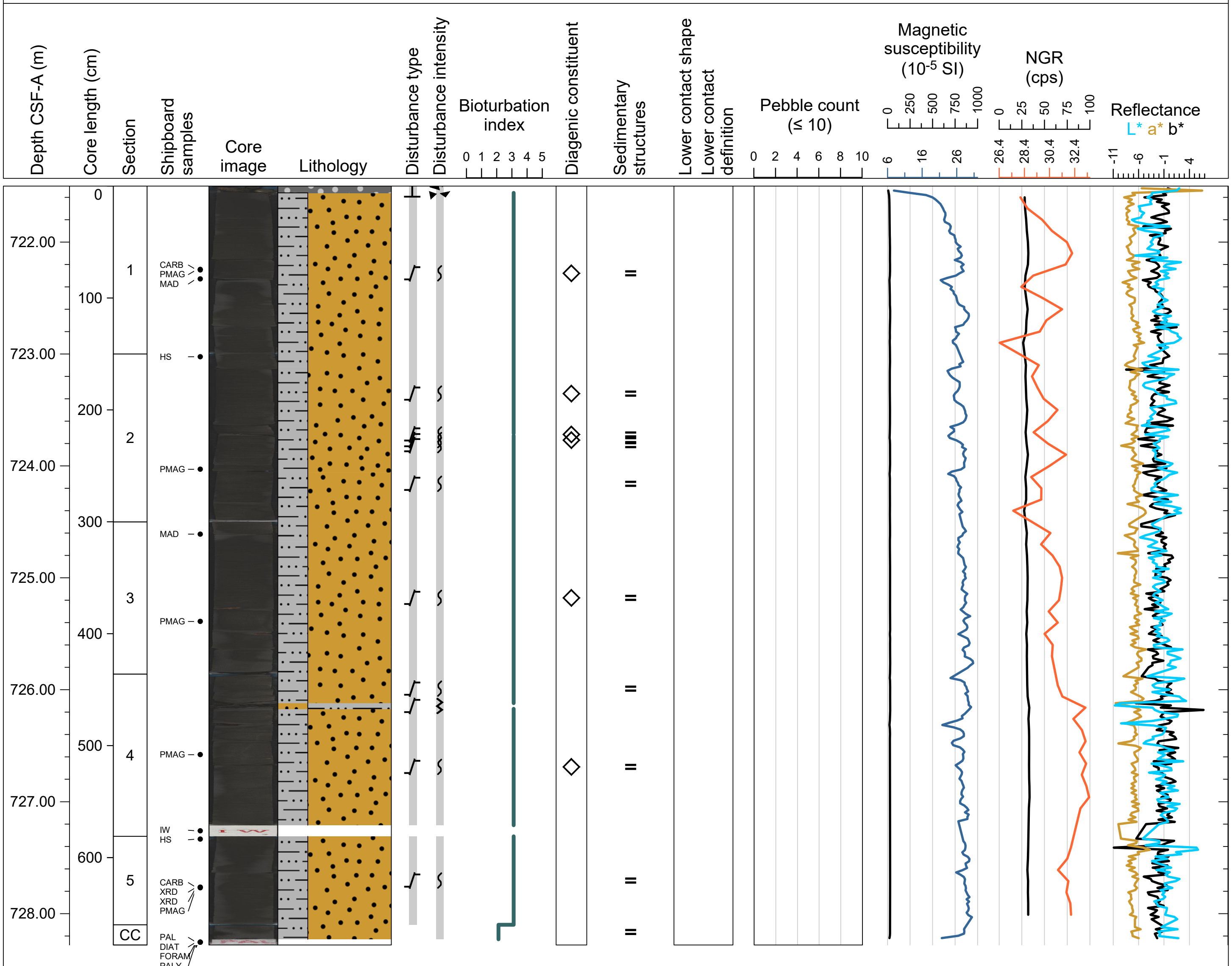
Hole 400-U1607A Core 76R, Interval 711.8-721.91 m (CSF-A)

Medium brownish grey, bioturbated muddy very fine sand. Areas of bioturbation preserve physical sedimentary structures, in particular very thin laminations. Burrows are often filled with clean sand. Rare escape burrows are present. Rimmed carbonate concretions occur in Sections 2, 3, and 5.



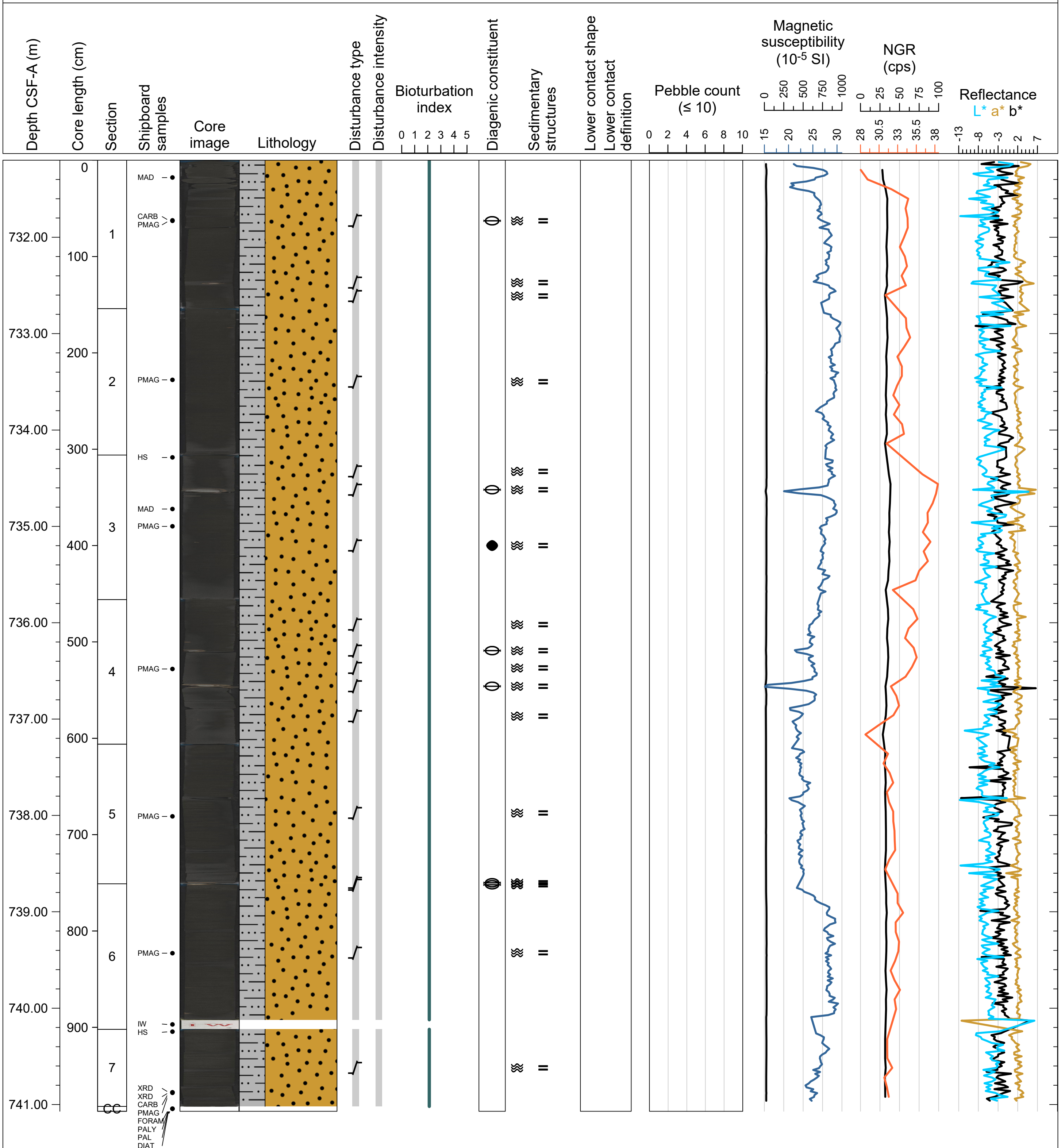
Hole 400-U1607A Core 77R, Interval 721.5-728.28 m (CSF-A)

Medium greyish brown muddy sand with one interval of dark brown sandy mud in Section 4. Sedimentary structures include very thin laminations. Rimmed carbonate concretions occur in Section 1. Pseudomorphs after ikaite are present in Sections 2, 3, and 4. Rare fragments of macrofossils are visible throughout the core.



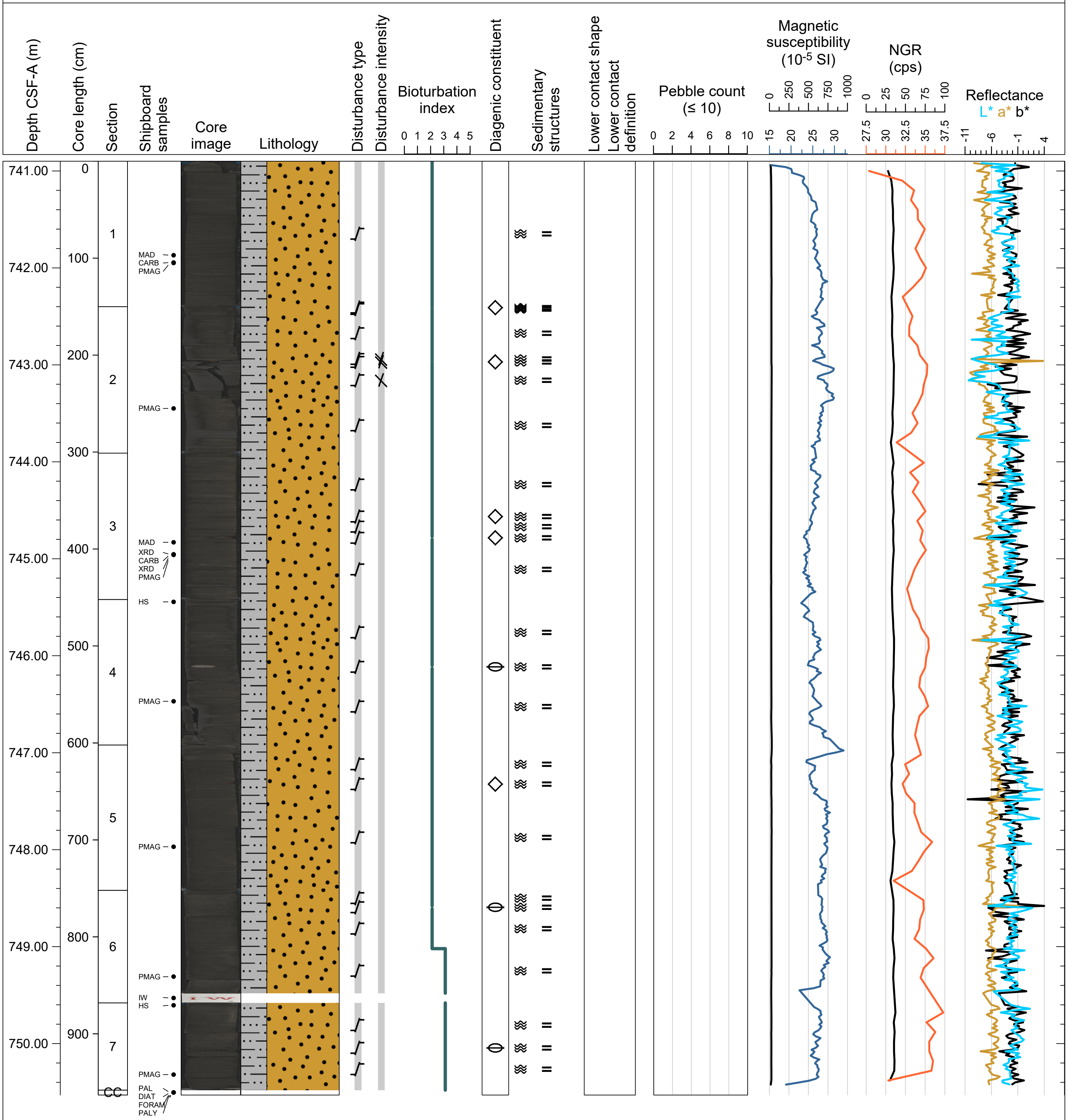
Hole 400-U1607A Core 78R, Interval 731.2-741.07 m (CSF-A)

Medium greyish brown muddy sand. Bioturbation preserves physical sedimentary structures, in particular very thin laminations occasionally displaying wavy lamination. Rimmed carbonate concretions occur in Sections 1, 3, 4 and 5. Rare fragments of macrofossils are visible.



