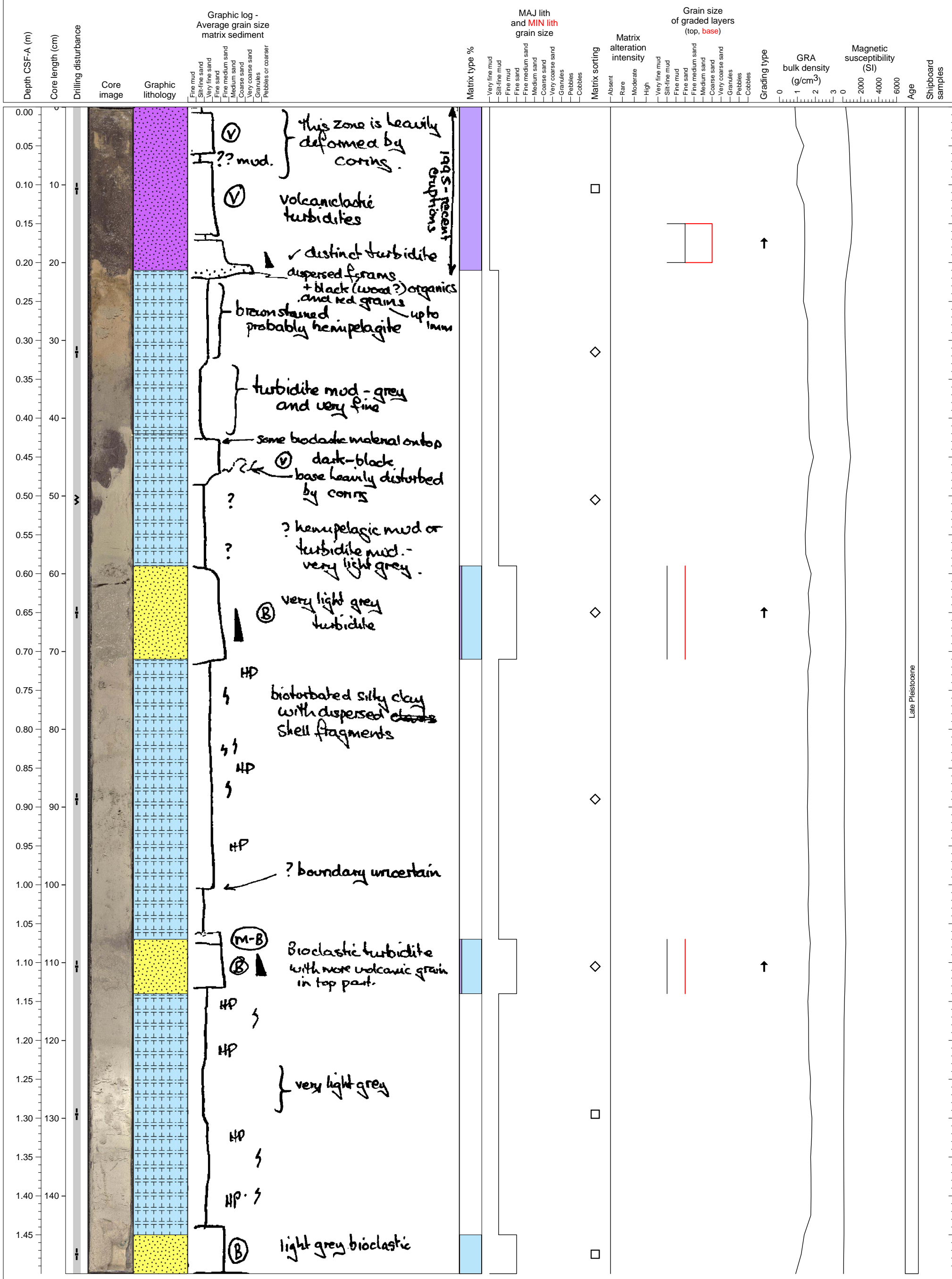


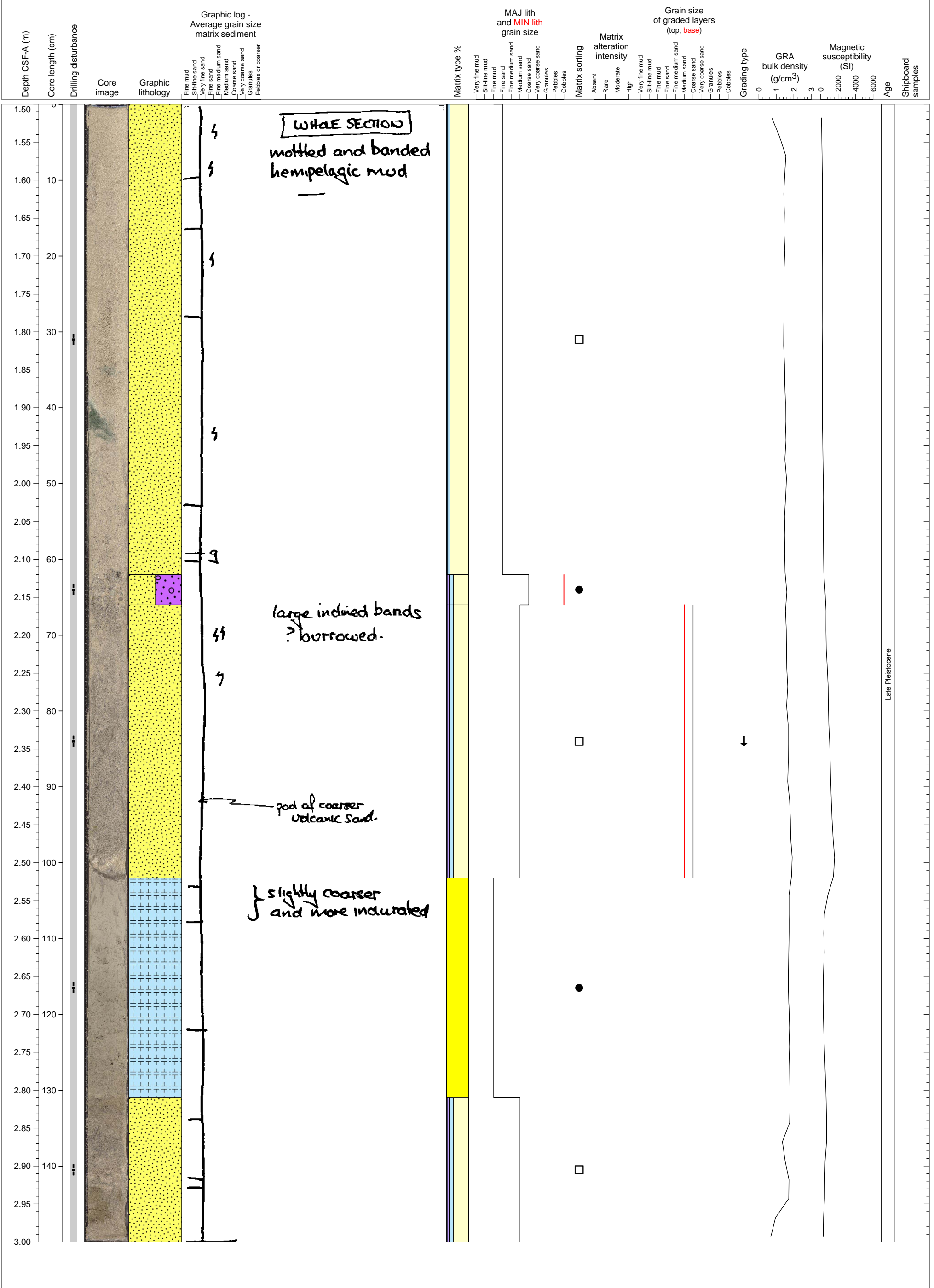
The uppermost 21 cm consist of very dark gray volcanic sand, which might have derived from recent eruptions. Other parts are mostly hemipelagic sediments, but light grey sand layers have volcanic materials up to 10 %.



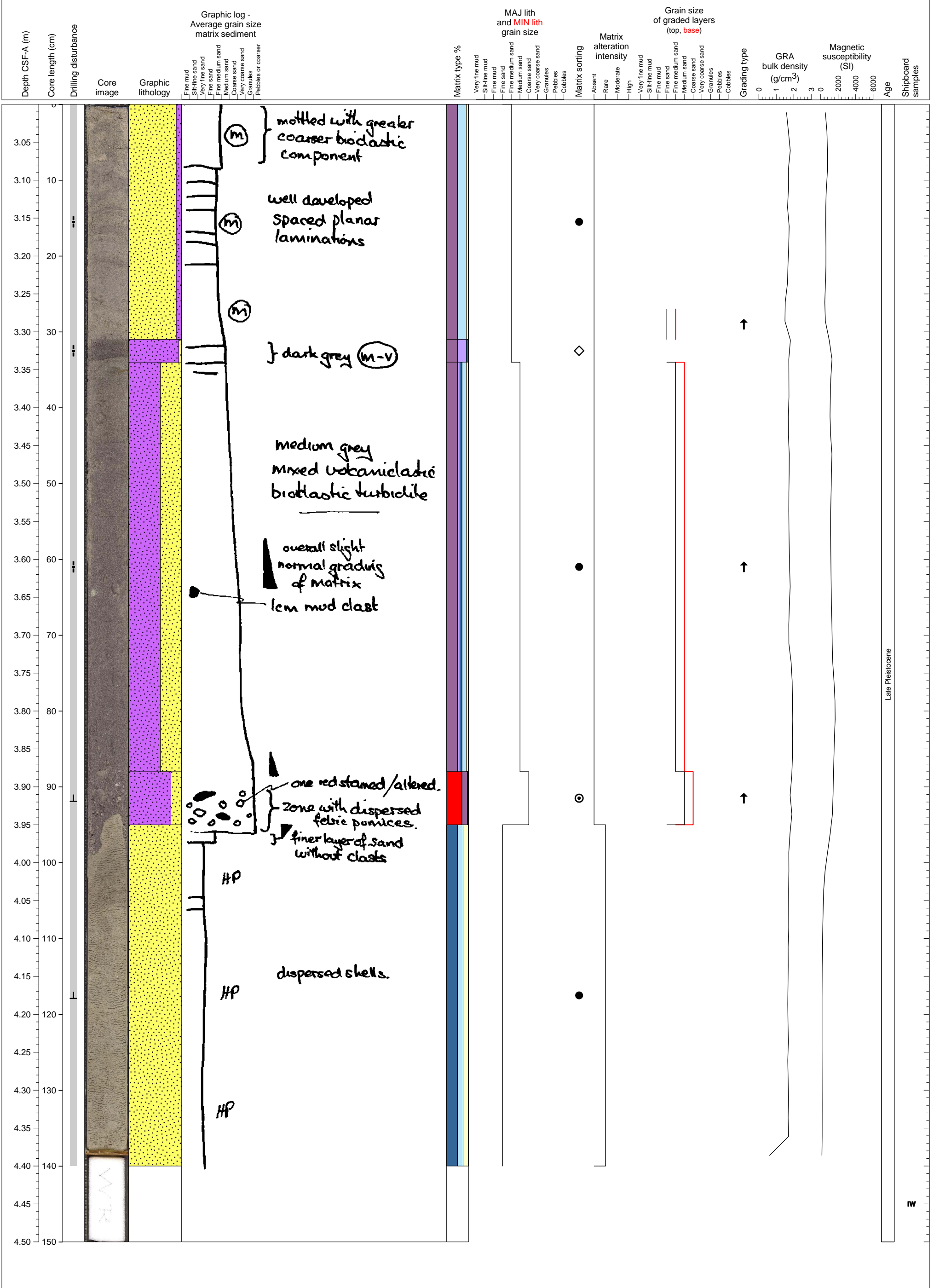
Late Pleistocene

Sample	Top (cm)	Bottom (cm)	Top Depth (m)	Bottom Depth (m)	Groundmass percentage (%)	Groundmass modal grain size (mm)	Groundmass comments	Volcanic grain (%)	Volcanic grain modal size (mm)	Biogenic grain (%)	Mineral grain (%)	Mineral grain modal size (mm)	Lithic grain (%)	Lithic grain modal size (mm)	Olivine present (%)	Olivine size MIN (mm)	Olivine shape	Olivine comment	Plagioclase present (%)	Plagioclase size MAX (mm)	Plagioclase shape	Plagioclase habit	Plagioclase comment	Clinopyroxene present (%)	Clinopyroxene size MAX (mm)	Clinopyroxene shape	Clinopyroxene habit	Clinopyroxene special features	Orthopyroxene present (%)	Orthopyroxene size MAX (mm)	Orthopyroxene shape	Orthopyroxene habit	Orthopyroxene comments	Amphibolite present (%)	Amphibolite size MAX (mm)	Amphibolite shape	Amphibolite habit	Amphibolite comments	Oxides present (%)	Oxides size MAX (mm)	Oxides shape	Oxides habit	Oxides comments	Quartz present (%)	Quartz size MAX (mm)	Quartz shape	Quartz habit	Quartz comment	Comment
340-U1395B-14H-CC-W 8/10-TSB-TS#16	0	2	120.25	120.27																																											Pumice clast - too thin to properly log.		

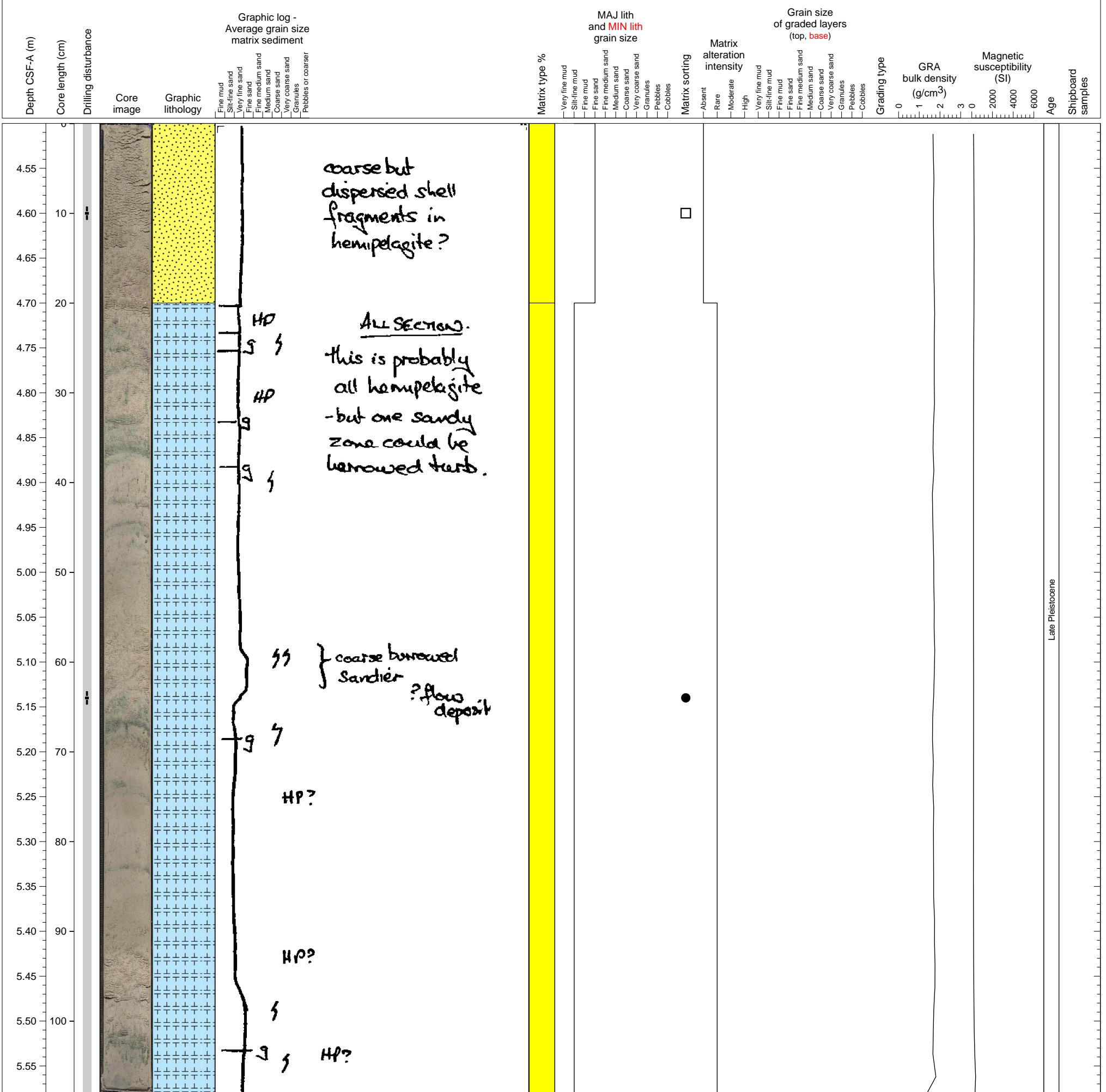
Two layers of Carcarius sands on carbonate ooze. The lower layer has weak reverse grading from medium sand to coarse sand with pebble sized grains consisting pumice and lava clasts.



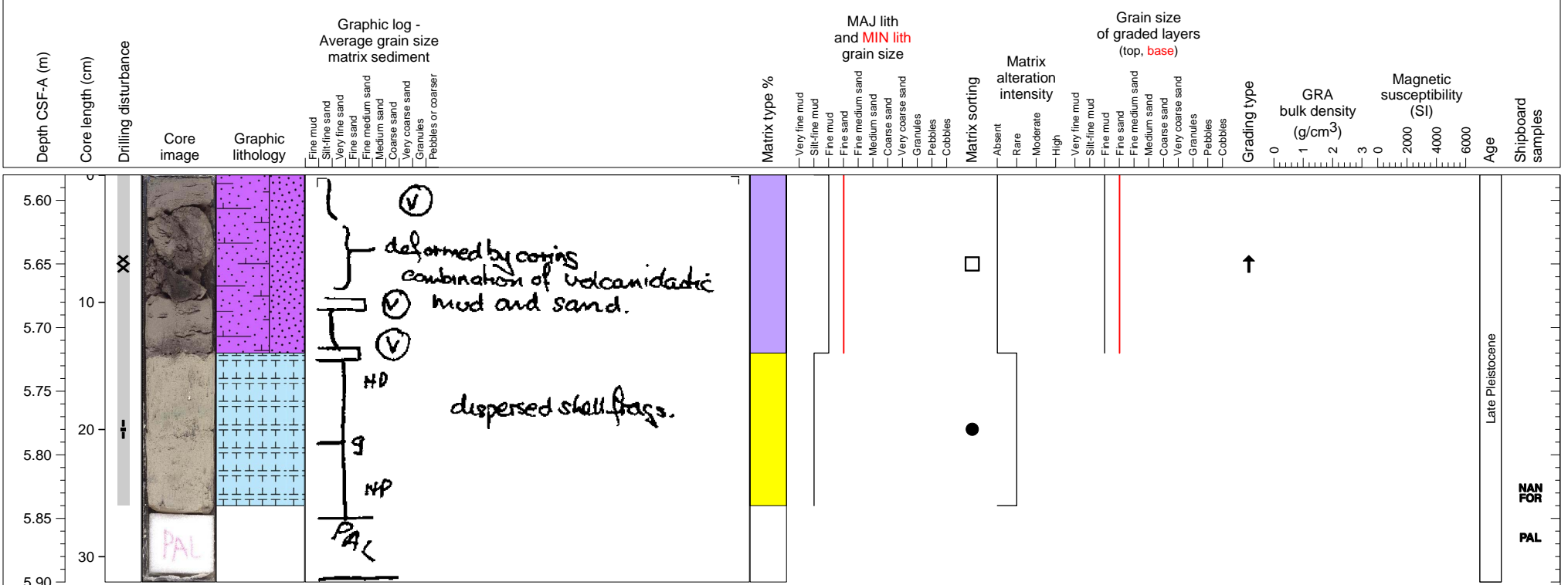
the upper part is laminated calcareous sand, the middle part is normal graded volcanoclastic turbidite, and the lower part is hemipelagic calcareous very fine sandy - silt (no volcanic component).



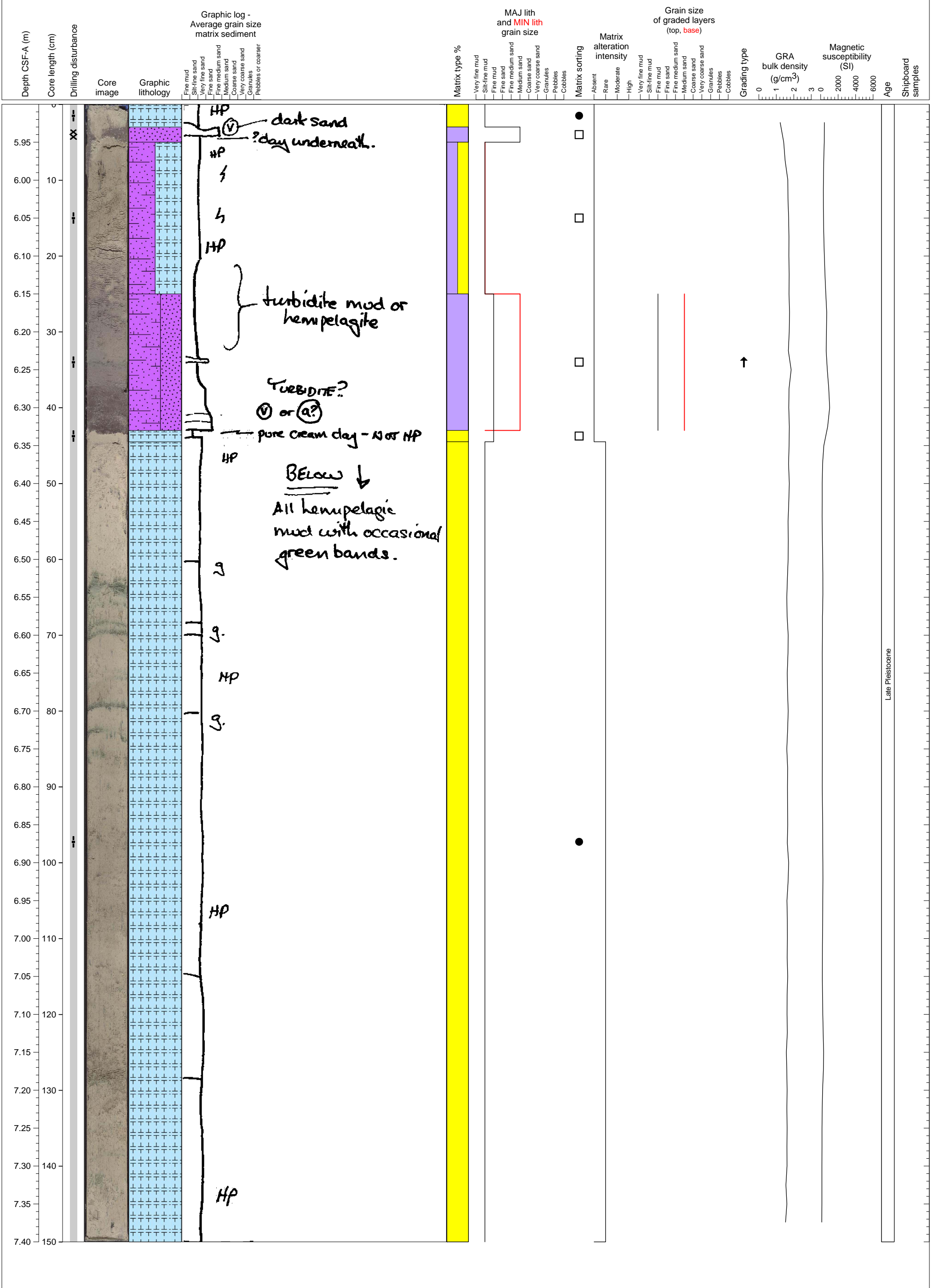
Fine grained calcereous sand overlying hemipelagic clay with significant bioturbation.



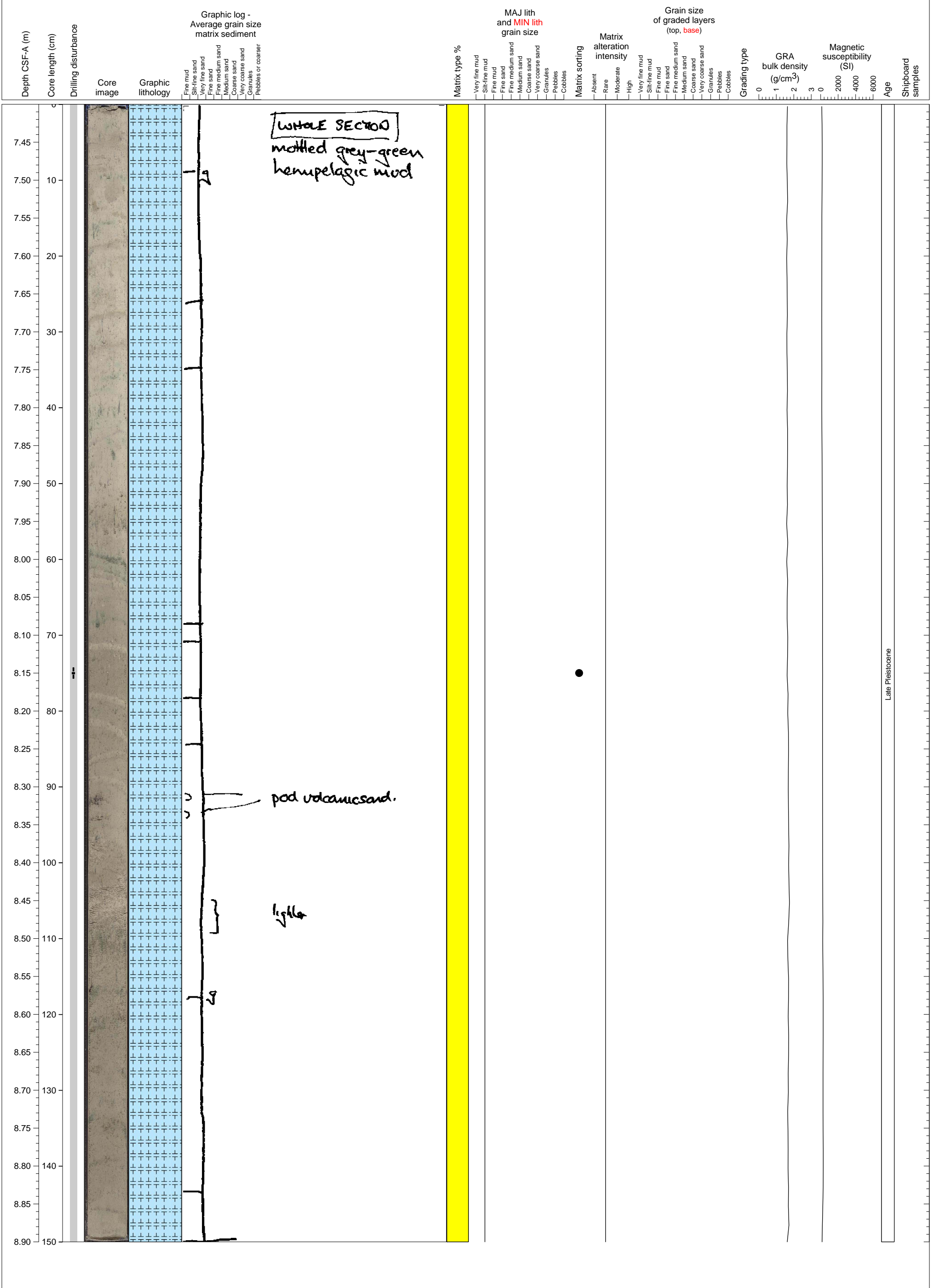
Layered volcanoclastic fining upward bed overlying hemipelagic clay. PAL sample from lower section.



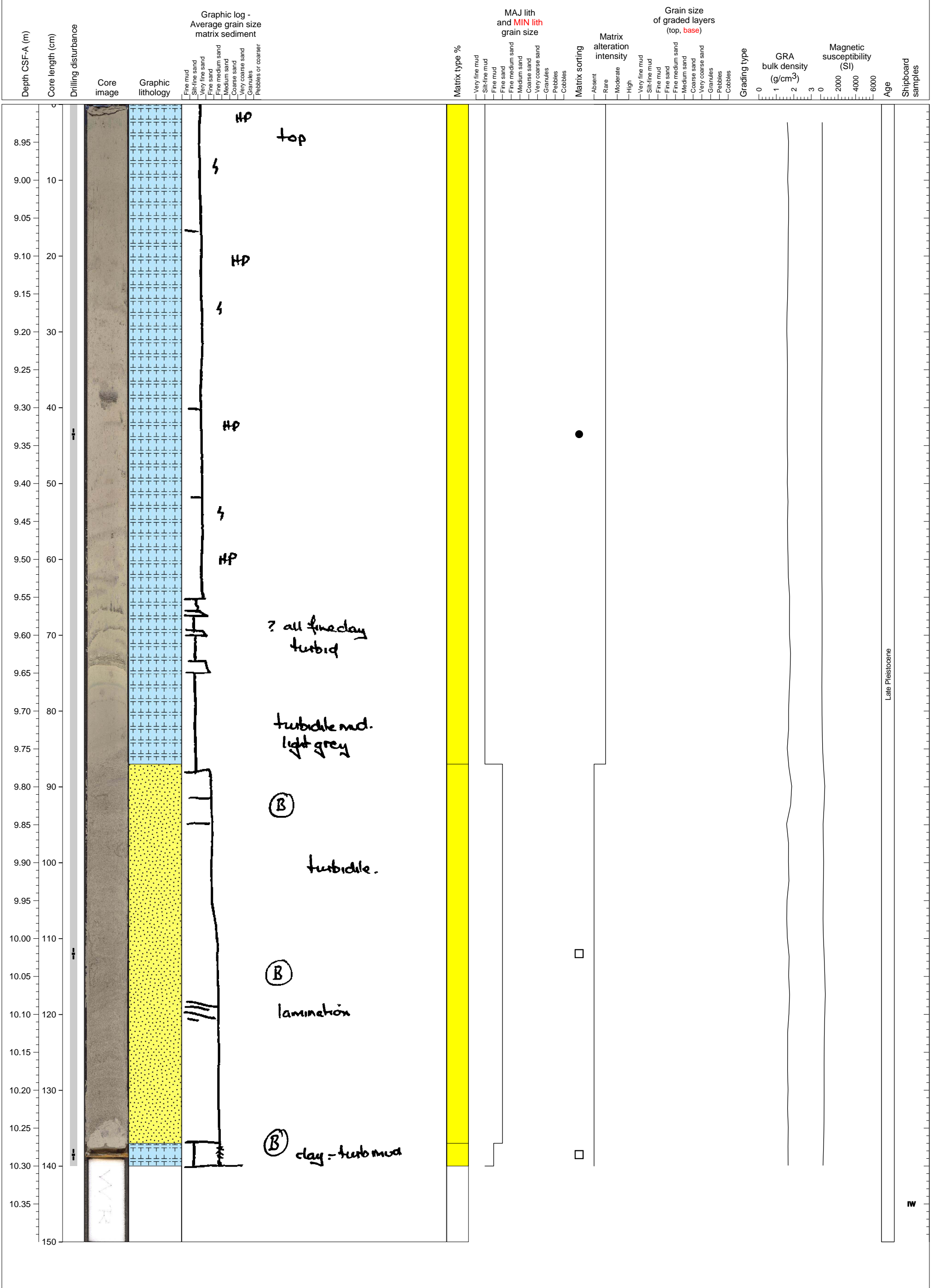
Hemipelagic clay interlayered with volcanoclastic unit fining upward from medium sand to mud.



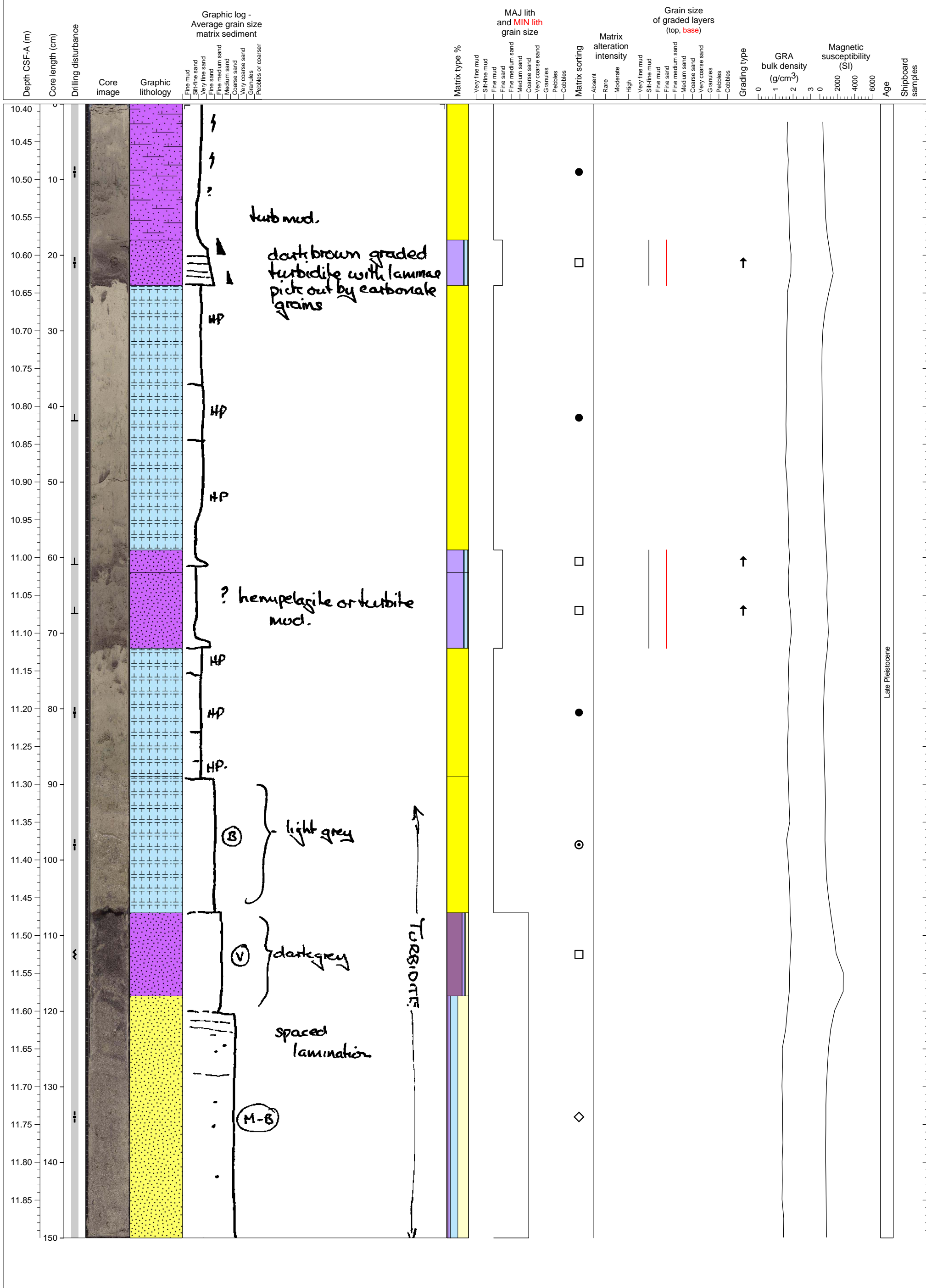
Massive layer of hemipelagic clay with high bioturbation.



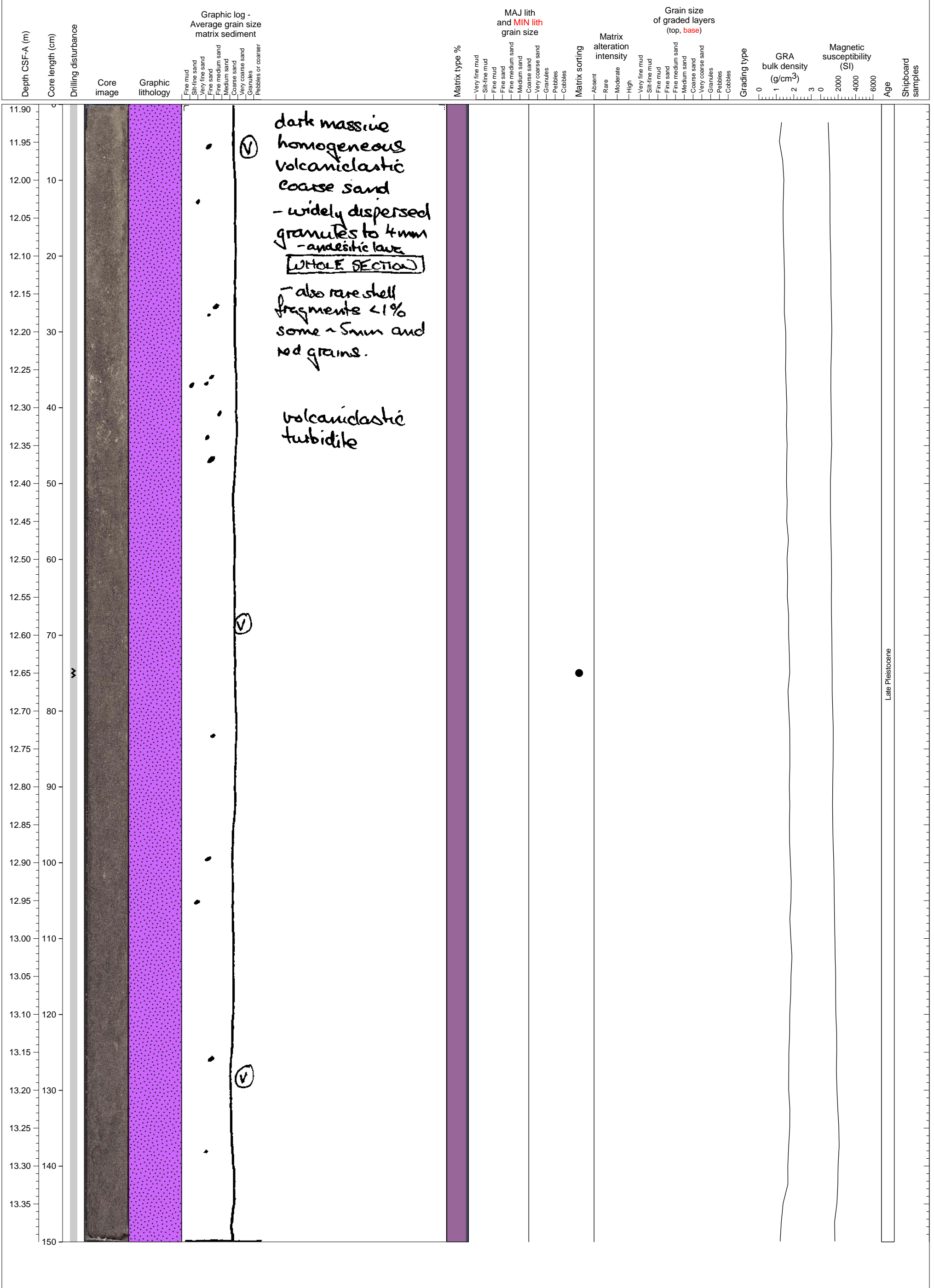
Interlayered hemipelagic clay and calcereous fine sand. Lower clay unit is composed of finer mud. WR taken from base of section.



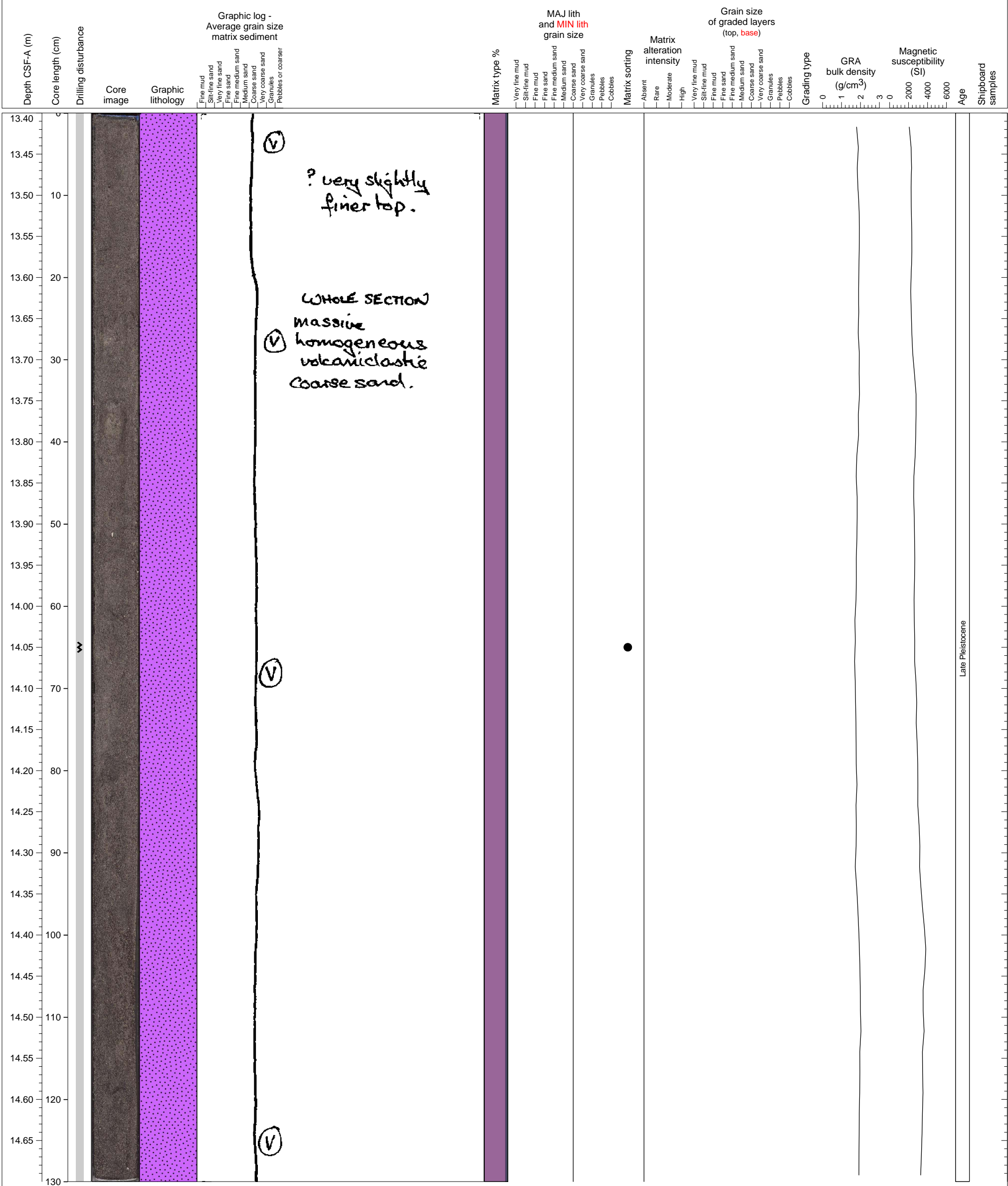
The upper 107 cm is hemipelagic sediments interlayered at least three turbidite, and the lower part consists of the top of a thick turbidite that the major part appear in the next section.