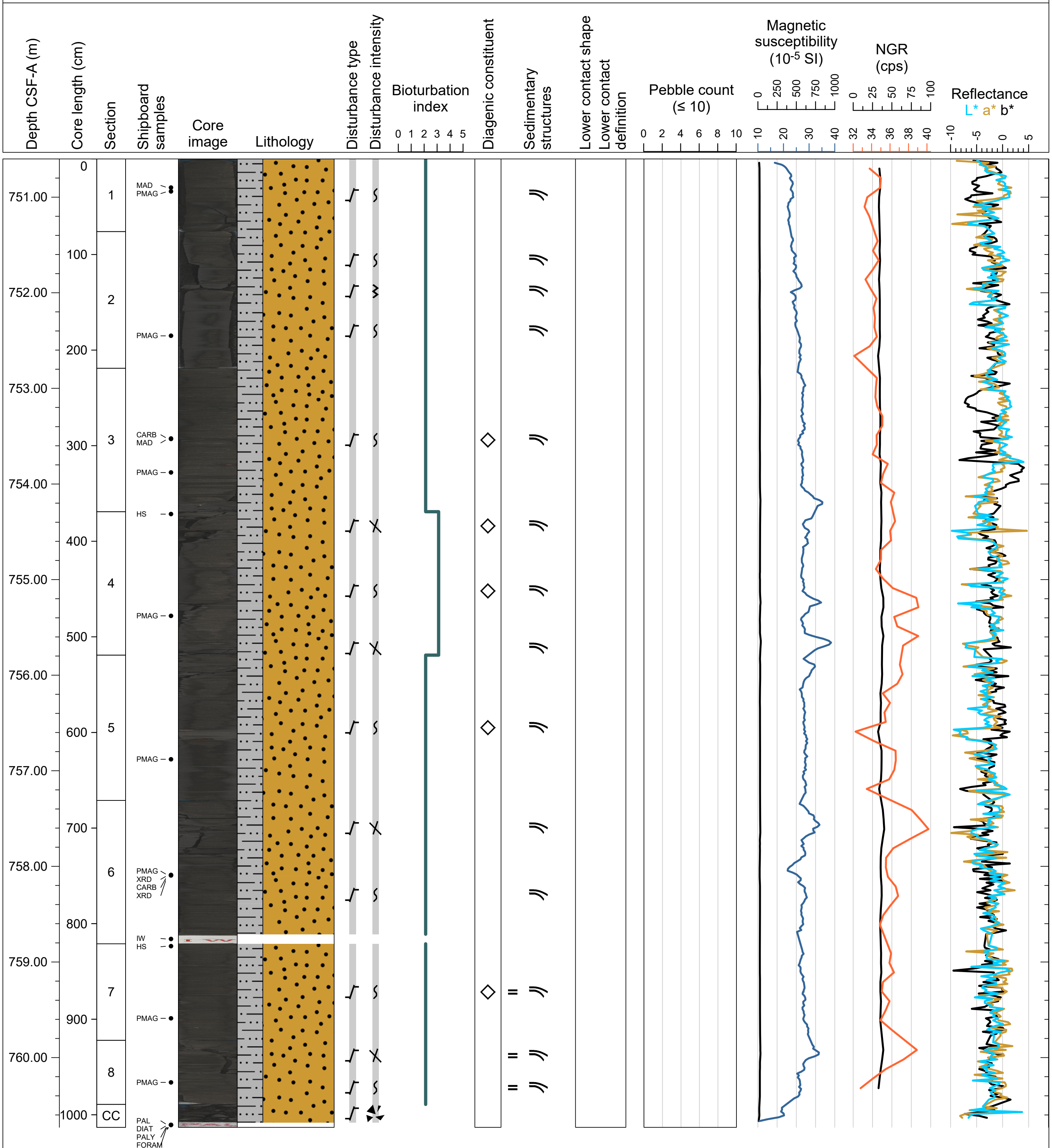
Hole 400-U1607A Core 79R, Interval 740.9-750.53 m (CSF-A)

Medium greyish brown muddy sand. Bioturbation throughout, with clean sand often concentrated in burrows. Thin laminations visible locally. Pseudomorphs after ikaite in Sections 2, 3, and 5. Spherical carbonate concretions in Sections 4, 6, and 7.

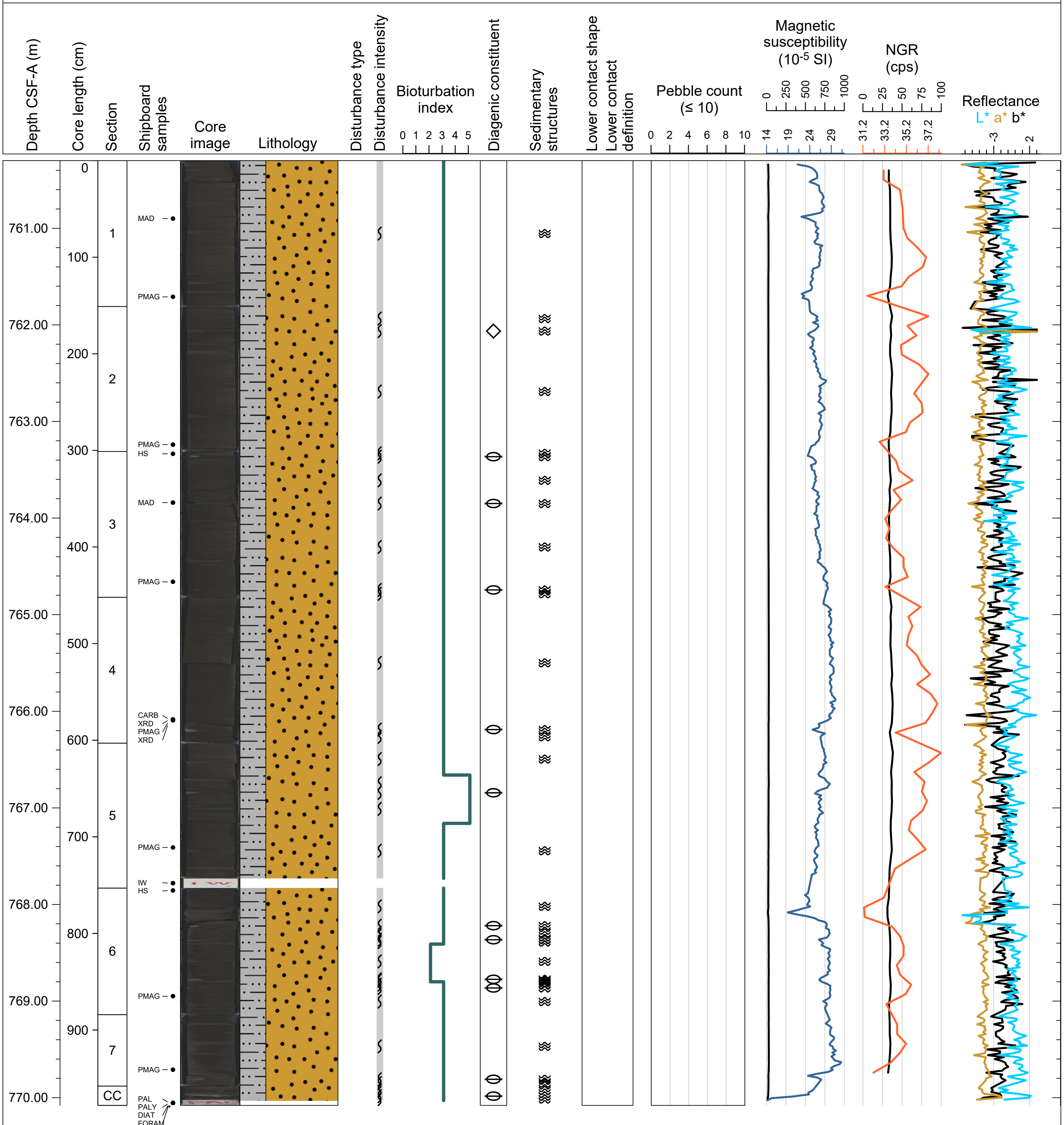


Hole 400-U1607A Core 80R, Interval 750.6-760.73 m (CSF-A)

Medium greyish brown bioturbated muddy sand with weak/faint laminae. Most burrows are filled with clean sand, with one burrow in Section 7 filled with glauconite. Pseudomorphs after ikaite in Sections 3, 4, 5, and 7. Rare shell fragments throughout.