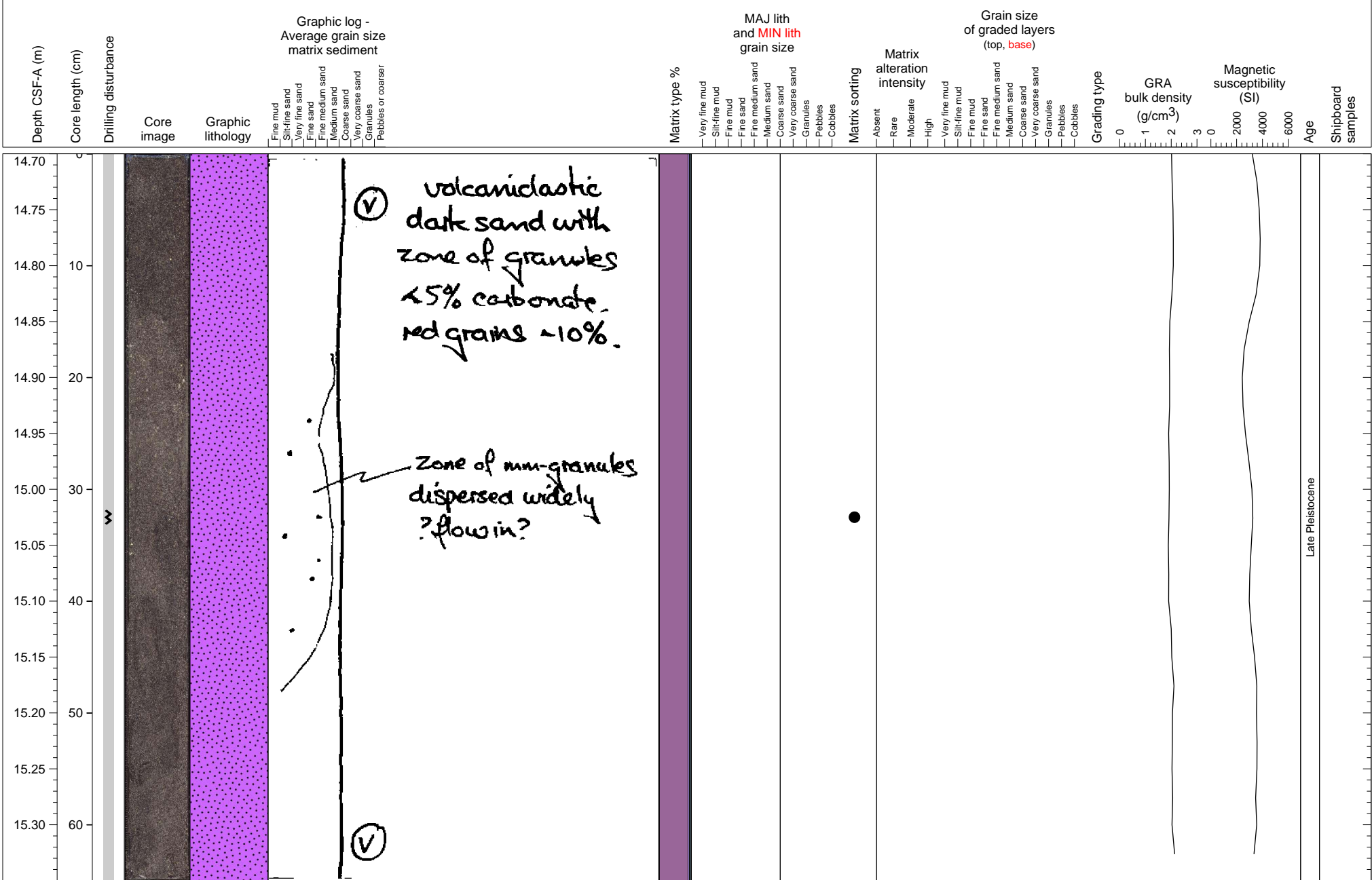
volcaniclastic coarse sand (turbidite?)



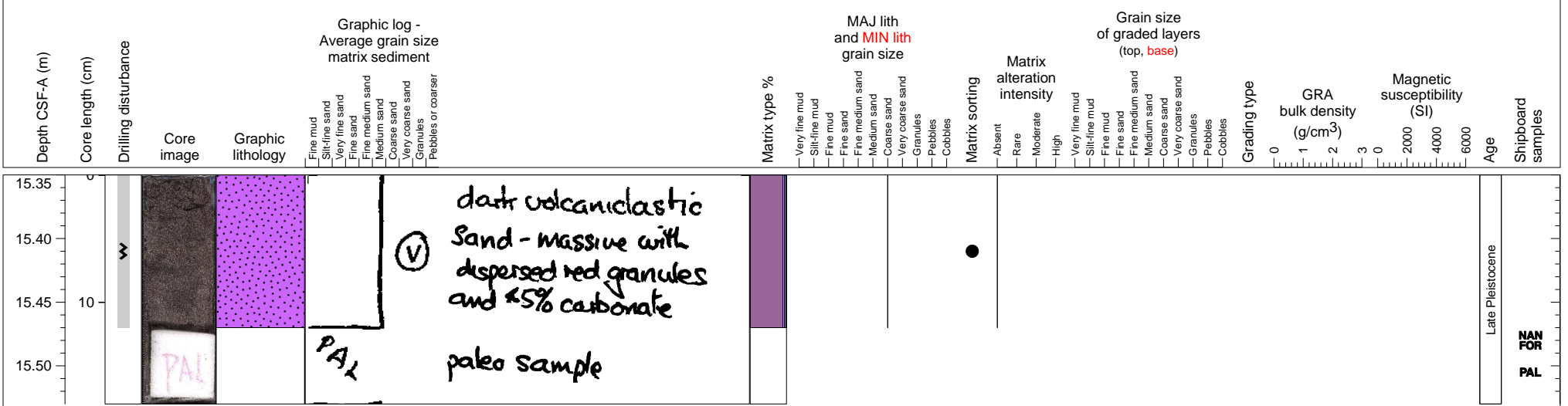
volcaniclastic coarse sand (part of turbidite?)



volcaniclastic coarse sand (part of turbidite?)

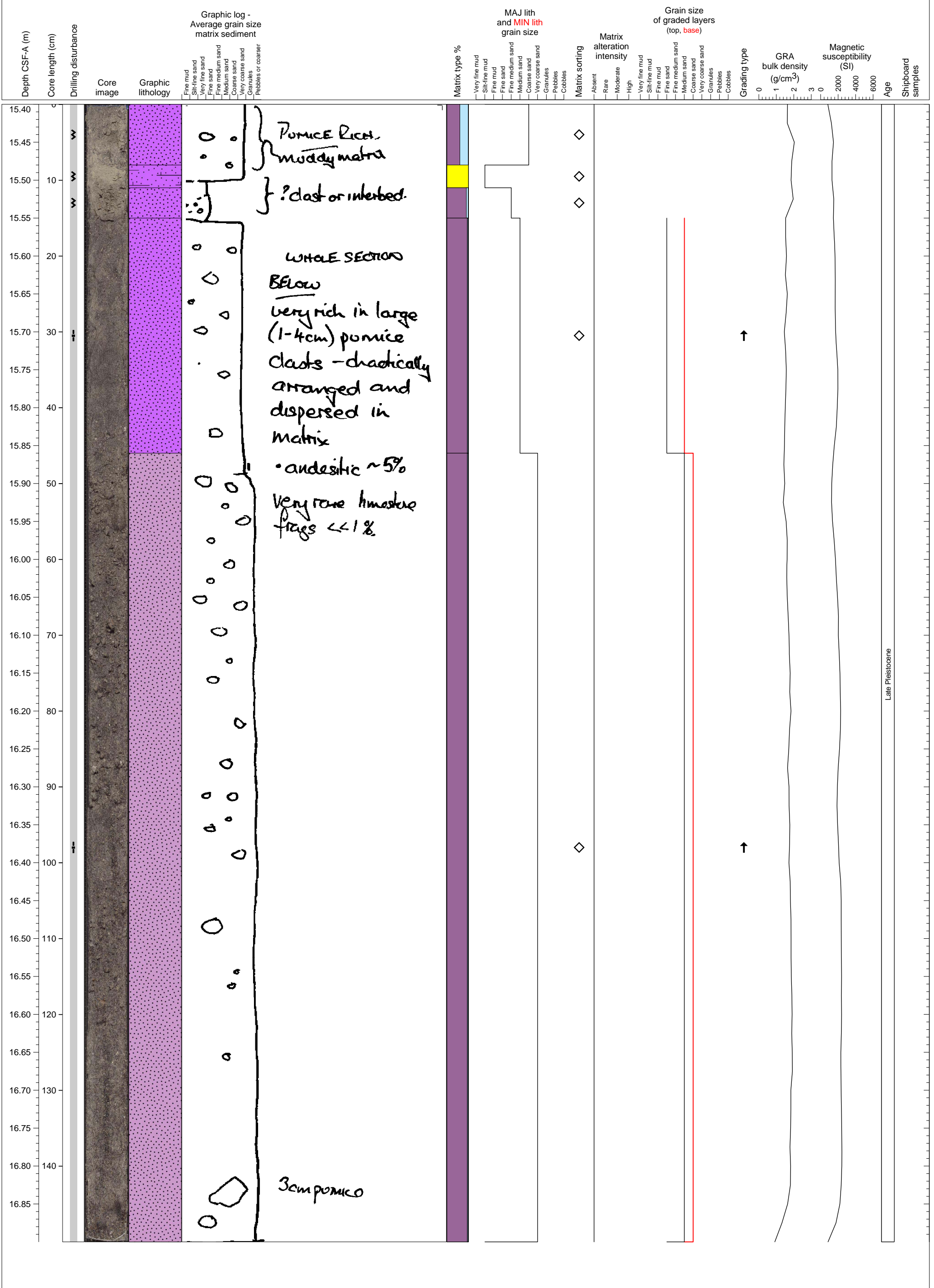


dark volcanoclastic sand



Hole 340-U1395B-3H Section 1, Top of Section: 15.4 CSF-A (m)

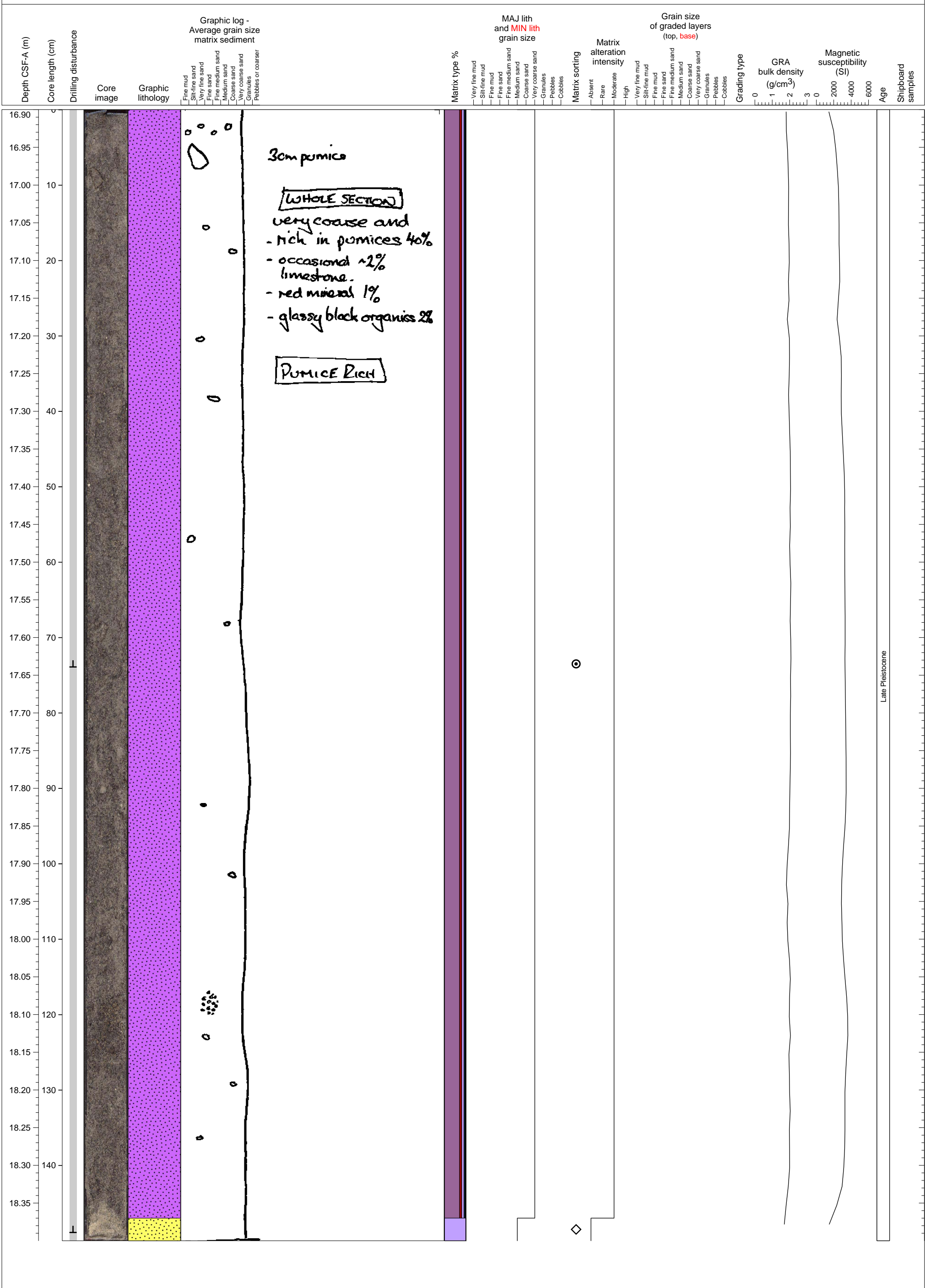
From 8cm to the bottom of this section is turbidite, which contains pebble size clast of fresh andesite, pumice and brown andesite, This turbidite continues to the lower section, thus the total thickness is about 3 m. Turbidite consists of mostly volcanic origin materials, but about 5 % of biogenic materials are contained.



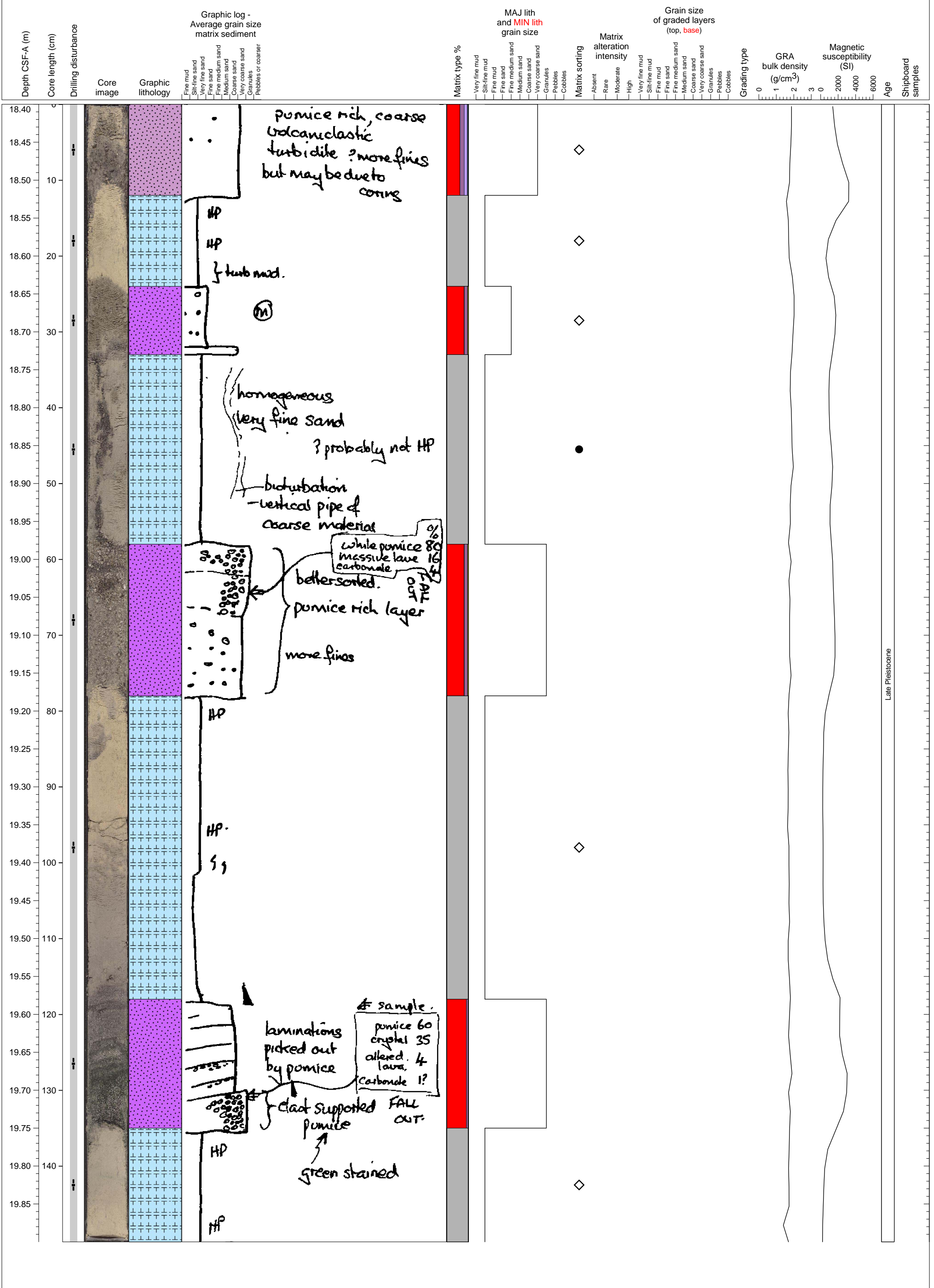
} Pumice Rich, Muddy matrix
 } ?clast or interbed.
 WHOLE SECTION
 BELOW
 very rich in large (1-4cm) pumice clasts - chaotically arranged and dispersed in matrix
 • andesitic ~5%
 very rare limestone frags <<1%
 3cm pumice

Late Pleistocene

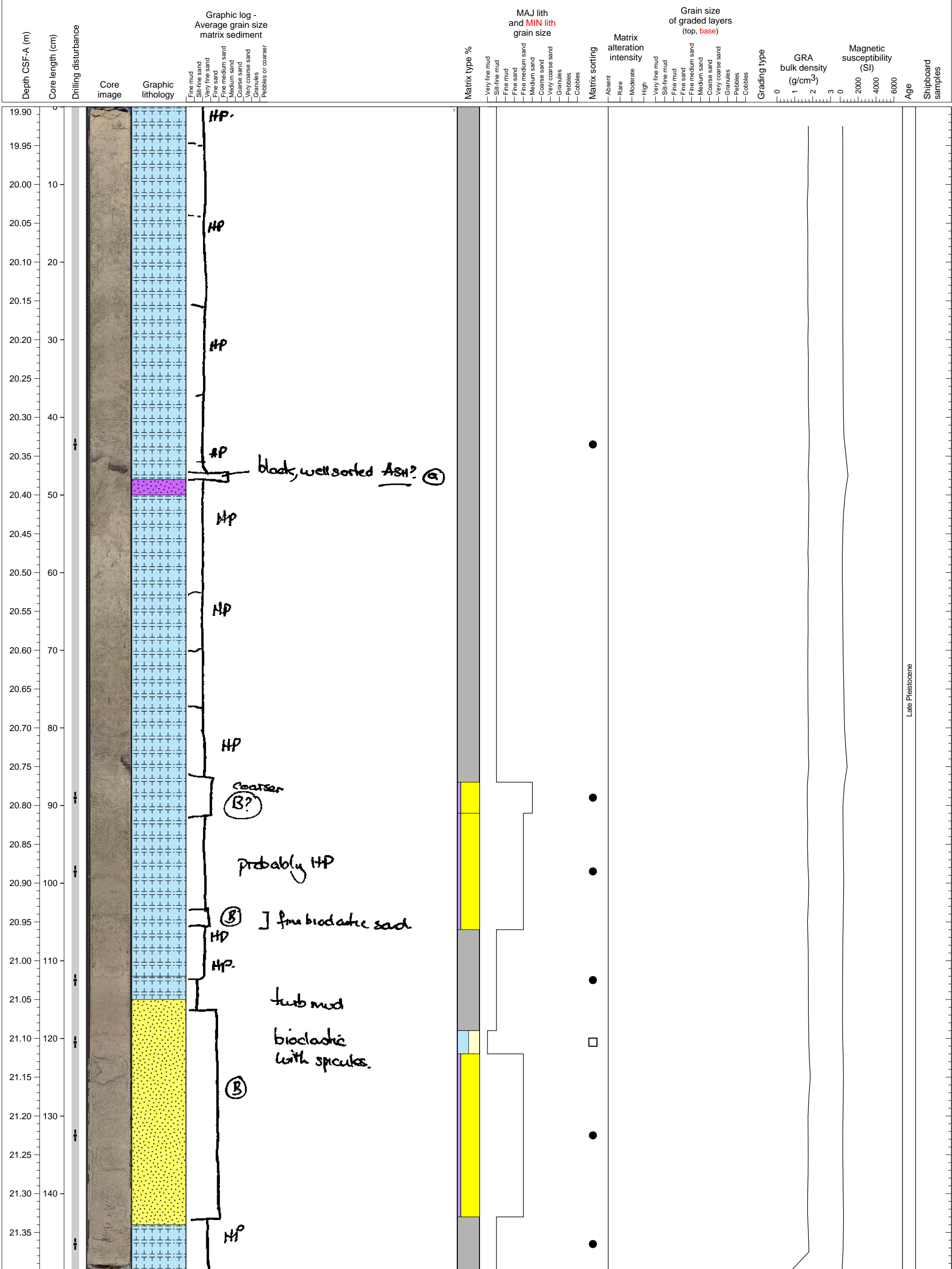
Thick very coarse sandy layer consists of various volcanoclastics. At the bottom is a thick volcanoclastic turbidite sequence.



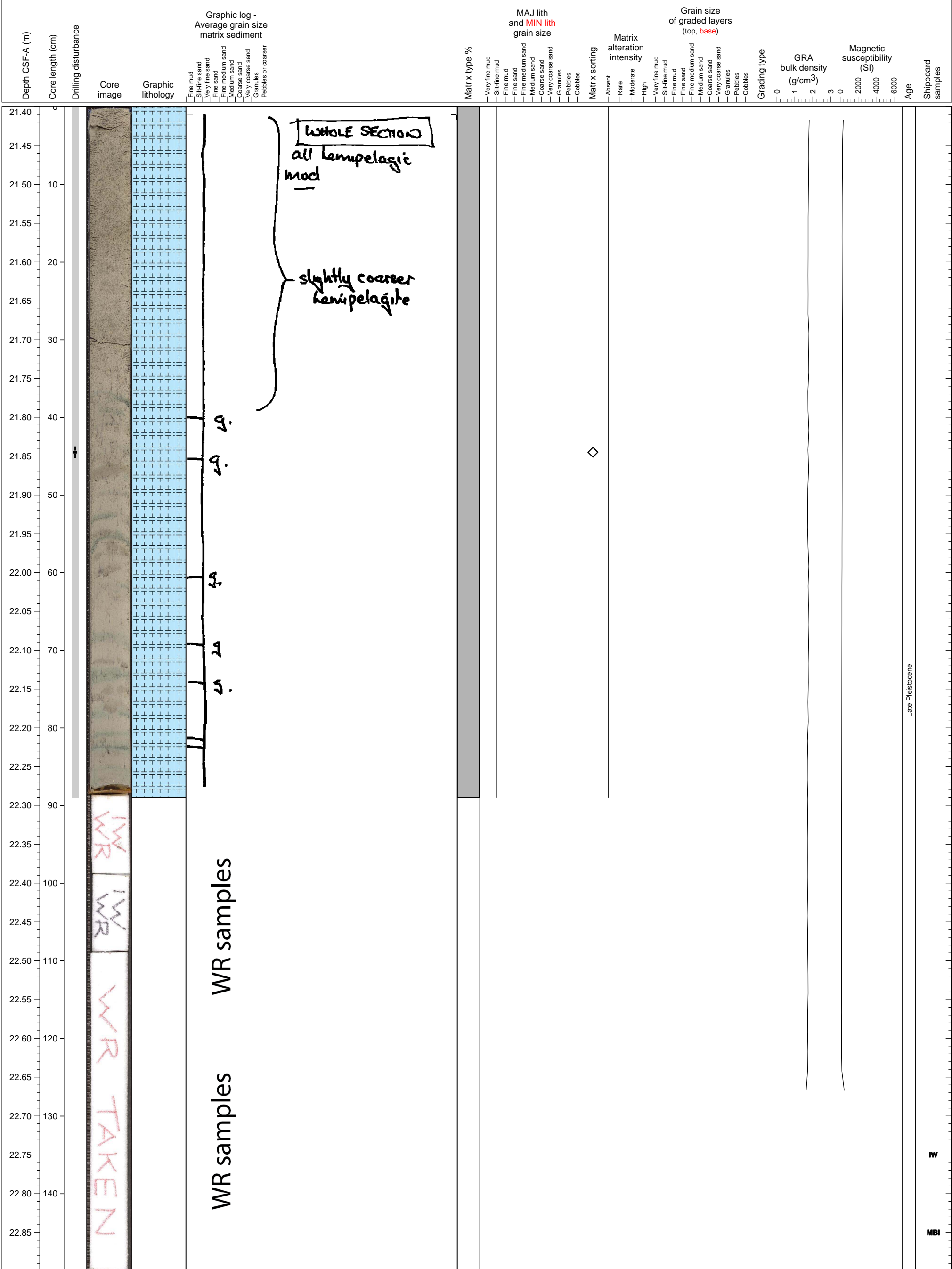
two pumice rich (fallout?) units, mixed volcanic-bioclastic turbidite and base of pumice rich unit, together with hemipelagic mud



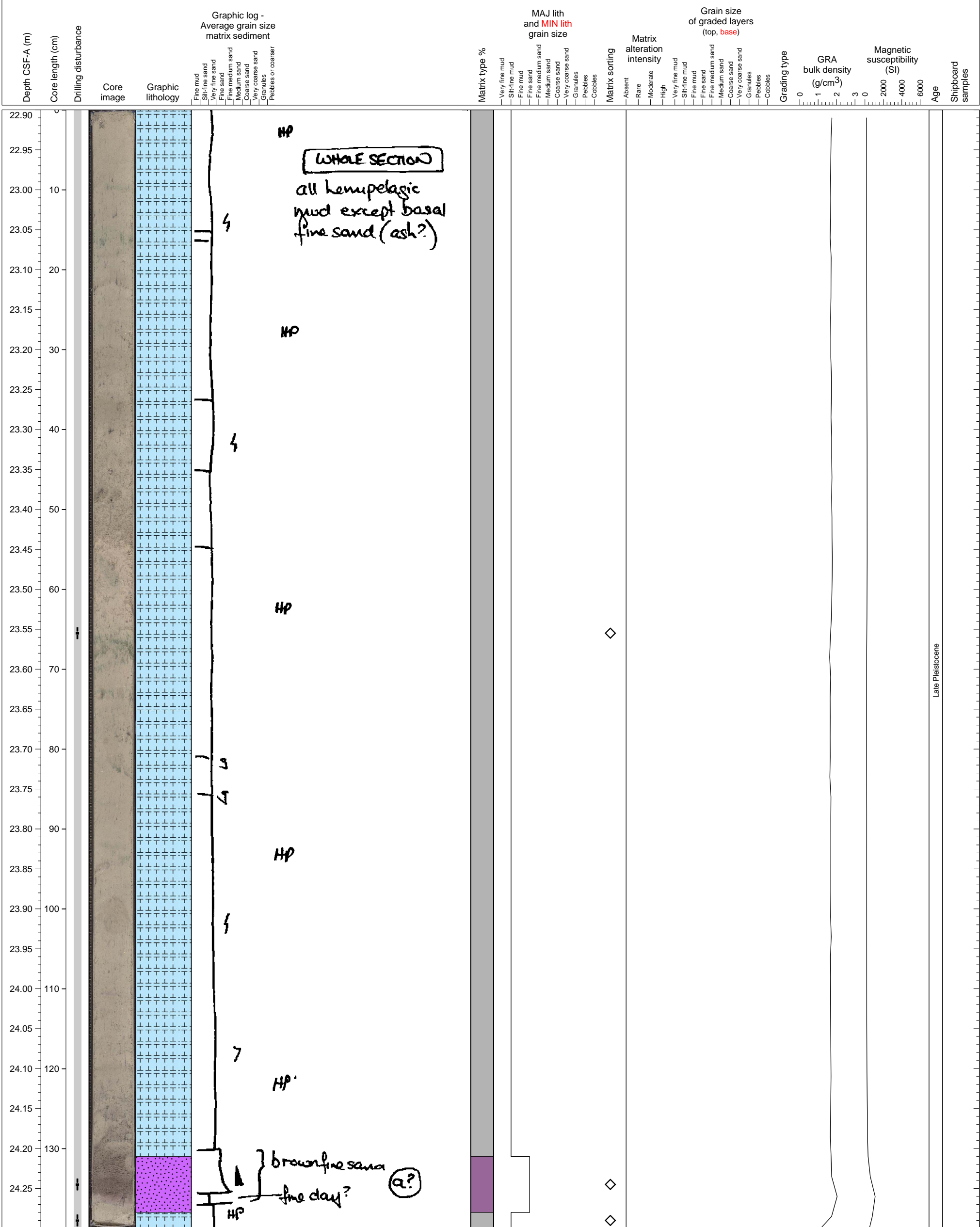
Calcareous sand - hemipelagic ooze sequence showing normal grading. Ash layer at around 120 cm.



hemipelagic mud

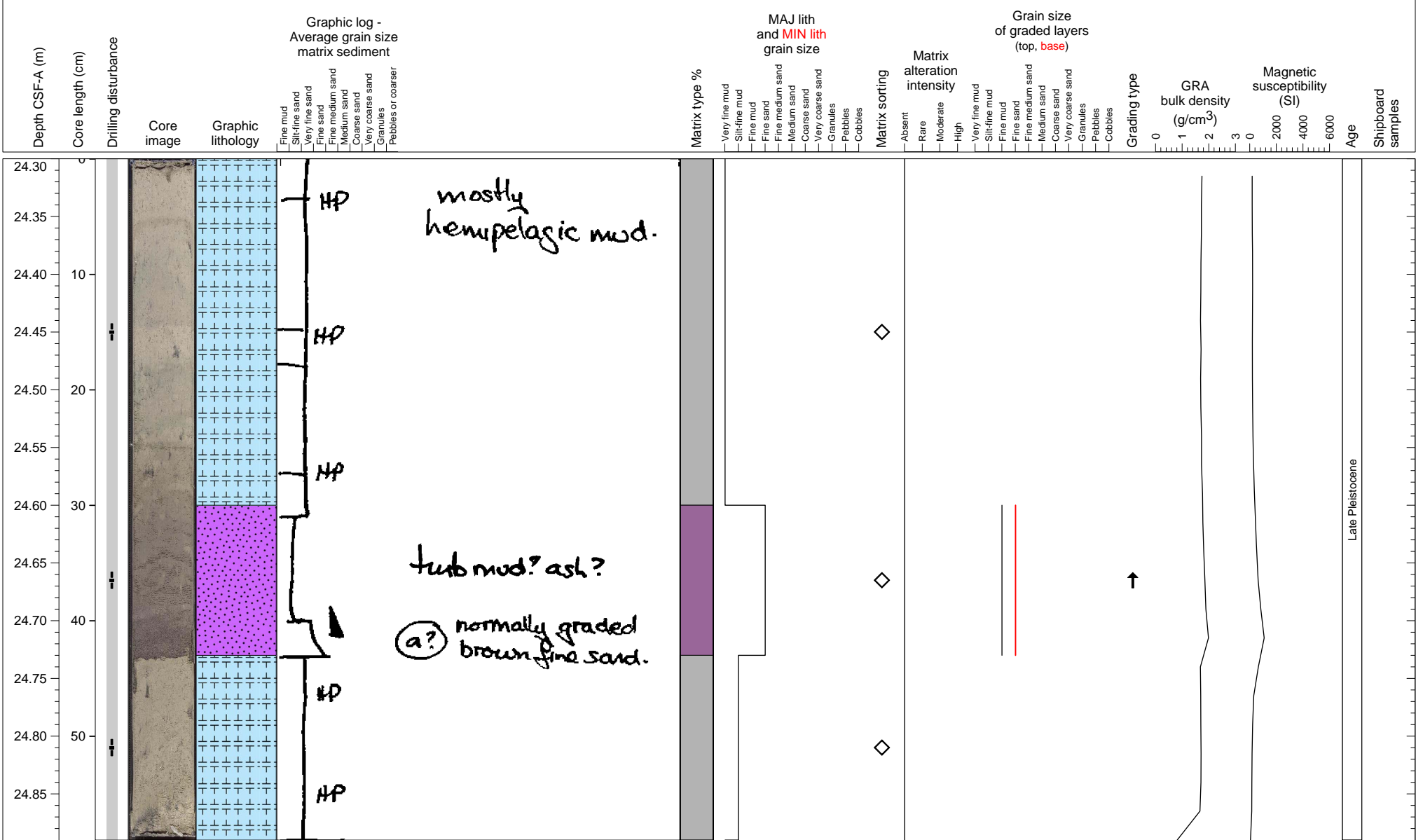


hemipelagic mud, with 6cm brown fine sand (ash?) near base, which has thin clay at base

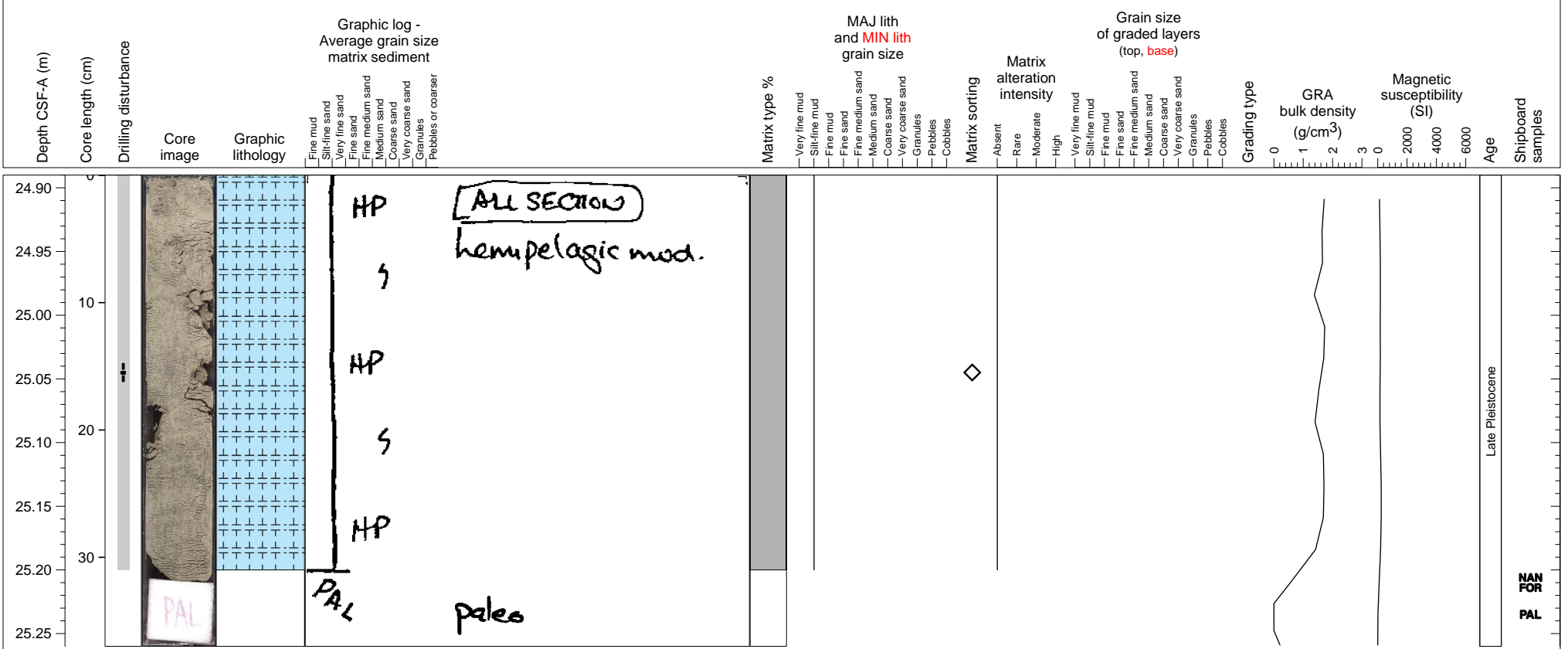


Late Pleistocene

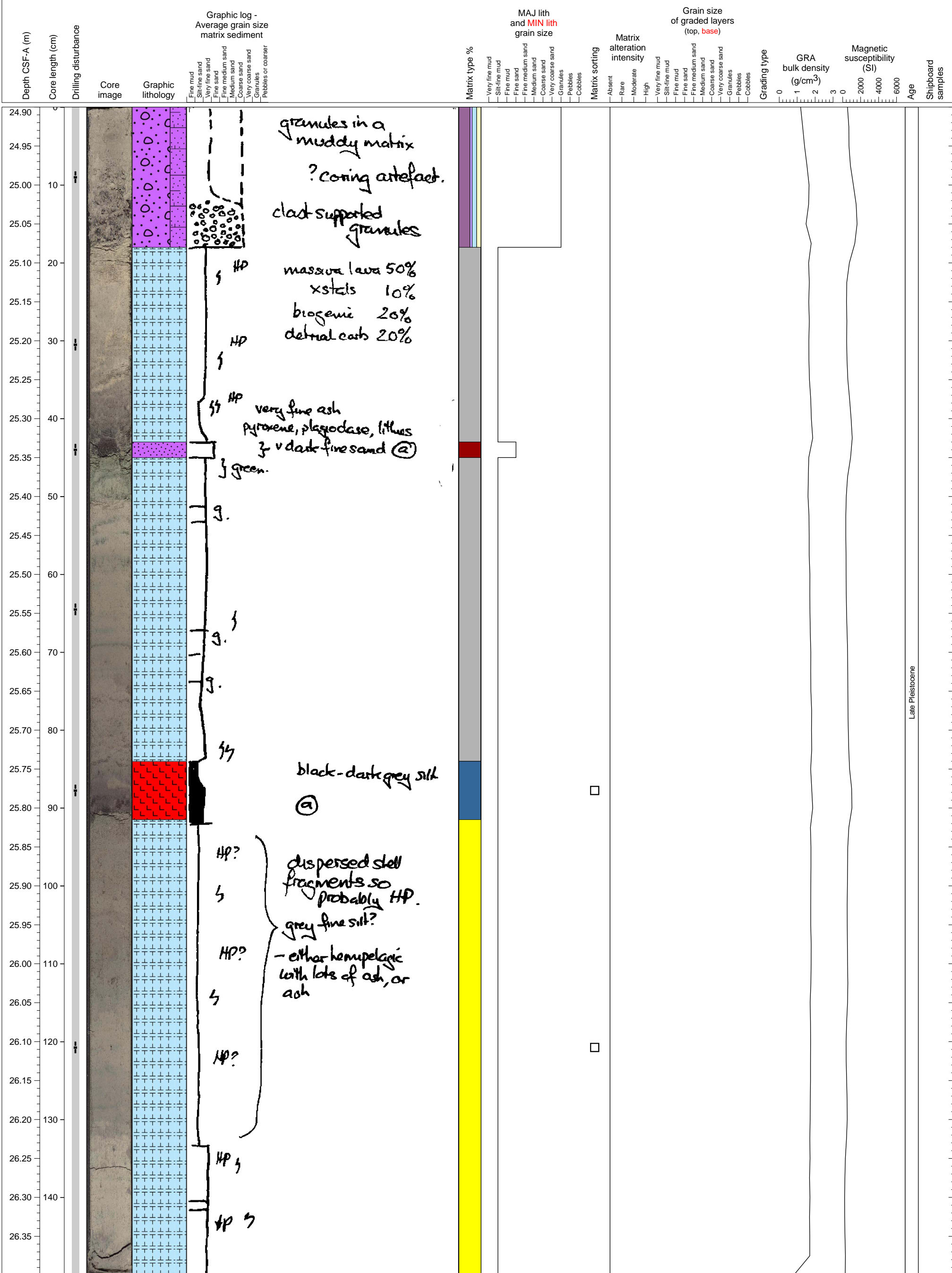
hemipelagic mud, with one thin normally graded turbidite or ash layer



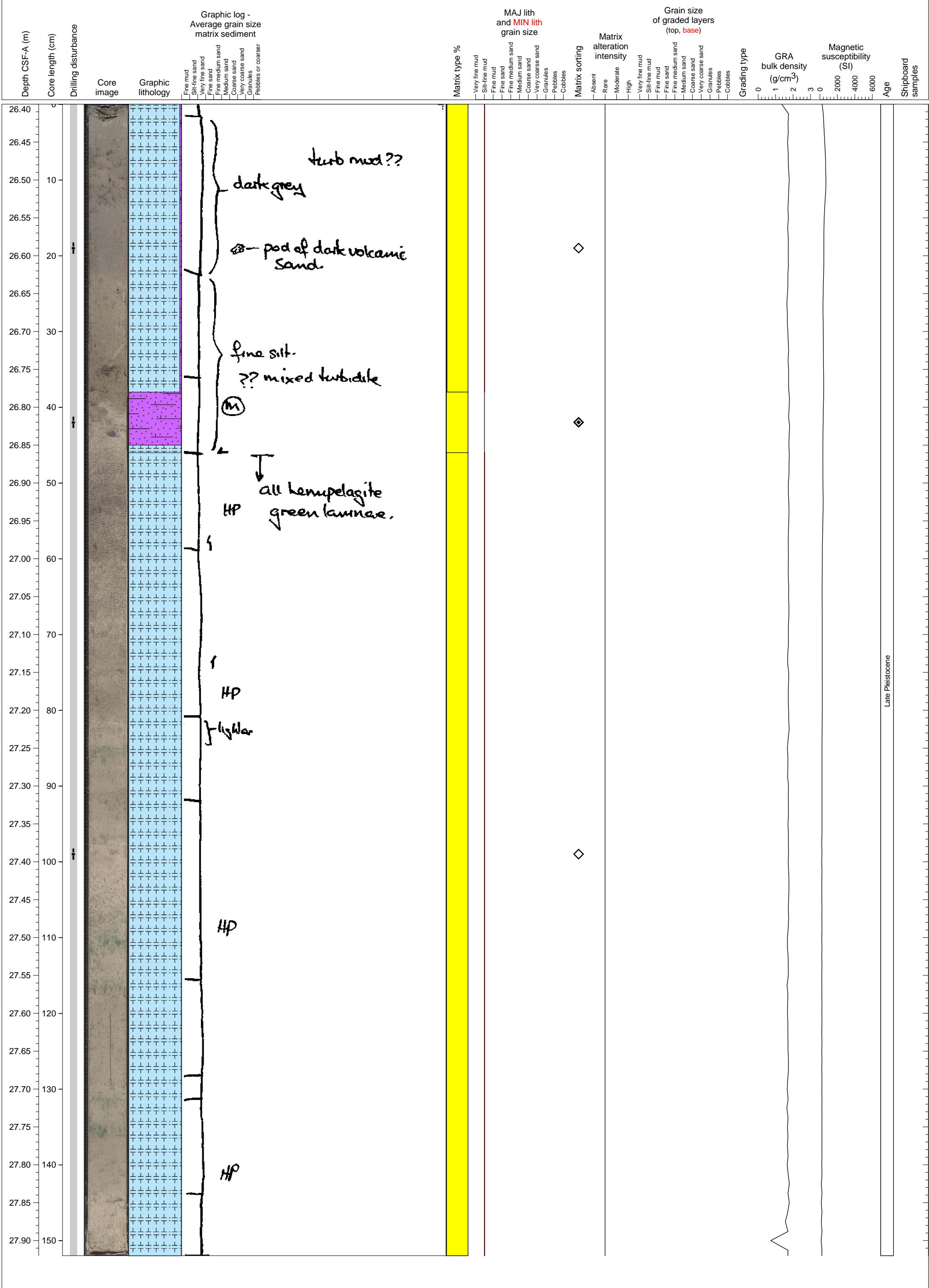
hemipelagic mud



granules at top artefact of coring? Hemipelagic mud with one balck fine silt-mud (ash?)