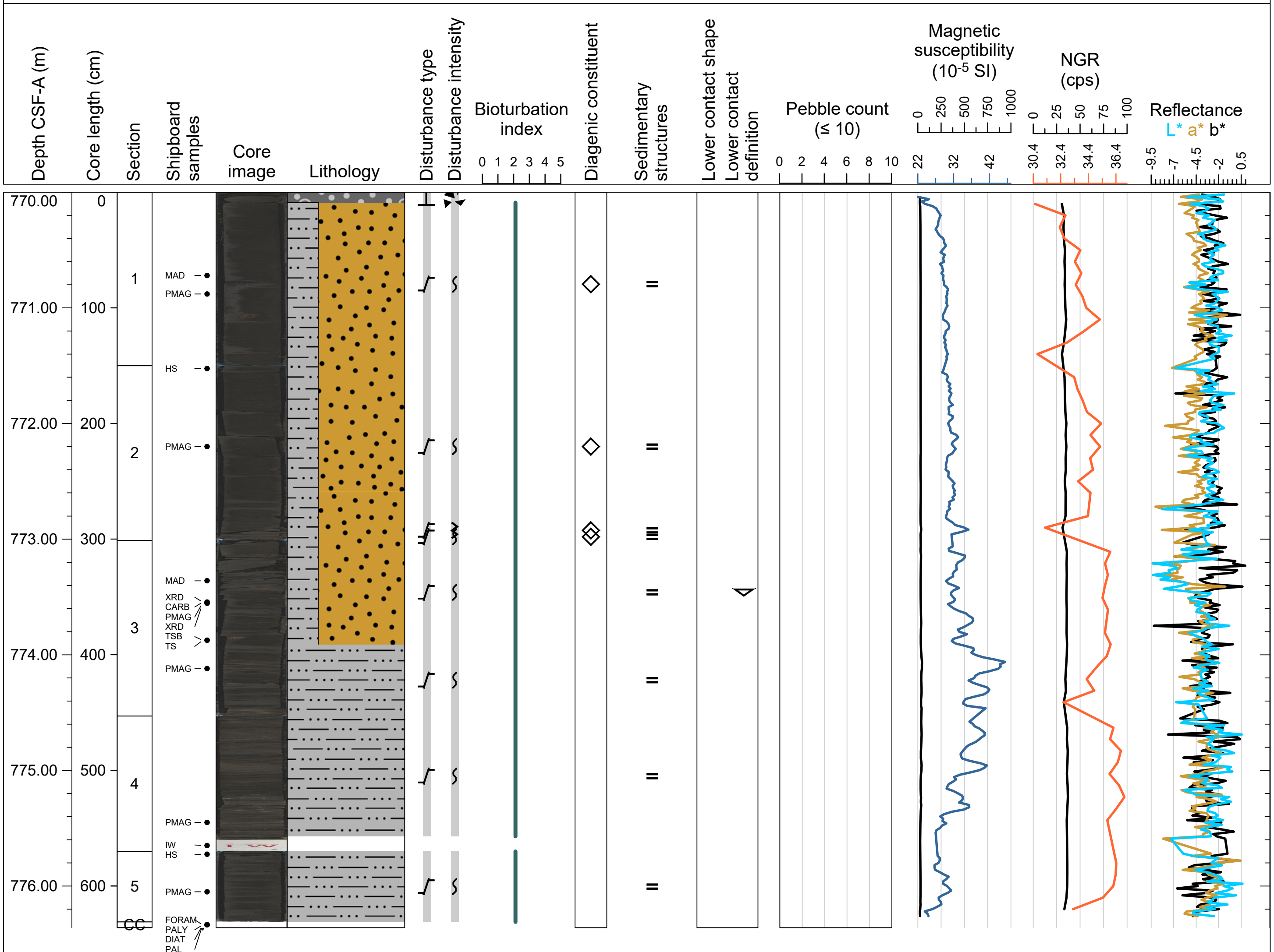


Hole 400-U1607A Core 81R, Interval 760.3-770.08 m (CSF-A)
Dark greyish brown weakly laminated bioturbated muddy sand. Yellowish brown carbonate concretions are common throughout.



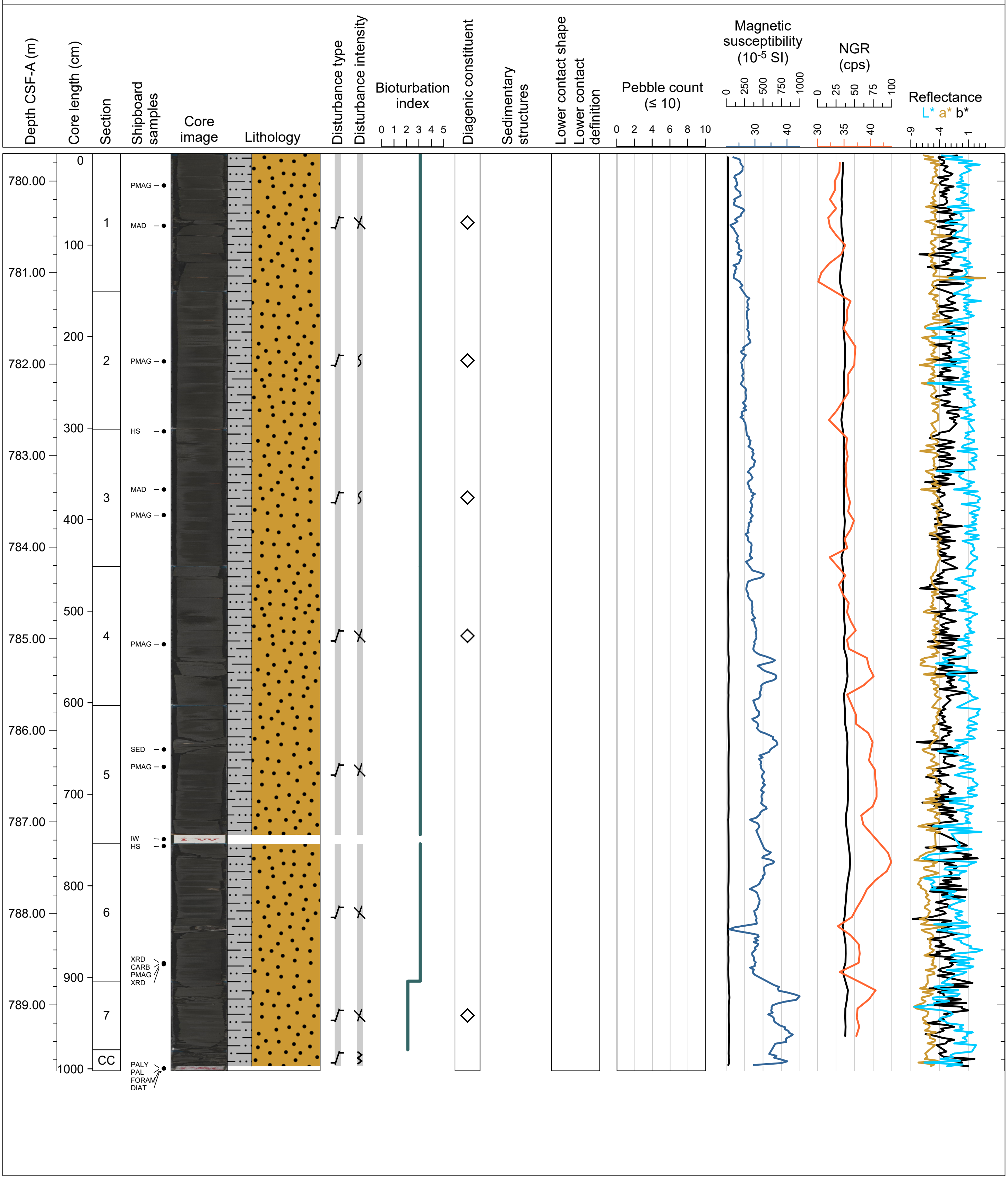
Hole 400-U1607A Core 82R, Interval 770.0-776.36 m (CSF-A)

Medium brown muddy sand at the top of the core grades downward into medium brown and dark brown mud at the base of the core. The muddy facies are very similar to the sandy facies. The difference between the two facies is that the coarse component of the sand facies is fine to very fine sand and the coarse component of the mud facies is coarse silt. All parts of the core show bioturbated thin laminae. There are rare shell fragments throughout. Some of the larger burrows are pyritized. Section 3 shows evidence of faulting in the form of an offset with fault breccia.



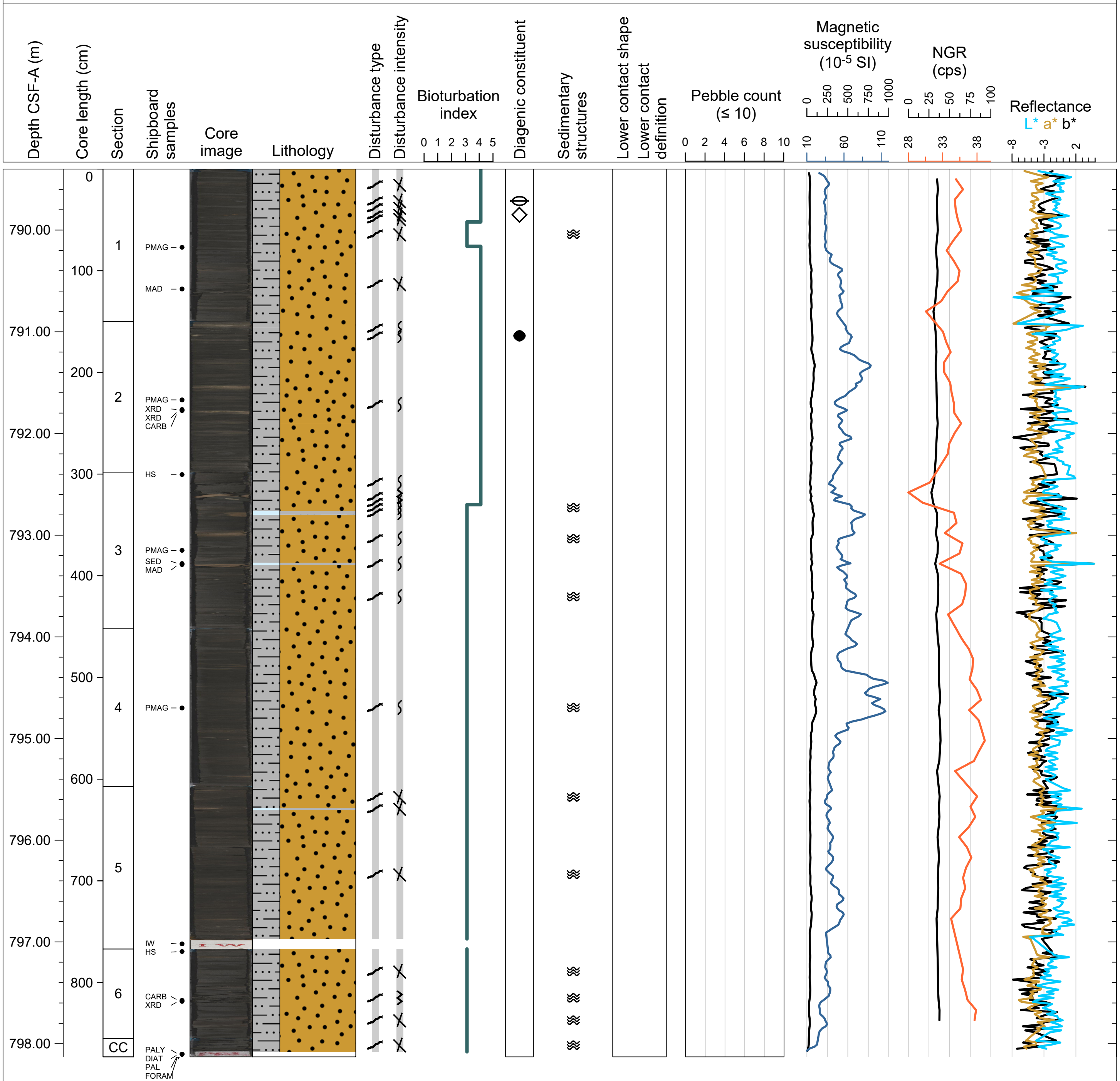
Hole 400-U1607A Core 83R, Interval 779.7-789.72 m (CSF-A)

Medium brown grey muddy bioturbated sand with spherical rimmed carbonate concretions in Section 5 and pseudomorphs after ikaite in all sections. The drilling disturbance moderate.



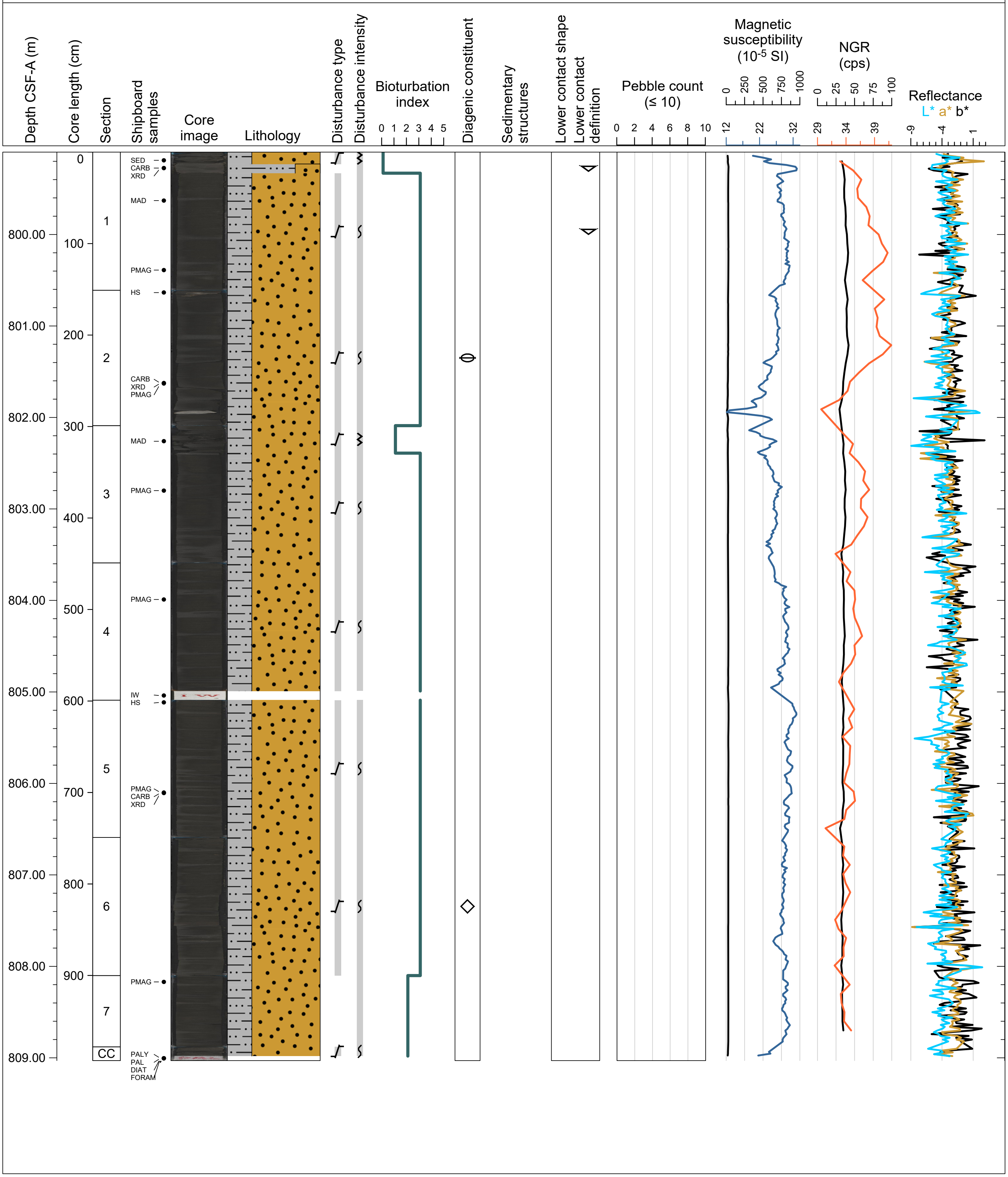
Hole 400-U1607A Core 84R, Interval 789.4-798.13 m (CSF-A)

Dark greyish brown bioturbated and weakly laminated very fine muddy sand. Cm to dm-scale yellow calcareous mud beds, pyritized burrows and carbonate concretions occur throughout. Pseudomorphs after ikaite are common in Section 1.



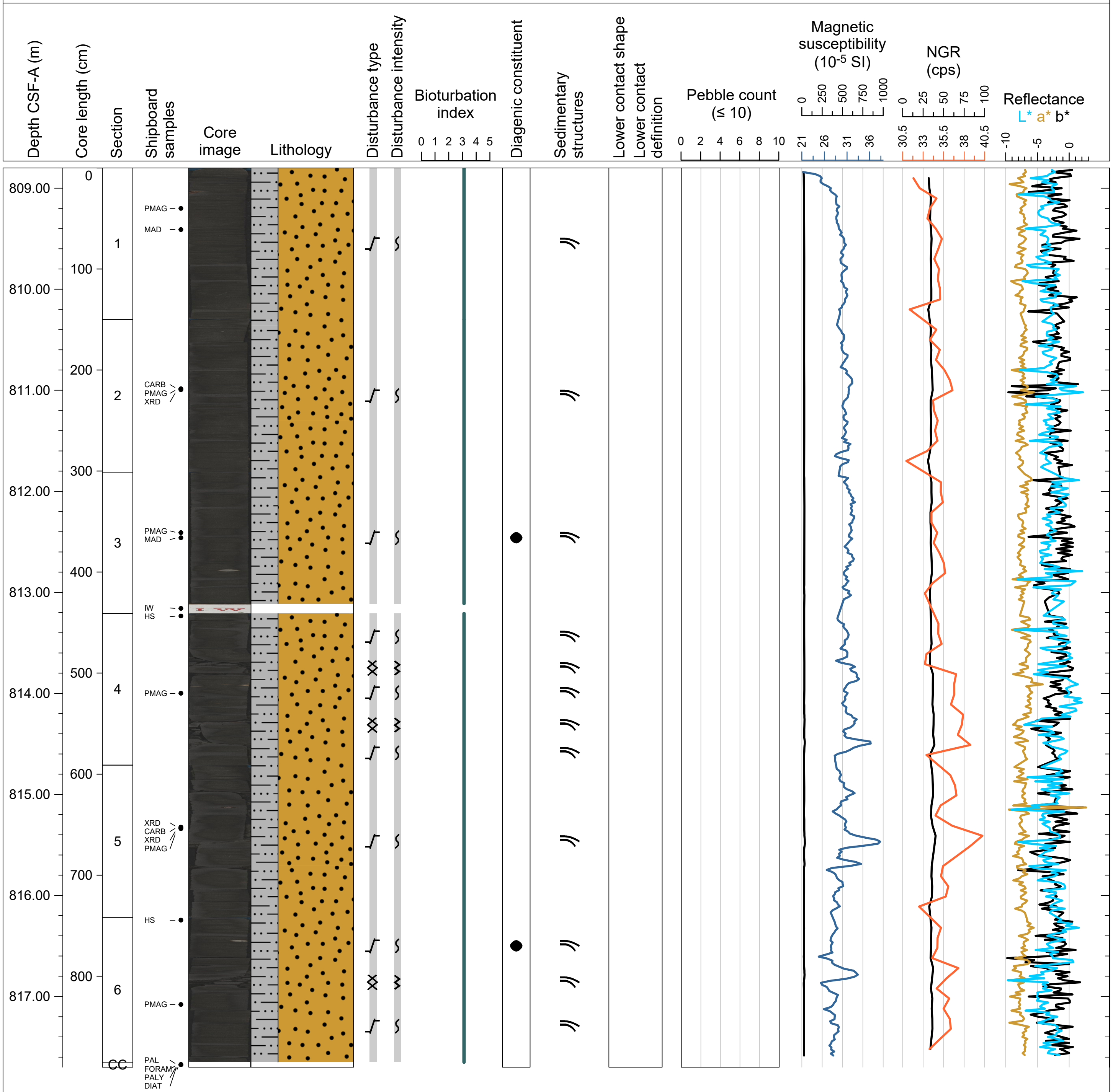
Hole 400-U1607A Core 85R, Interval 799.1-809.03 m (CSF-A)

Medium greyish brown bioturbated muddy sand with tiny shell fragments. The top of the core contains an interval of dark brown mud with sharp upper and lower contacts. Carbonate concretions are observed in Section 2. Drilling disturbance is slight to moderate.



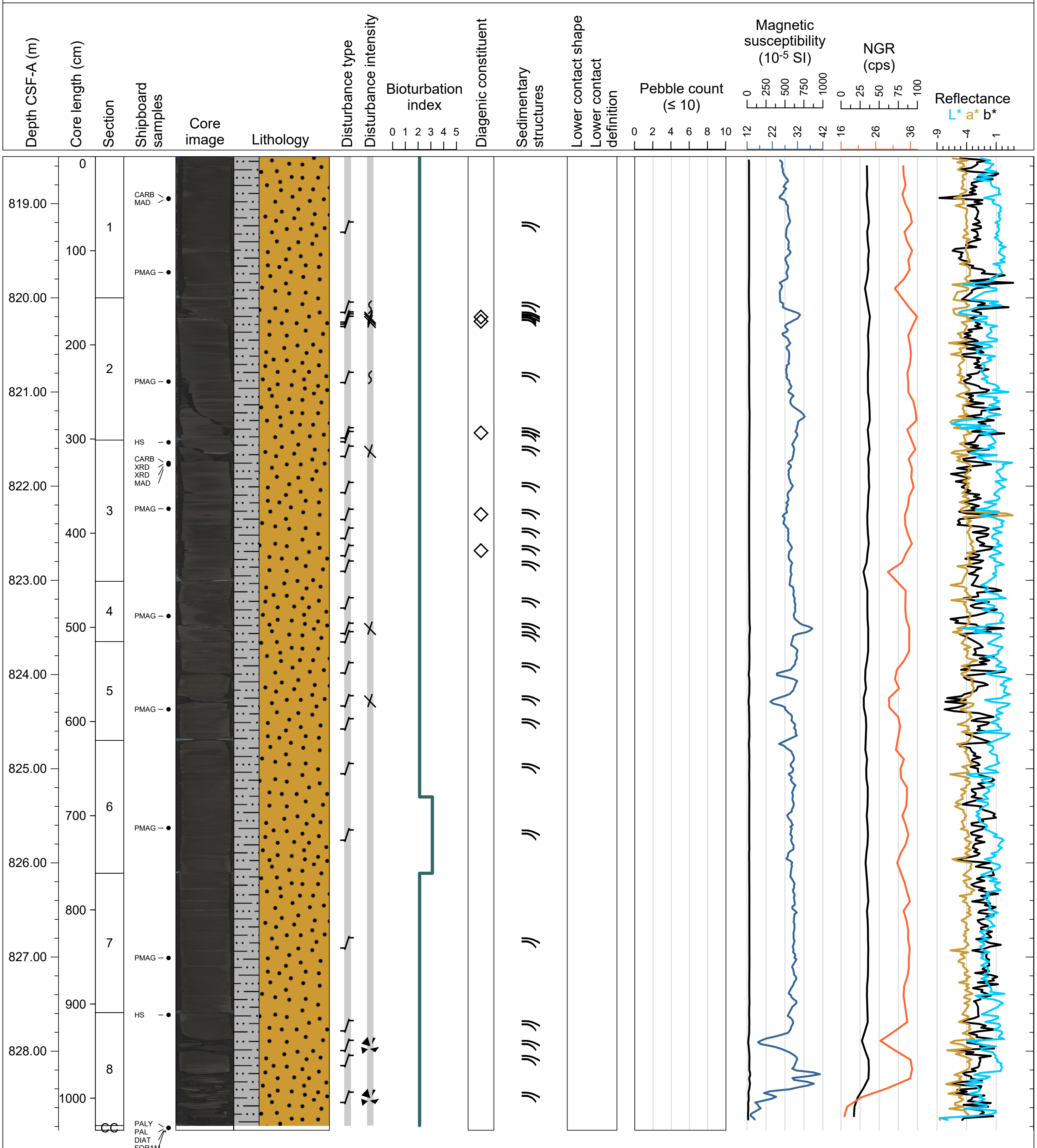
Hole 400-U1607A Core 86R, Interval 808.8-817.7 m (CSF-A)

Medium-brown, bioturbated weakly stratified muddy sand. Pseudomorphs after ikaite (1 cm in size) present in Sections 1, 4, and 5.