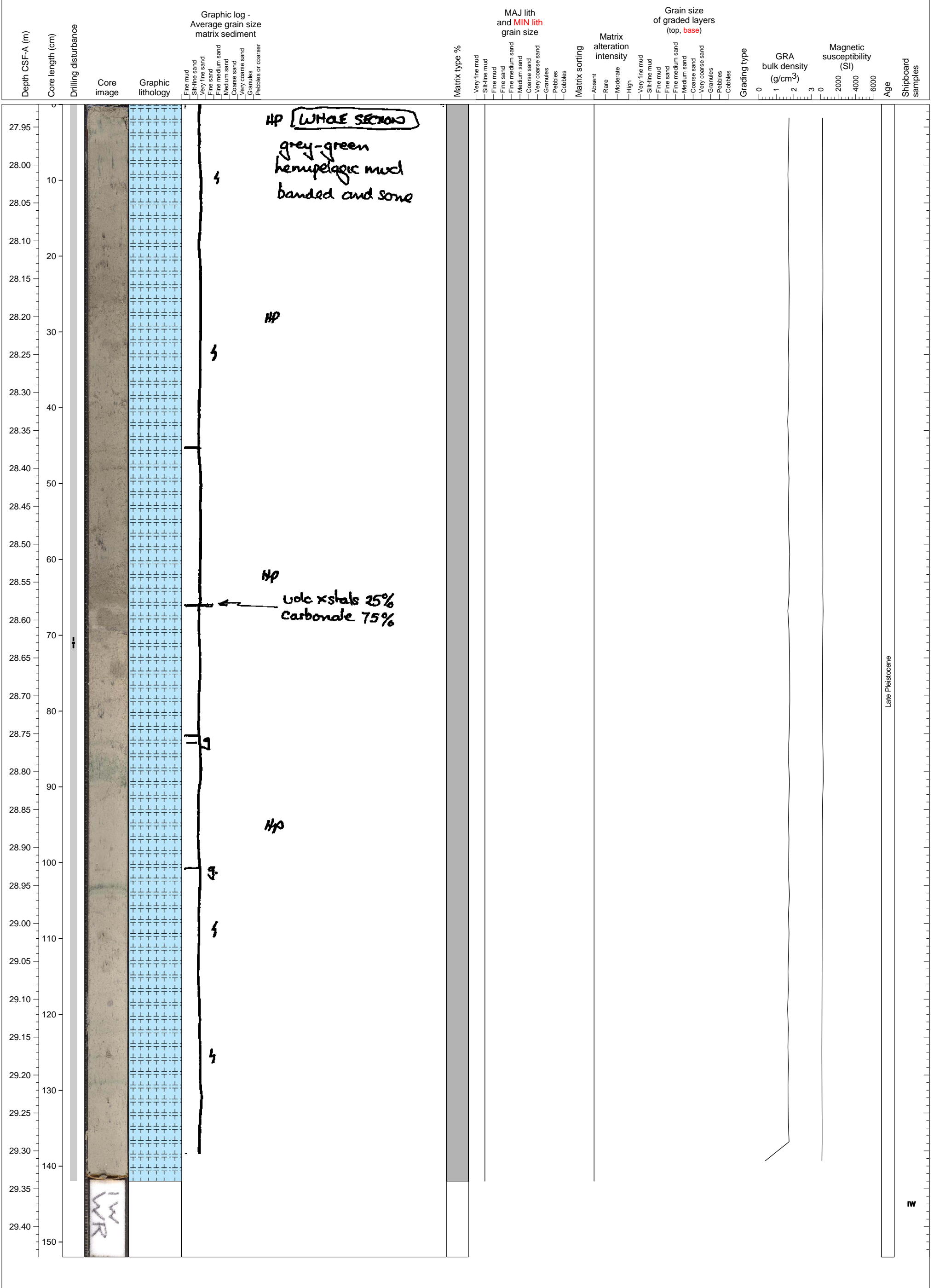


Whole section is a thick hemipelagic ooze layer with slight bioturbation and disperse greenish layers.

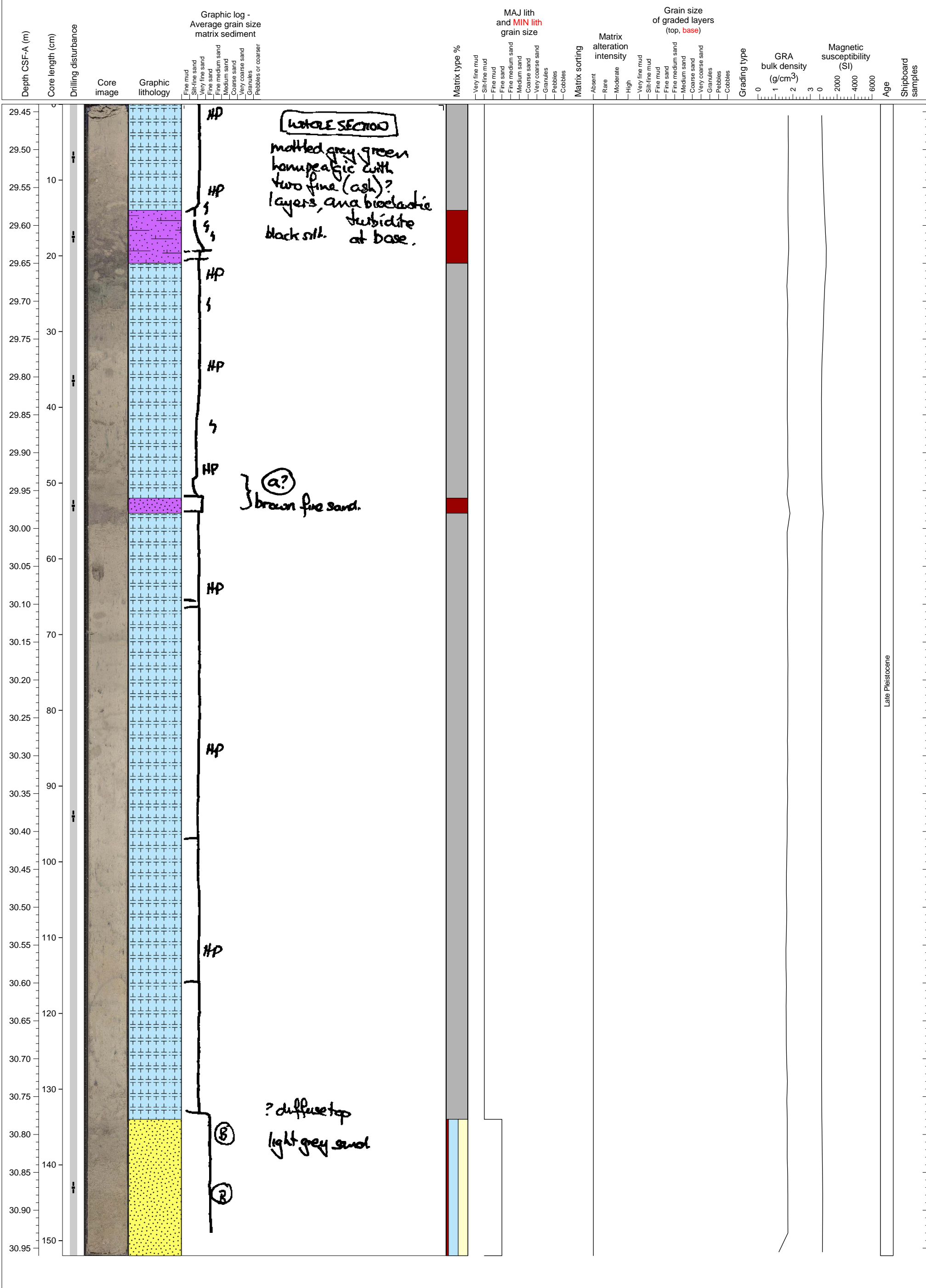


Late Pleistocene

hemipelagic mud

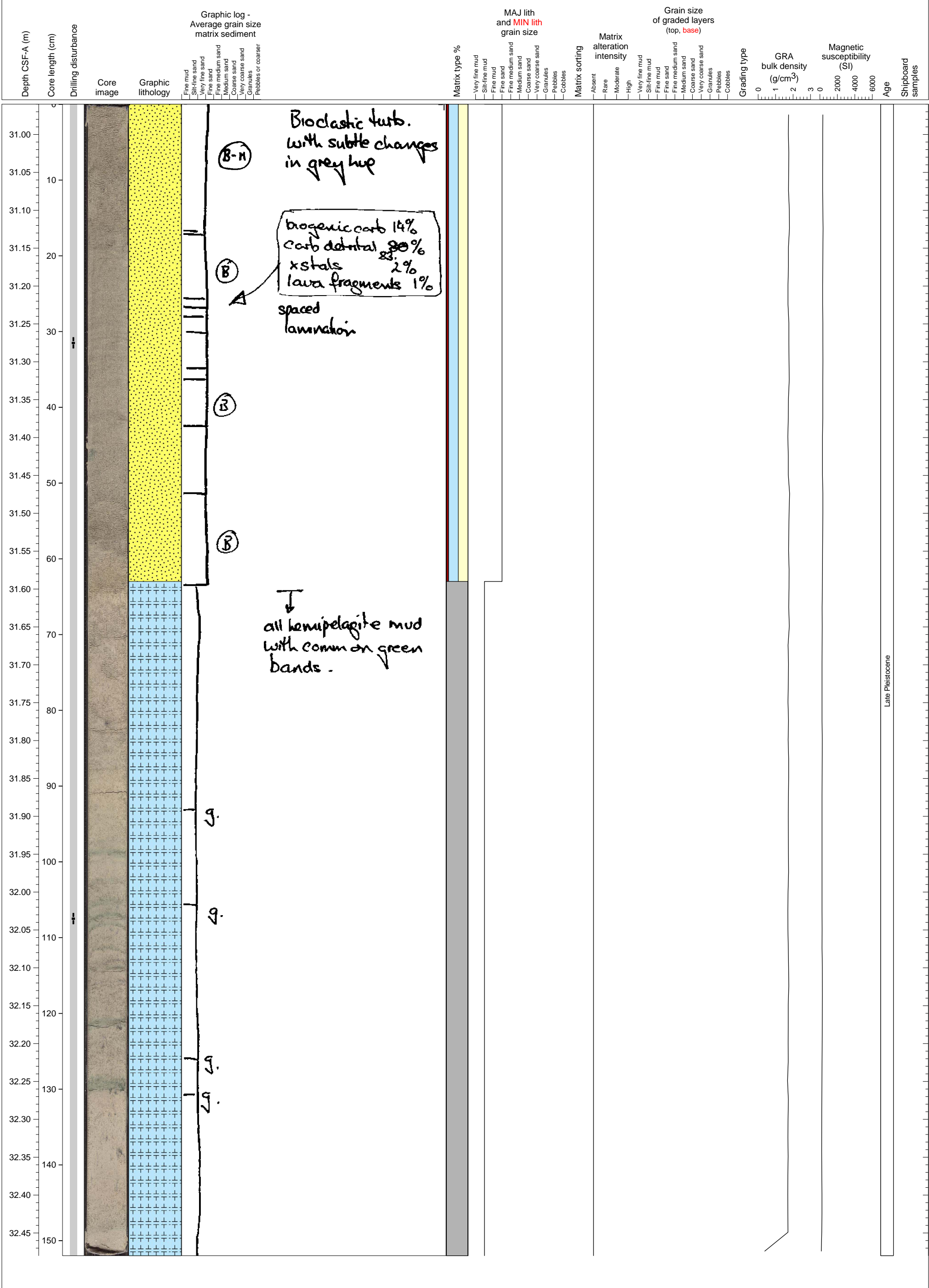


hemipelagic mud, black silt at 15-20 cm, brown (ash?) layer at 53 cm, bioclastic rich turbidite sand at base.



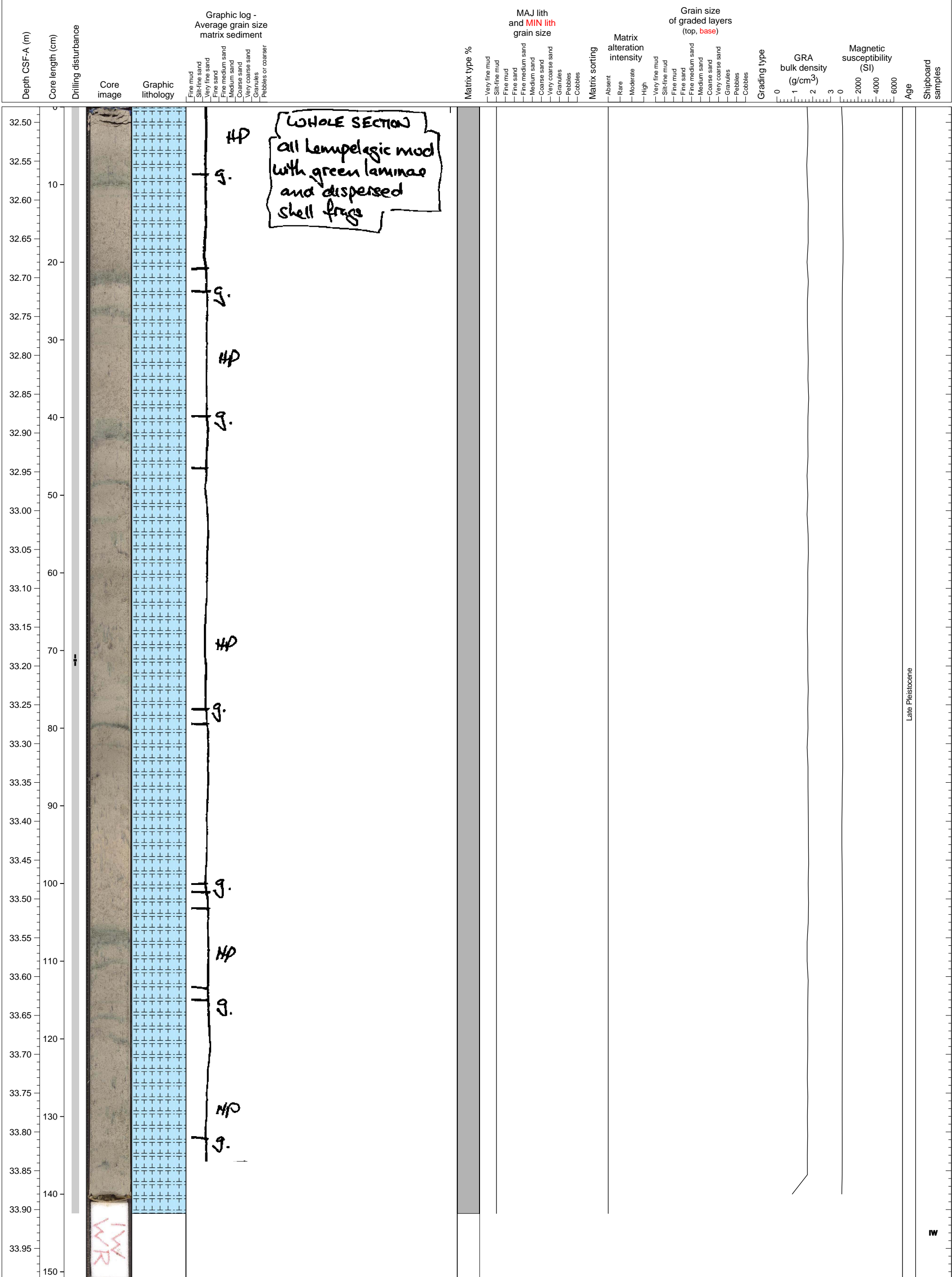
Late Pleistocene

upper part a bioclastic turbidite. Lower part hemipelagic mud.

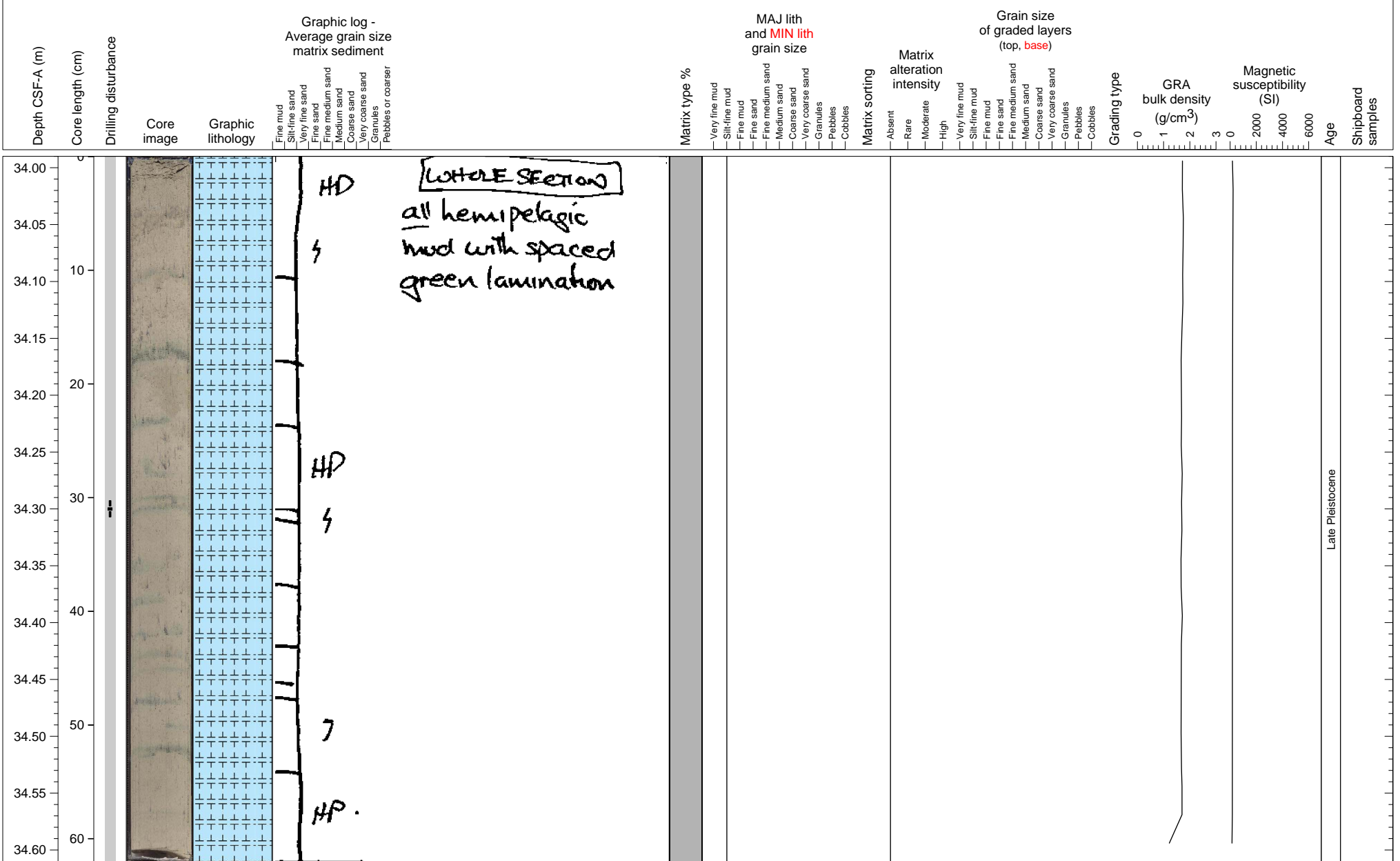


Late Pleistocene

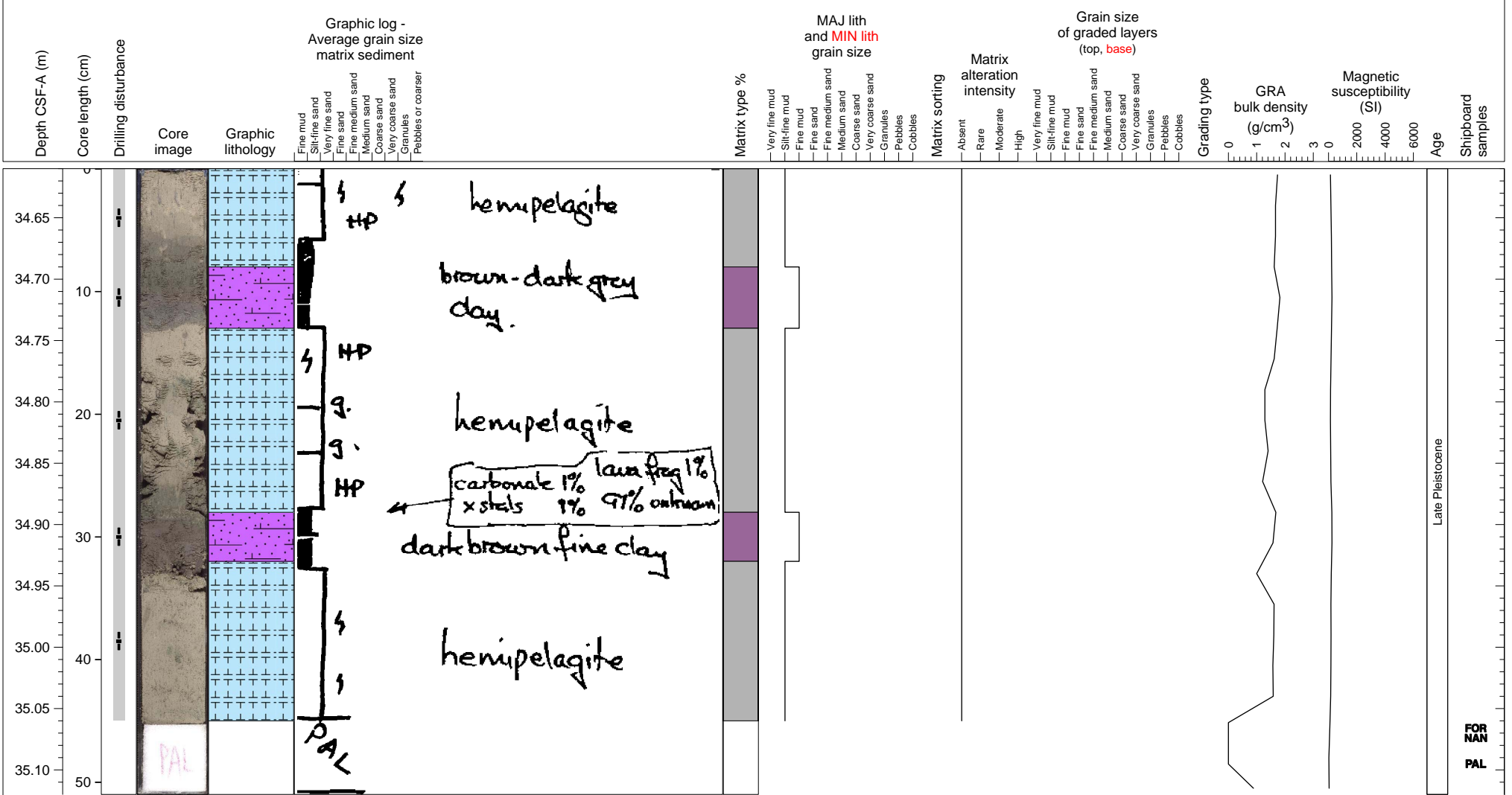
hemipelagic mud



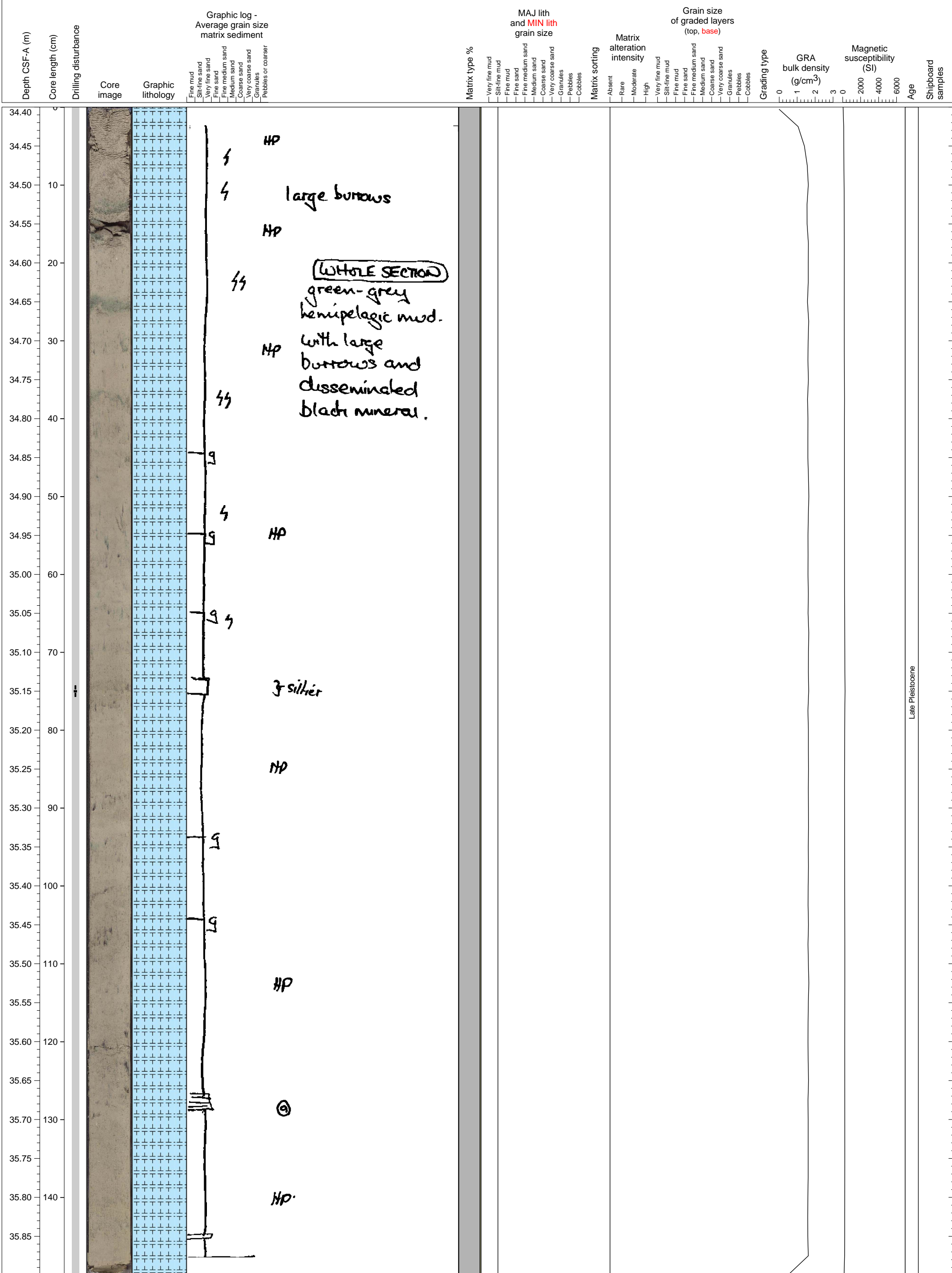
hemipelagic mud



Two dark clays (ashes?) within hemipelagic mud

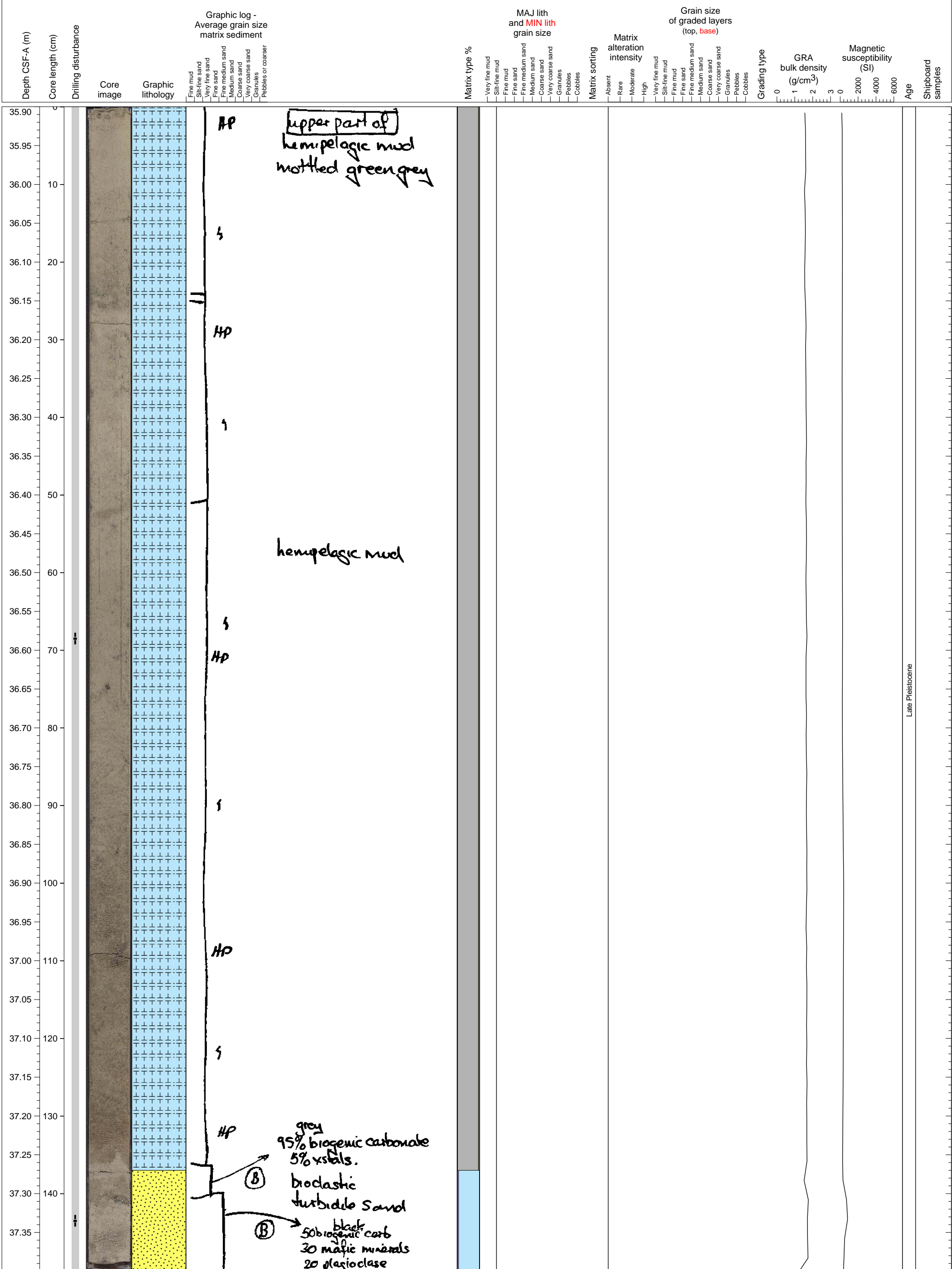


Hemipelagic mud



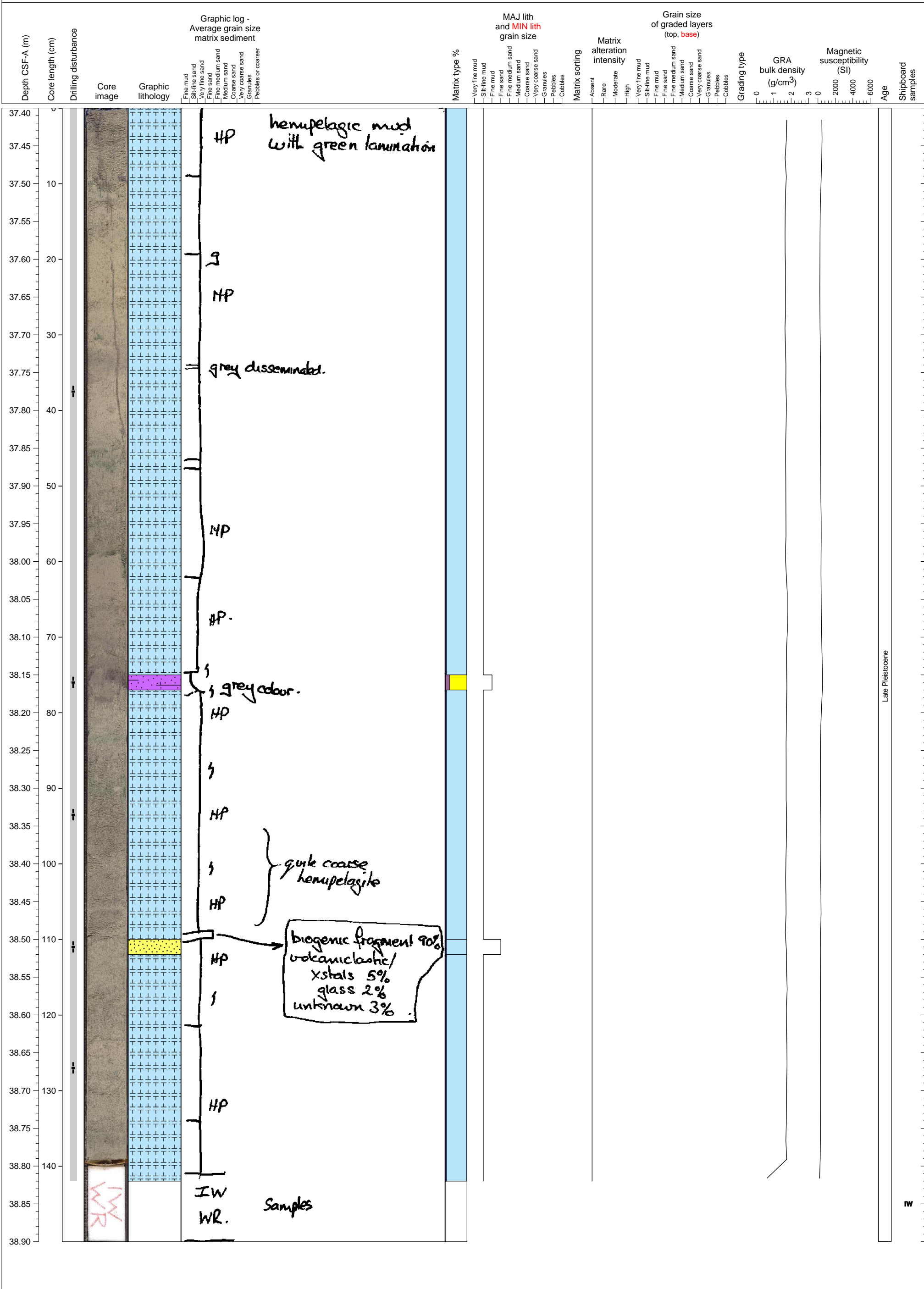
Late Pleistocene

Hemipelagic mud, with bioclastic turbidite at very base

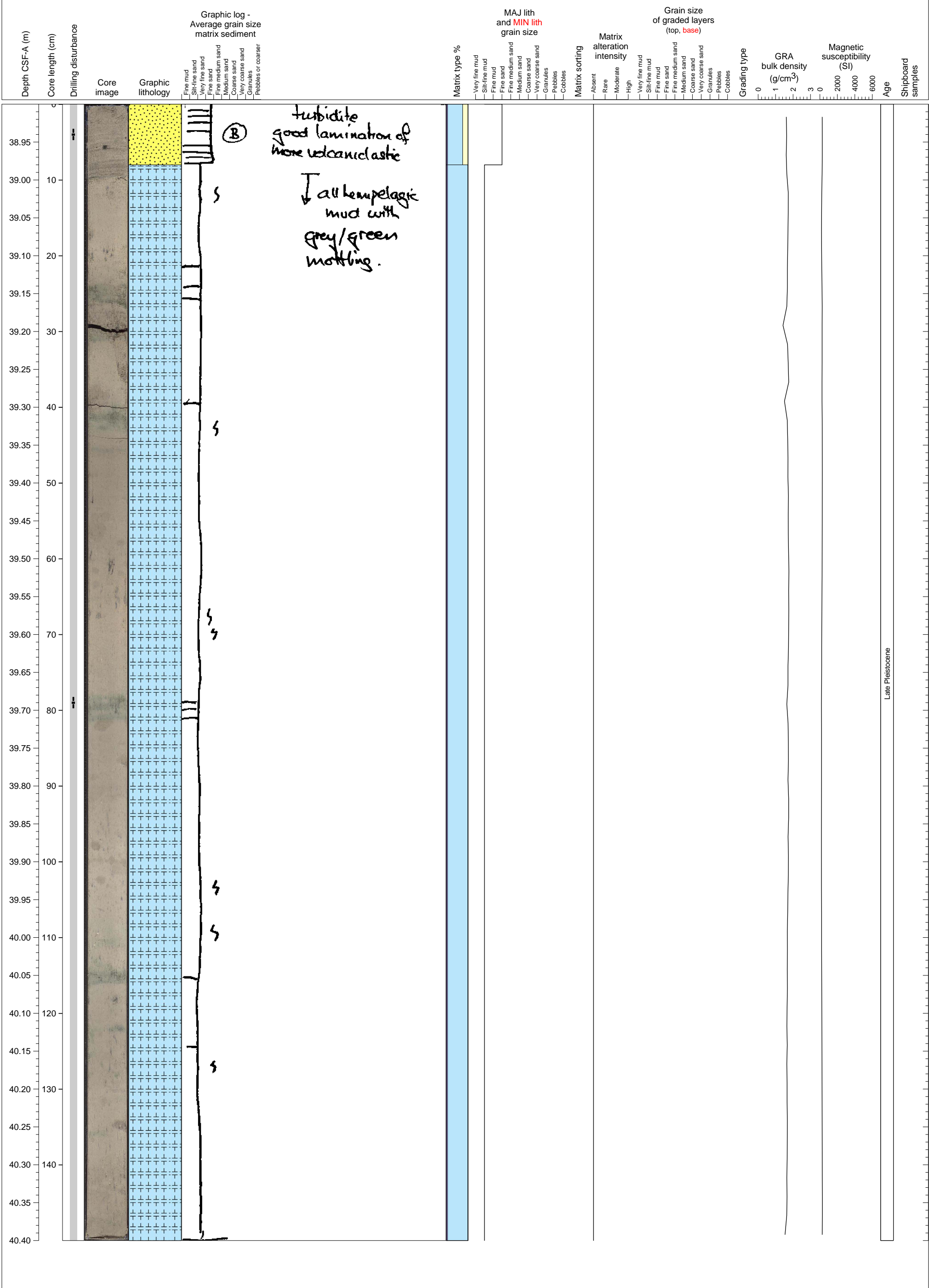


Late Pleistocene

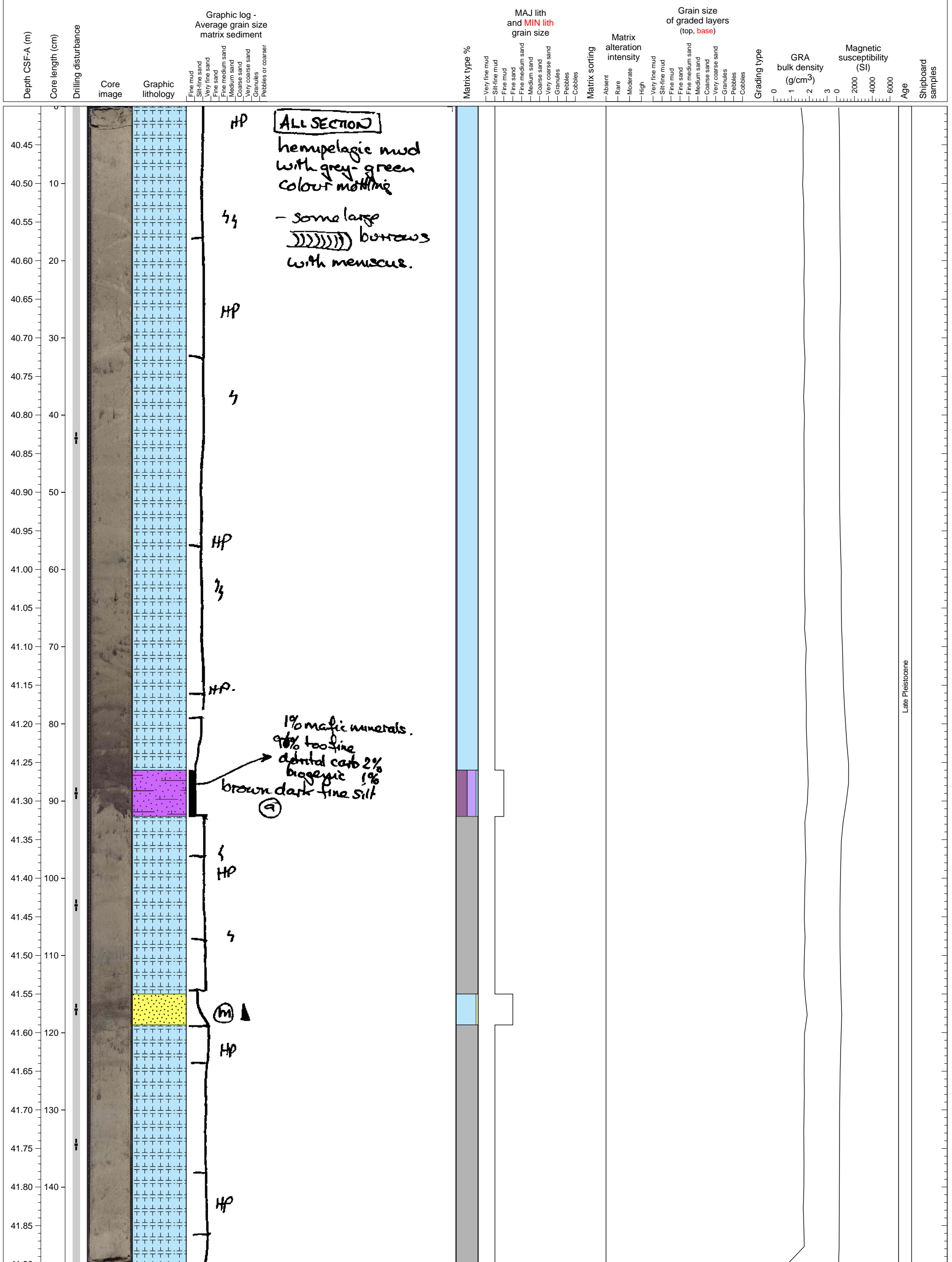
Hemipelagic mud with thin bioclastic dominated sand at 110 cm, and grey clay at 77 cm.