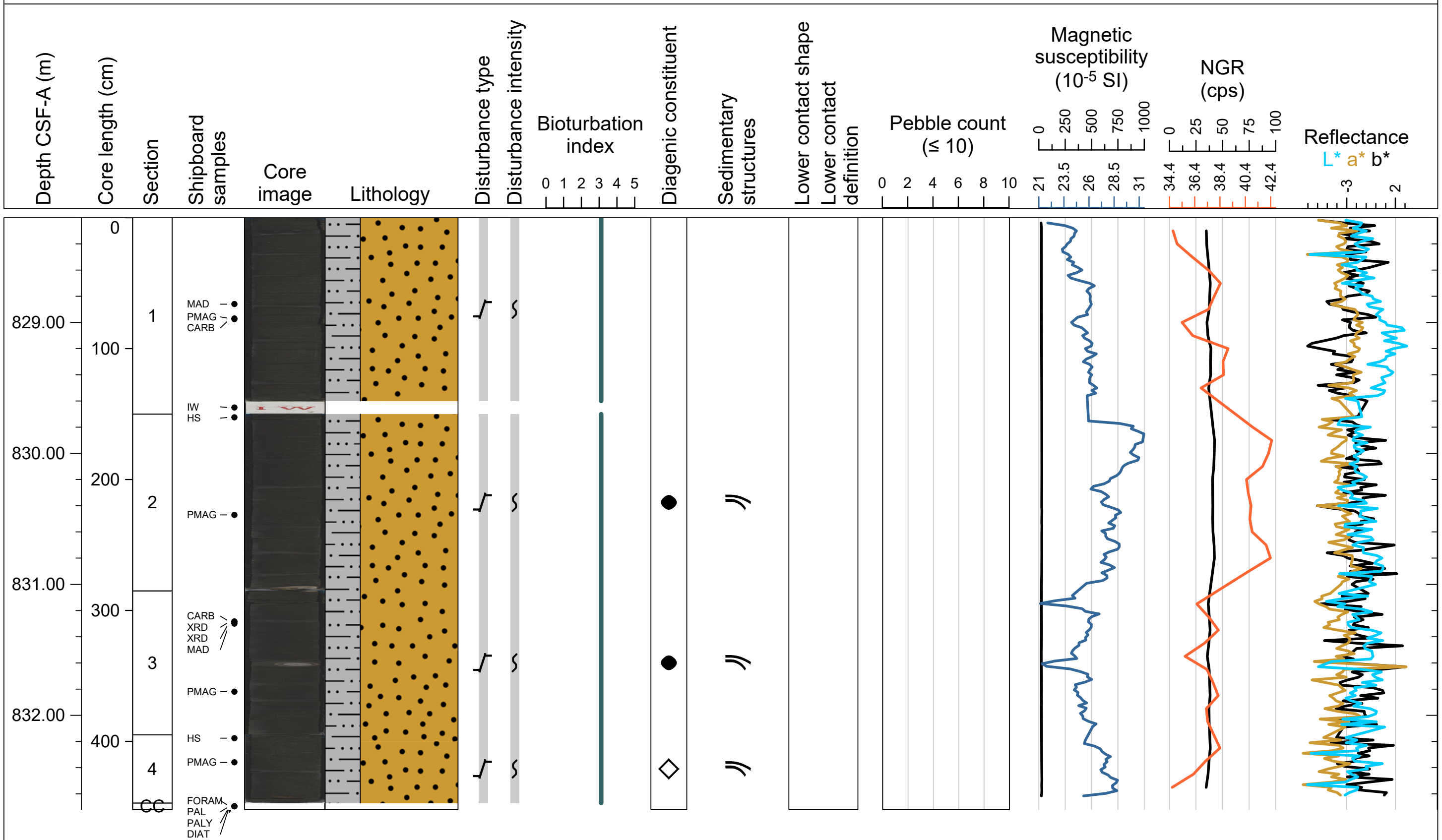
Hole 400-U1607A Core 87R, Interval 818.5-828.84 m (CSF-A)

Medium-brown, bioturbated weakly stratified muddy sand. Pseudomorphs (cm-scale) after ikaite present in Sections 2 and 3. Rare thin-shelled bivalves in Section 7.



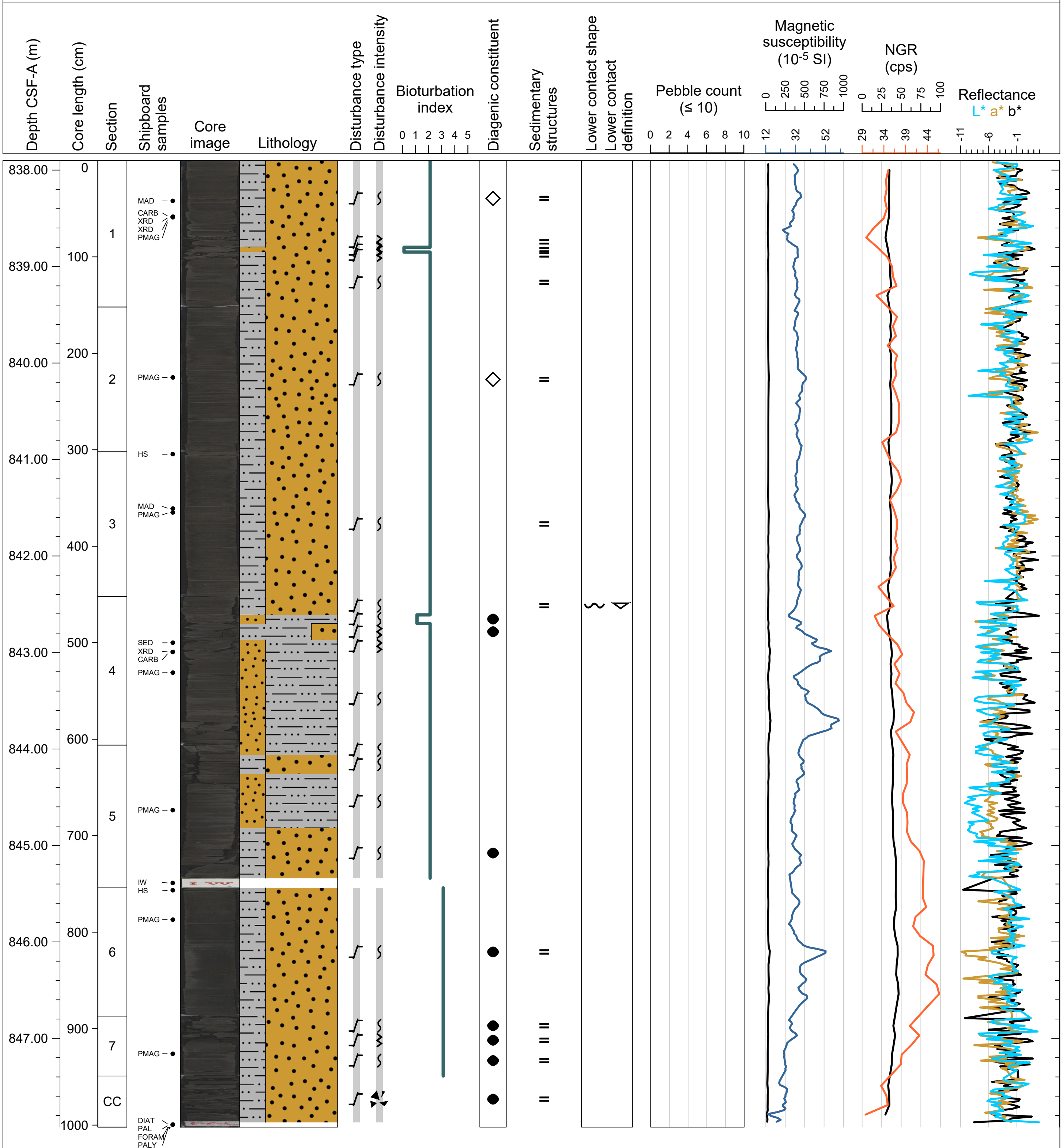
Hole 400-U1607A Core 88R, Interval 828.2-832.72 m (CSF-A)

Medium greyish brown weakly stratified bioturbated muddy sand. Pseudomorphs (cm-scale) after ikaite present in Section 4. Carbonate concretions in Sections 2 and 3. Burrows with glauconite and clean sand reaching up to 1 cm in diameter in Section 2.



Hole 400-U1607A Core 89R, Interval 837.9-847.92 m (CSF-A)

Medium greyish brown weakly stratified to thinly laminated muddy sand with intervals of dark brown sandy mud and mud with sand. Pseudomorphs (cm-scale) after ikaite present in Sections 2 and 3. Section 4 contains intervals of higher concentration of authigenic glauconite over 9-30 cm with intervals of laminated muddy sand. Section 7 contains a higher amount of authigenic glauconite than other sections of the core. Glauconite in burrows with clean sand throughout. Rare shell fragments. Some intervals of higher drilling distubrance corresponding to intervals with more mud and less sand.



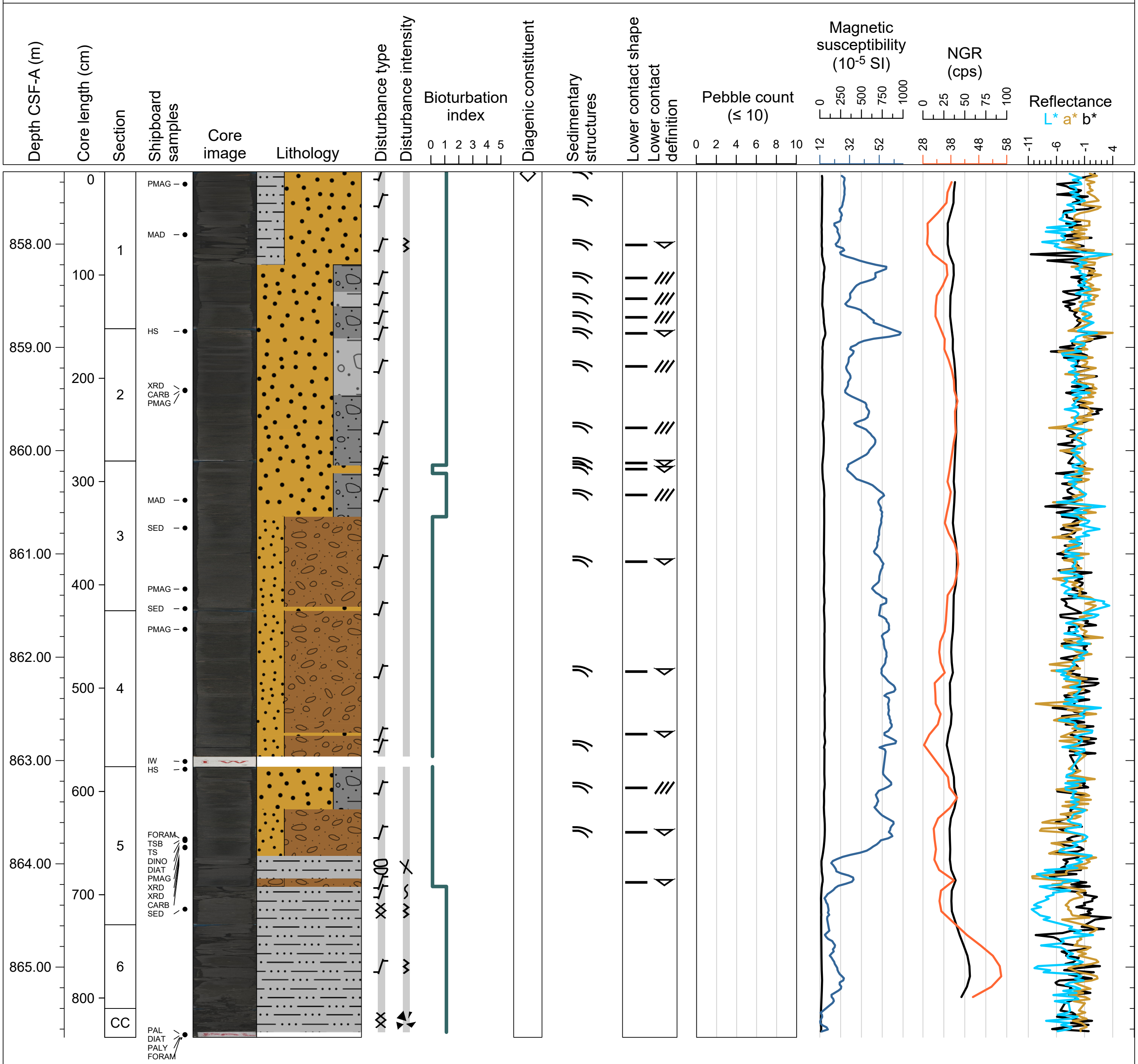
Hole 400-U1607A Core 90R, Interval 847.6-847.6 m (CSF-A)