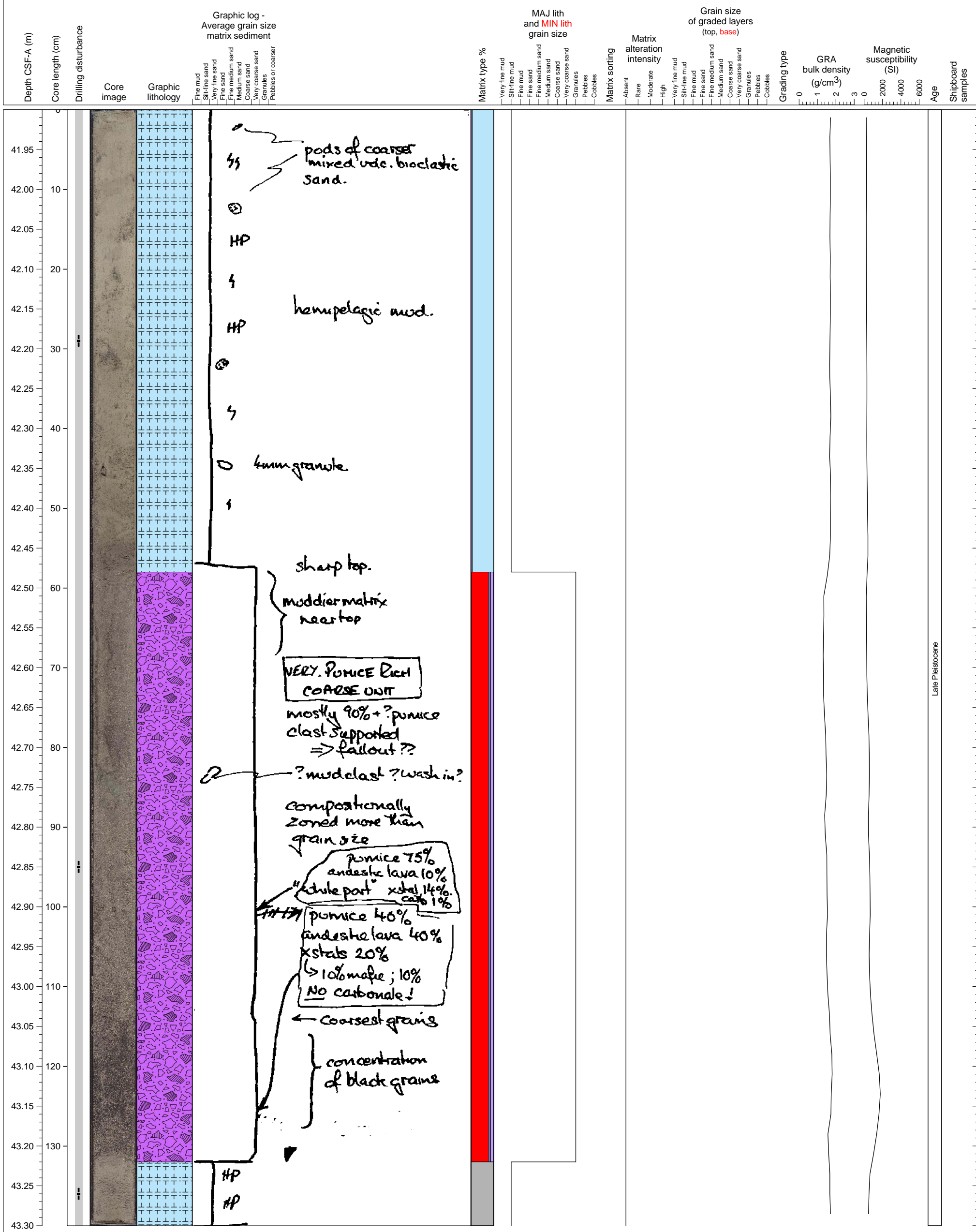
Hemipelagic mud, with bioclastic turbidite at top



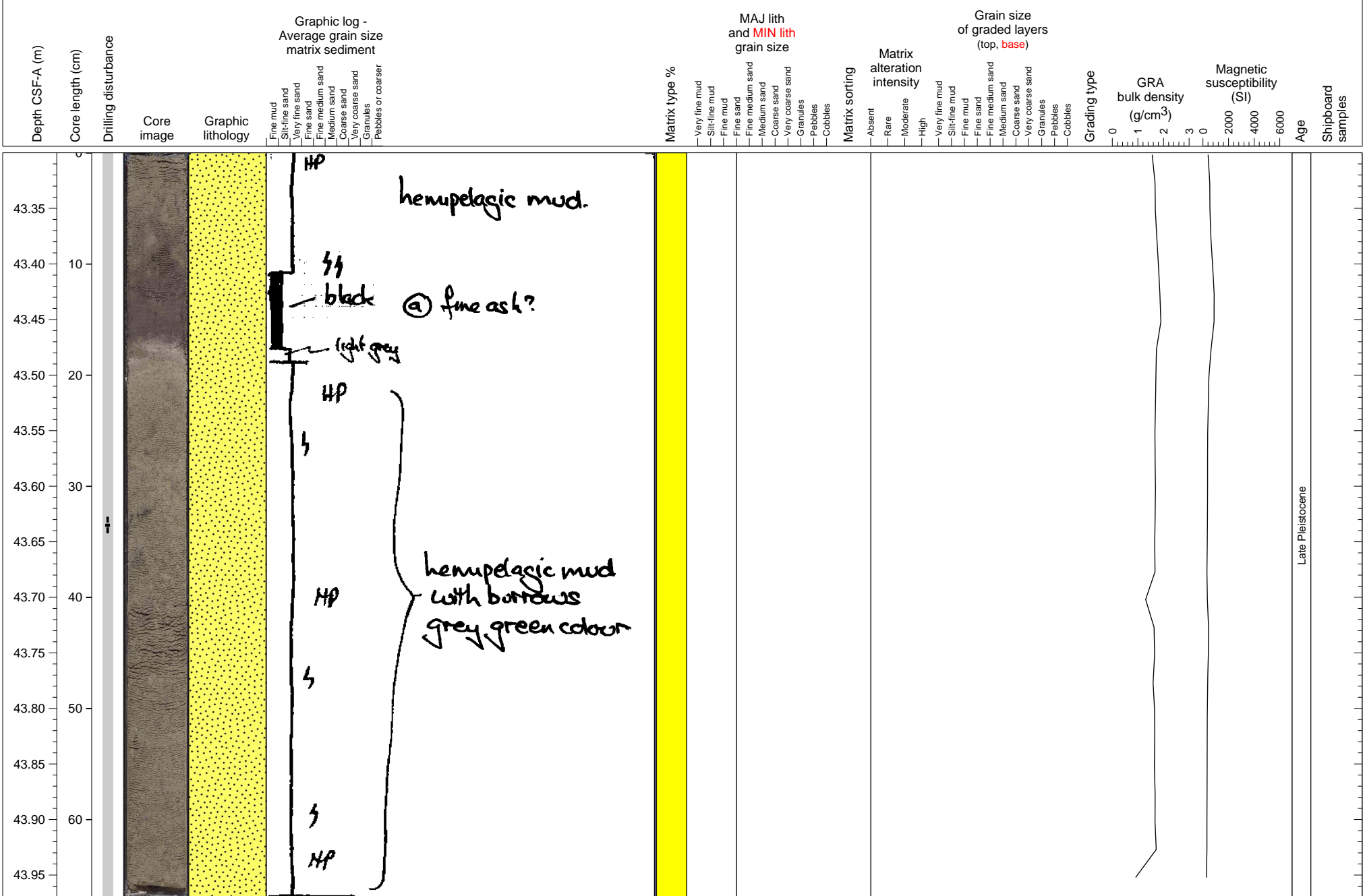
Hemipelagic mud with dark clay (ash) at 90 cm, and thin mud turbidite at 117 cm



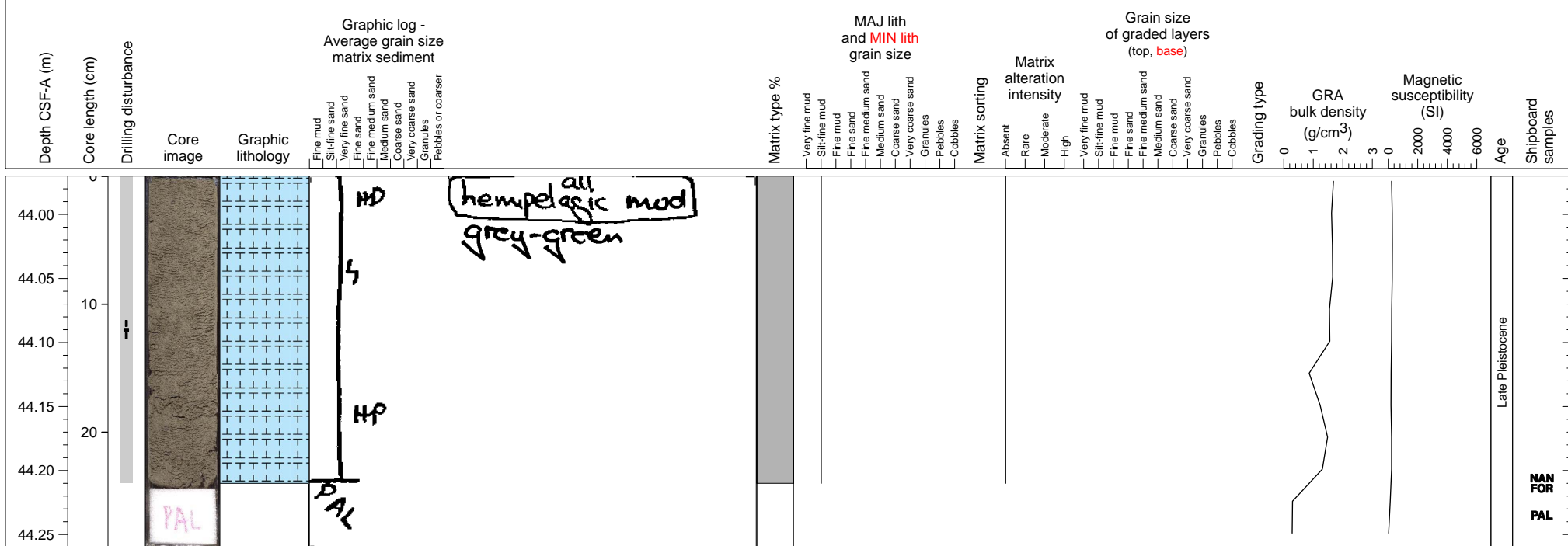
Upper part is hemipelagic mud. Lower part is pumice rich, very coarse unit. Hemipelagic mud at base.



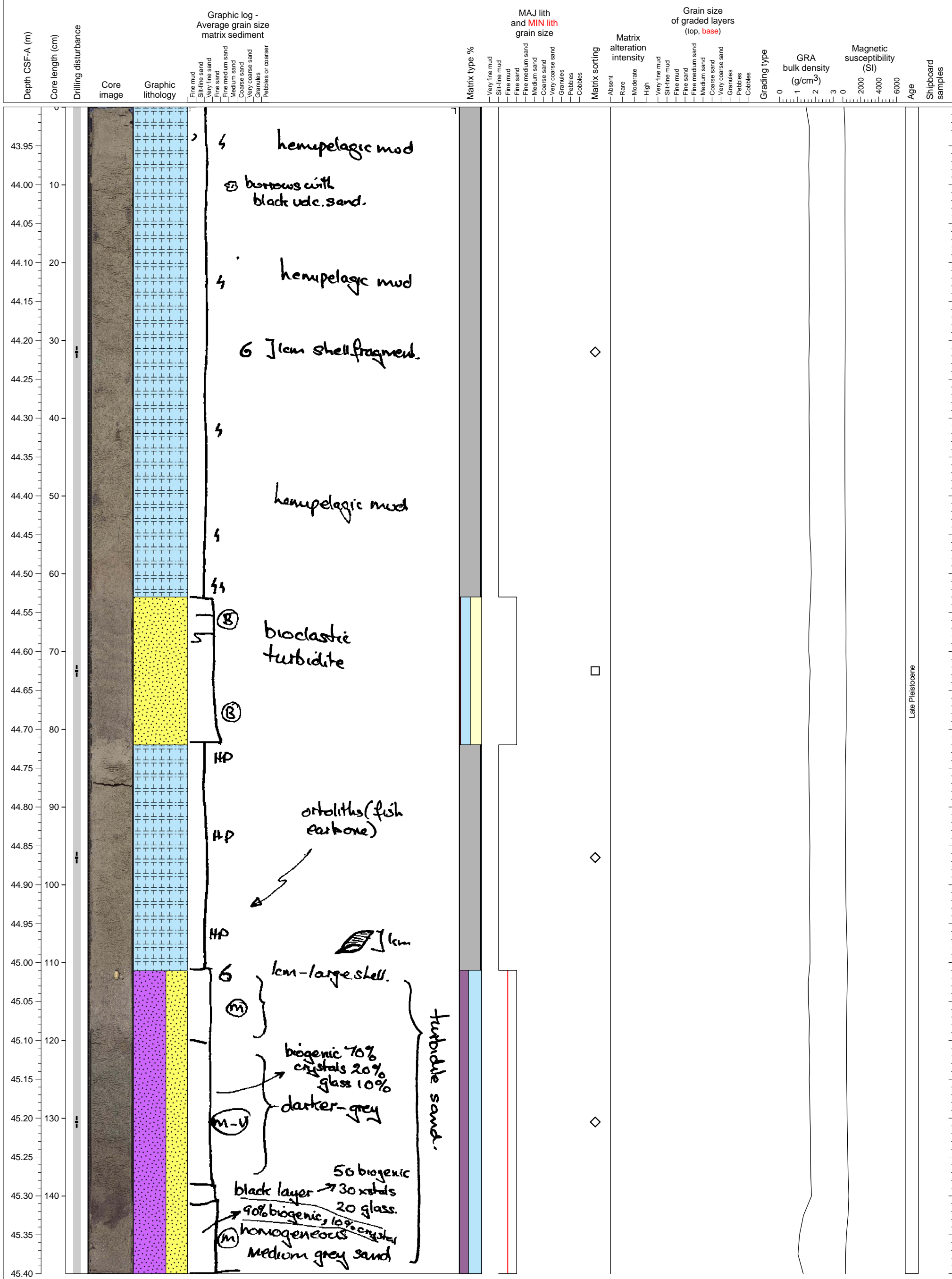
sandy hemipelagic sediment



Hemipelagic mud.

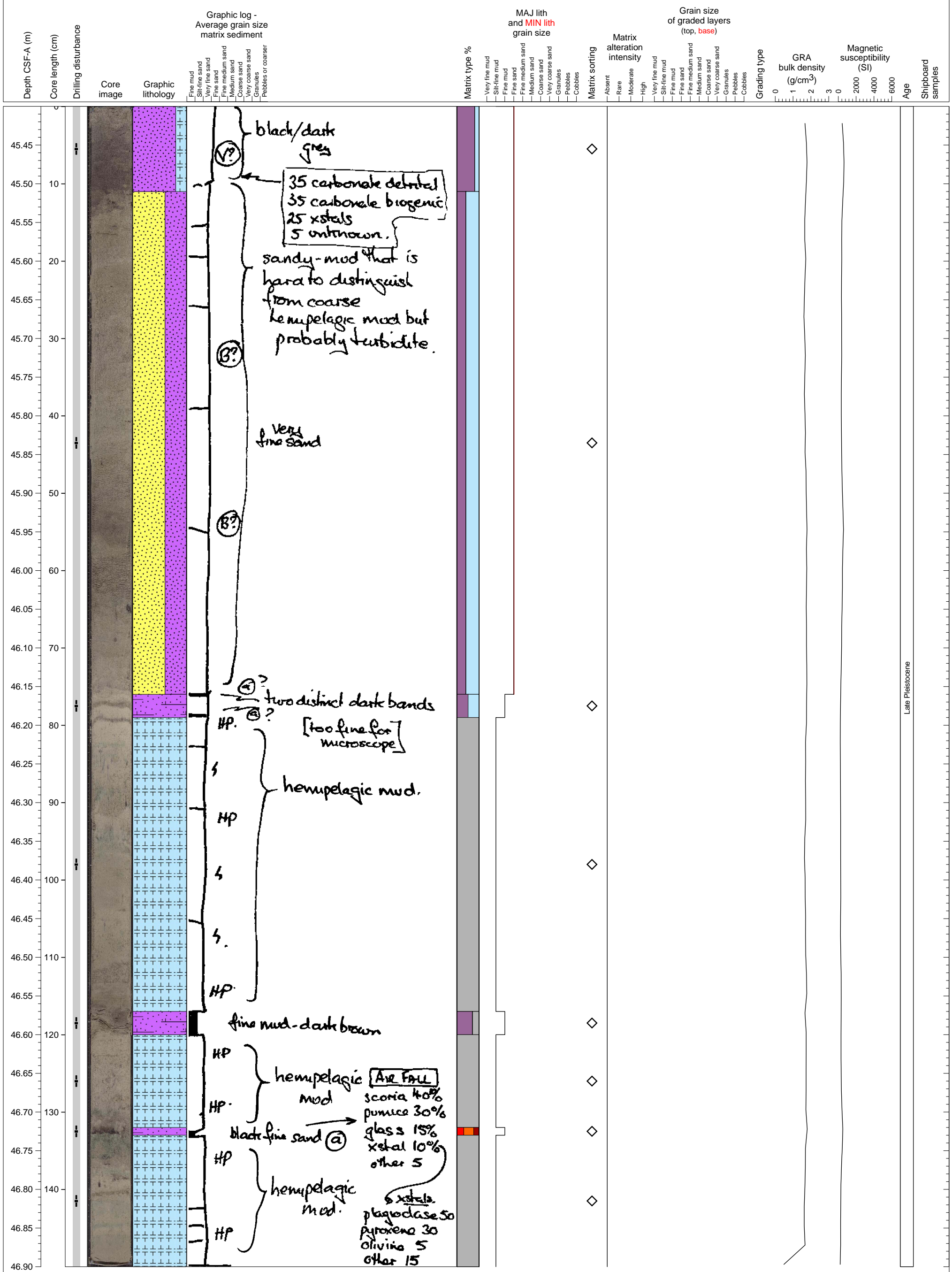


Hemipelagic mud, with bioclastic turbidites at 62 to 82 cm, and 111 cm to base



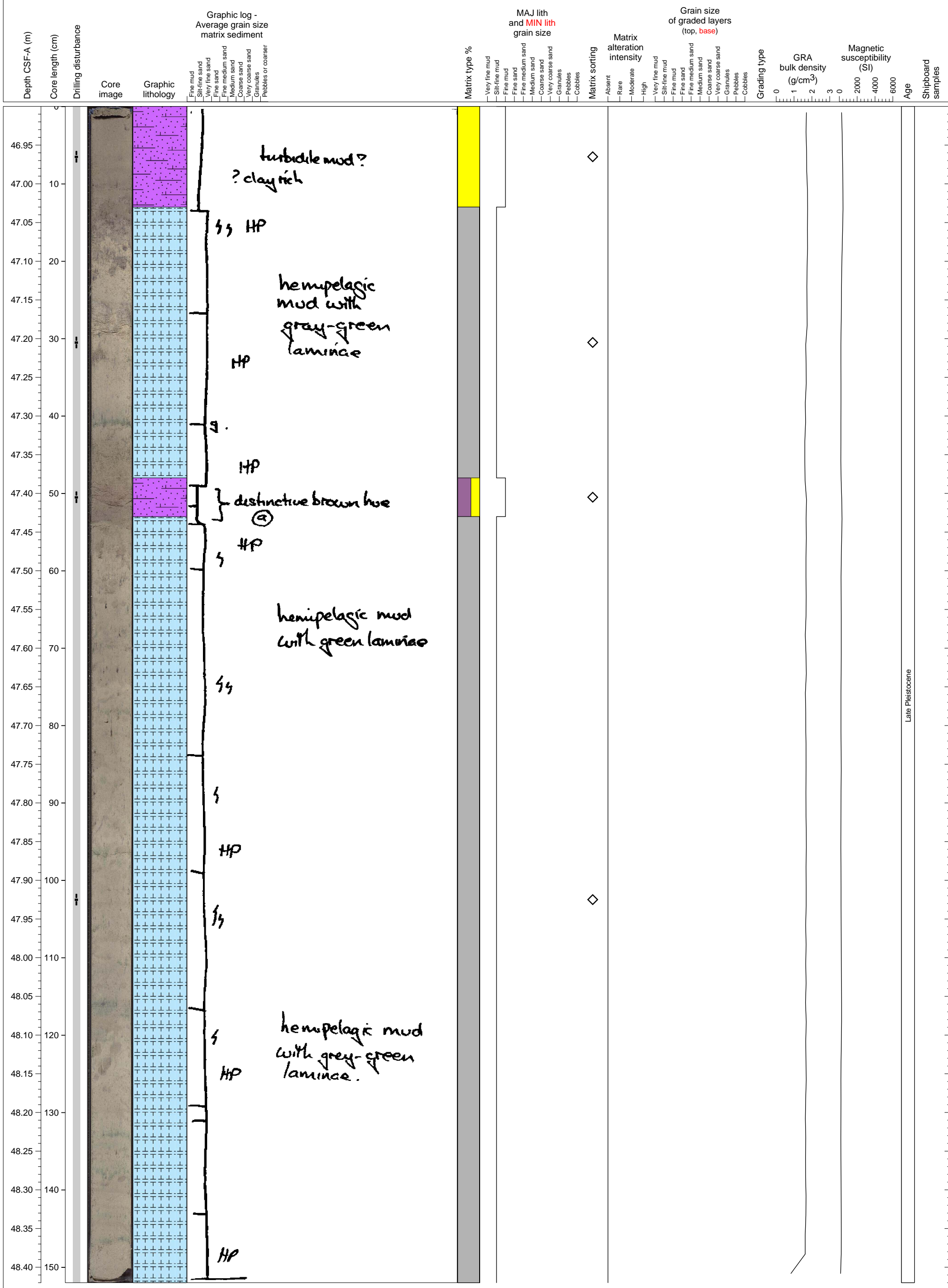
Late Pleistocene

Mixed bioclastic-volcaniclastic sand in upper part. Coarse hemipelagic mud, with two black fine sands (ashes) in basal part.

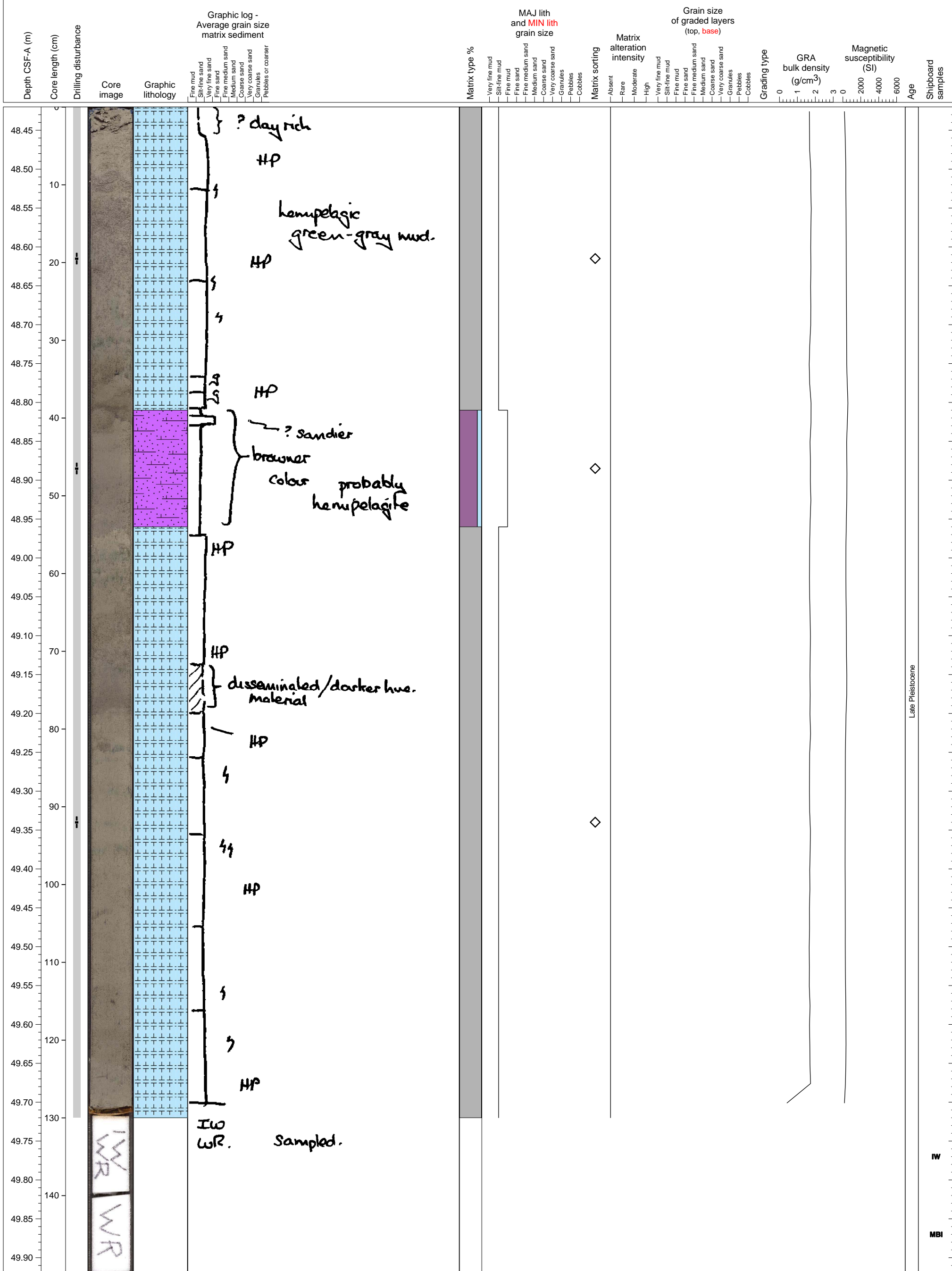


Late Pleistocene

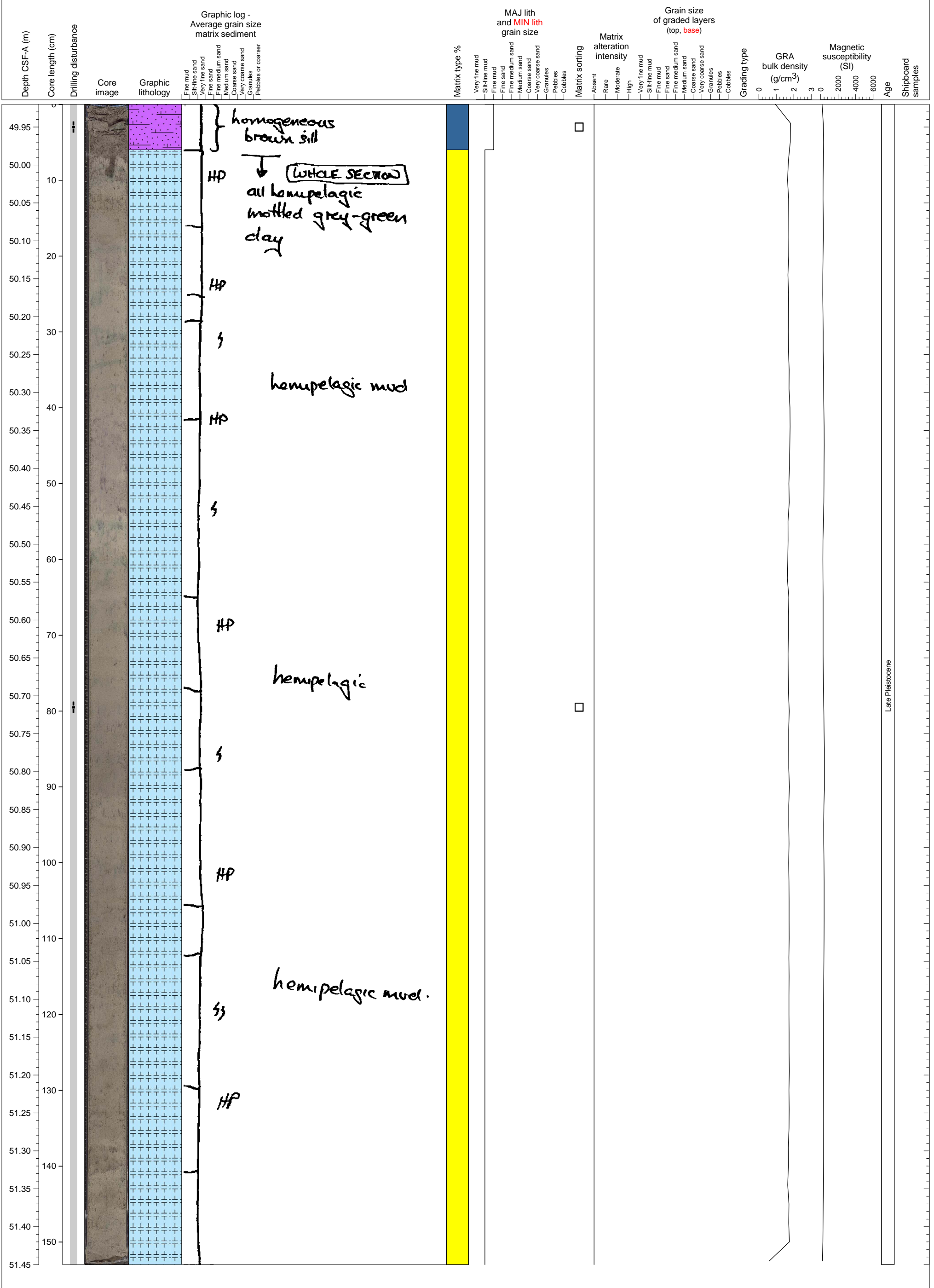
Hemipelagic mud with turbidite clay at top. Bown clay (ash?) at 49 to 53 cm.



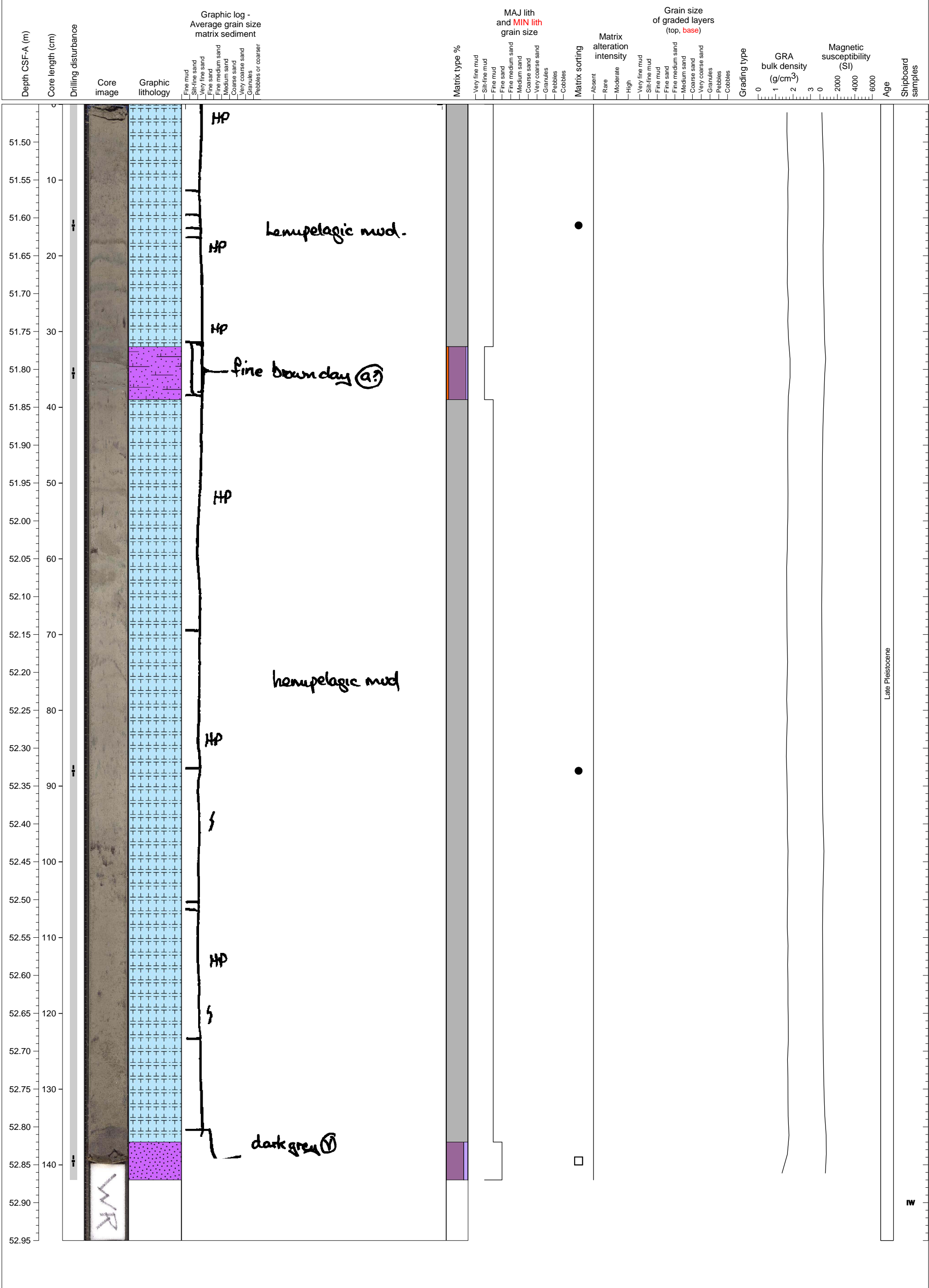
Hemipelagic mud.



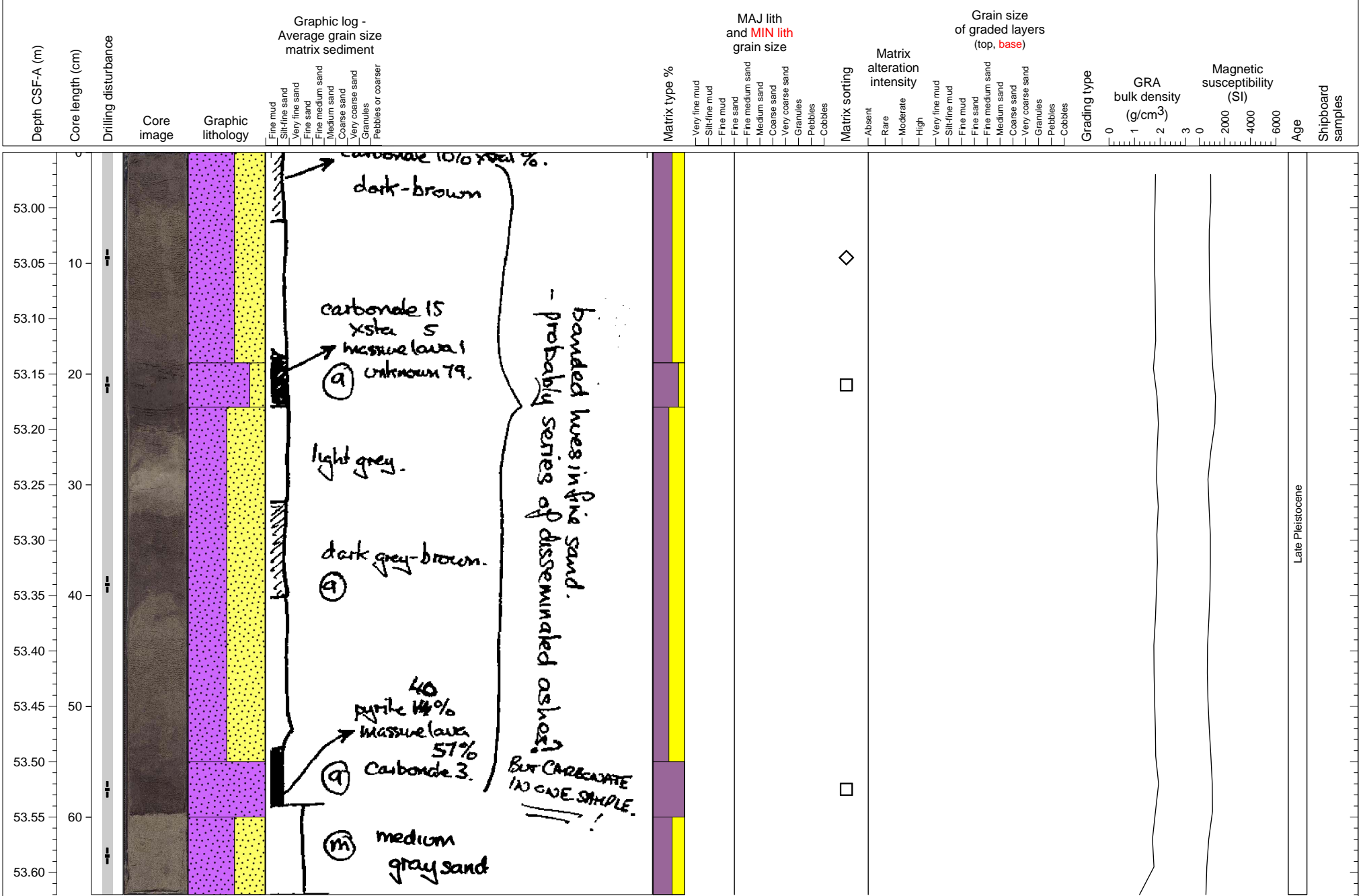
Hemipelagic mud, with fine brown clay (ash?) at top



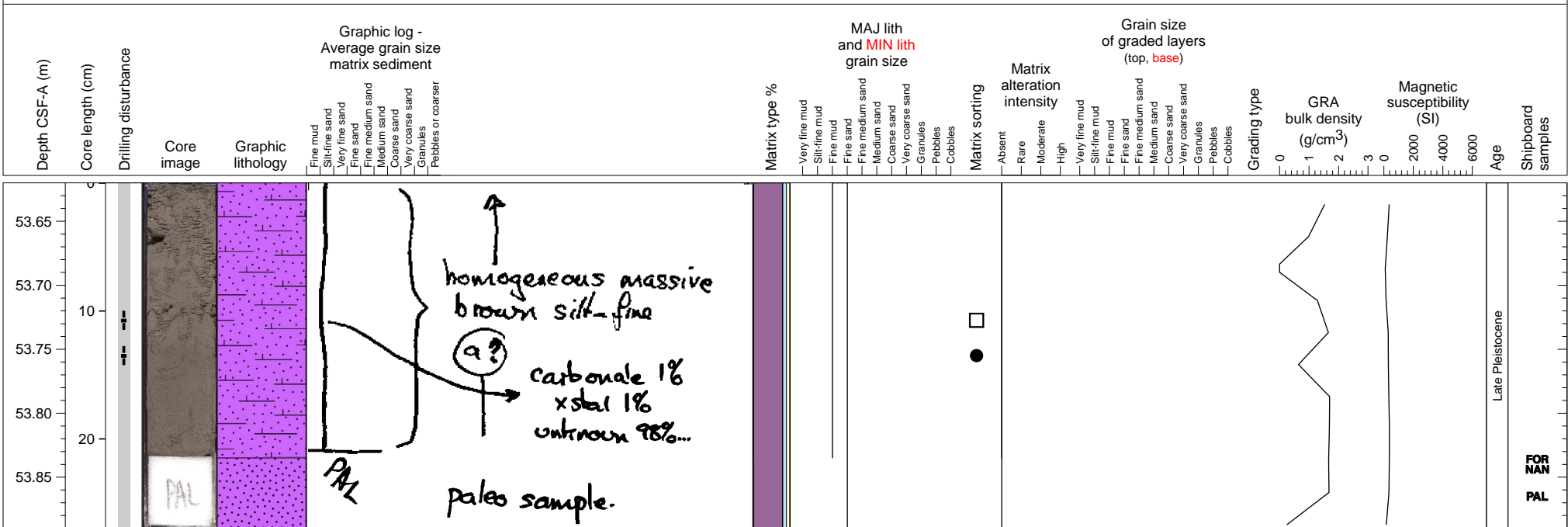
Hemipelagic mud, with fine brown clay (ash?) at 35cm.



Sequence of black and dark grey to medium grey fine sand and clay



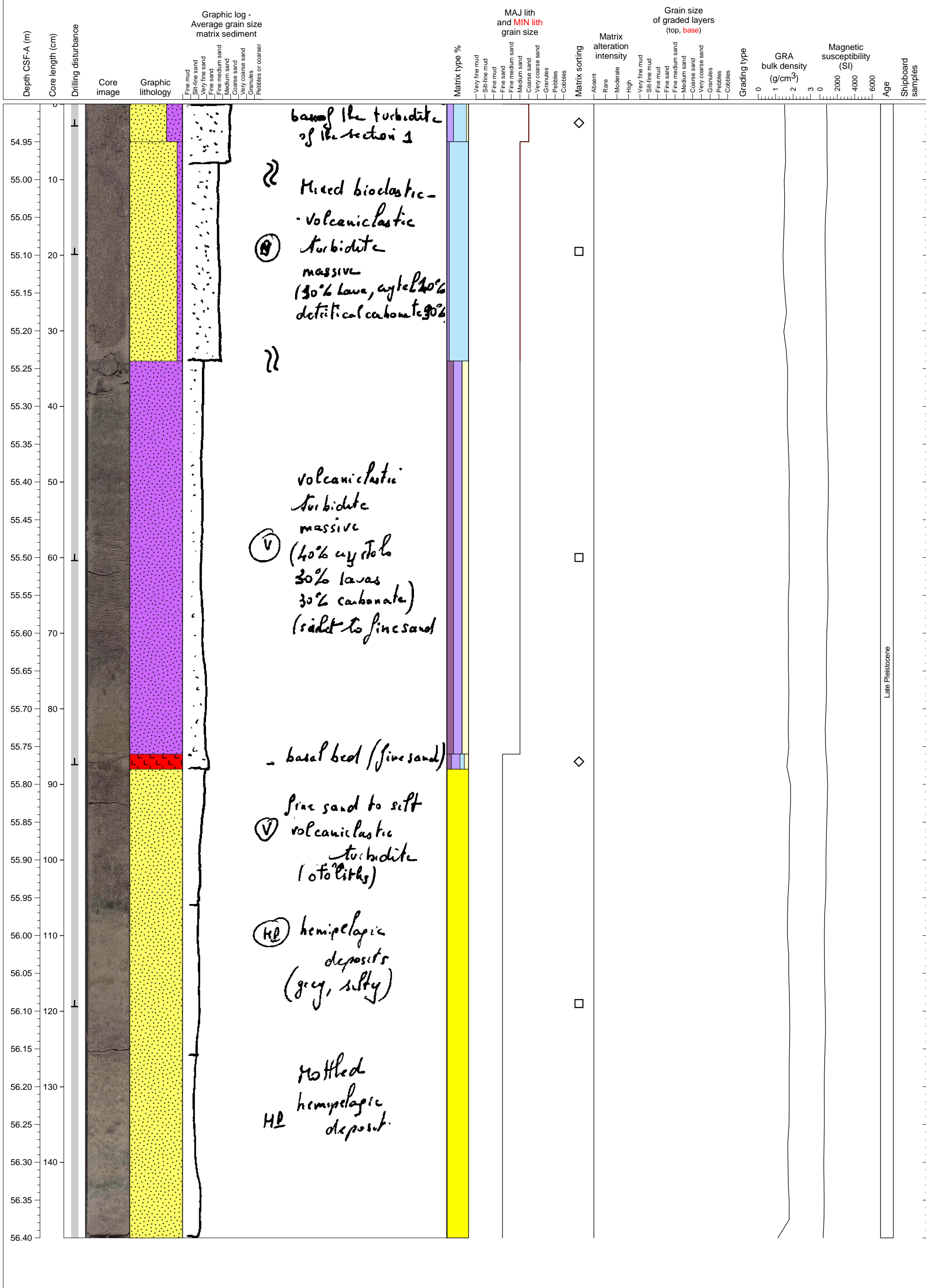
Volcaniclastic mud. PAL sample from base of section.



Normally graded mixture of bioclastic and volcanoclastic turbidite

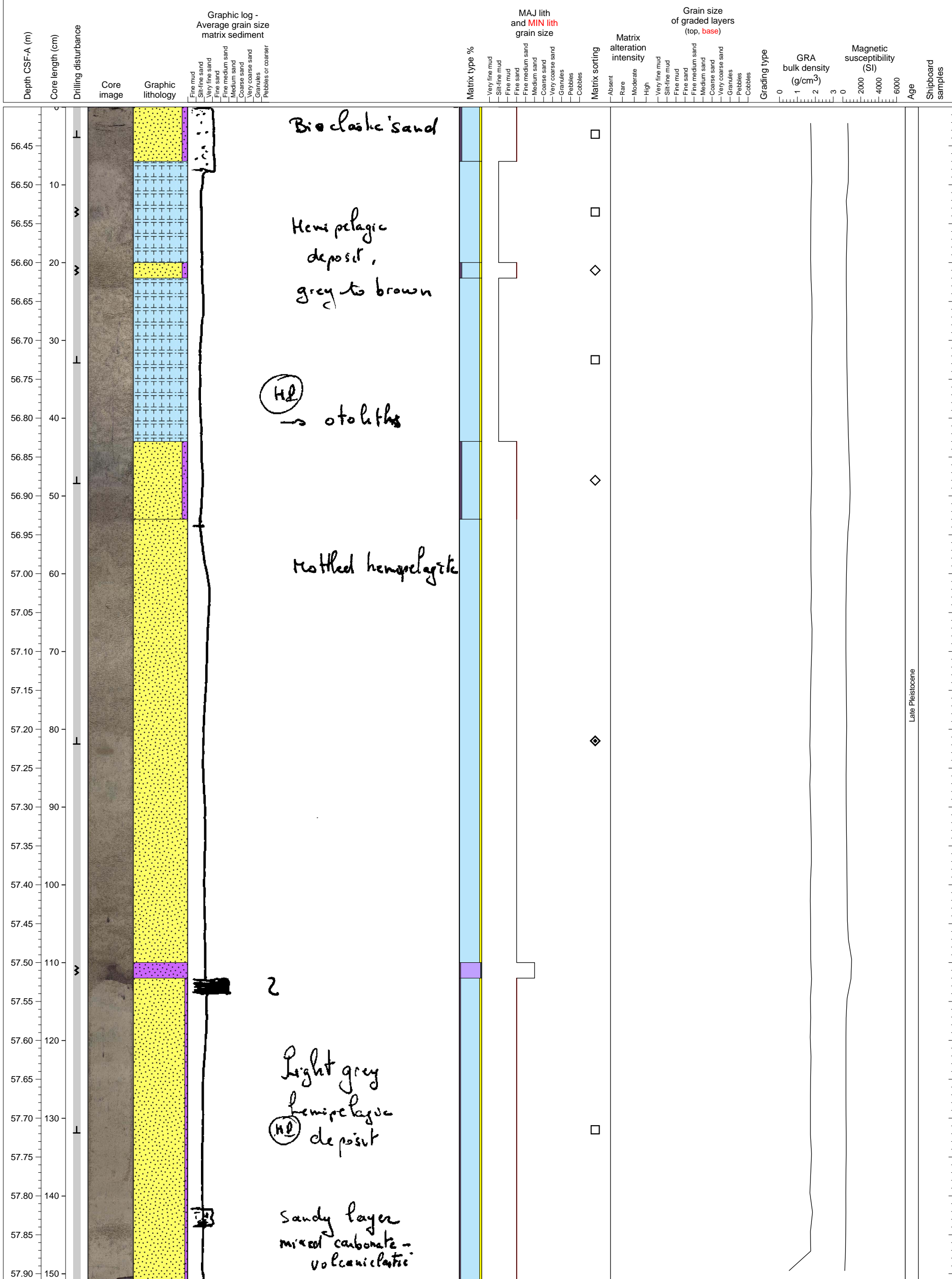


Mixed bioclastic-volcaniclastic turbidite. Hemipelagite beneath.



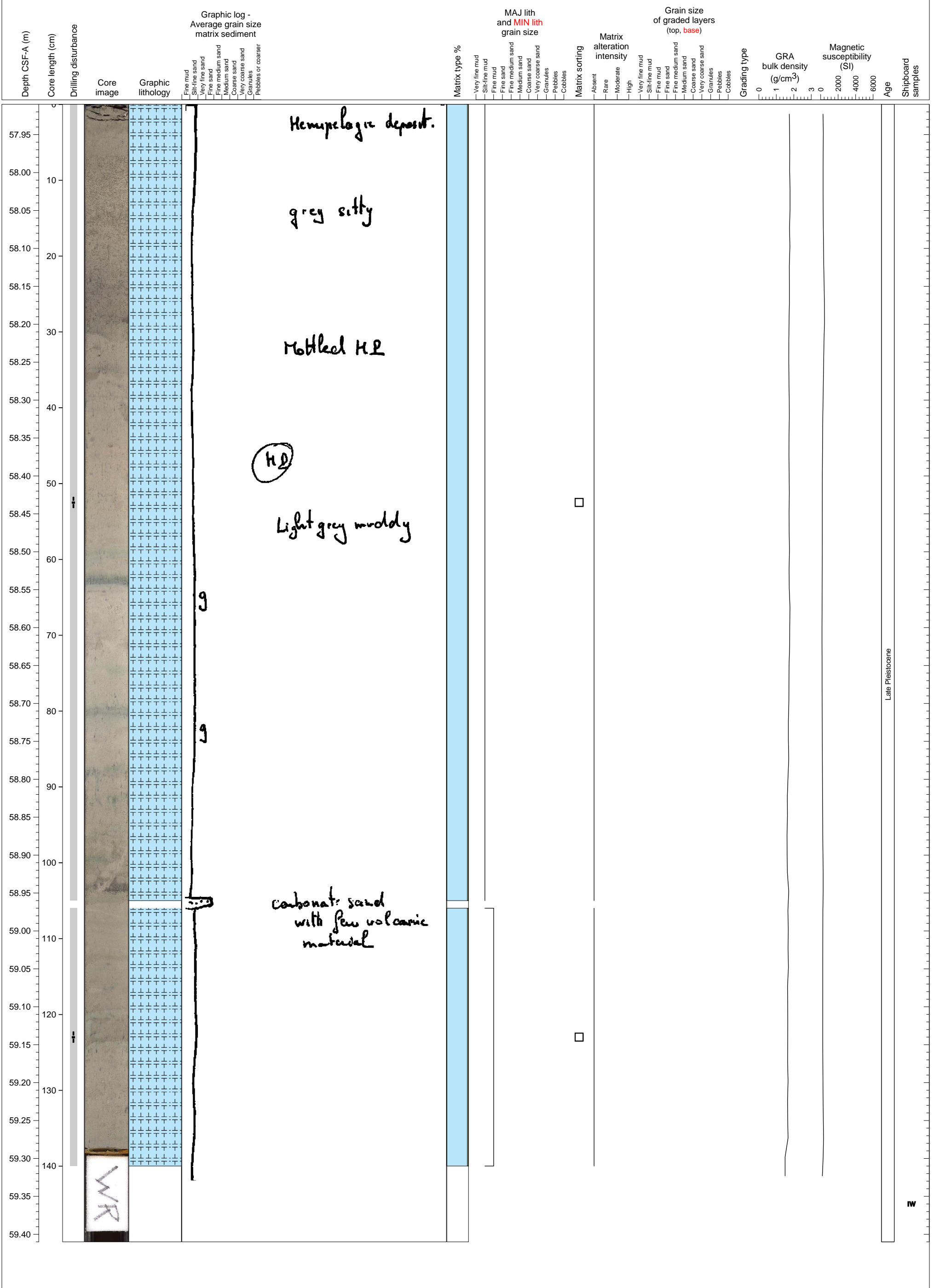
Late Pleistocene

Alternation of hemipelagic sediments and mixture of bioclastic and volcanoclastic sediments with thin tephra layer



Late Pleistocene

Thick carbonate muds with occasional greenish-grey streaks and a thin ash layer.



Hemipelagic deposit.

grey silty

Mottled HR

HR

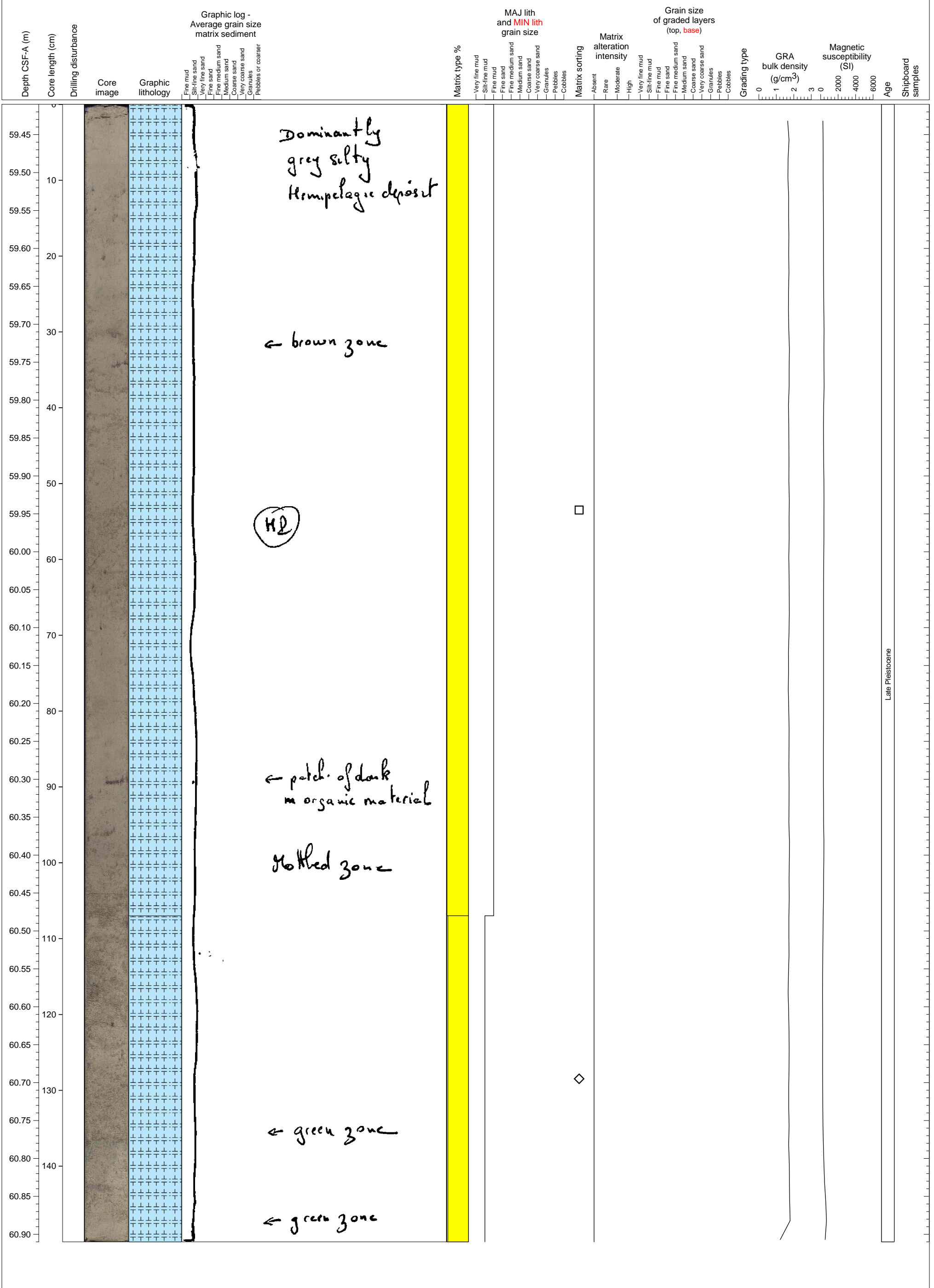
Light grey muddy

carbonate sand with few volcanic material

Late Pleistocene

W

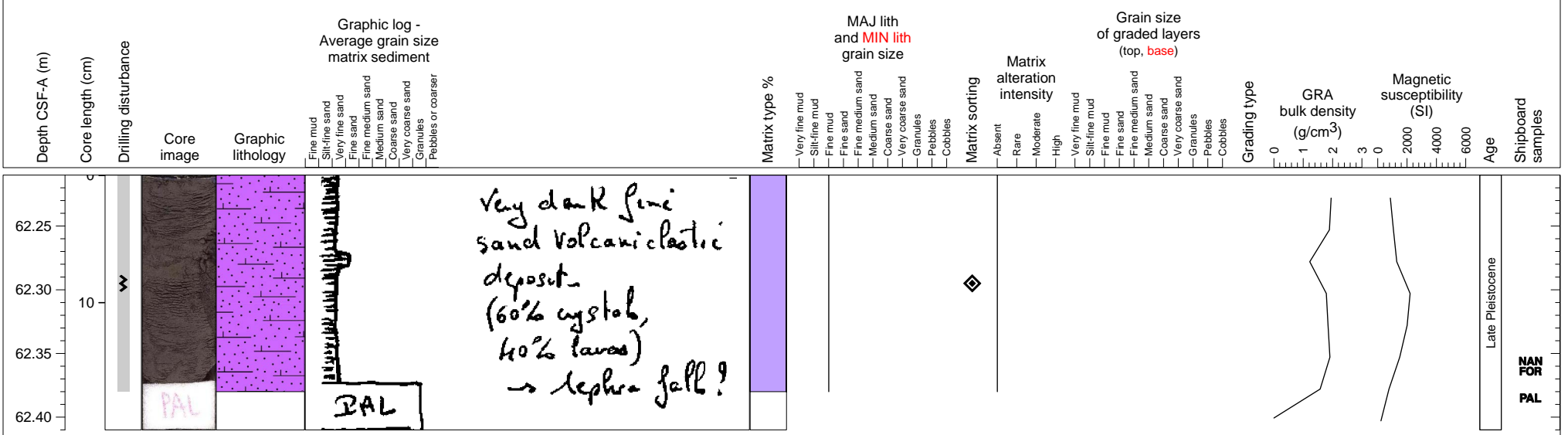
grey hemipelagic, mottled slightly biodisturbed



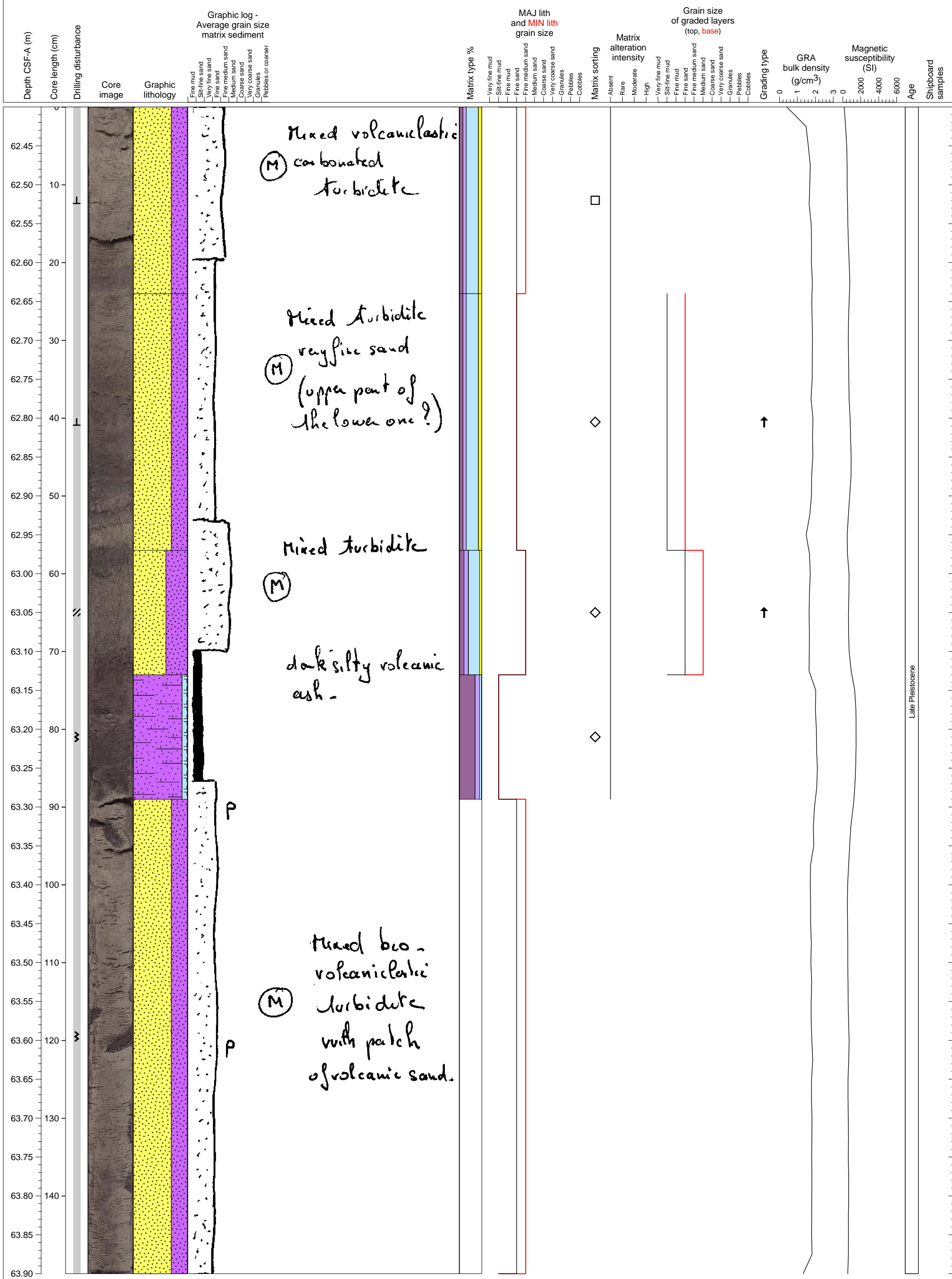
hemipelagic sediments with thin ash fall beds?



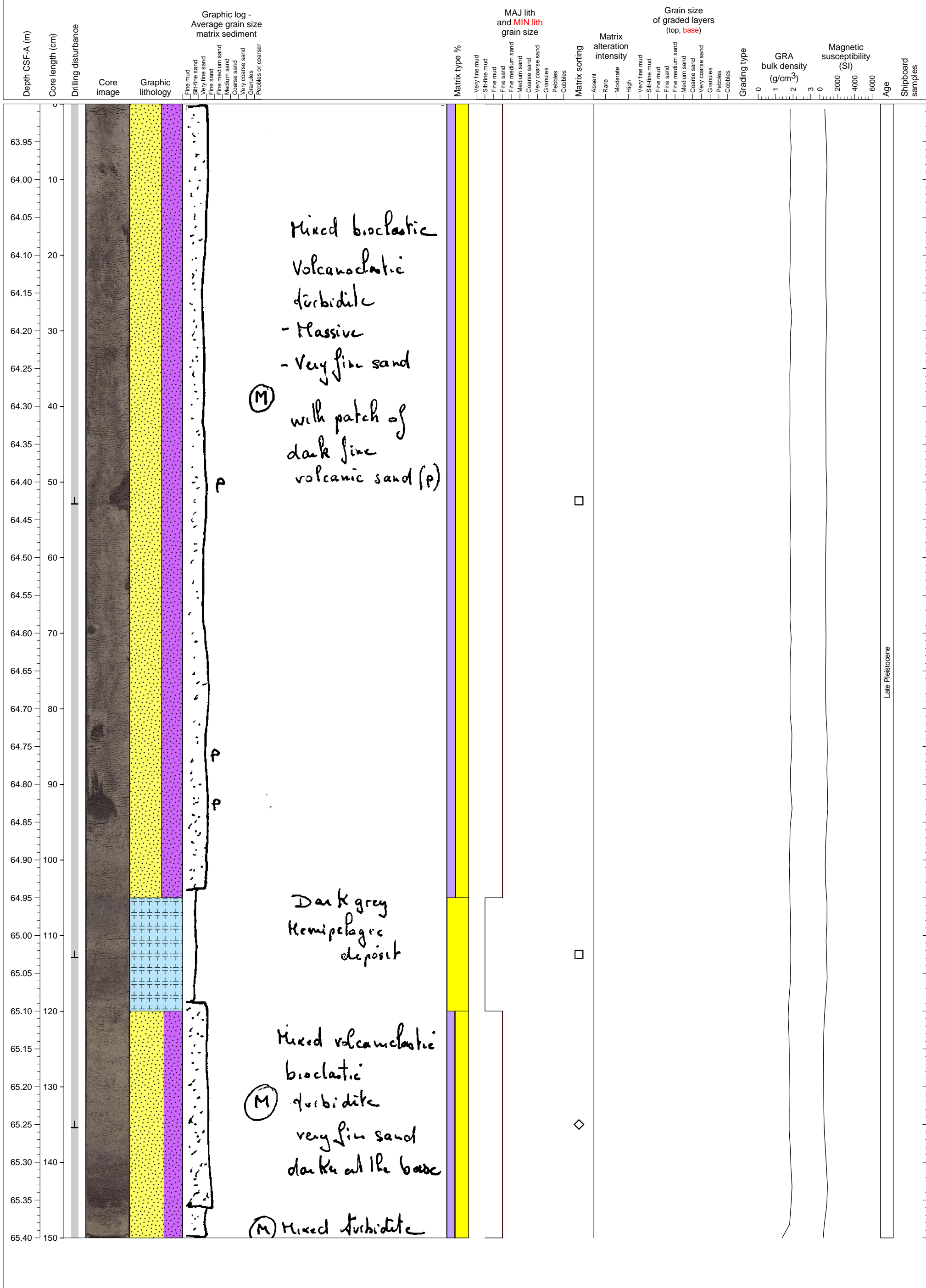
Volcaniclastic mud; sand lenses related to drilling disturbance. PAL sample from base of section.



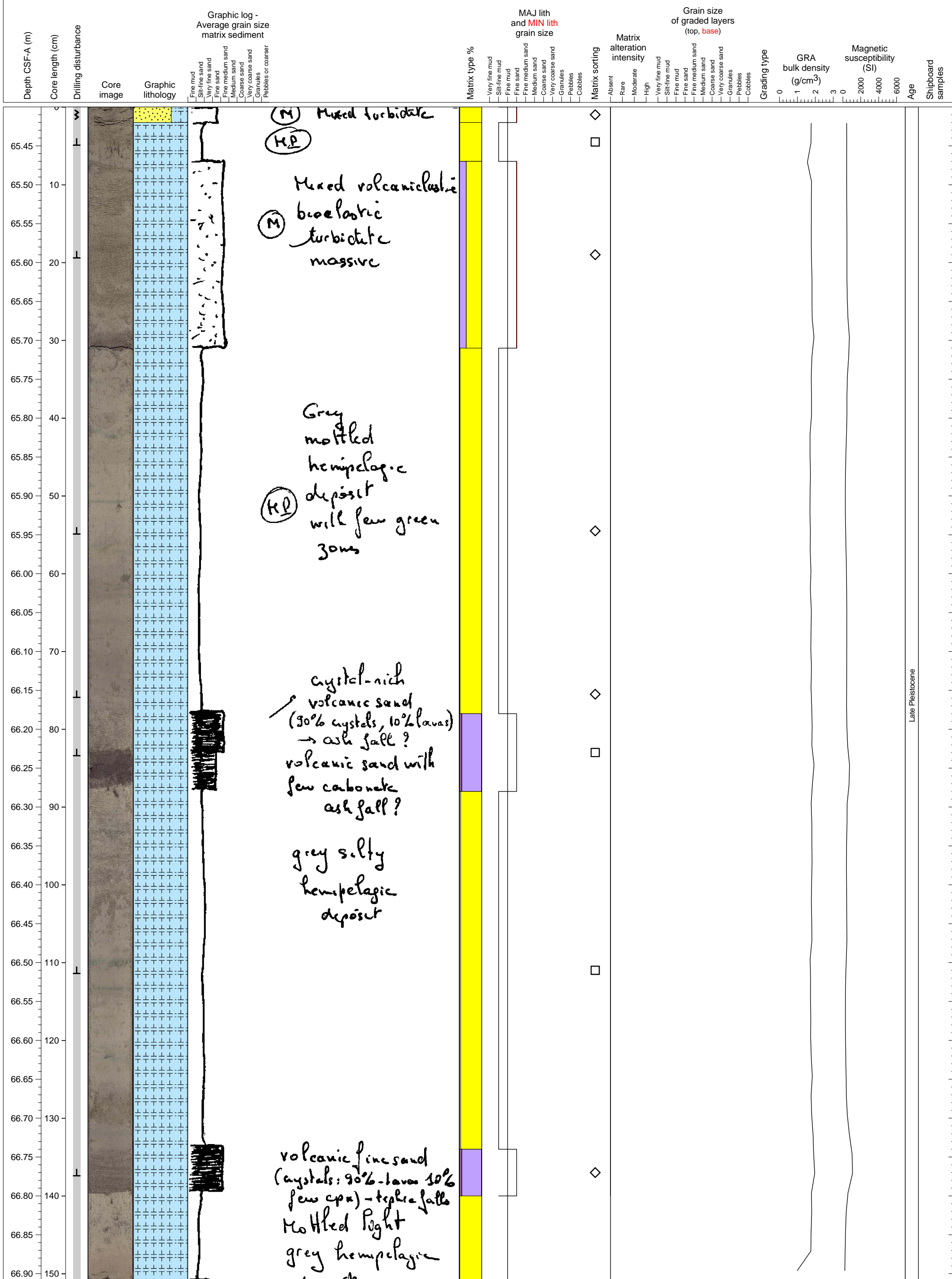
mixed turbidites of bioclastic and volcanoclastic sediments, with thin volcanic ash layer



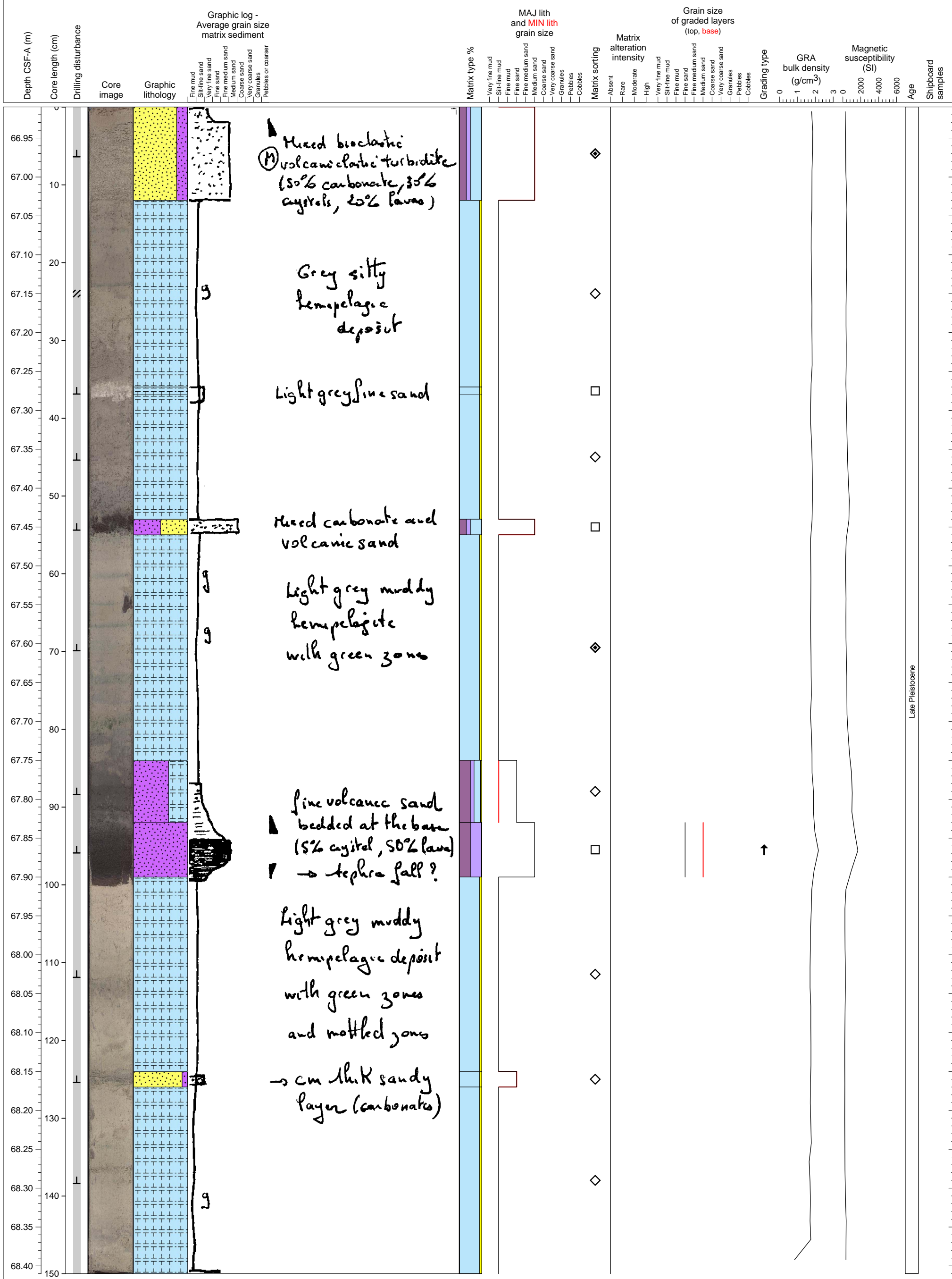
mixed turbidite within hemipelagic fines



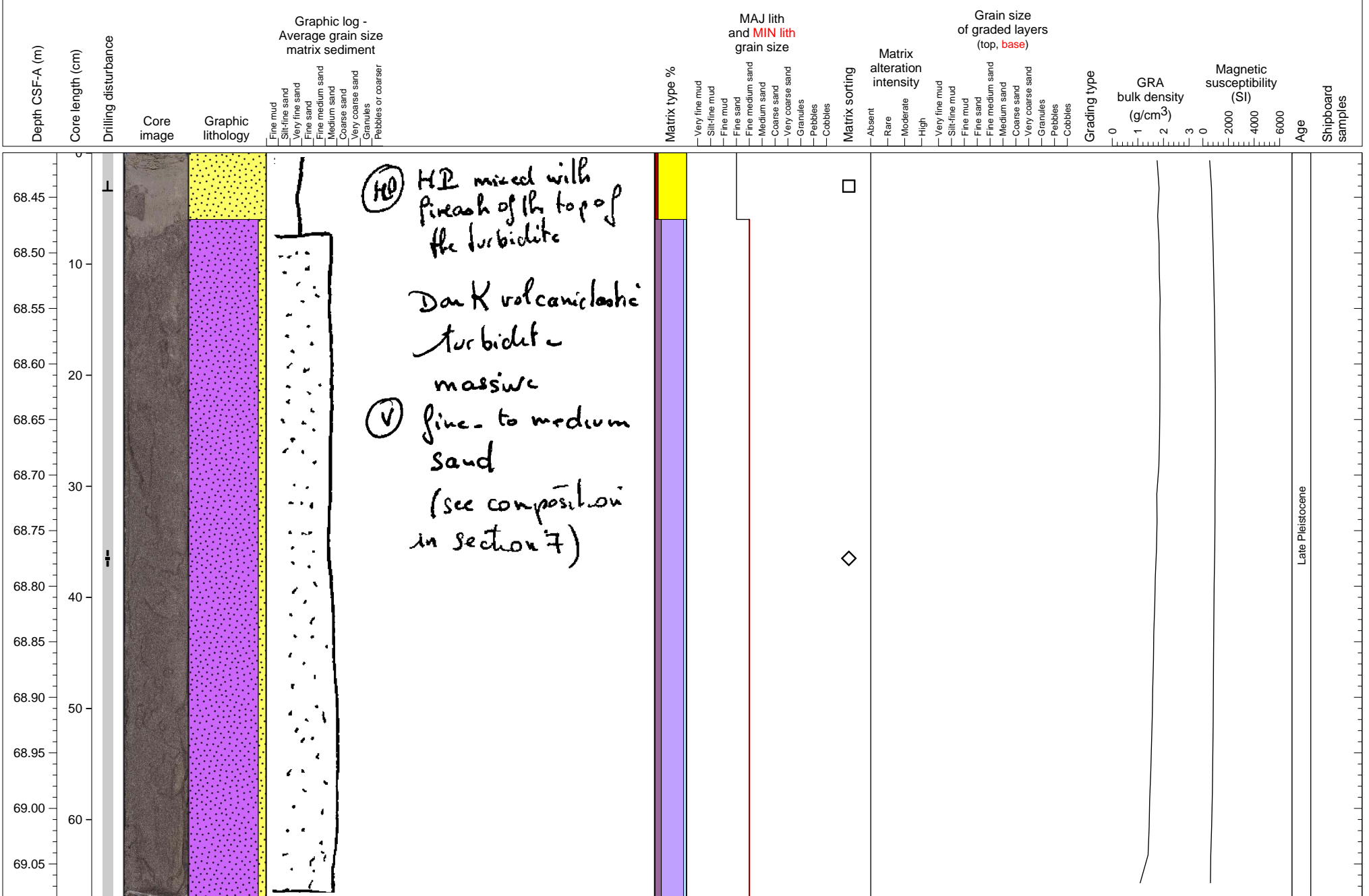
Hemipelagic sediments with several thin volcanoclastic turbidites and a thin ash fall.



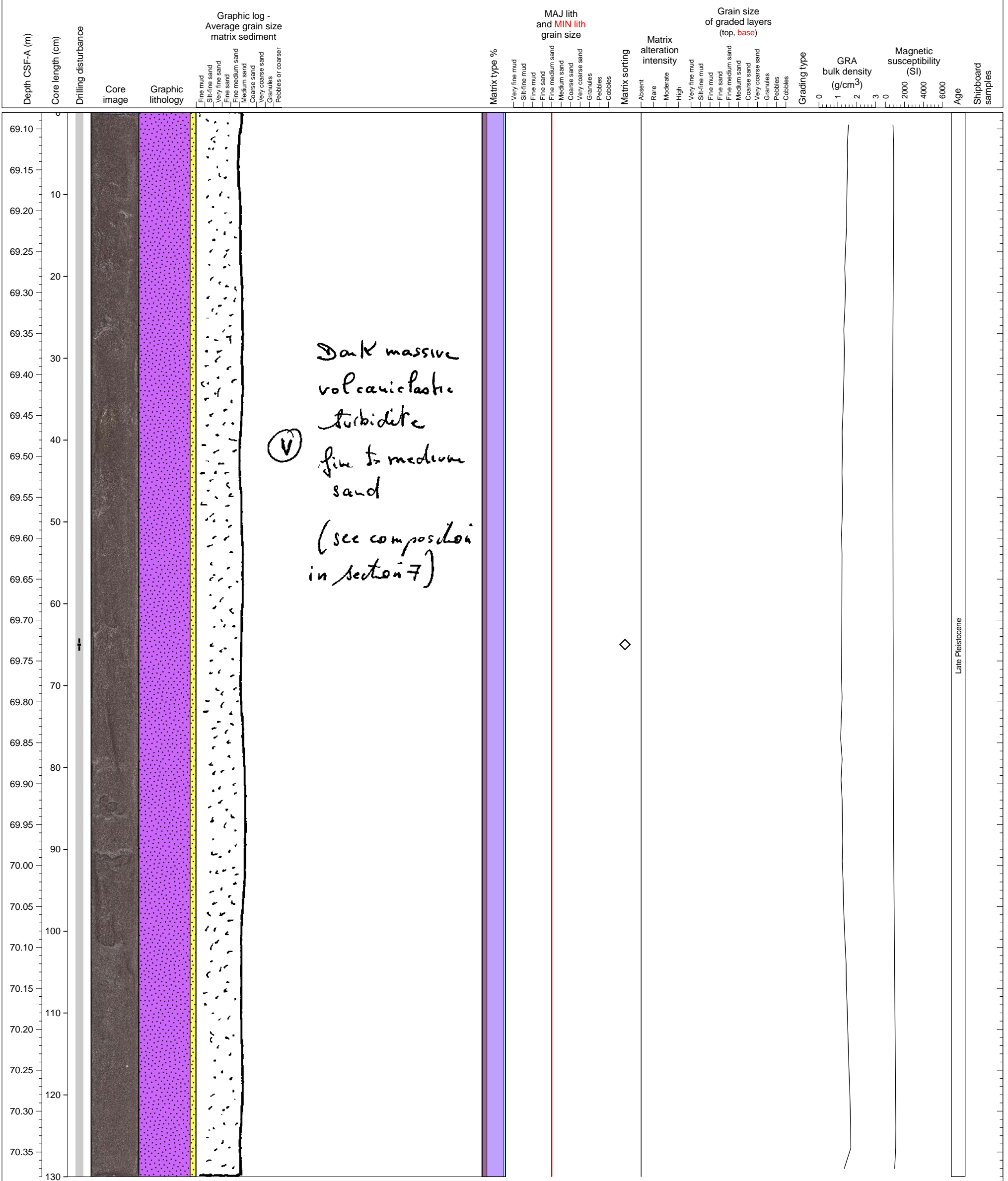
alternation of hemipelagic sediments and mixture of bioclastic and volcanoclastic sediments with intercalation of tephra layer



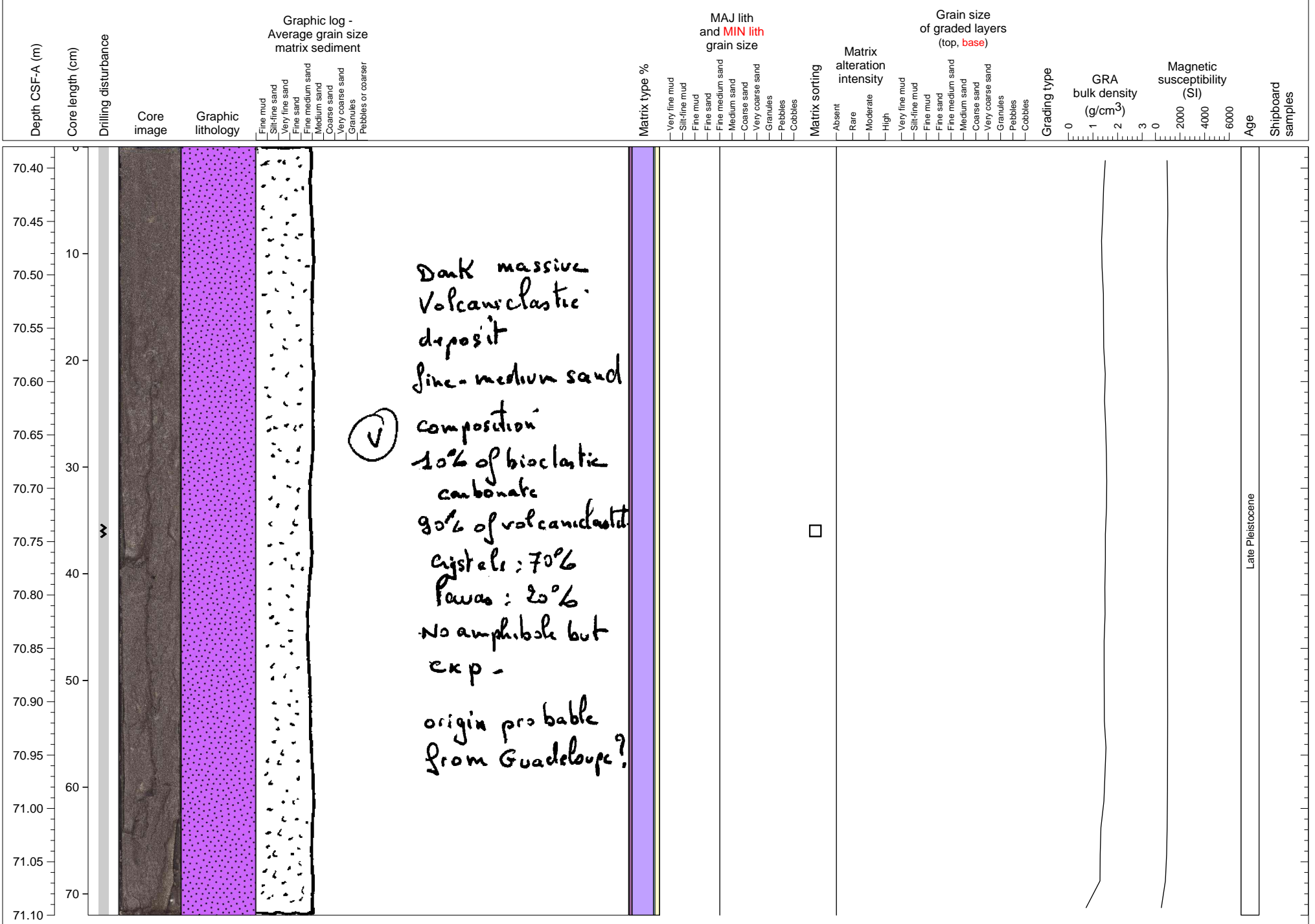
Thin hemipelagic sediment mixed with some ash from volcanoclastic turbidite below.



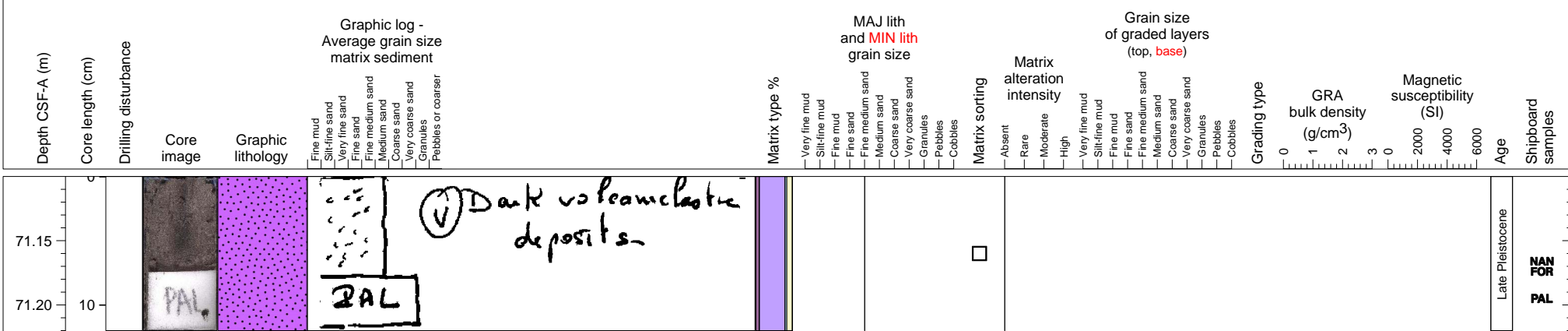
Thick volcanoclastic turbidite, contains green CPX and no amphibole.