NO RECOVERY 847.60-857.30 m

Depth CSF-A (m)	Core length (cm)	Section	Shipboard samples	Core image	Lithology	Disturbance type	Disturbance intensity	Bioturbation index (0 1 2 3 4 5)	Diagenic constituent	Sedimentary structures	Lower contact shape	Lower contact definition	Pebble count (≤ 10) (0 2 4 6 8 10)	Magnetic susceptibility (10^{-5} SI) (0 250 500 750 1000; 0 0.25 0.5 0.75 1)	NGR (cps) (0 25 50 75 100; 0 0.25 0.5 0.75 1)	Reflectance L* a* b* (0 0.25 0.5 0.75 1)

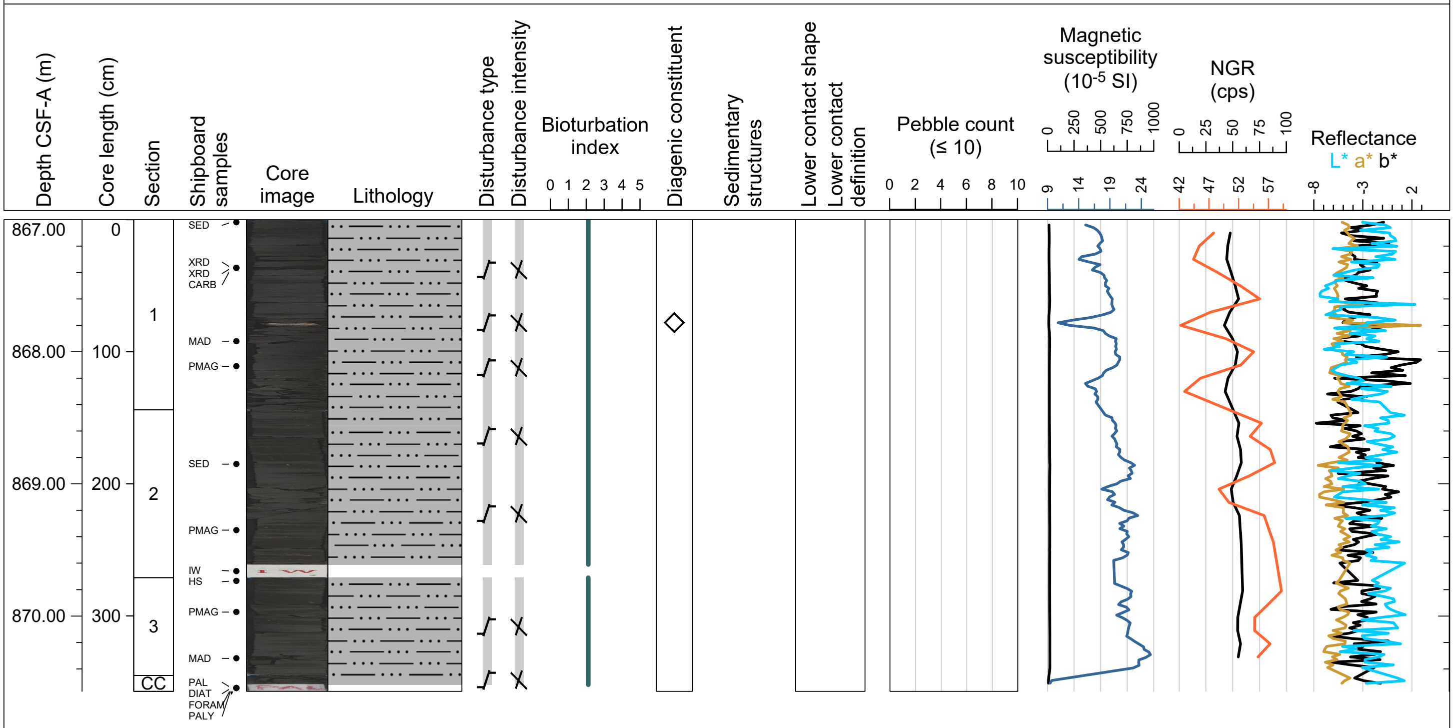
Hole 400-U1607A Core 91R, Interval 857.3-865.68 m (CSF-A)

Dark brown muddy sand with ikaite pseudomorphs sharply overlies a sequence of sand with abundant clasts and sandy granule-grade, stratified conglomerate in Sections 2-5. Granules are subangular to subrounded clasts of glauconite (green and black), brown mud (matches mud in Sections 5-CC), and rounded quartz-rich rock fragments. These clasts fine upward from Section 5 to Section 1. In Section 5, the conglomerate lithology sharply overlies dark brown mud, which continues through the bottom of the core. The contact with the brown mud contains glauconite granules and 5 cm wide blebs of the conglomerate facies. Burrows in the brown mud are filled with very fine pyrite.



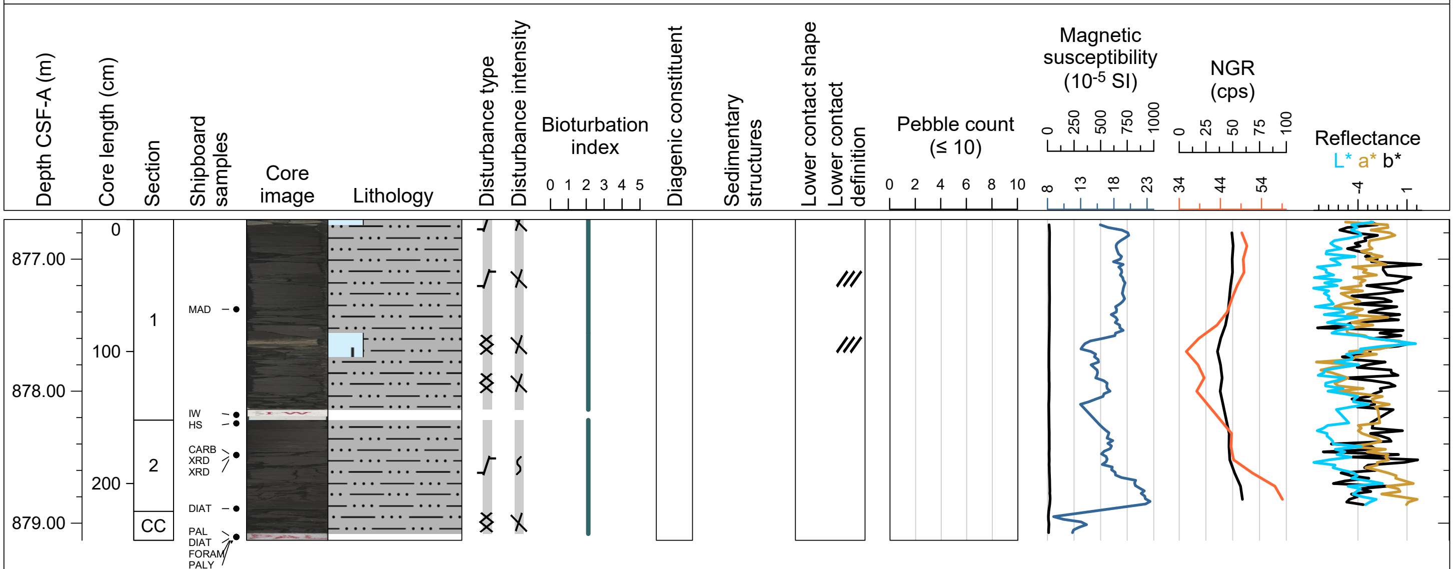
Hole 400-U1607A Core 92R, Interval 867.0-870.57 m (CSF-A)

Dark brown mud with sparse pyritized burrows, no observable stratification. Large pseudomorph after ikaite in Section 1 at 76 cm.



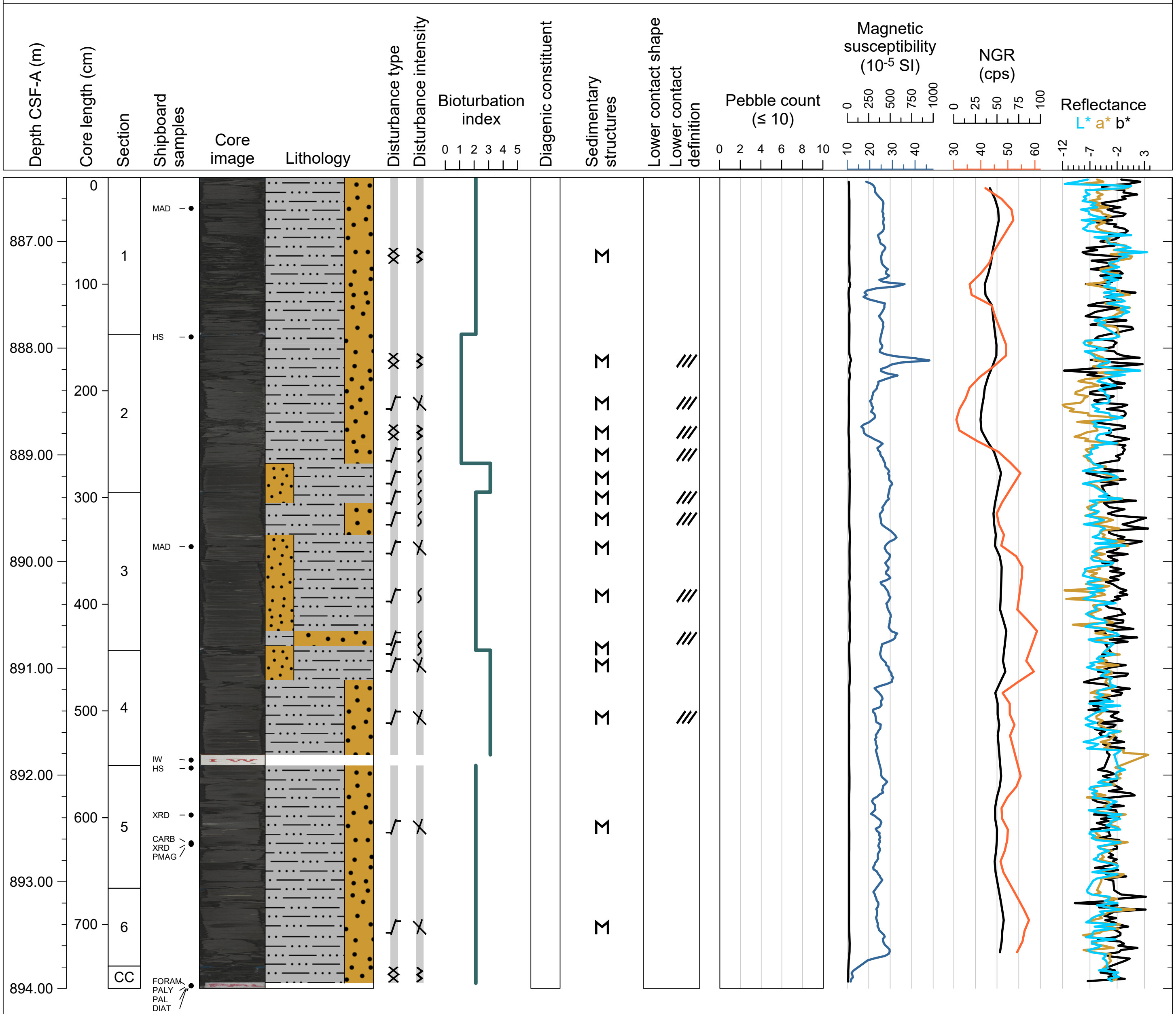
Hole 400-U1607A Core 93R, Interval 876.7-879.13 m (CSF-A)

Dark brown mud with sparse pyritized burrows, no observable stratification, shale-like texture. Light greenish grey mud with calcareous mud-filled burrows in Sections 2 and 3.