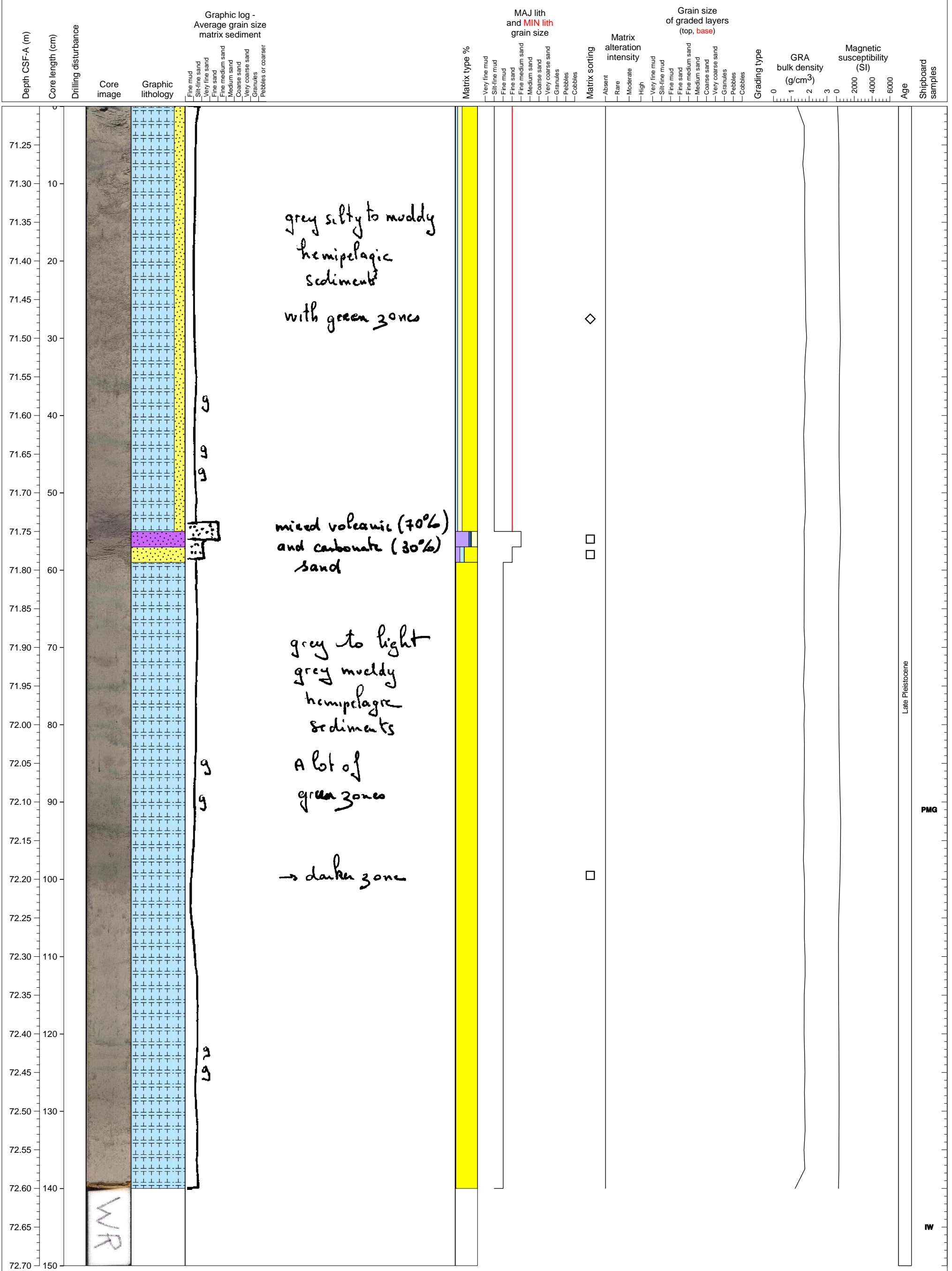
massive, volcanoclastic turbidite



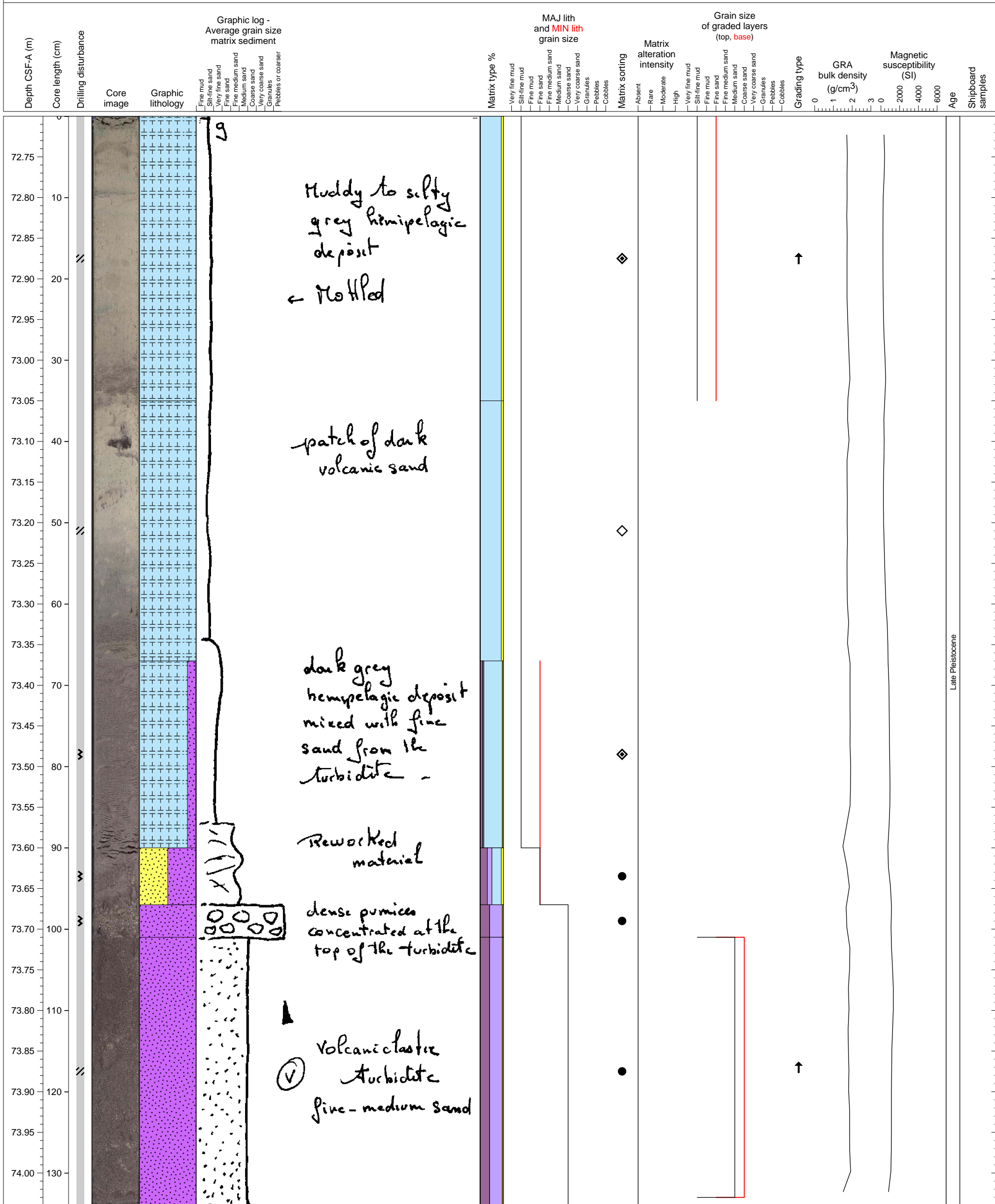
massive volcanoclastic turbidite



hemipelagite

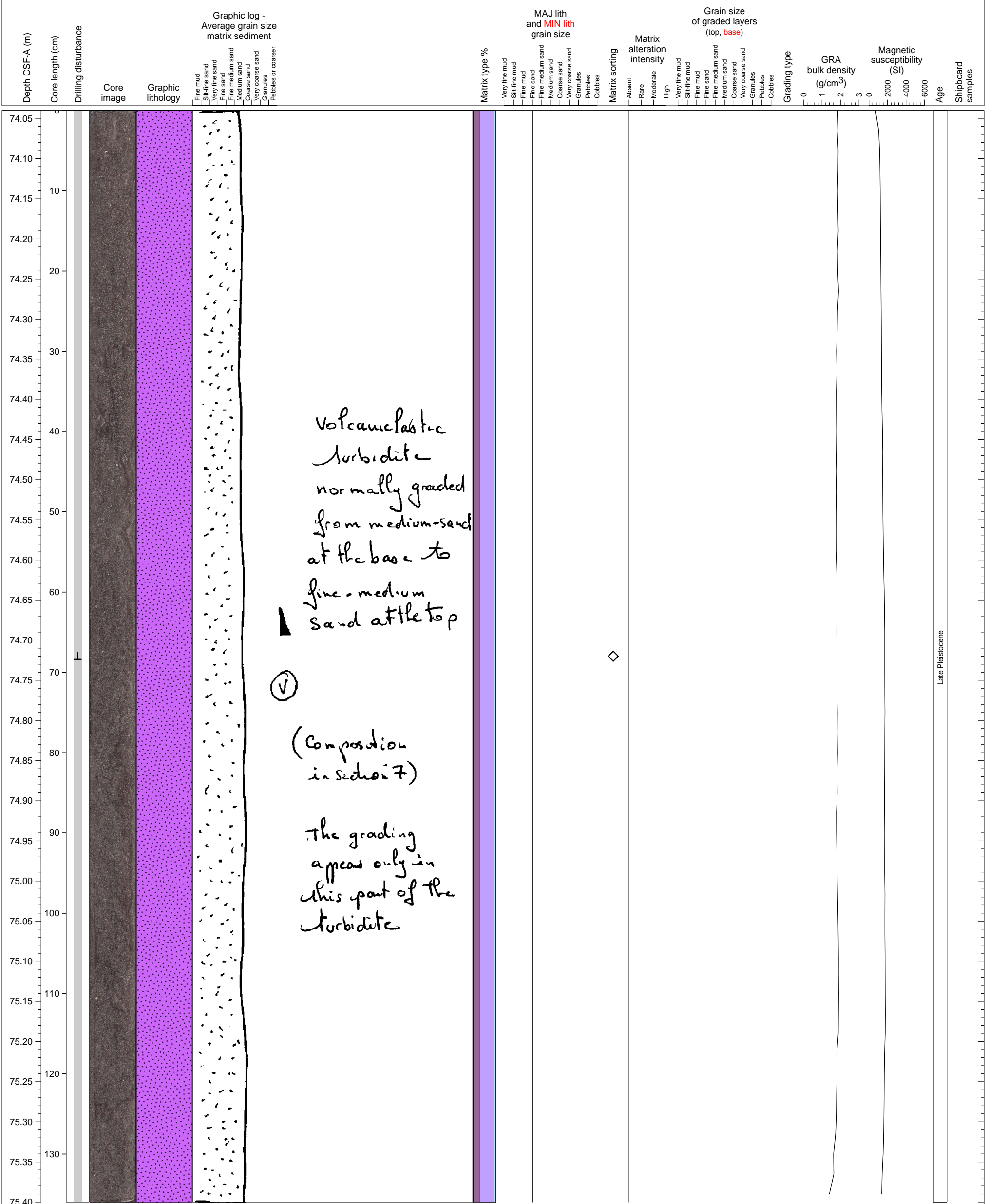


bottom part of hemipelagic sediments underlain by volcanoclastic turbidite

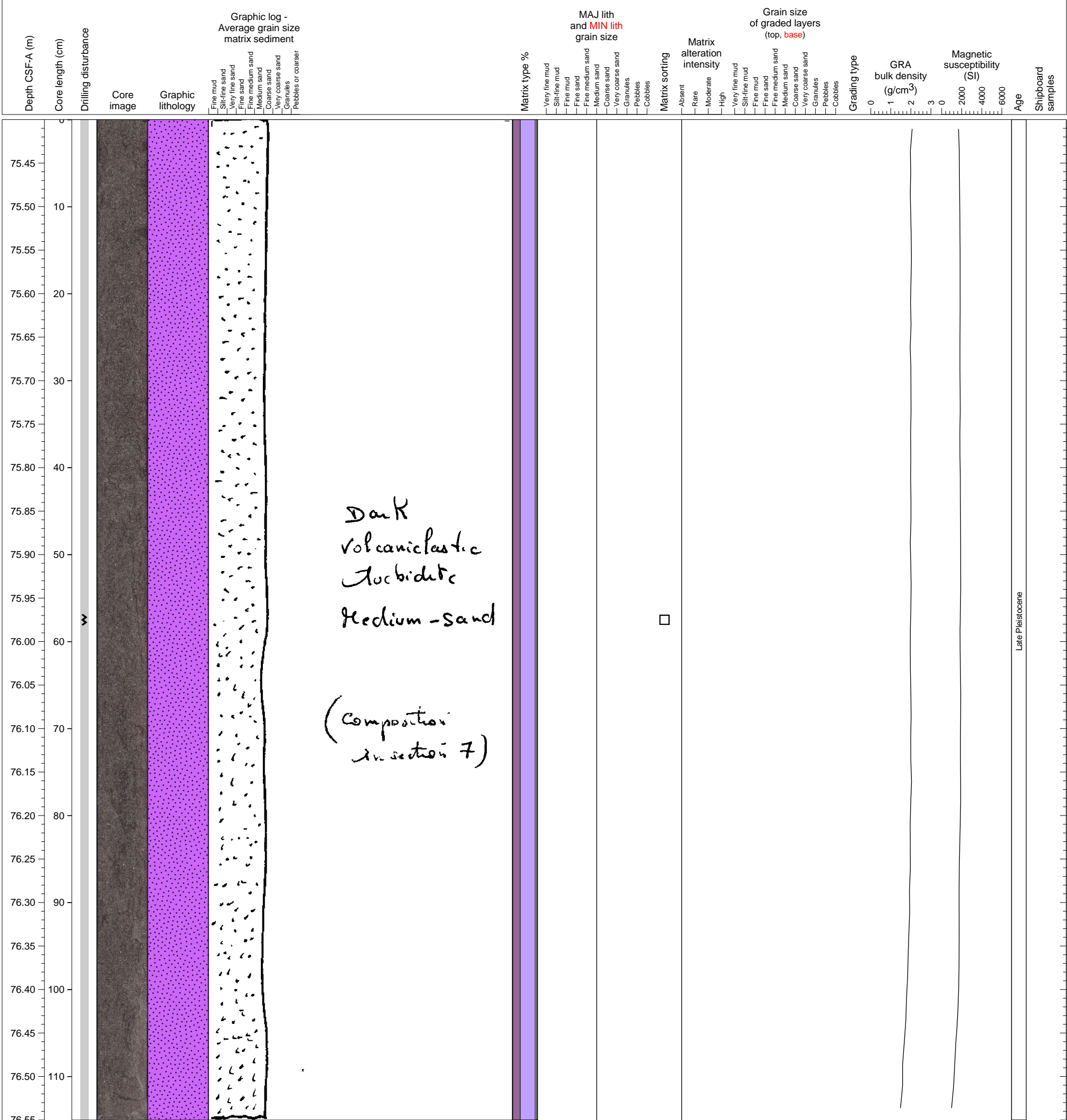


Late Pleistocene

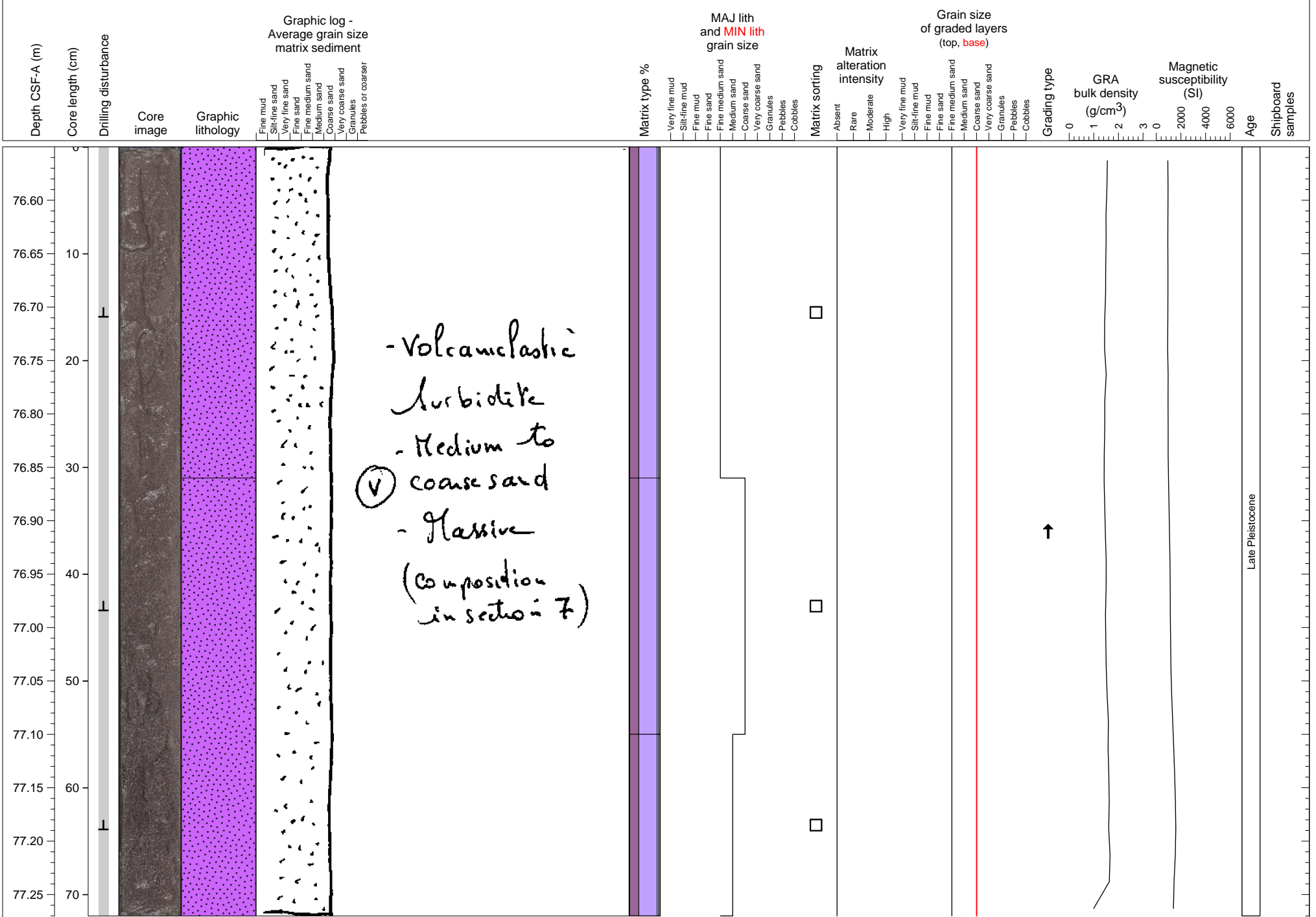
Volcaniclastic turbidite with 10% bioclasts



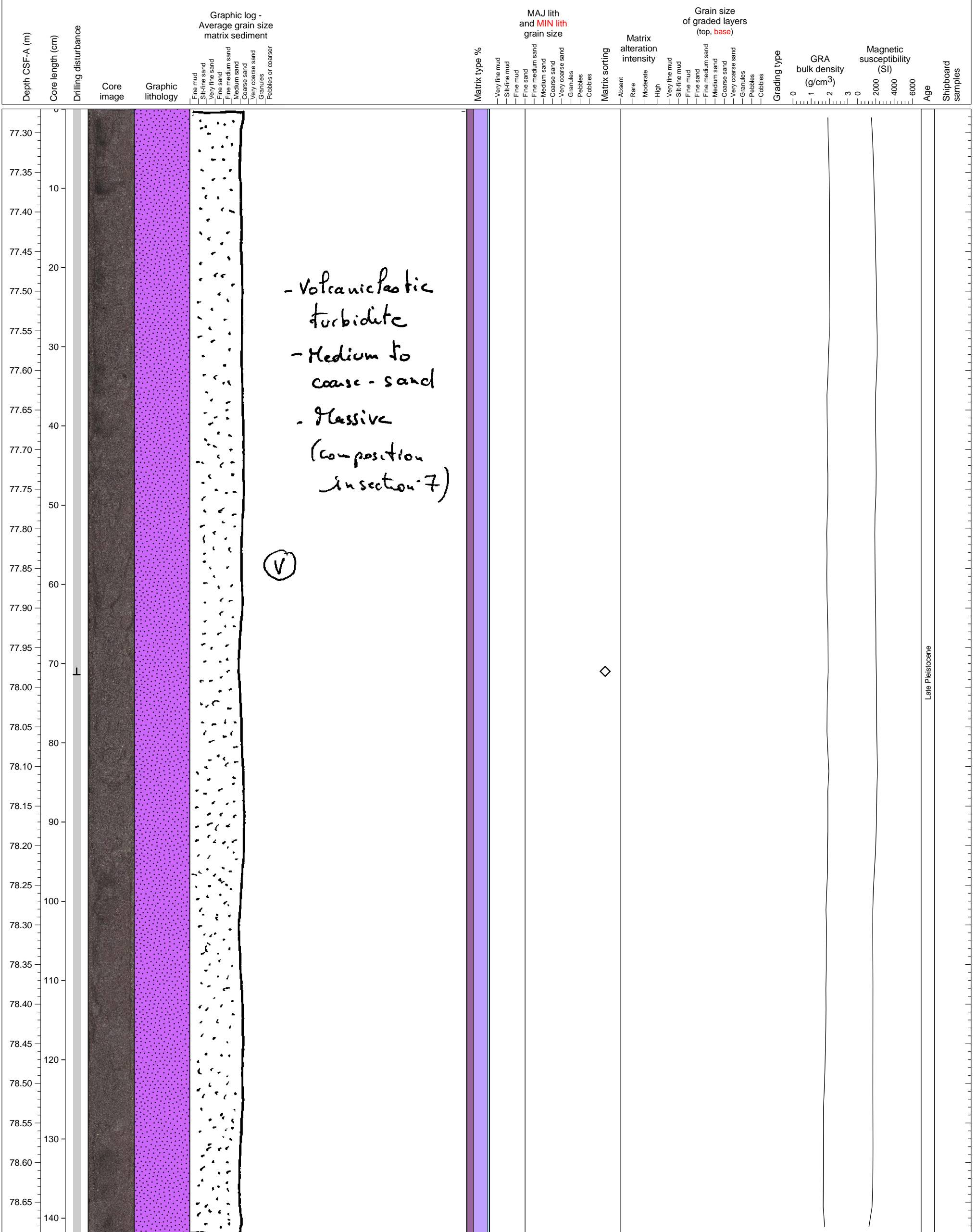
dark grey massive volcanoclastic turbidite



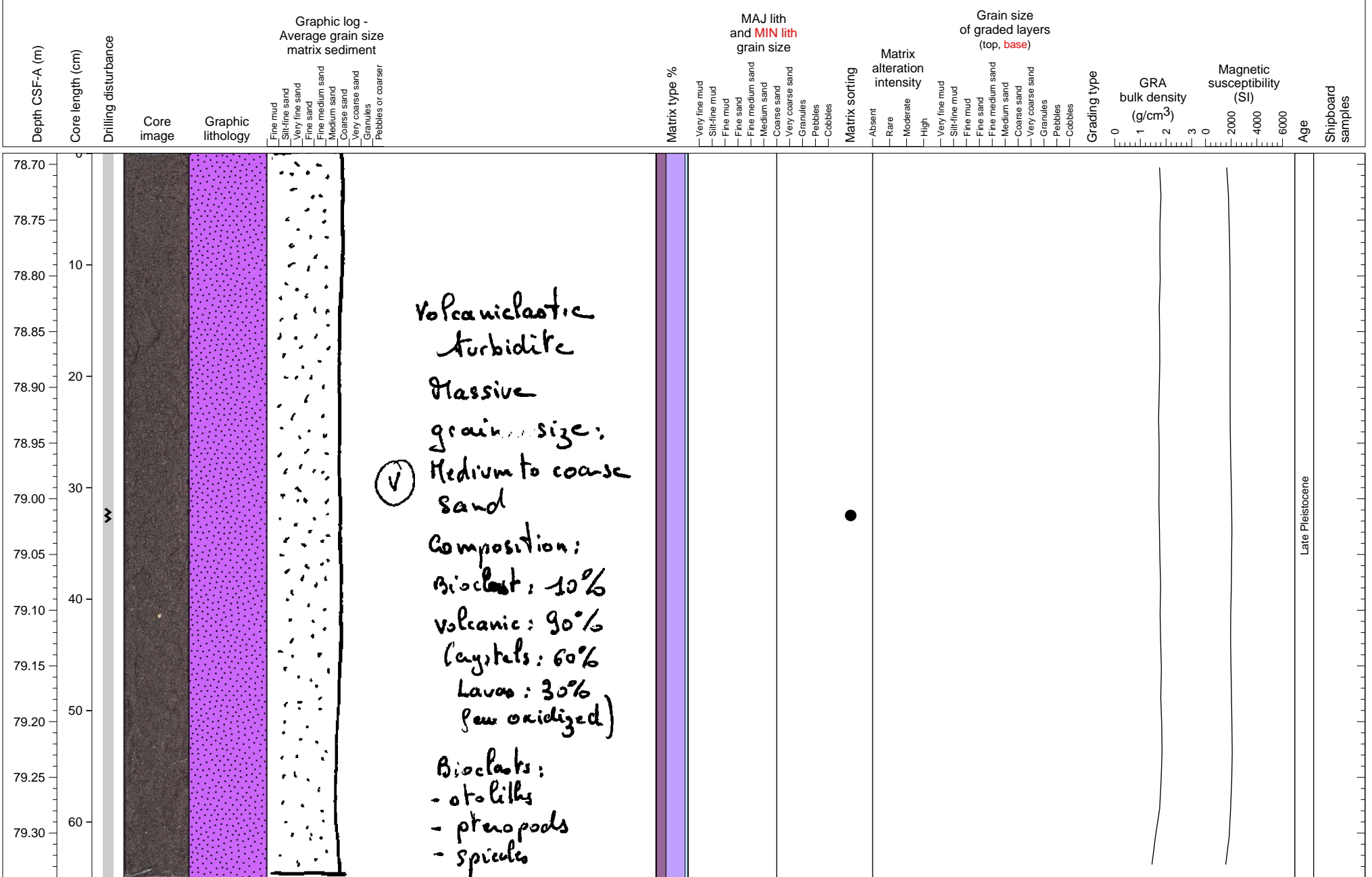
dark grey massive volcanoclastic turbidite



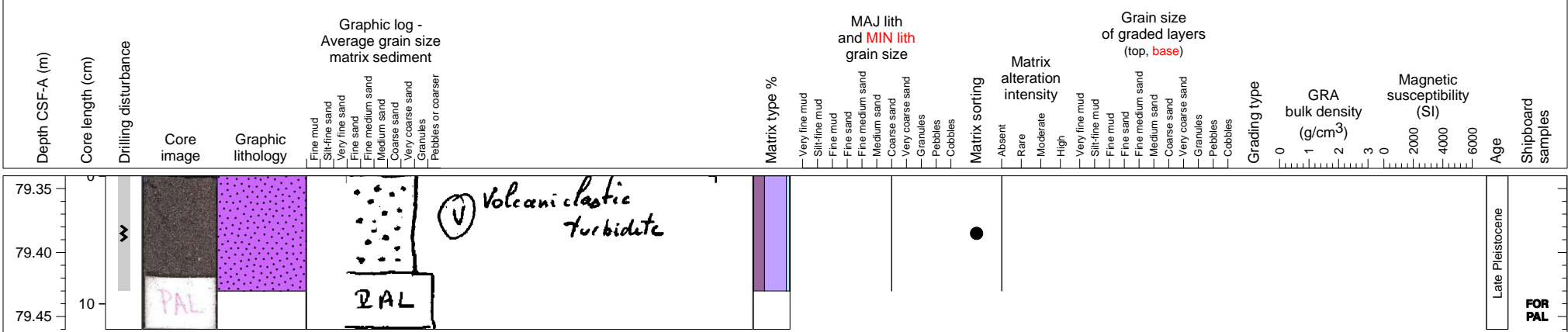
Volcaniclastic turbidite with 10% bioclasts



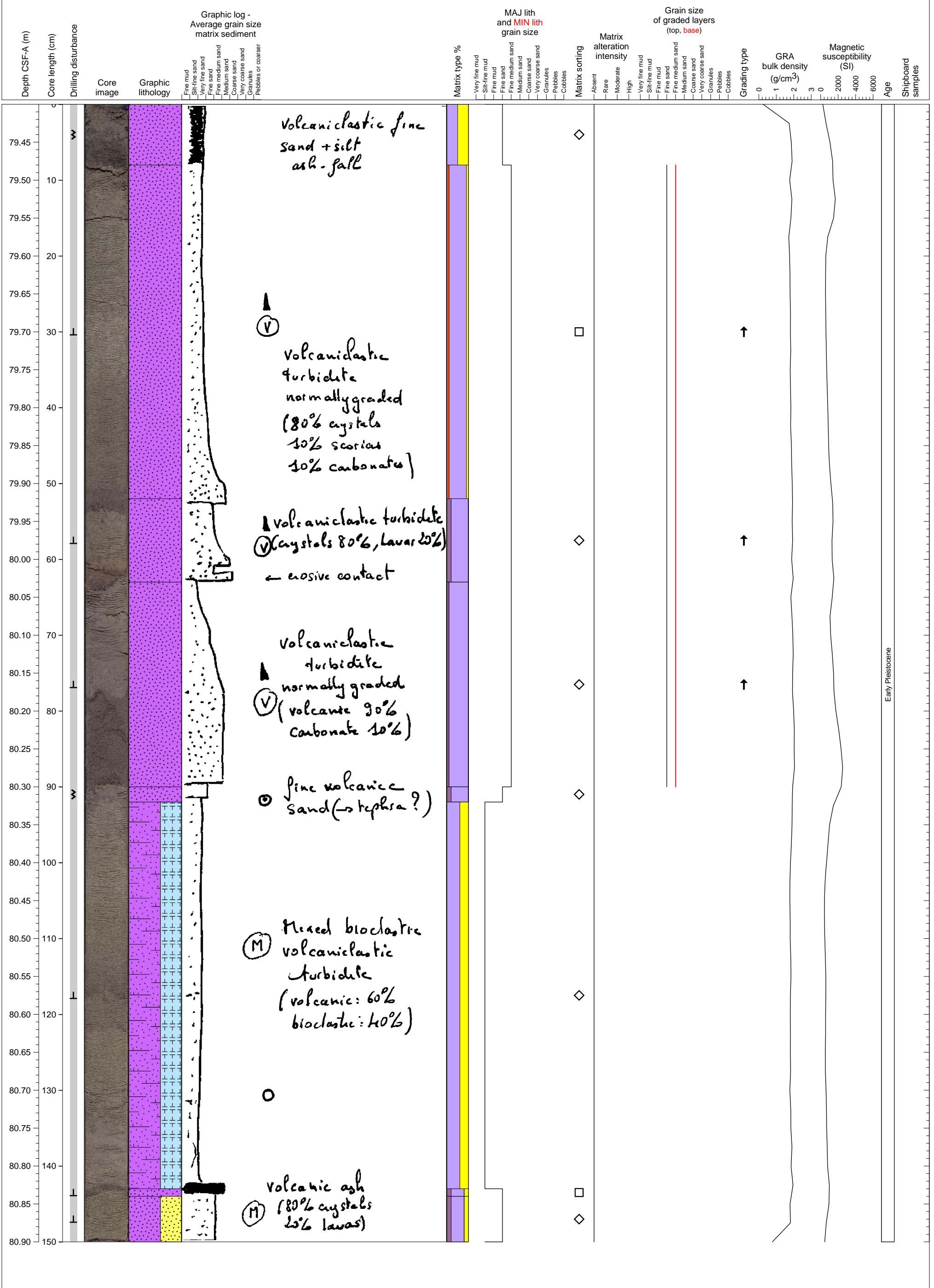
massive volcanic turbidite



volcaniclastic sand in core catcher

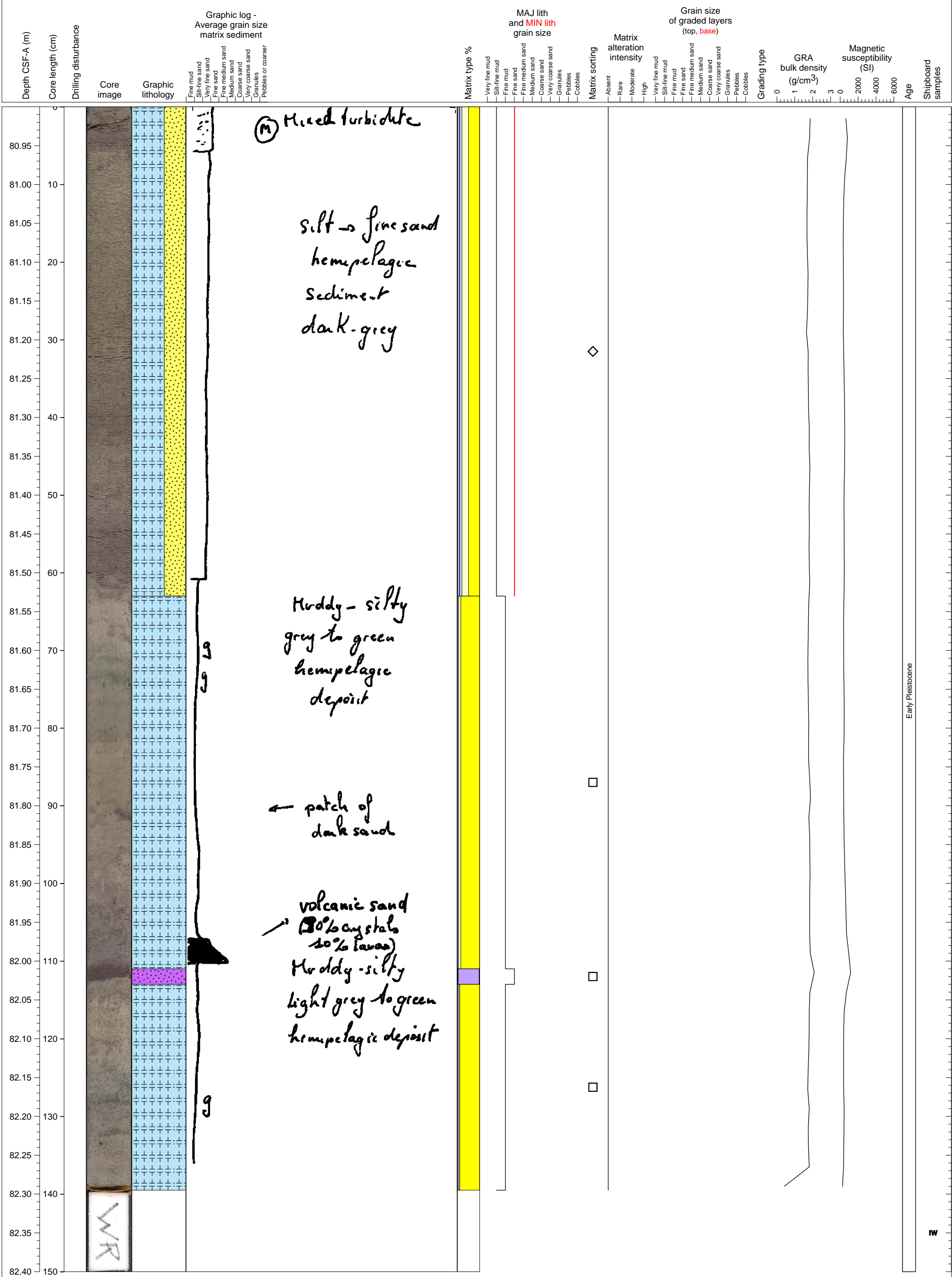


Series of stacked volcanoclastic turbidites with thin ash layers.

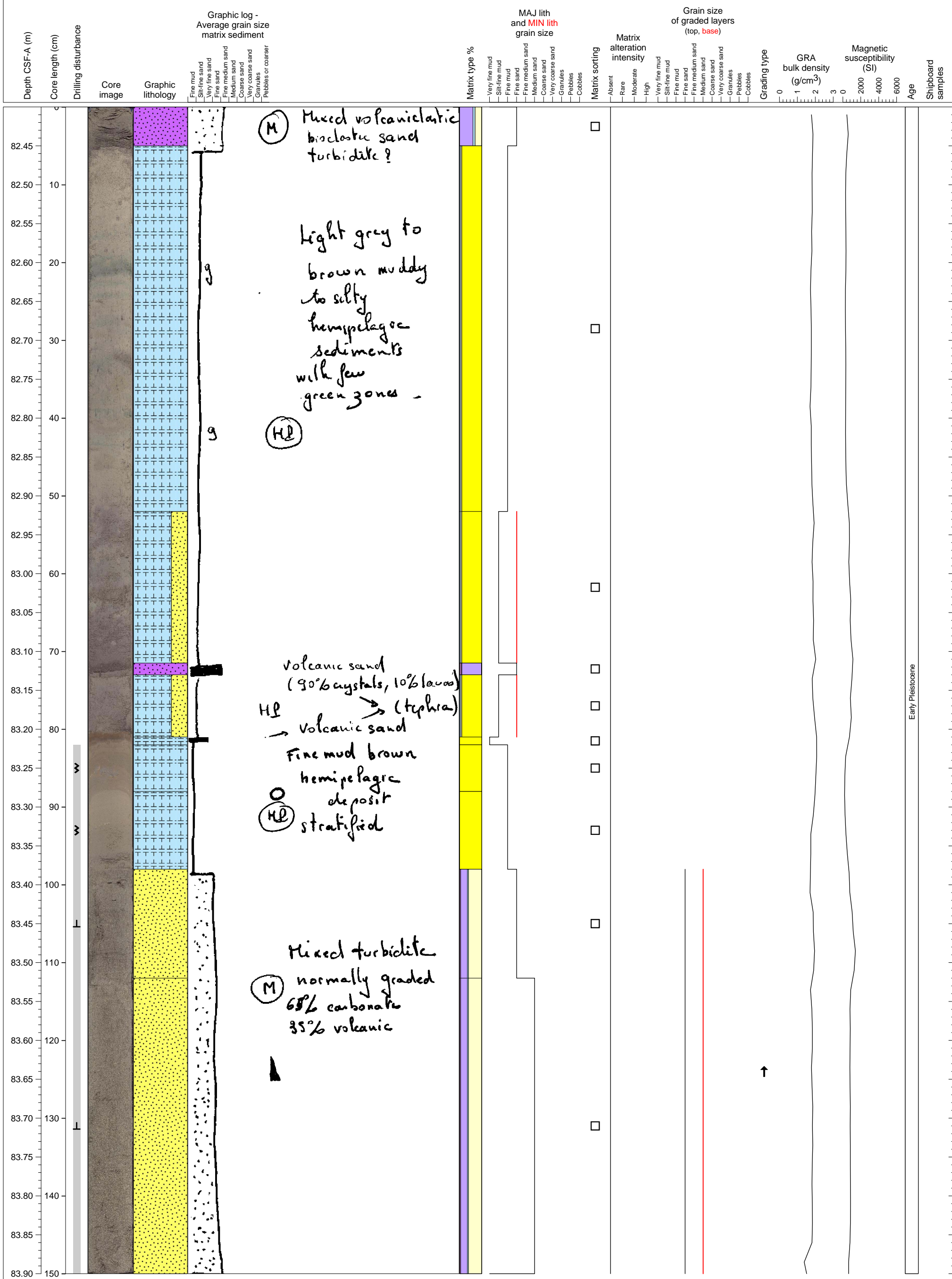


Early Pleistocene

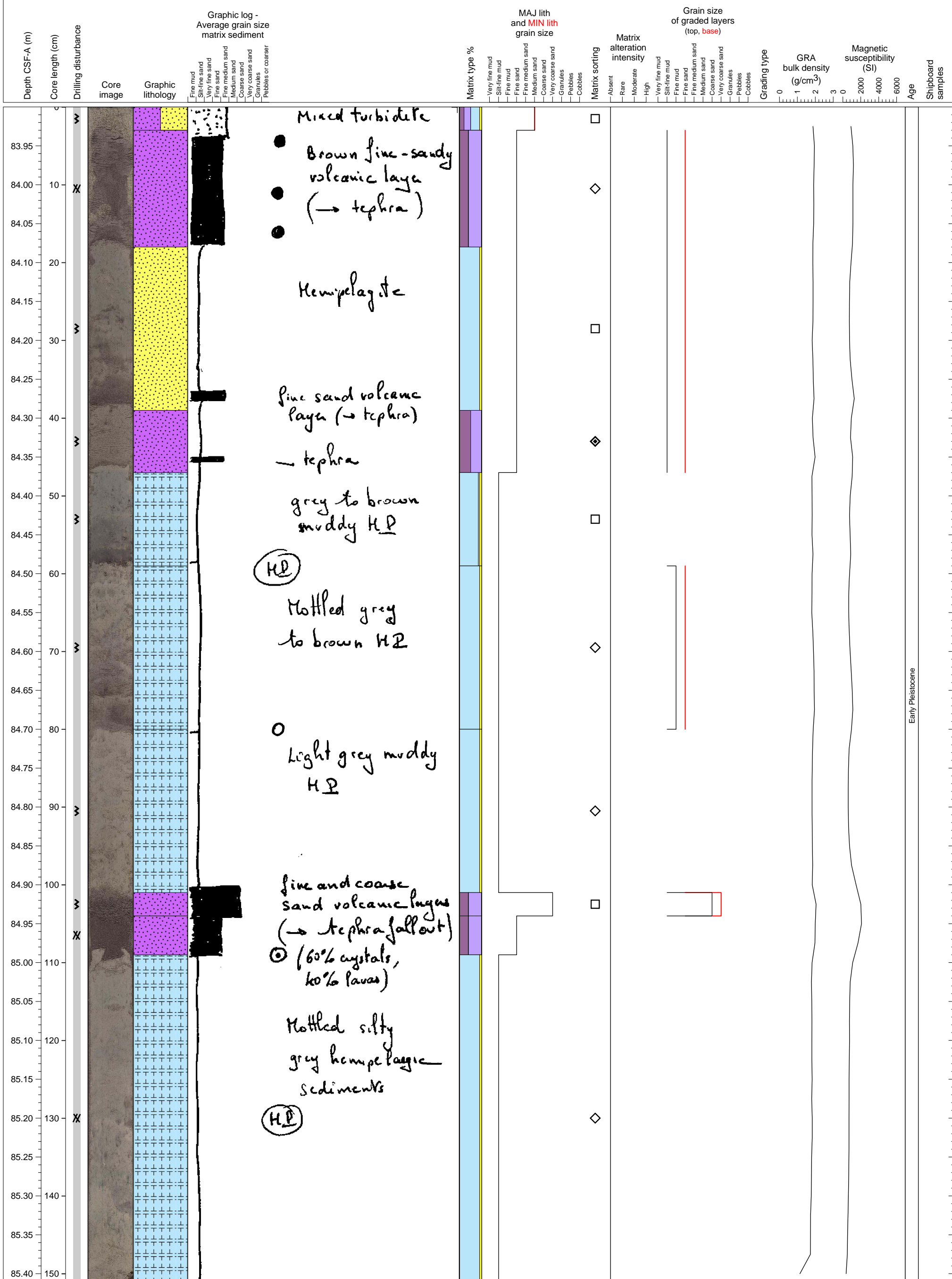
hemipelagic fines with 1 ashfall? layer



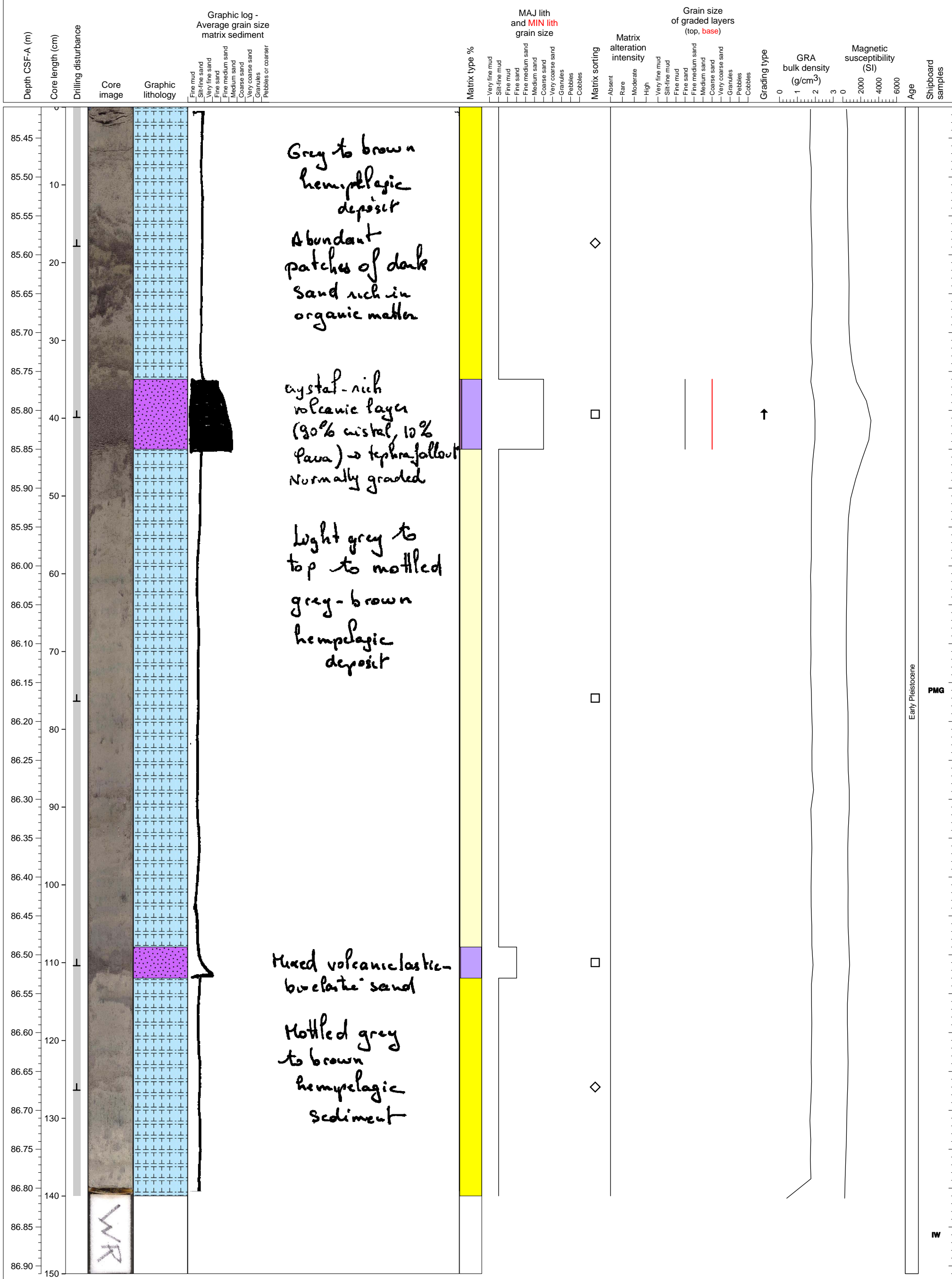
hemipelagite with ~50 cm thick mixed turbidite at the bottom of the section



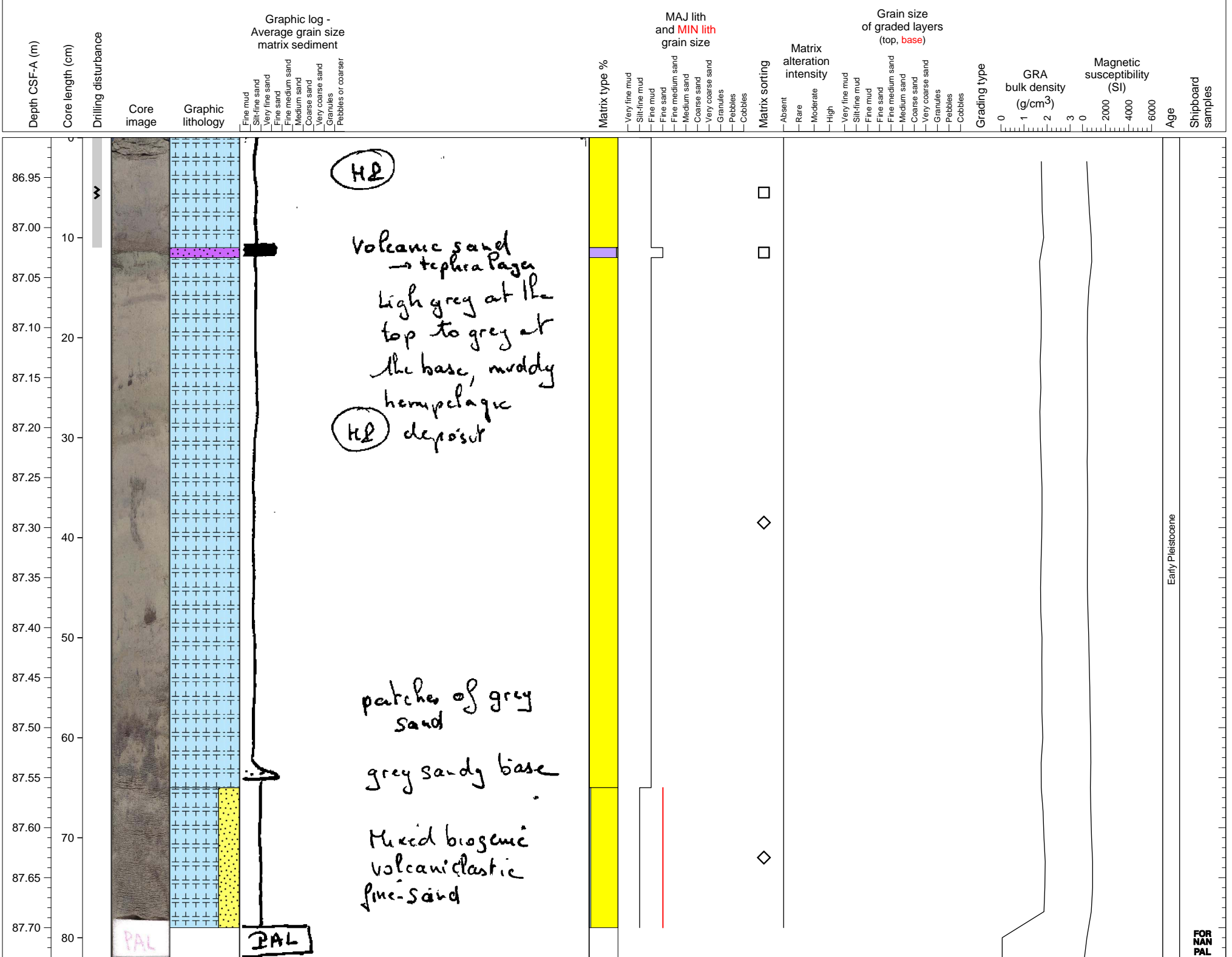
mottled hemipelagic sediments intercalated with volcanic ash layers