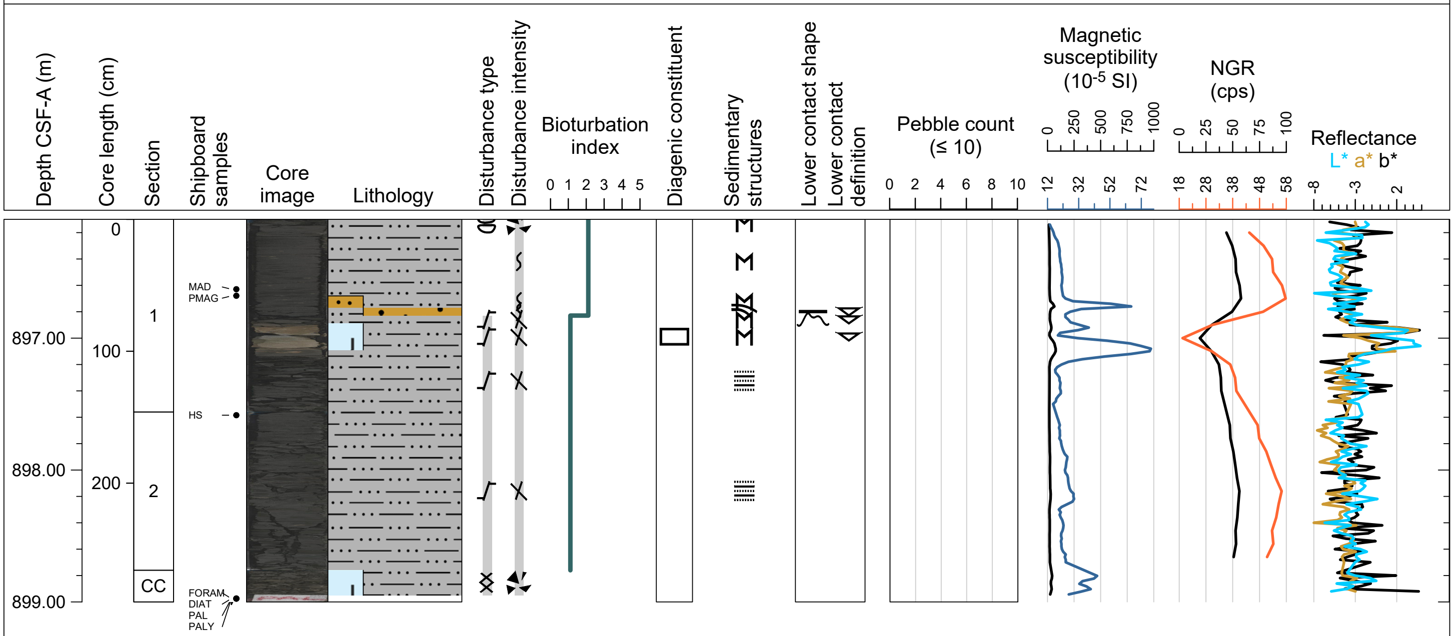
Hole 400-U1607A Core 94R, Interval 886.4-894.0 m (CSF-A)

Dark brown mud with dispersed sand grains (Sections 1 and 2 including coarse sand-sized, dark green grains) and dark brown sandy mud. There are no visible laminations or other sedimentary structures. Pyritized burrow-fills are sparse to rare throughout. Degree of bioturbation is difficult to characterize in massive mud-dominated lithology.



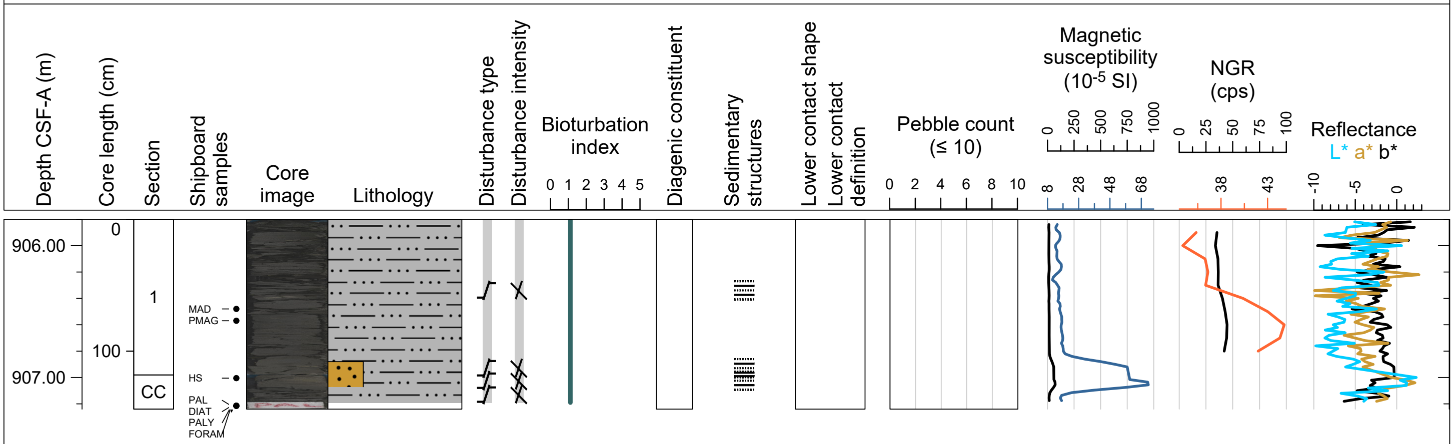
Hole 400-U1607A Core 95R, Interval 896.1-899.0 m (CSF-A)

Very dark greyish brown mud with dispersed green sediment clasts (< 5mm) and color banding with one interbed of cemented yellowish brown calcareous mud in Section 1. The lithology in the core catcher is olive grey calcareous mud. Pyritized burrows are present throughout.



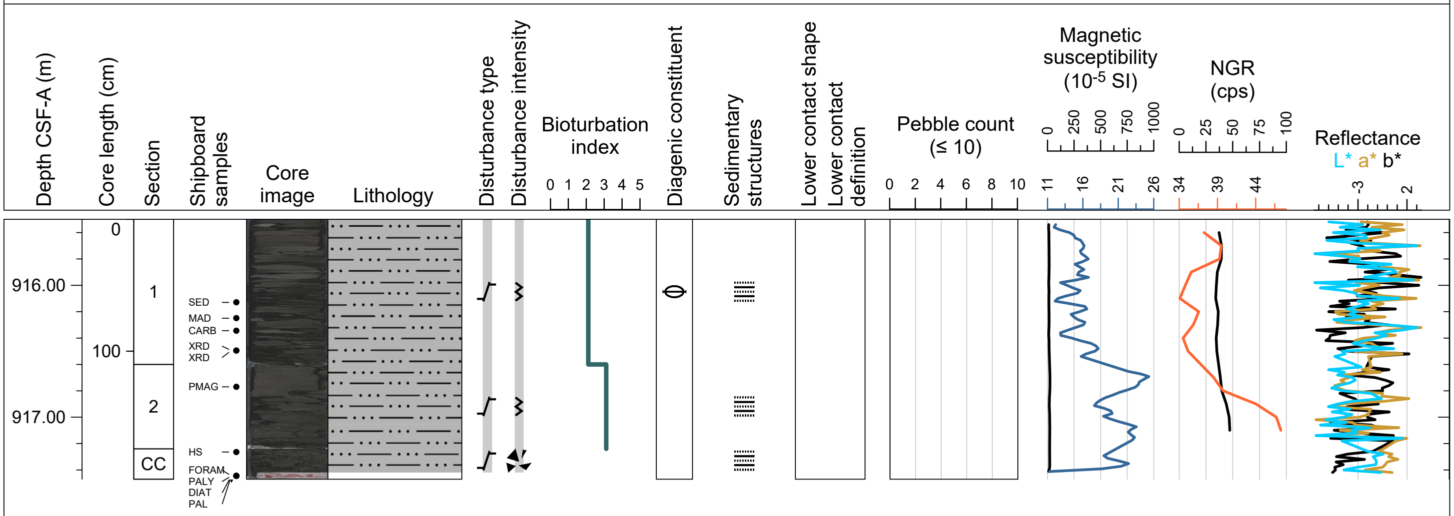
Hole 400-U1607A Core 96R, Interval 905.8-907.24 m (CSF-A)

Very dark greyish brown mud and minor sandy mud with color banding. Pyritized burrows are present as well.



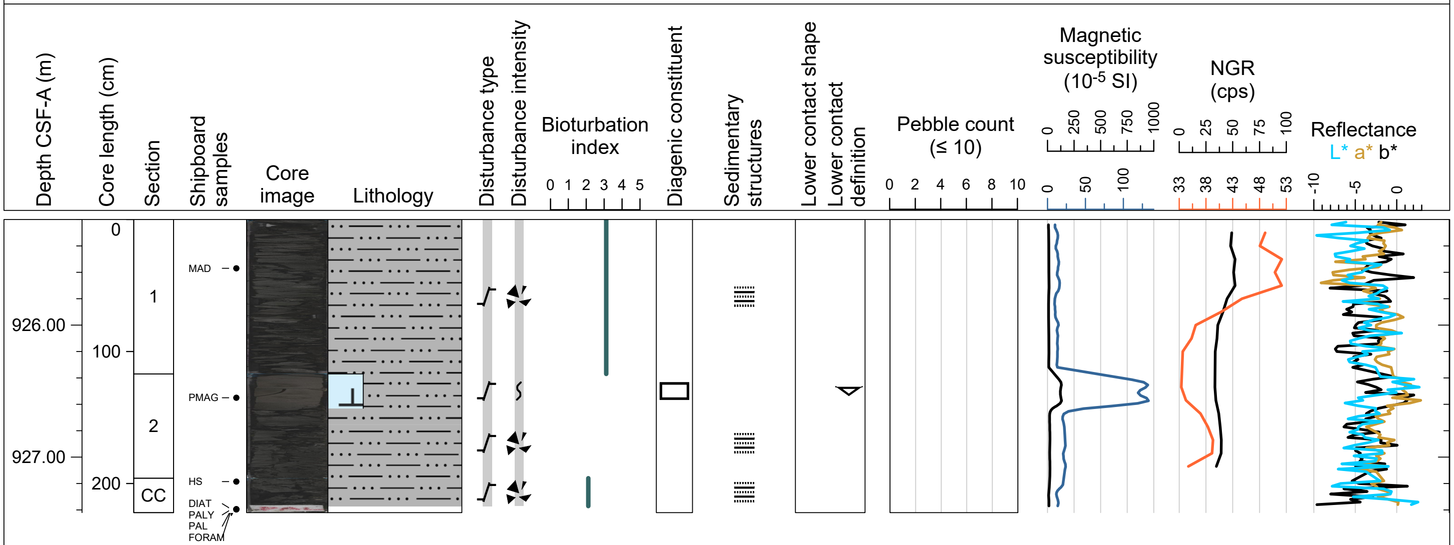
Hole 400-U1607A Core 97R, Interval 915.5-917.47 m (CSF-A)

Dark brown color banded mud (dark green and reddish bands). Pyrite filled burrows. The drilling disturbance is severe.