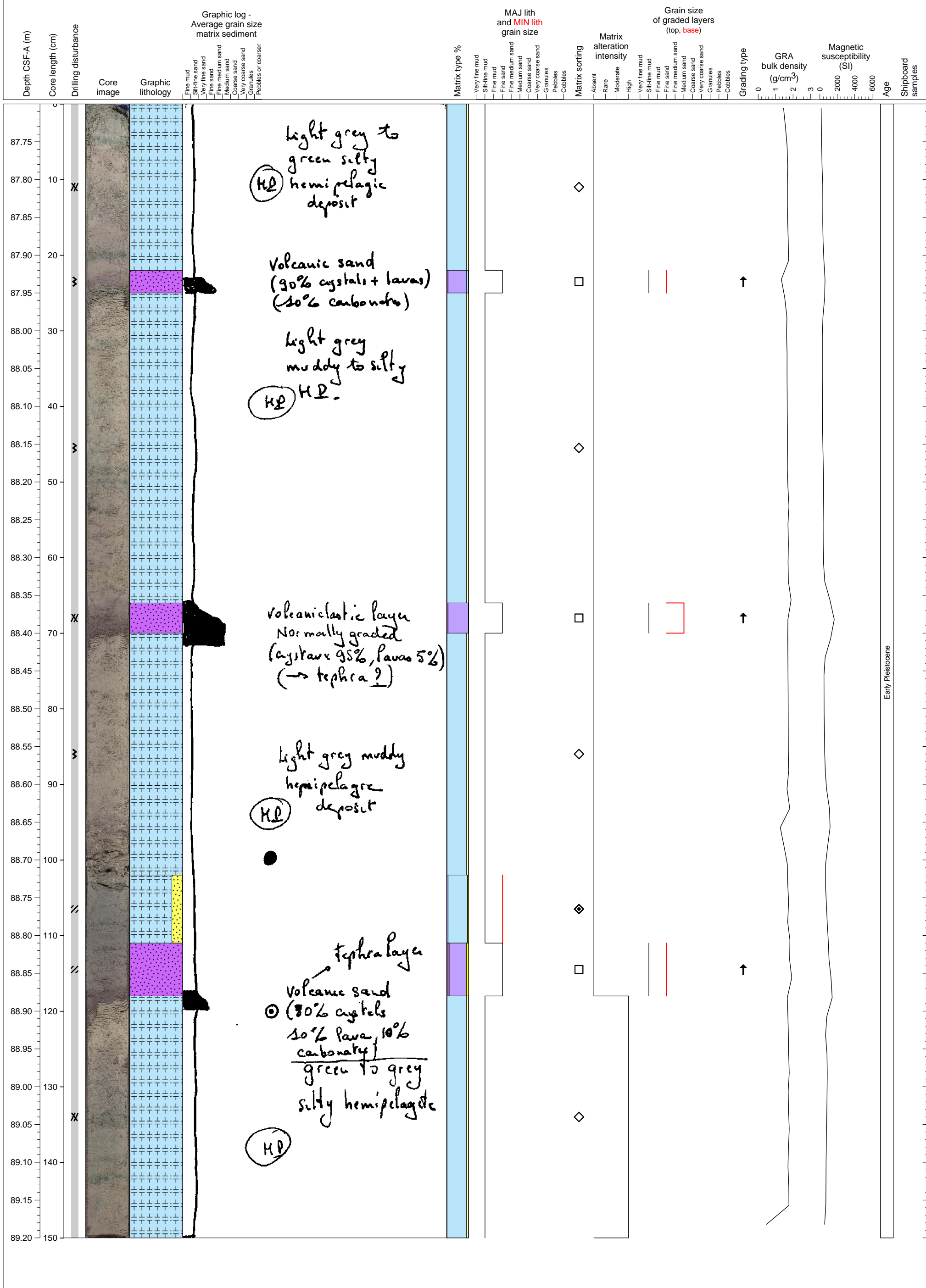
Predominantly hemipelagic sediments with two thin ash layers.



hemipelagite with one thin ashfall? layer intercalation

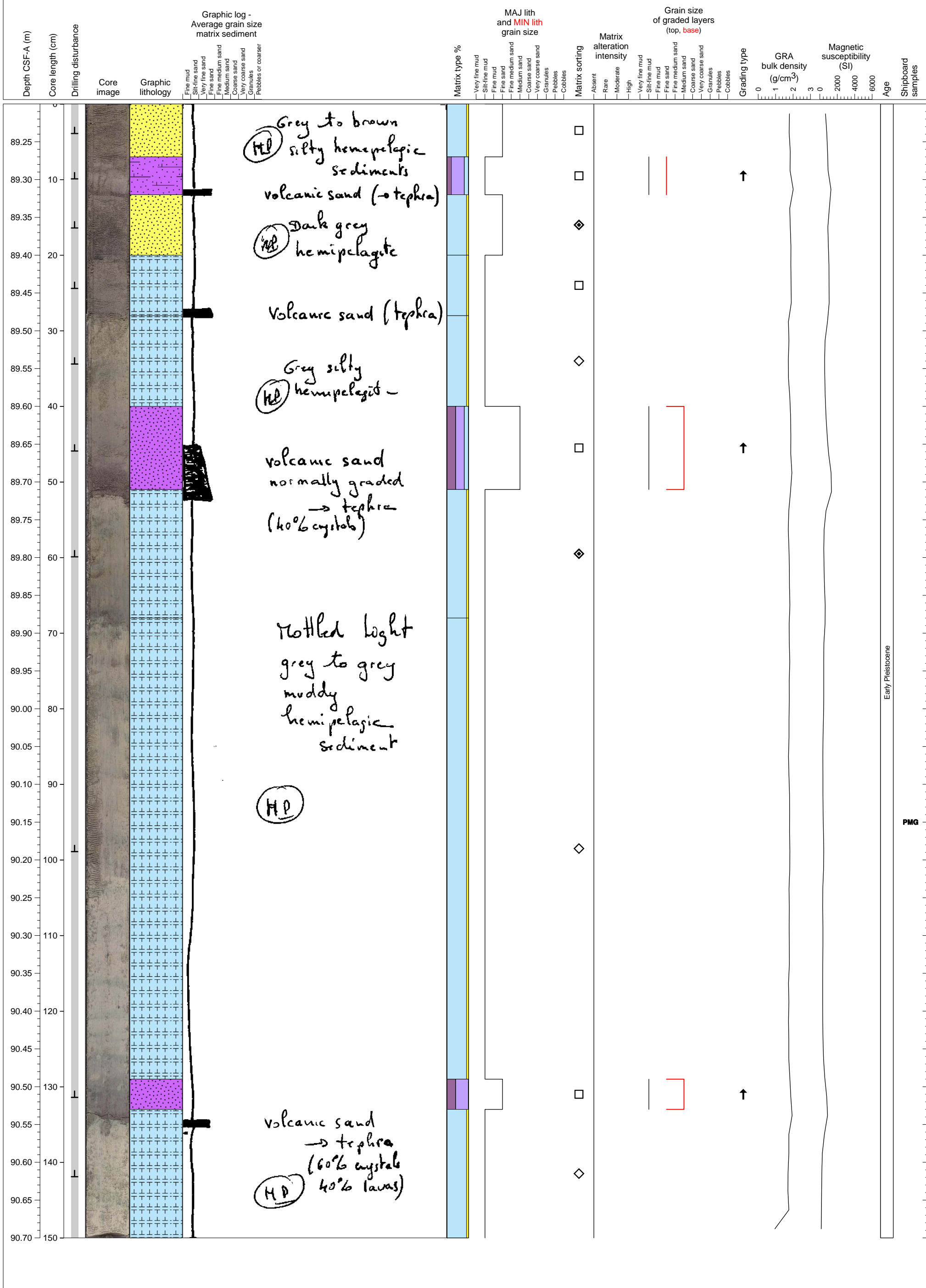


mottled hemipelagic sediments intercalated with volcanic ash layers

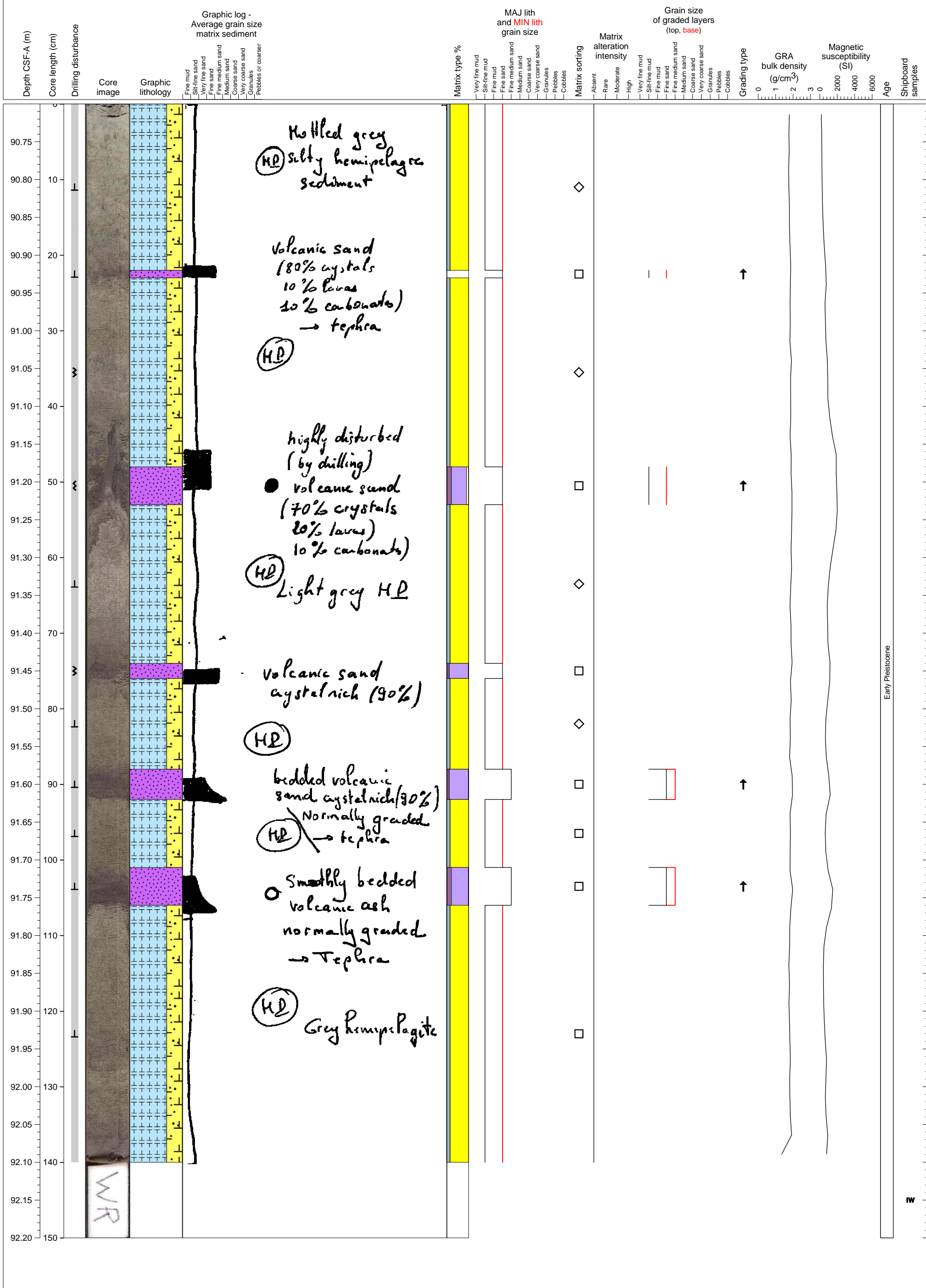


Early Pleistocene

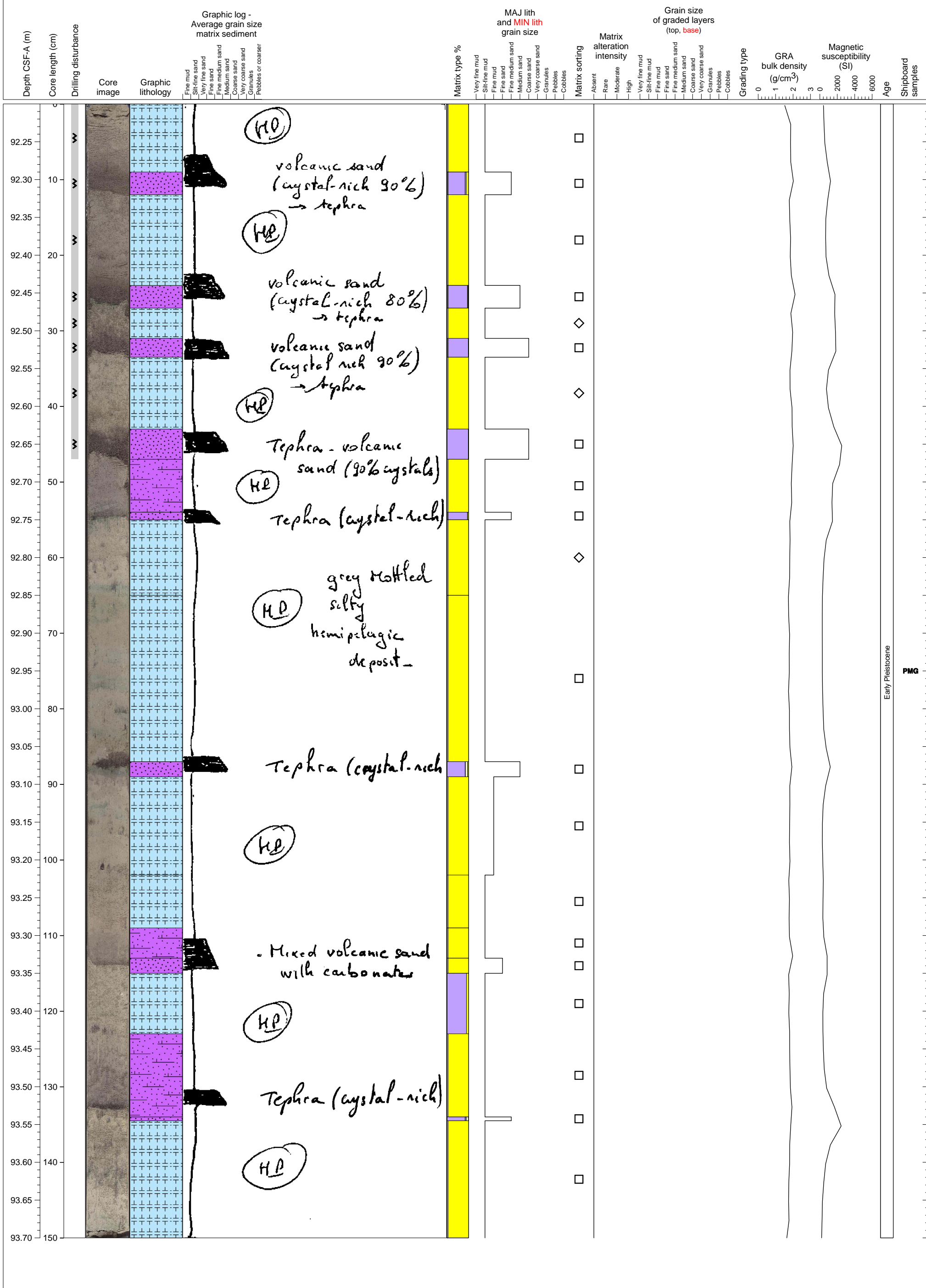
hemipelagic sediment intercalated with several volcanic ash layers



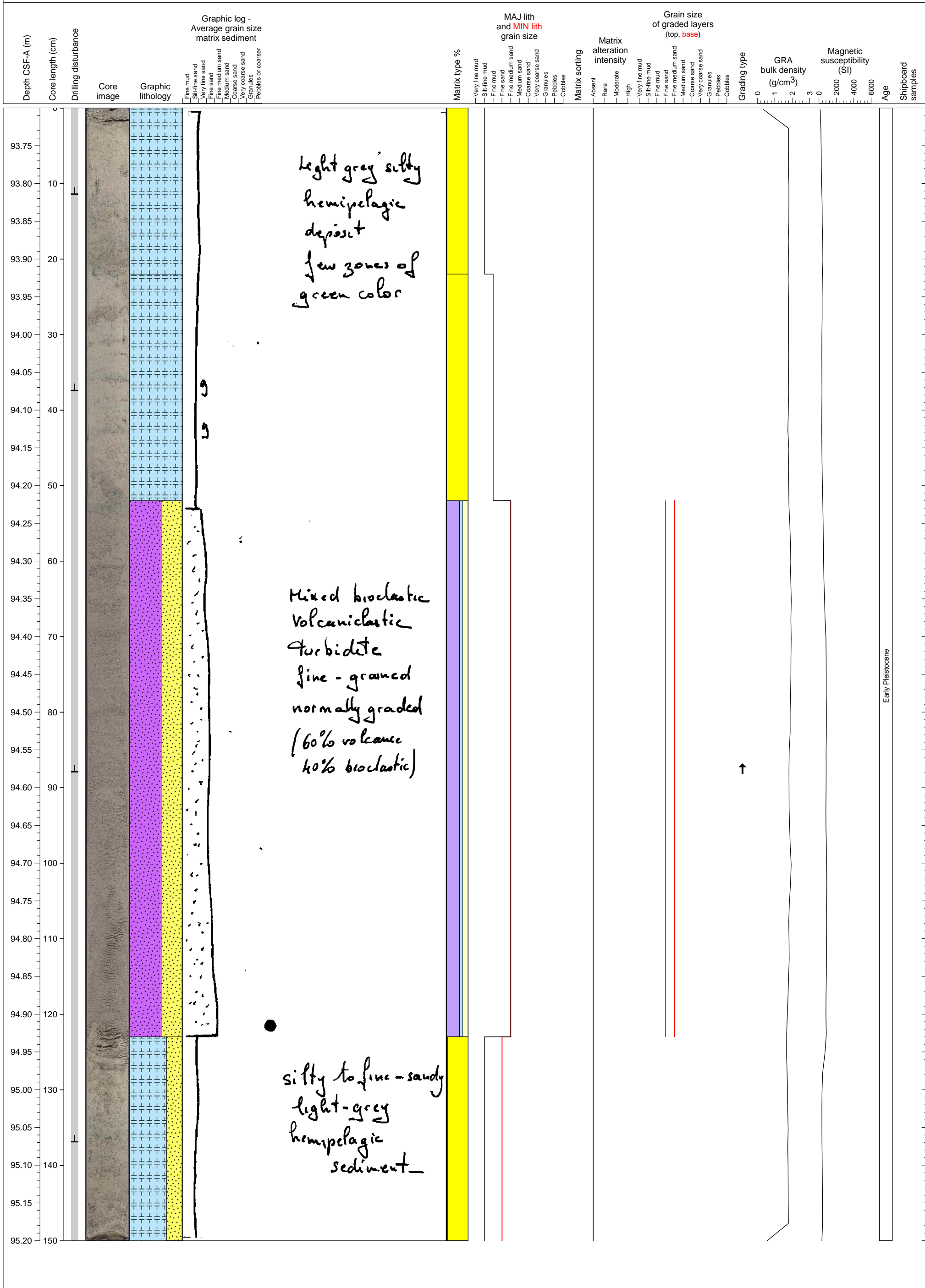
hemipelagic fine sediments with several intercalations of ashfall? layers



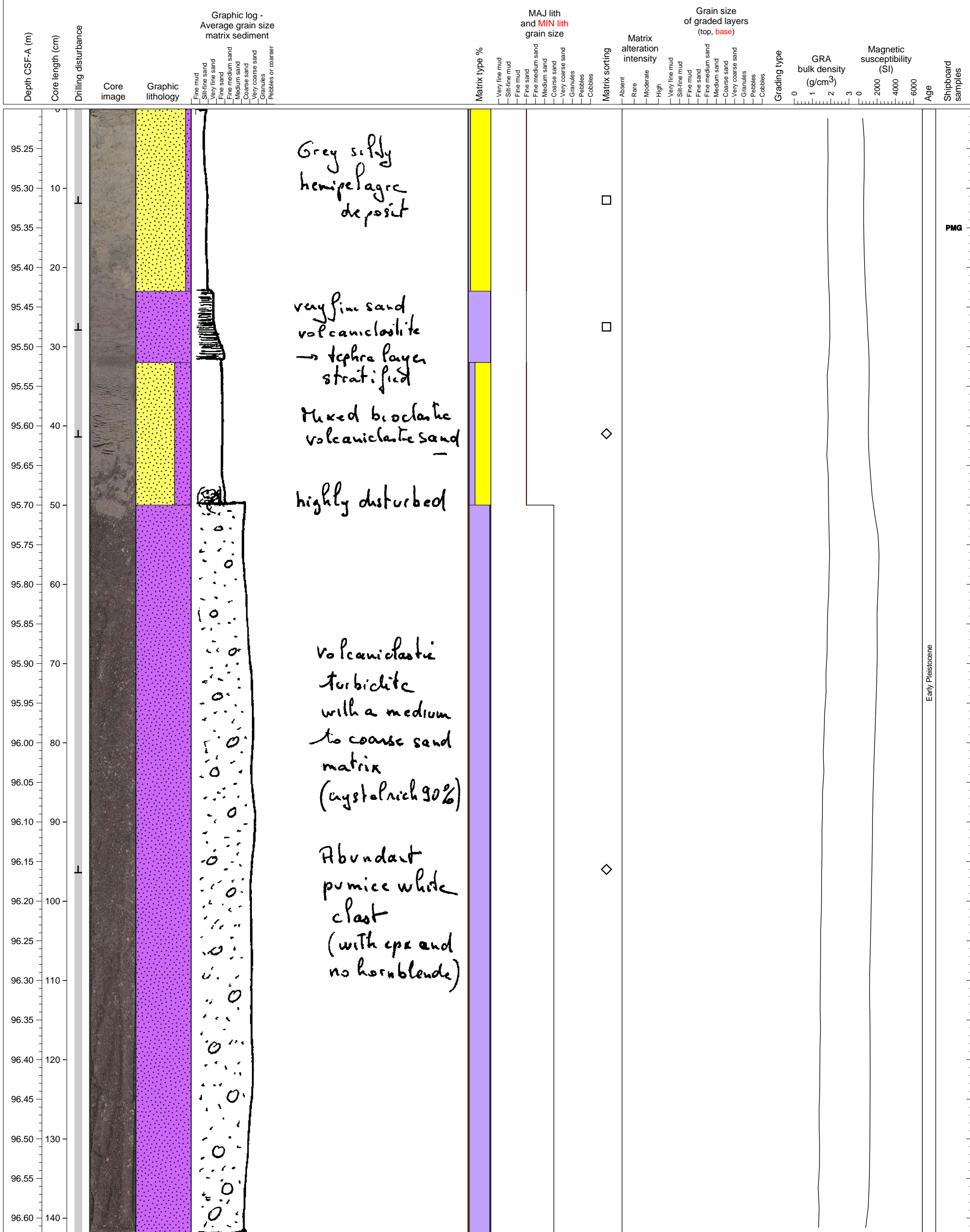
hemipelagic sediments intercalated with 8 thin layers of ashfall or volcanoclastic sand



hemipelagic sediments with 70 cm thick mixed turbidite in the middle of the section



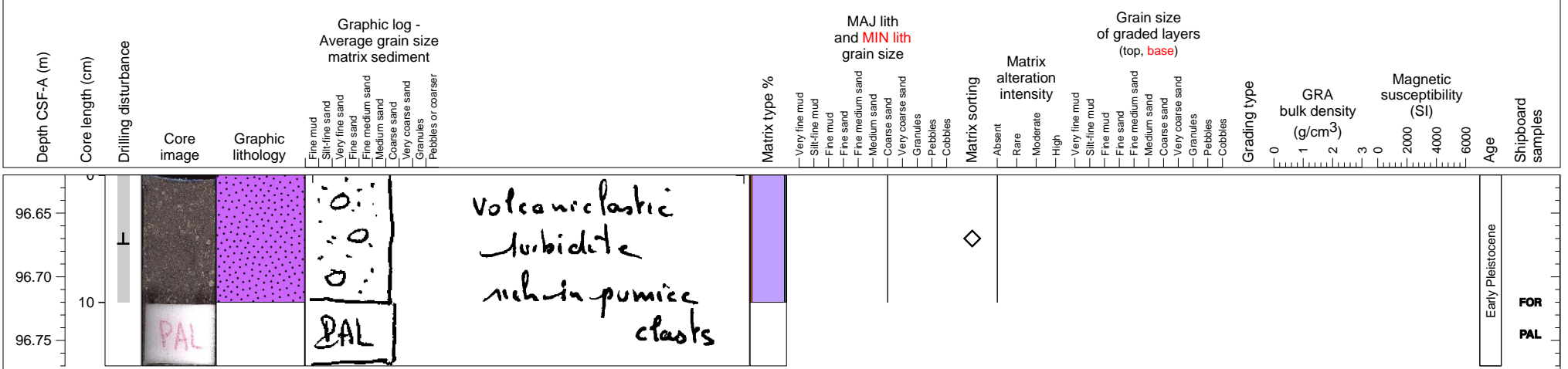
Hemipelagic sediment overlying a sequence of tephras and a thick volcanoclastic, pumice-rich turbidite.



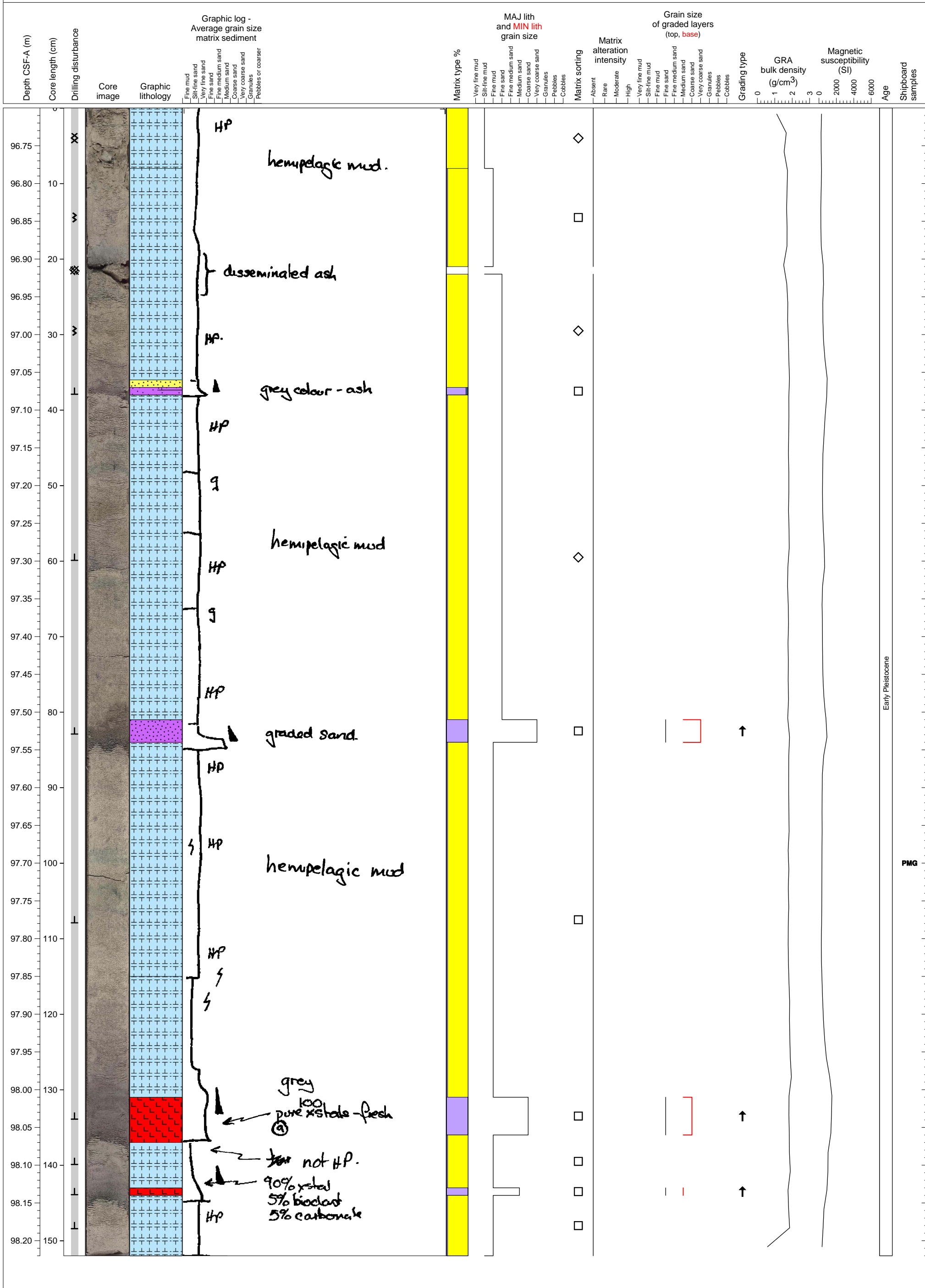
Early Pleistocene

PMG

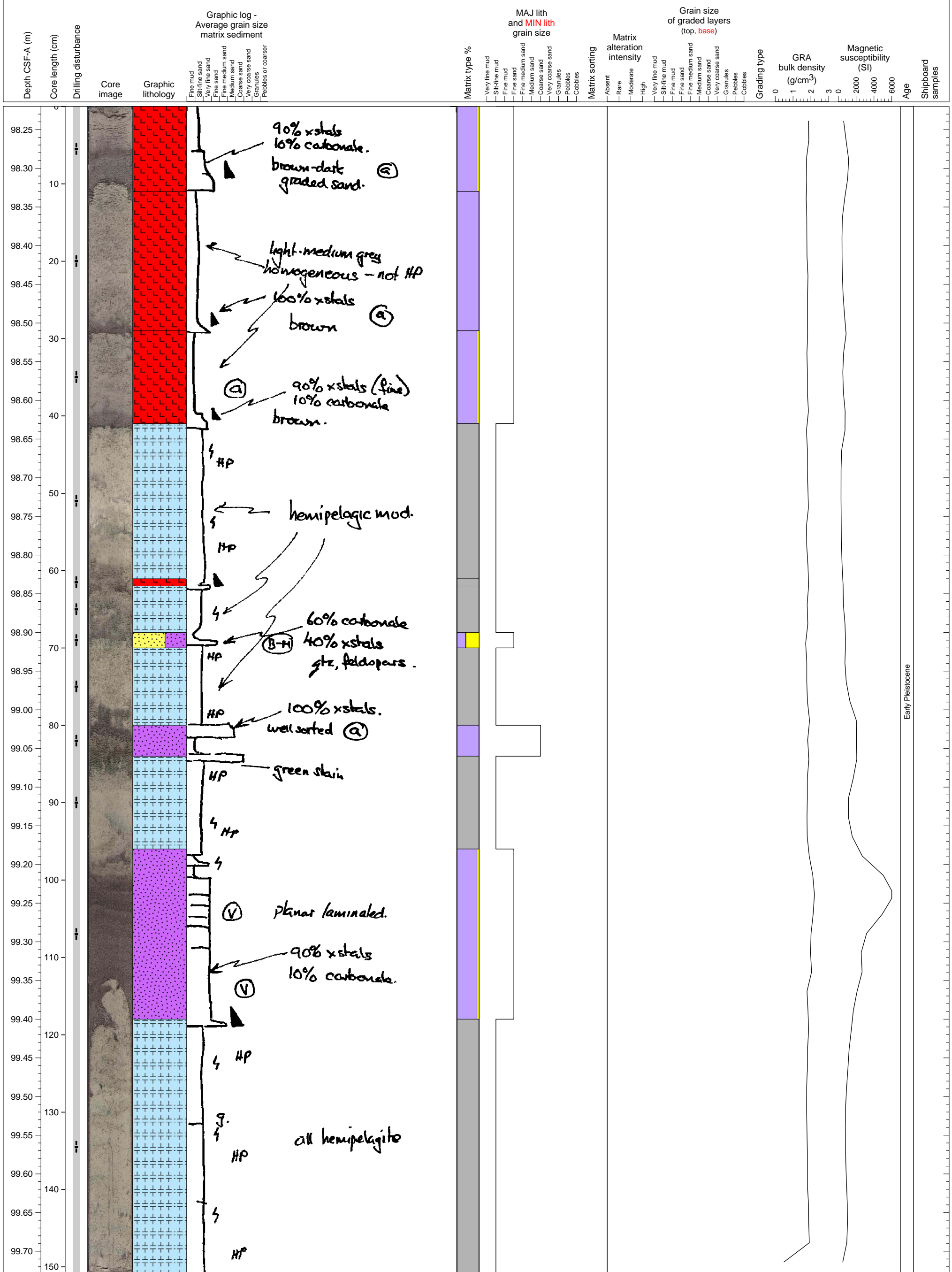
Volcaniclastic turbidite with small pumice clasts up to 10 mm.



Hemipelagic sediments with several thin to medium thick tephra layers.

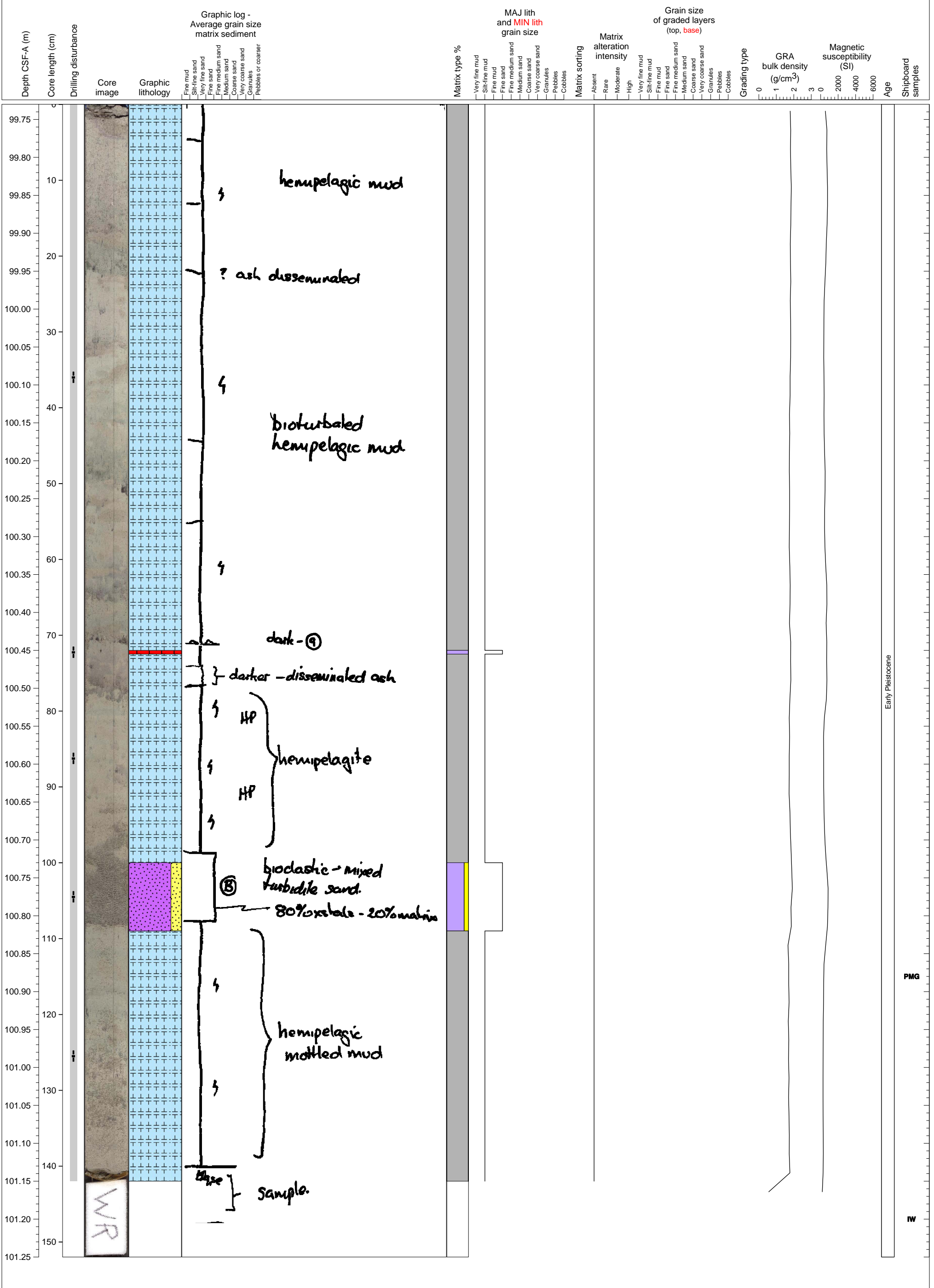


hemipelagic sediments intercalated with several ashfall? layers

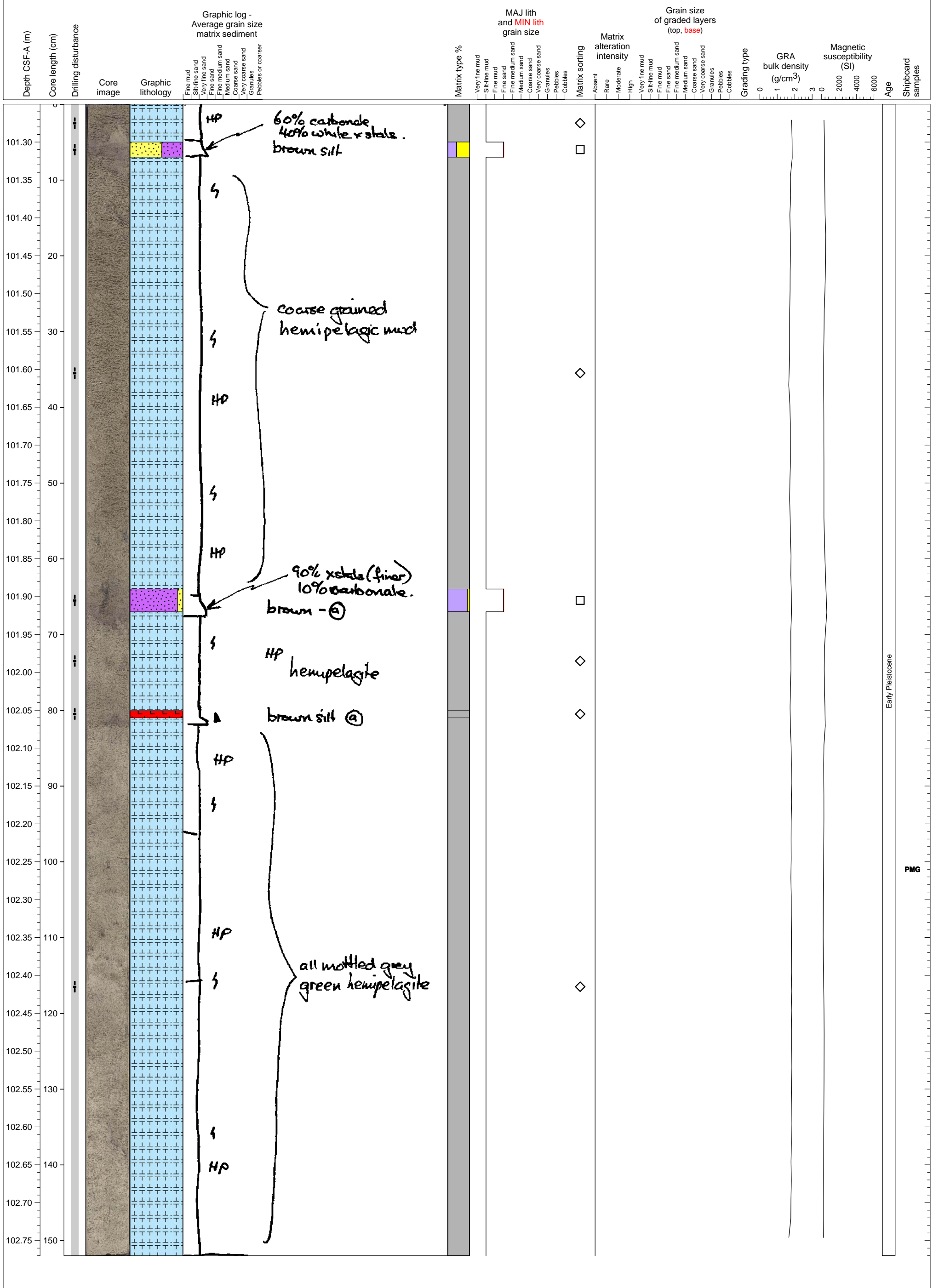


Early Pleistocene

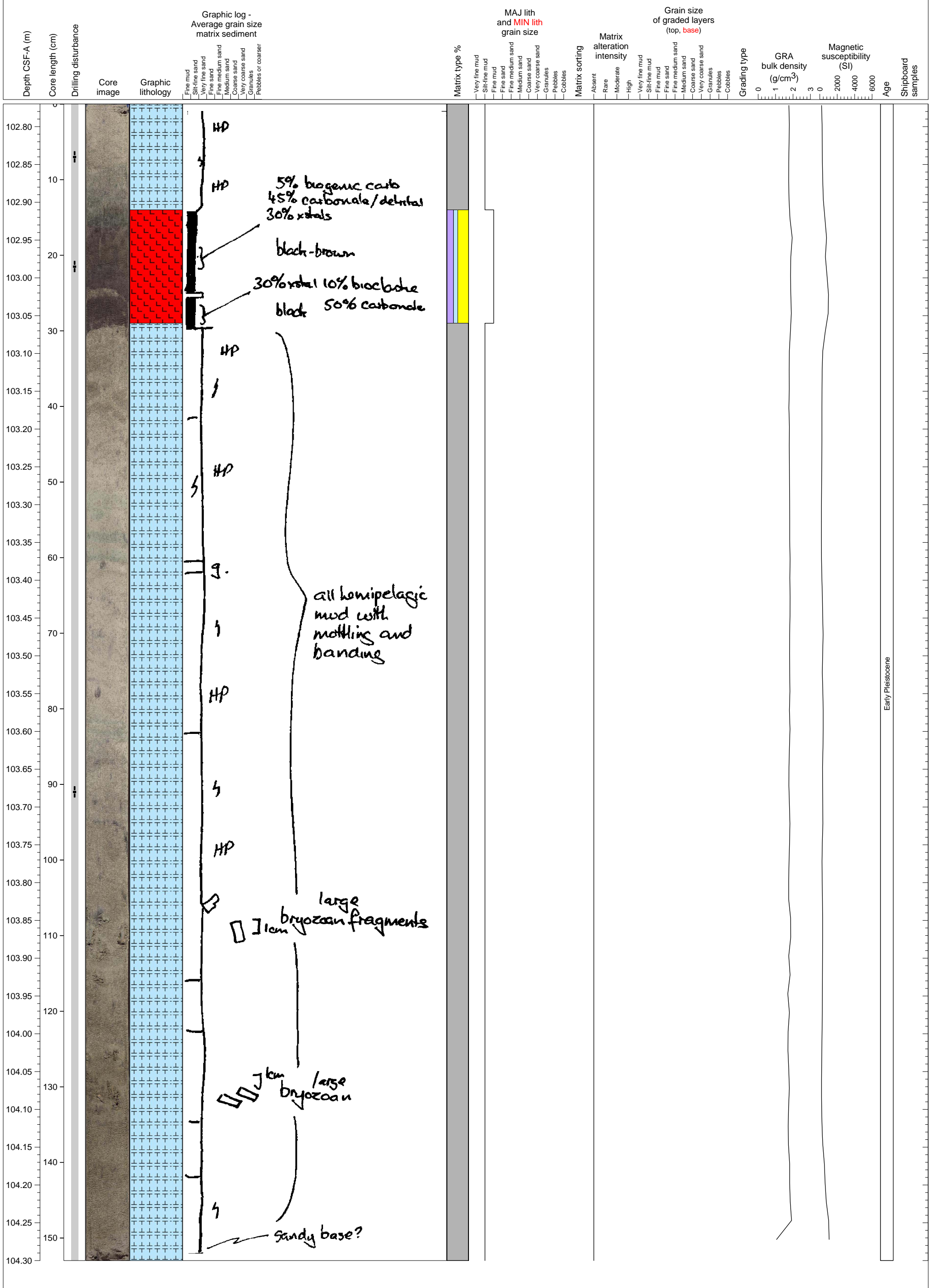
hemipelagic sediments with intercalations of ashfall? layers