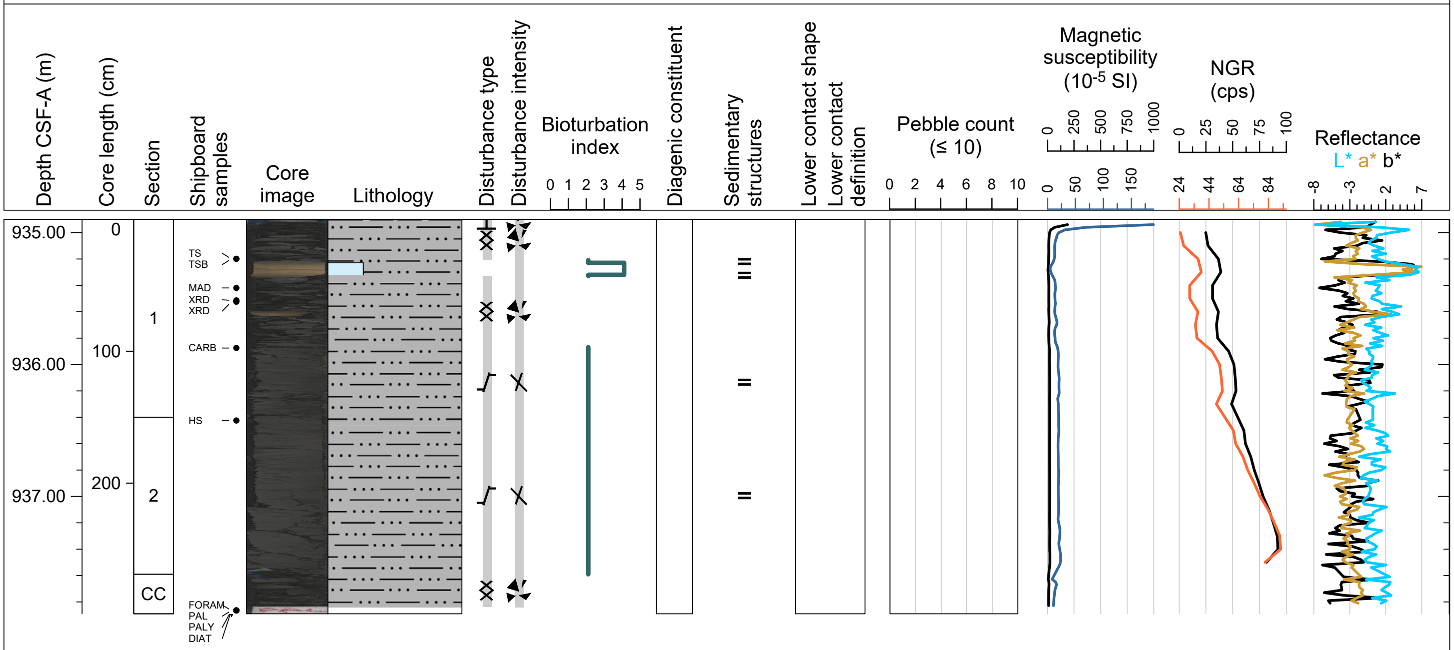
Hole 400-U1607A Core 98R, Interval 925.2-927.42 m (CSF-A)

Dark brown color banded mud (dark green and reddish bands). Bioturbation evident as pyritize filled burrows. The drilling disturbance is severe and prevented detailed characterization.



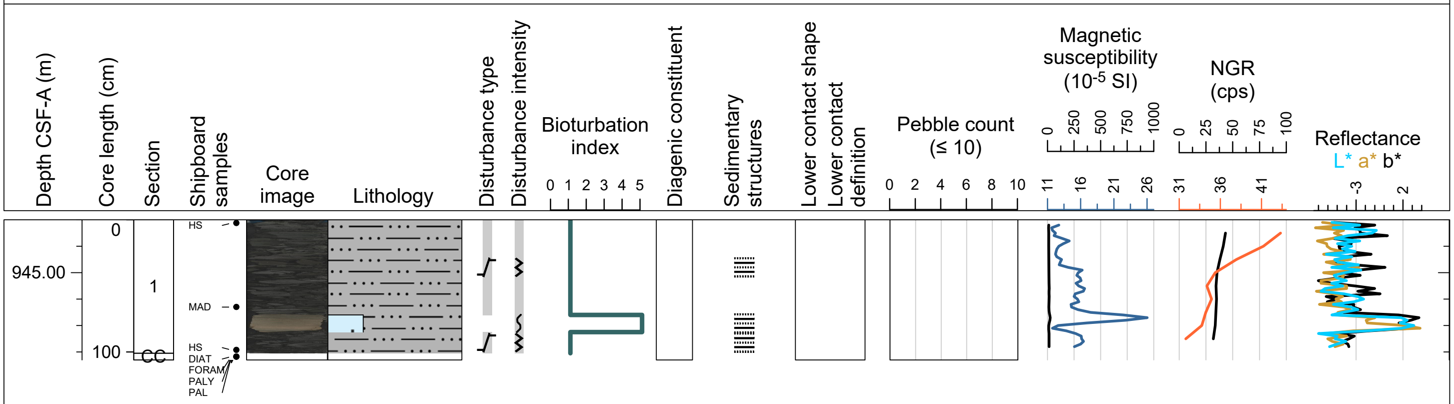
Hole 400-U1607A Core 99R, Interval 934.9-937.89 m (CSF-A)

Dark brown, thinly laminated mud with some dark green (glauconitic?) and reddish laminae. Laminae are bioturbated. Burrows are very small, sparse, and pyritized. Rare, dispersed sand-sized glauconite grains occur in Section 2. Drilling disturbance is severe.



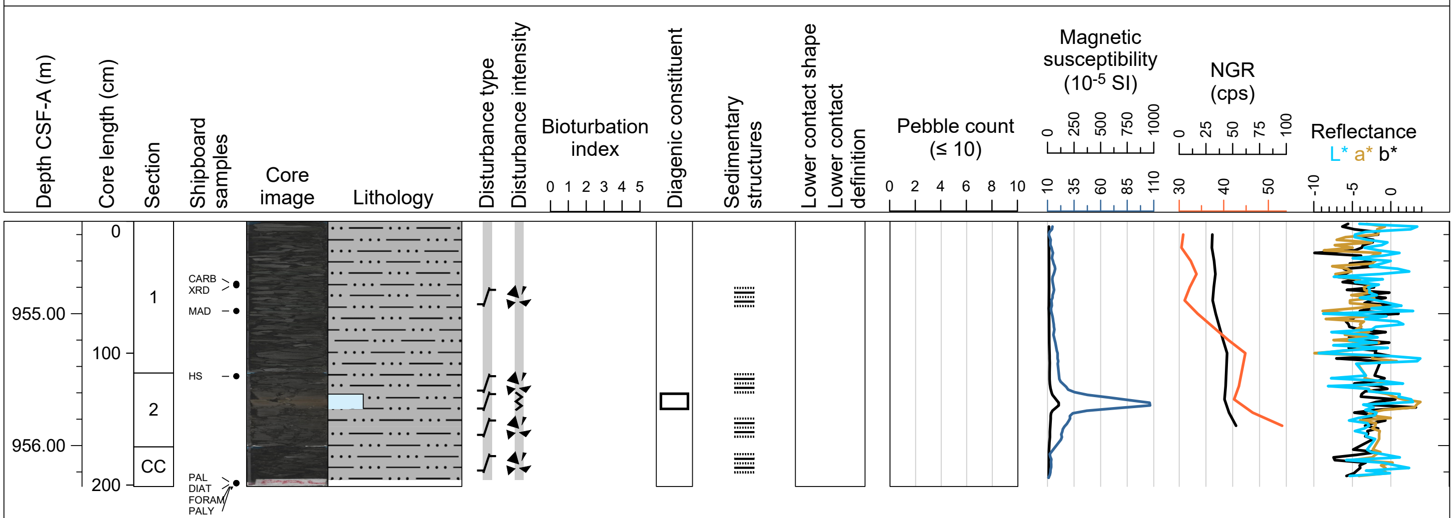
Hole 400-U1607A Core 100R, Interval 944.6-945.66 m (CSF-A)

Very dark grey mud with color banding with one 13-cm thick interbed of bioturbated yellow calcareous mud.



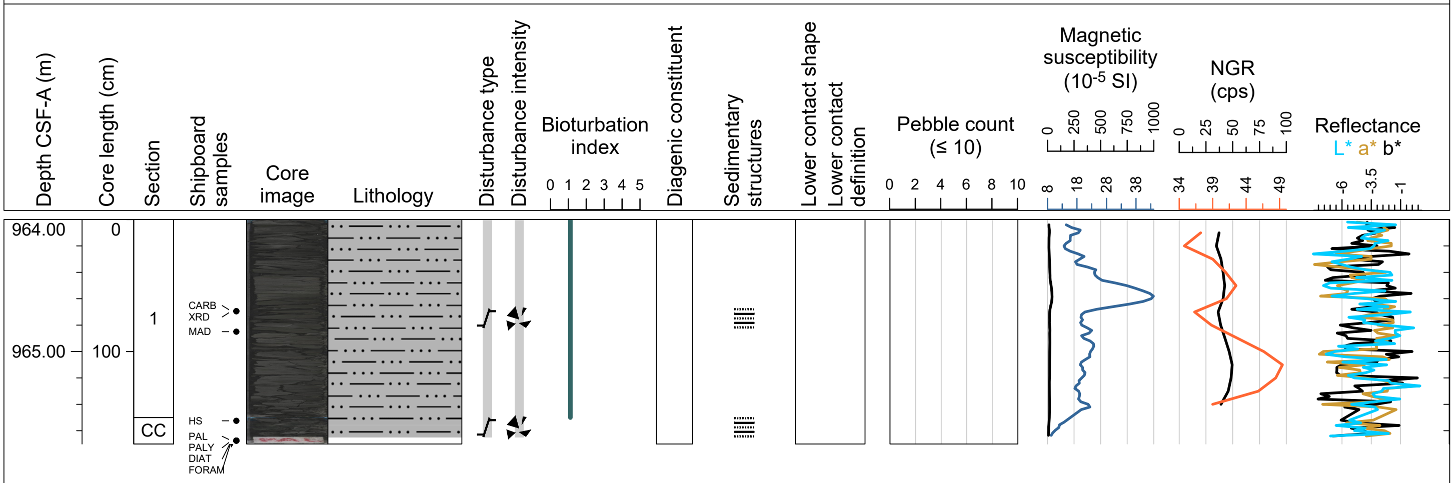
Hole 400-U1607A Core 101R, Interval 954.3-956.31 m (CSF-A)

Dark grey mud with color banding (greenish to reddish) with one bed of yellow calcareous cemented mud. Drilling disturbance is severe.



Hole 400-U1607A Core 102R, Interval 964.0-965.7 m (CSF-A)

Dark grey mud with color banding (greenish to reddish). The drilling disturbance is severe, preventing observation of bioturbation and sedimentary structures. Small pyrite grains are observed at the bottom of the core.



Hole 400-U1607A Core 103R, Interval 973.7-974.78 m (CSF-A)

Dark grey mud transitioning downcore to medium brown mud at the base. Semilithified, light brown calcareous mud occurs at 5-8 cm. Bioturbation and sedimentary structures are difficult to discern due to severe drilling disturbance (brecciation).