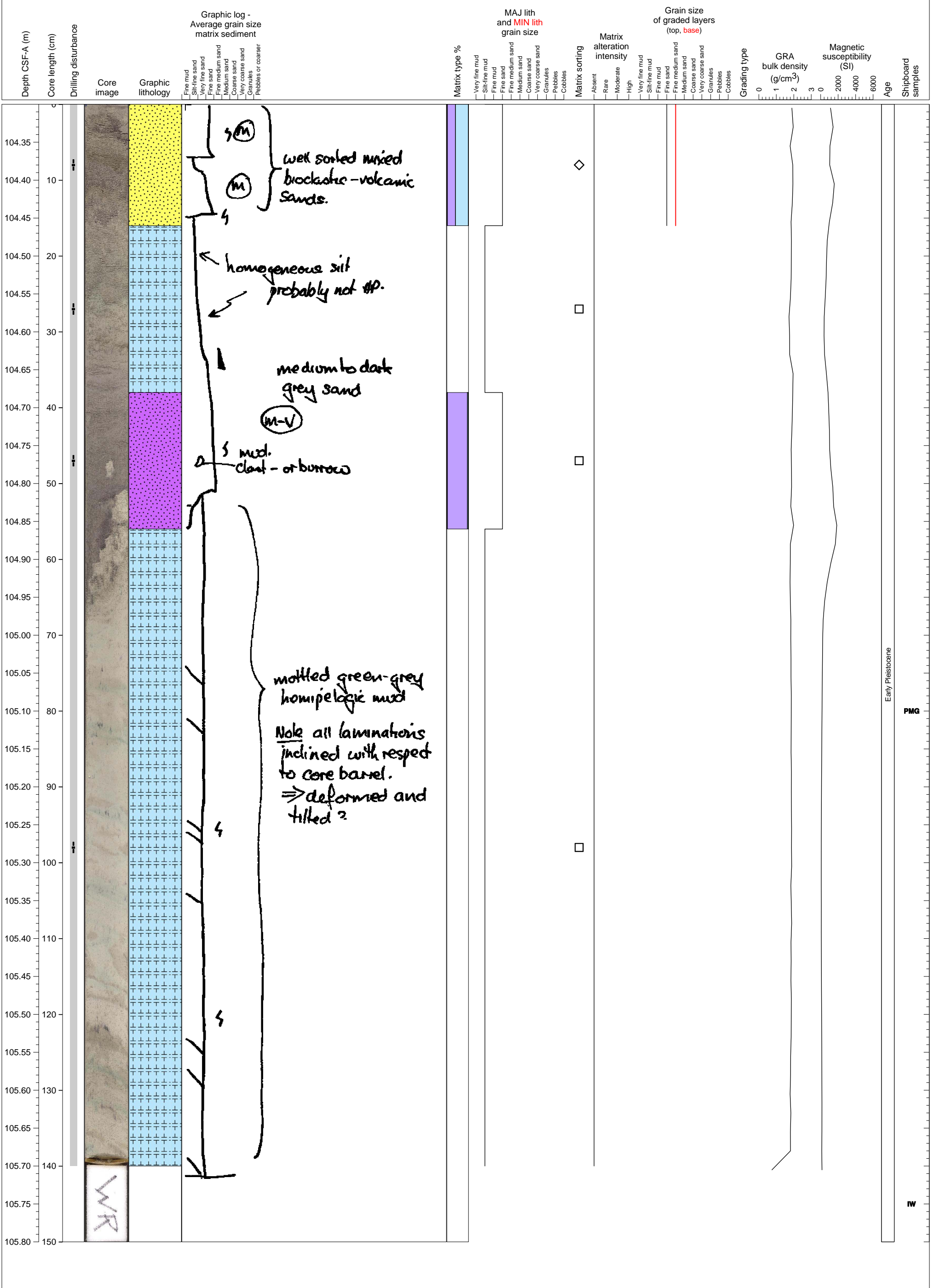
hemipelagic sediments with intercalations of ashfall? layers



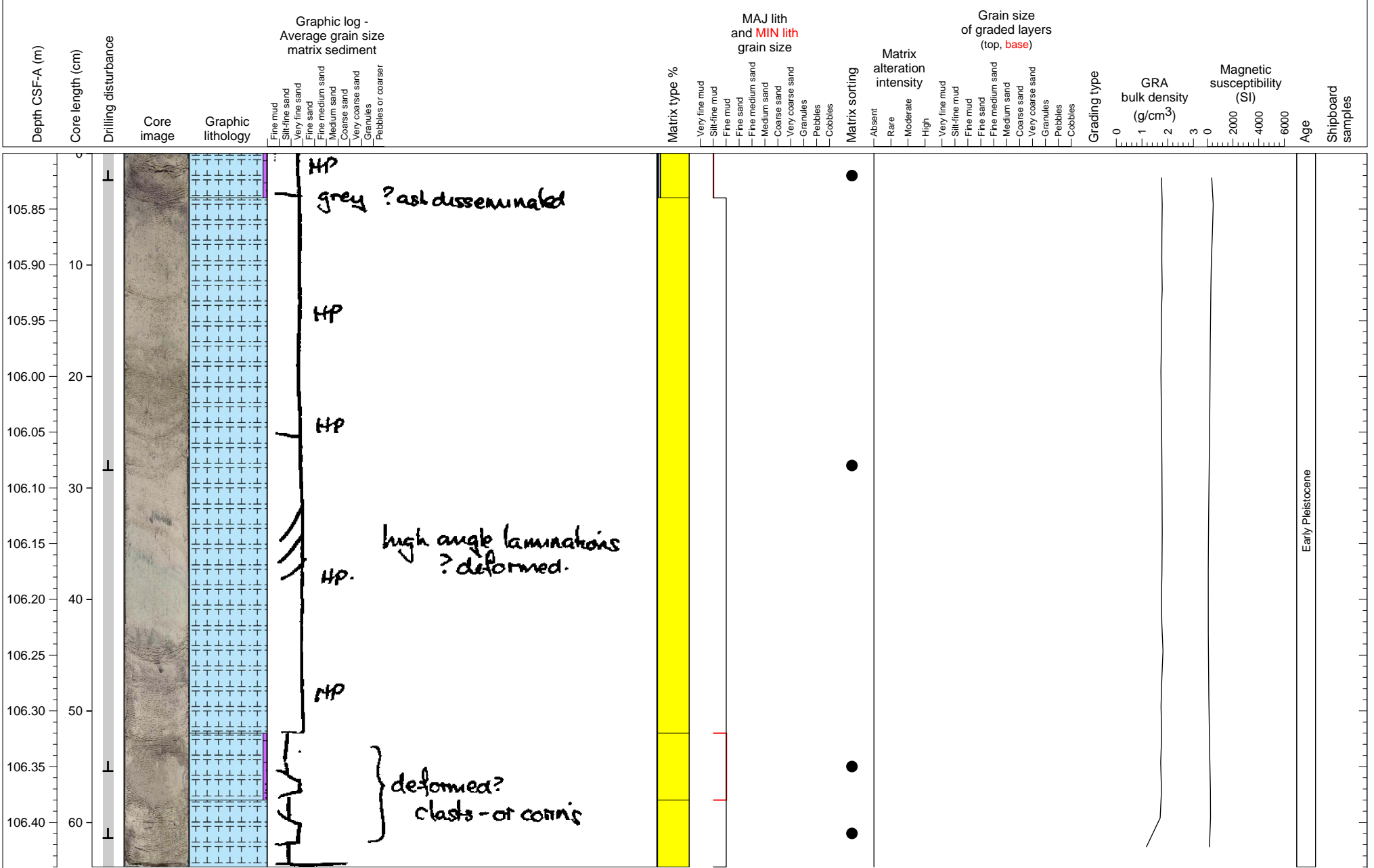
hemipelagic sediments with intercalation of 1 ashfall? layer



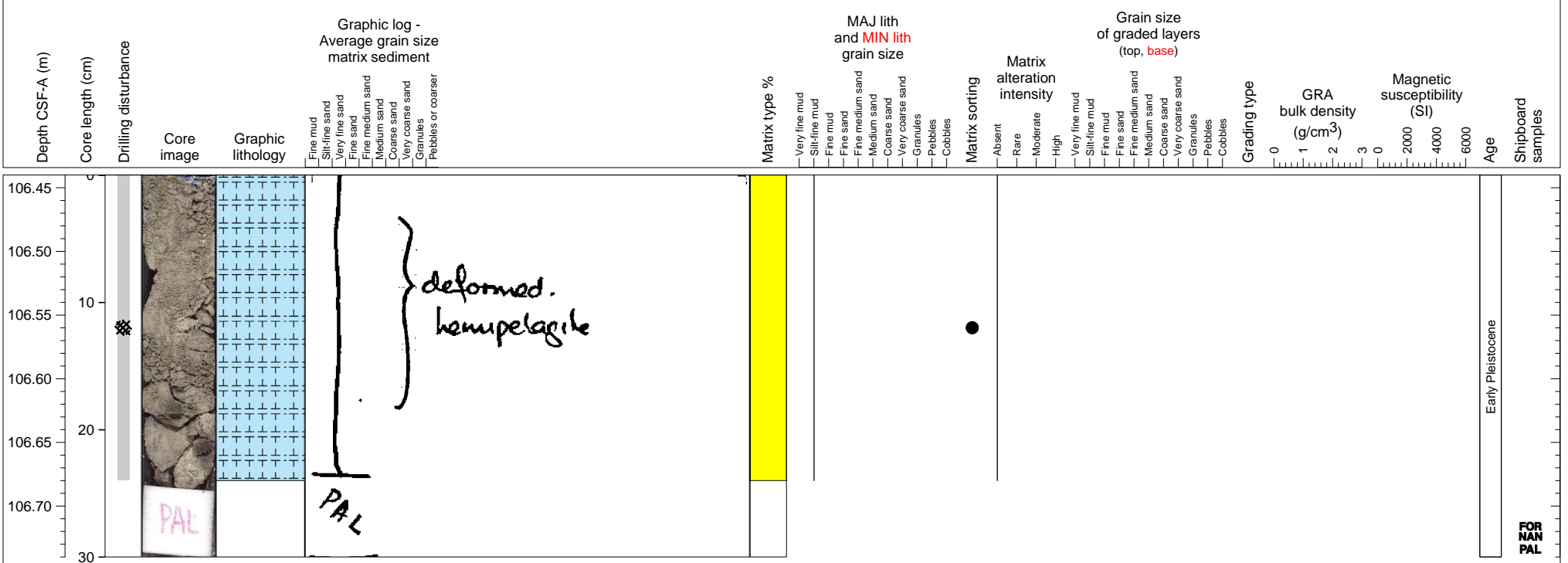
hemipelagic sediments



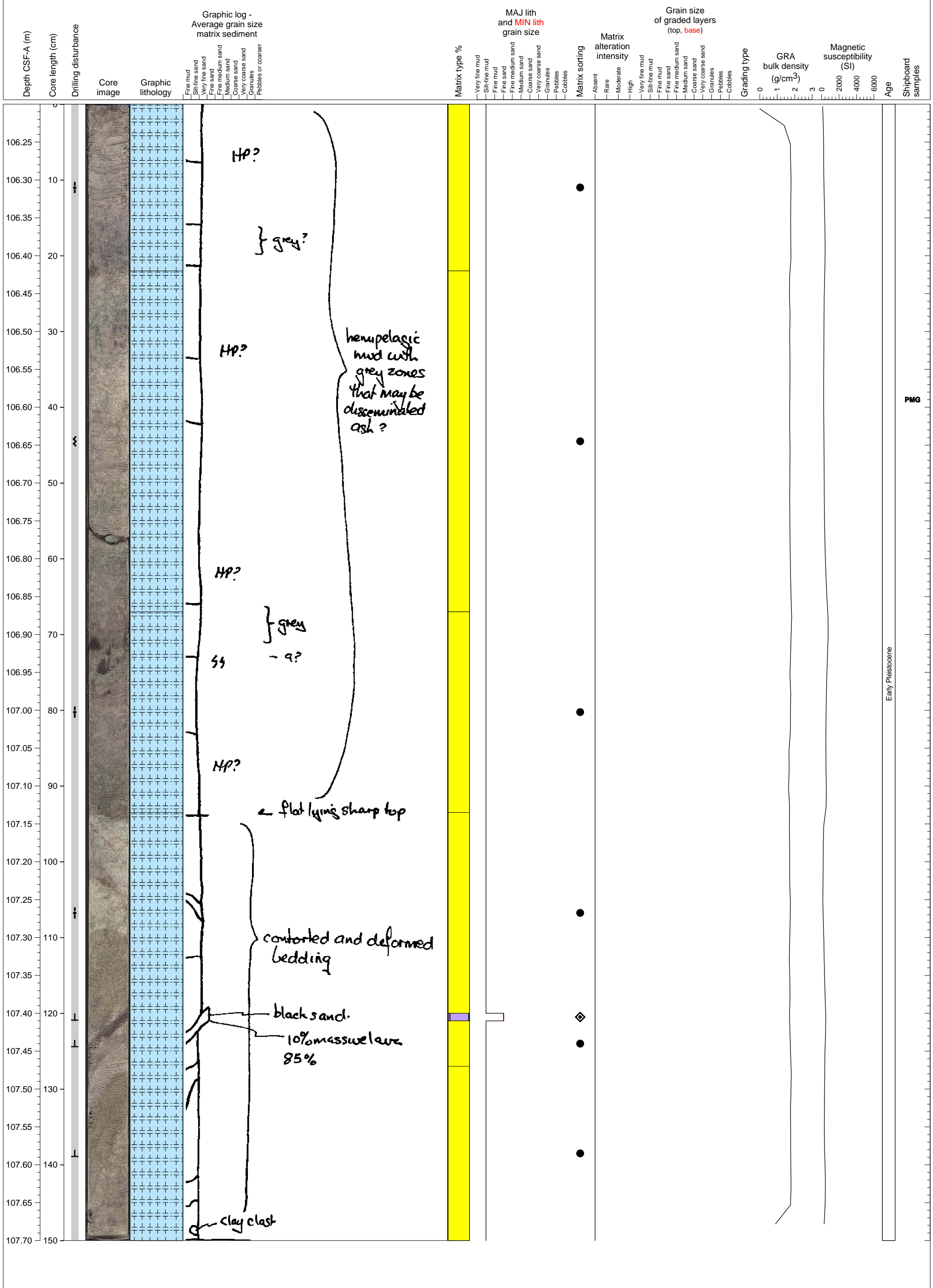
Basically hemipelagic sediments. Top unit contains a few abundant volcanoclastic material.



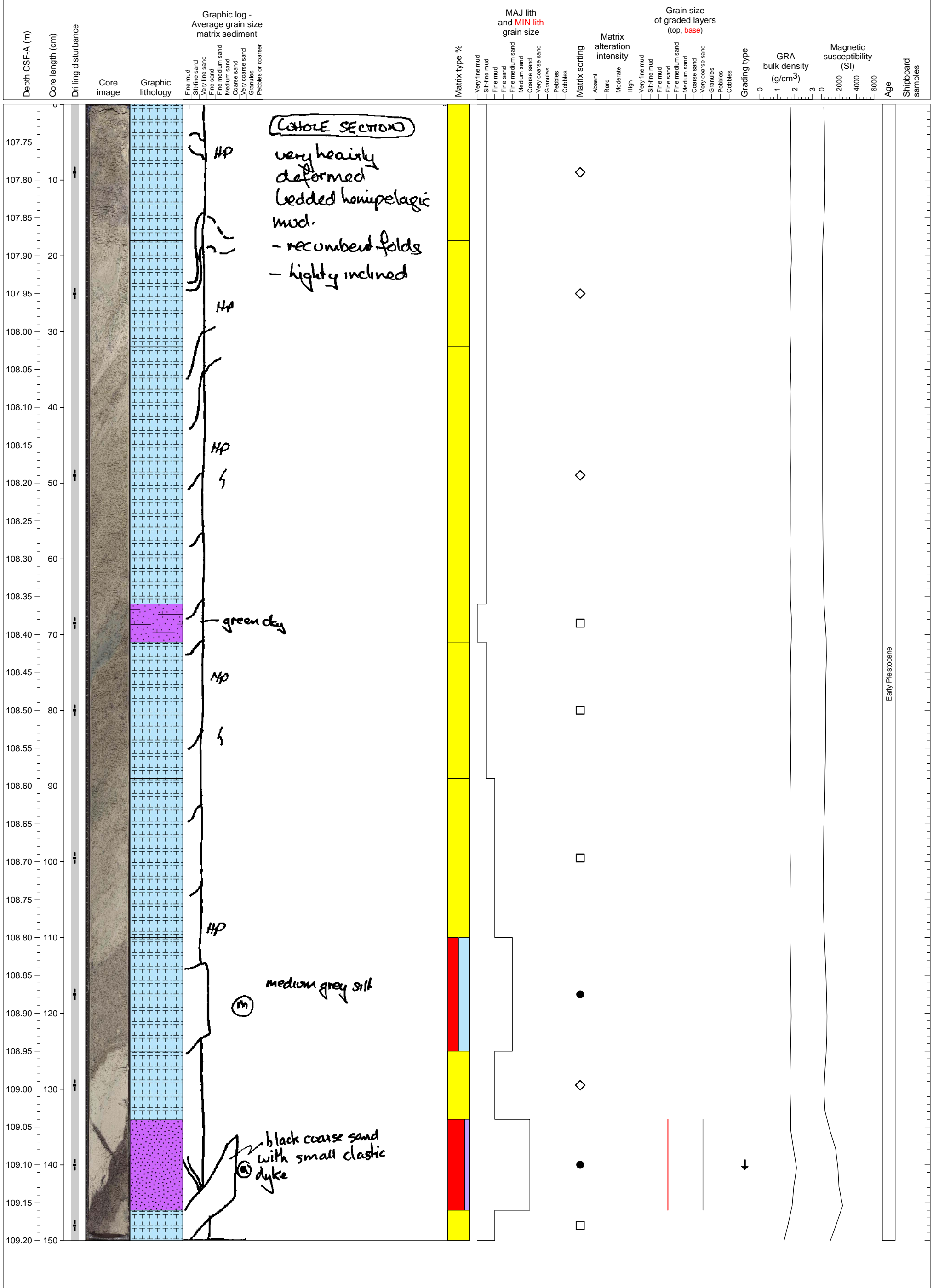
Hemipelagic clay. PAL sample from section base.



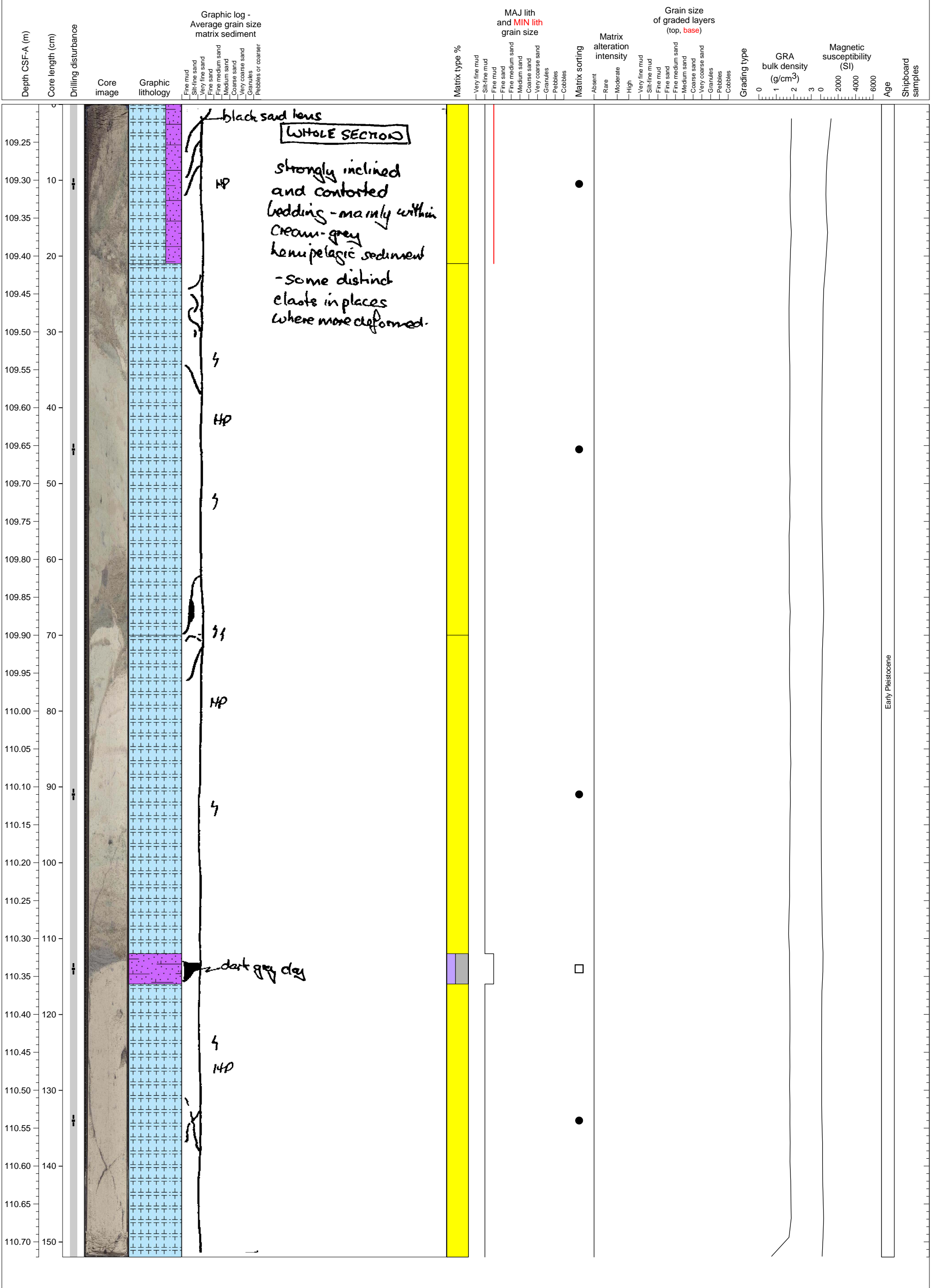
Layering hemipelagic sediments interlayered a potential tephra layer. Lower 1 m is deformed, which is continuous from below section.



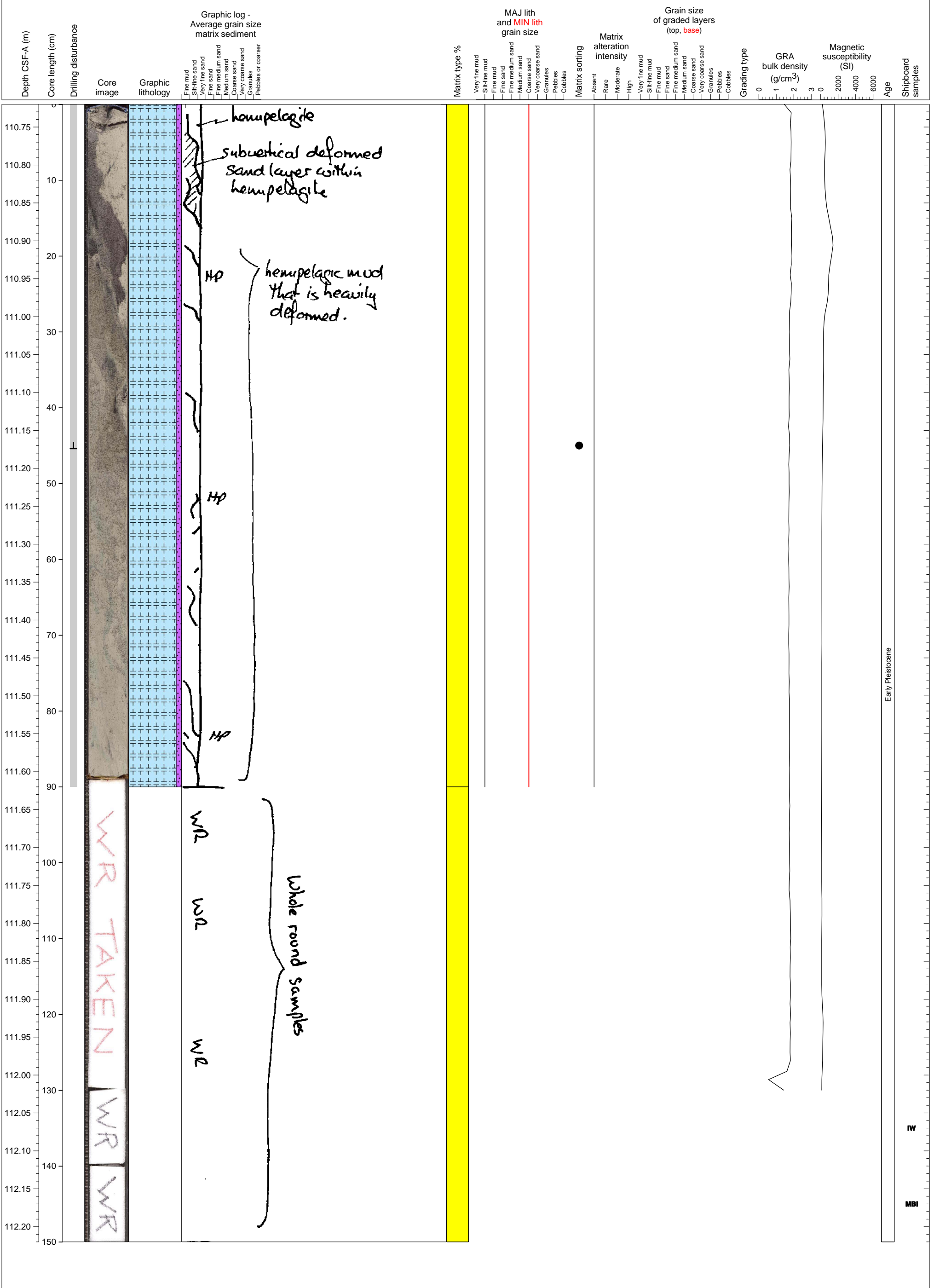
*** Math Text Error ***



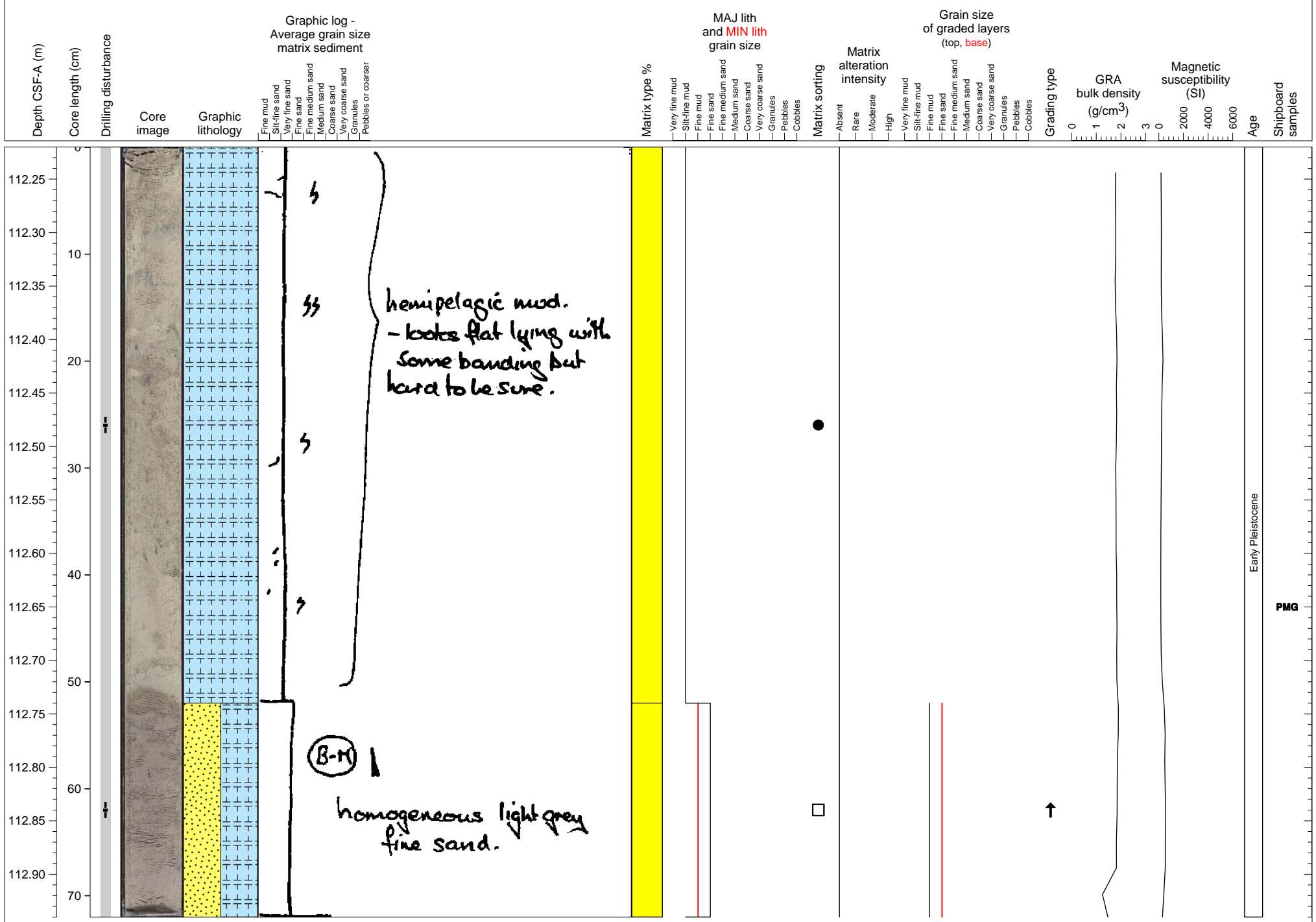
Hemipelagic clay with varying volcanoclastic input. Small deformed volcanoclastic mud layer. Clastic dikes present throughout.



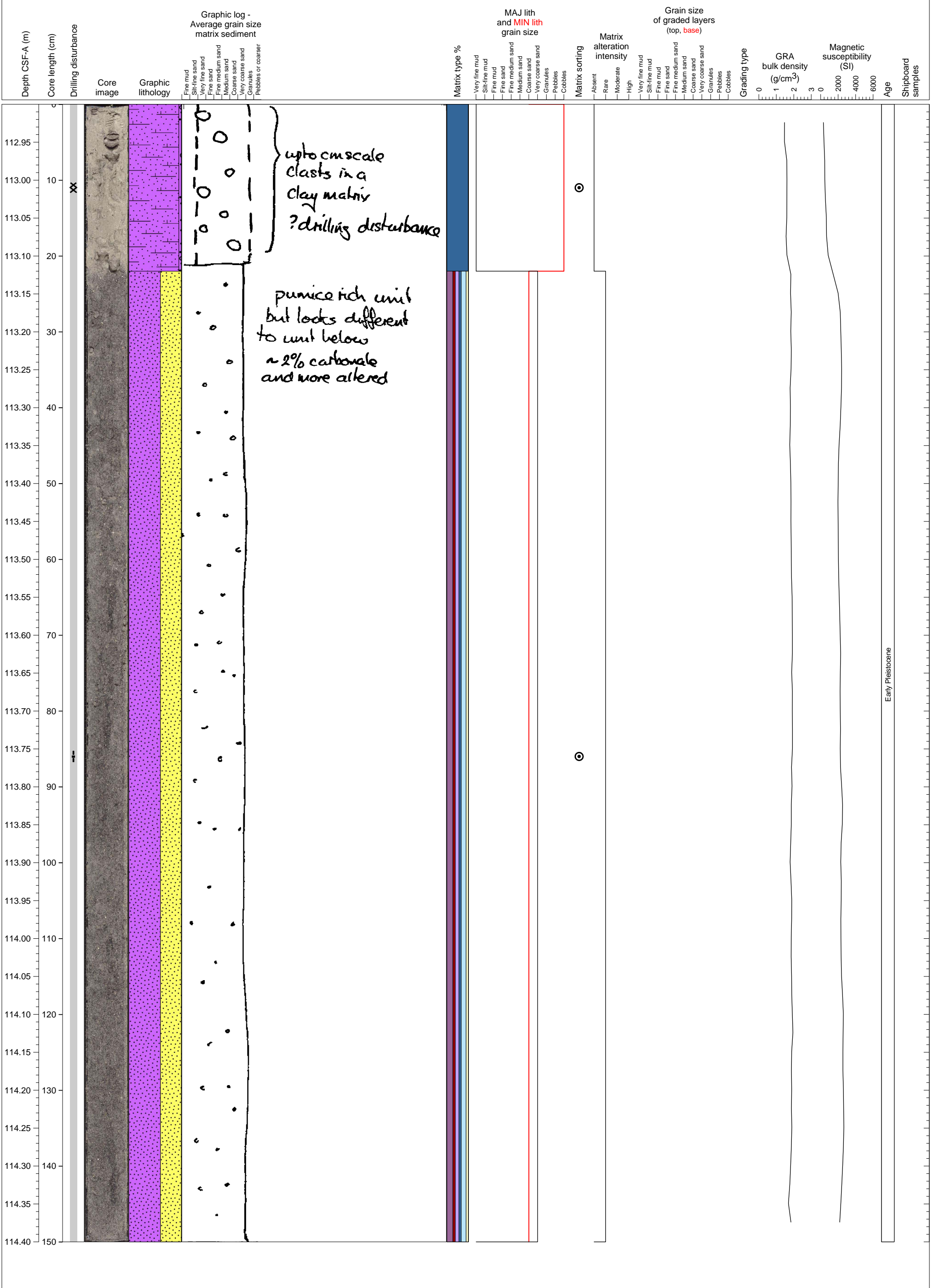
Hemipelagic clay with coarse volcanoclastic sand introduced through clastic dikes that are present throughout core. WR taken from section base.



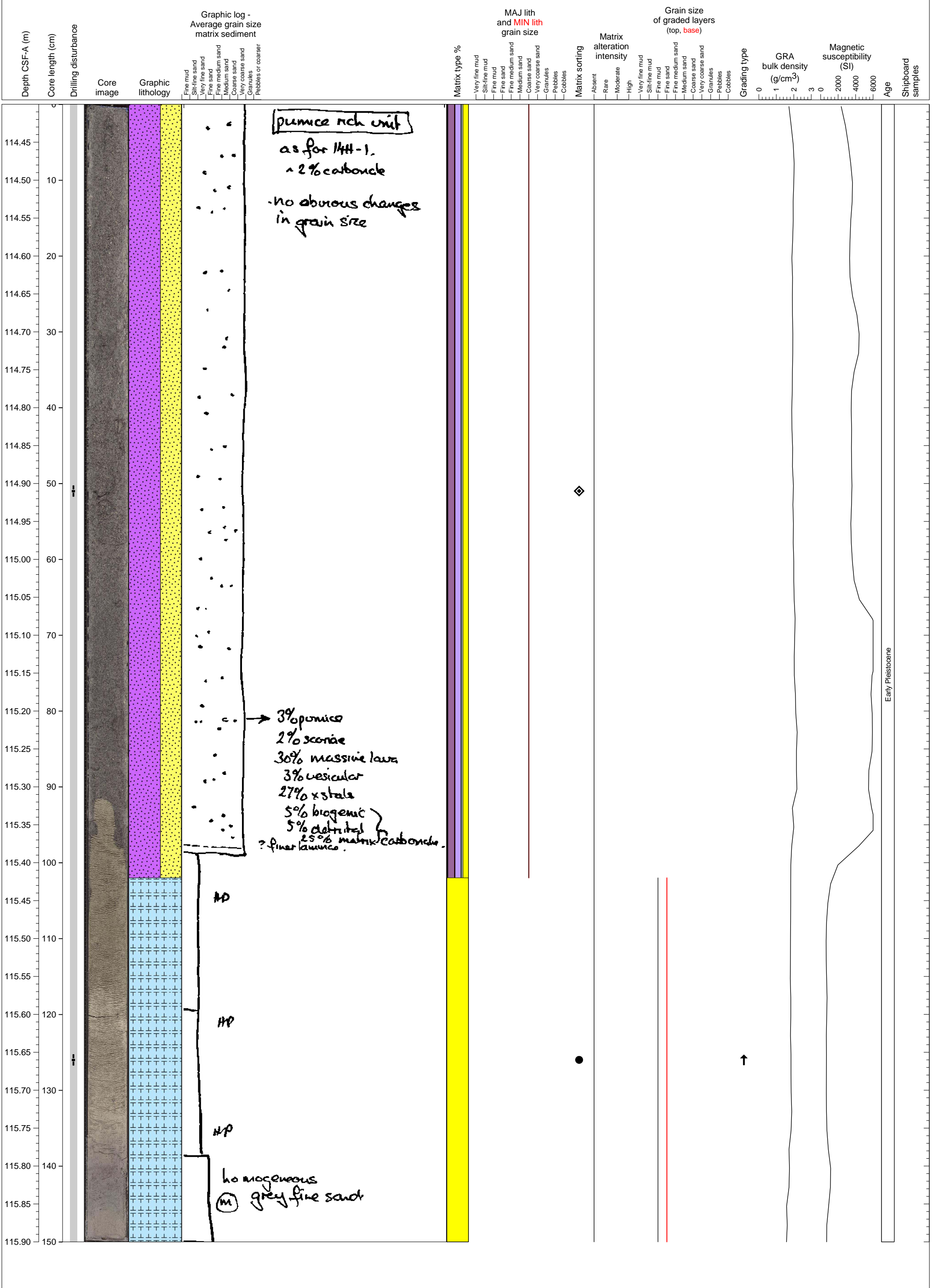
Hemipelagic clay overlying fining upward calcareous sequence.



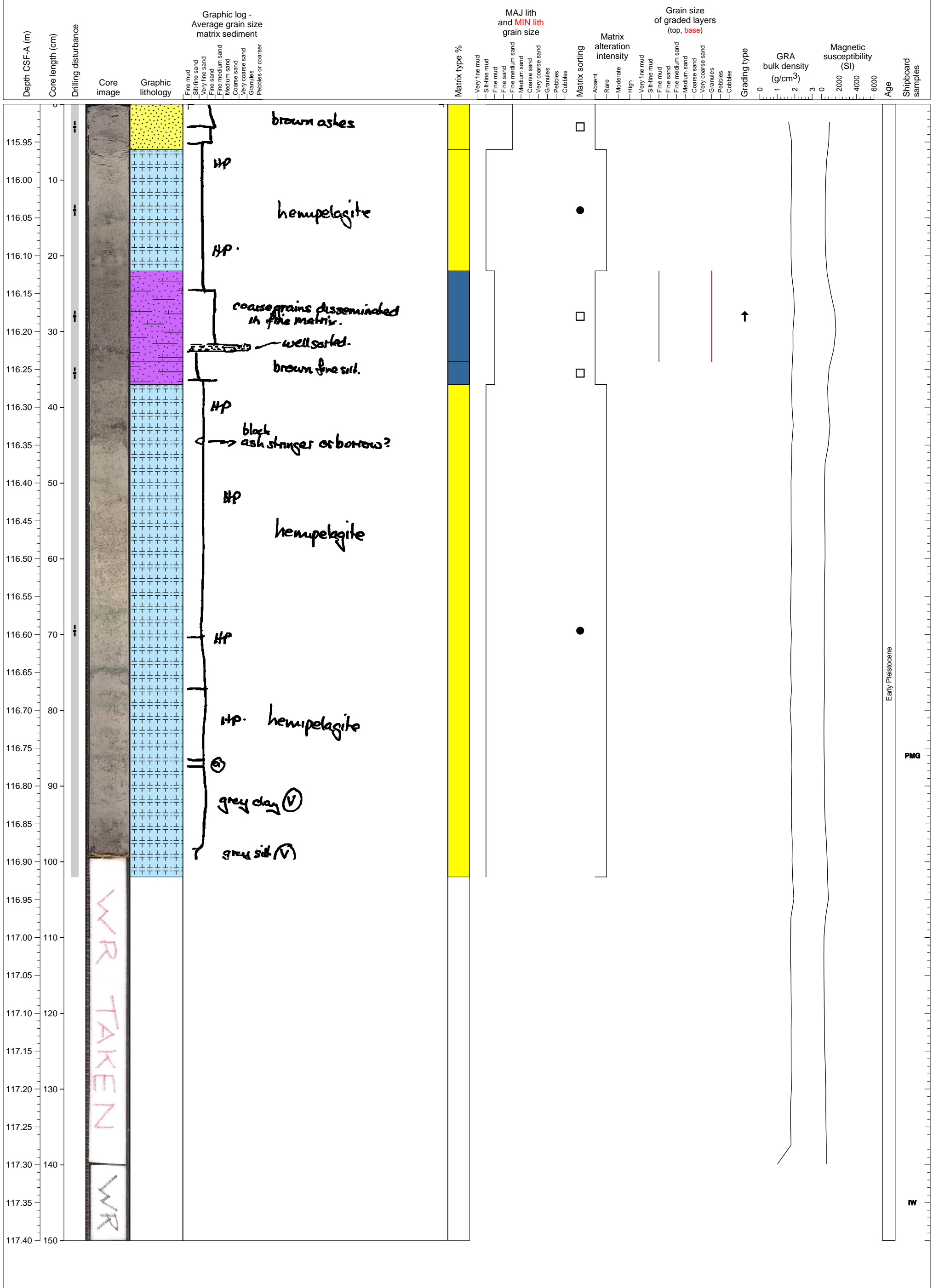
A thick volcanoclastic turbidite sequence (1.3m) overlain by hemipelagic fines



Coarse volcanoclastic/bioclastic sand overlying fining upward hemipelagic clay.

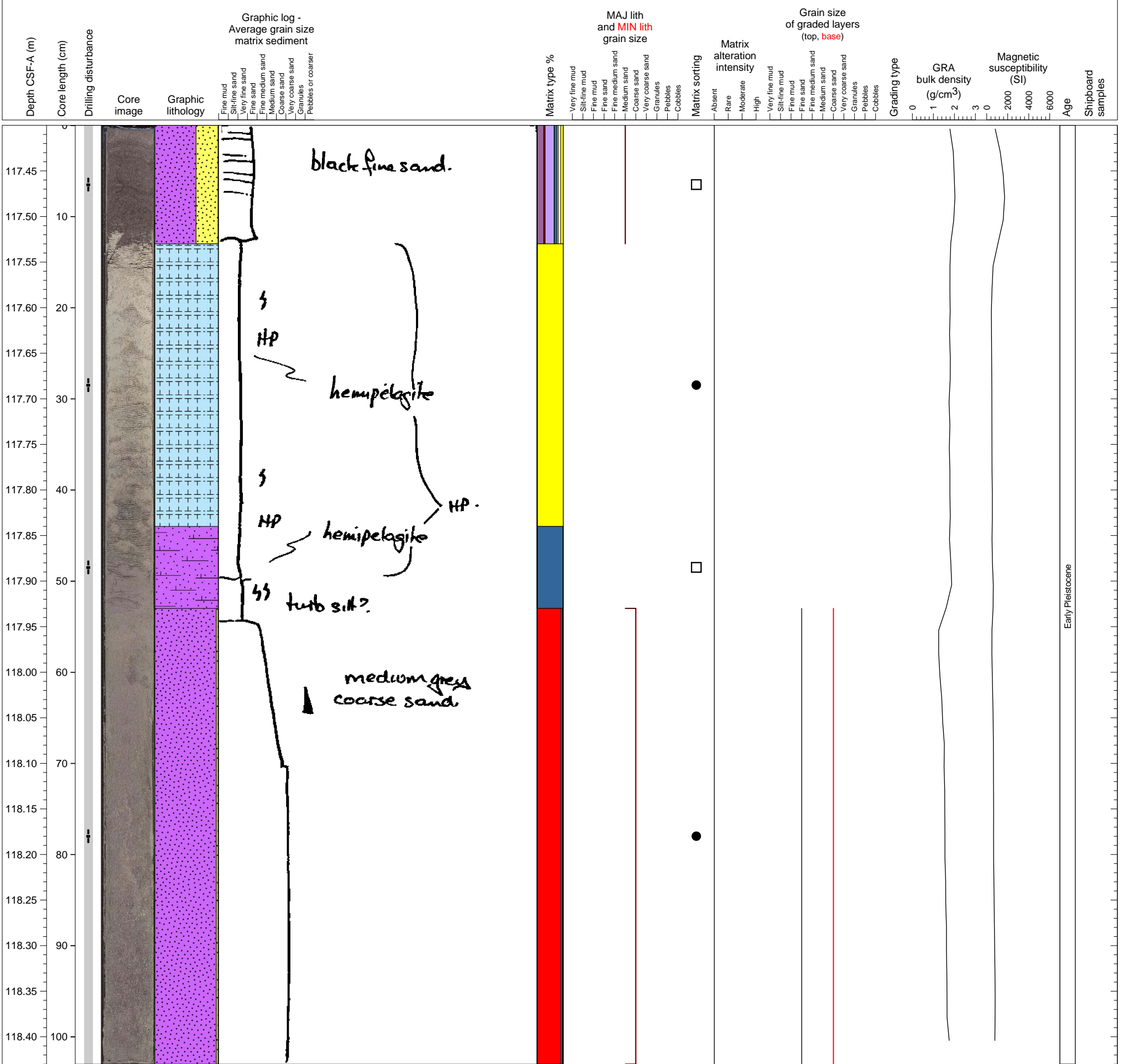


Hemipelagic clay interlayered with volcanoclastic unit fining upwards from granulaes to mud. WR taken from section base.

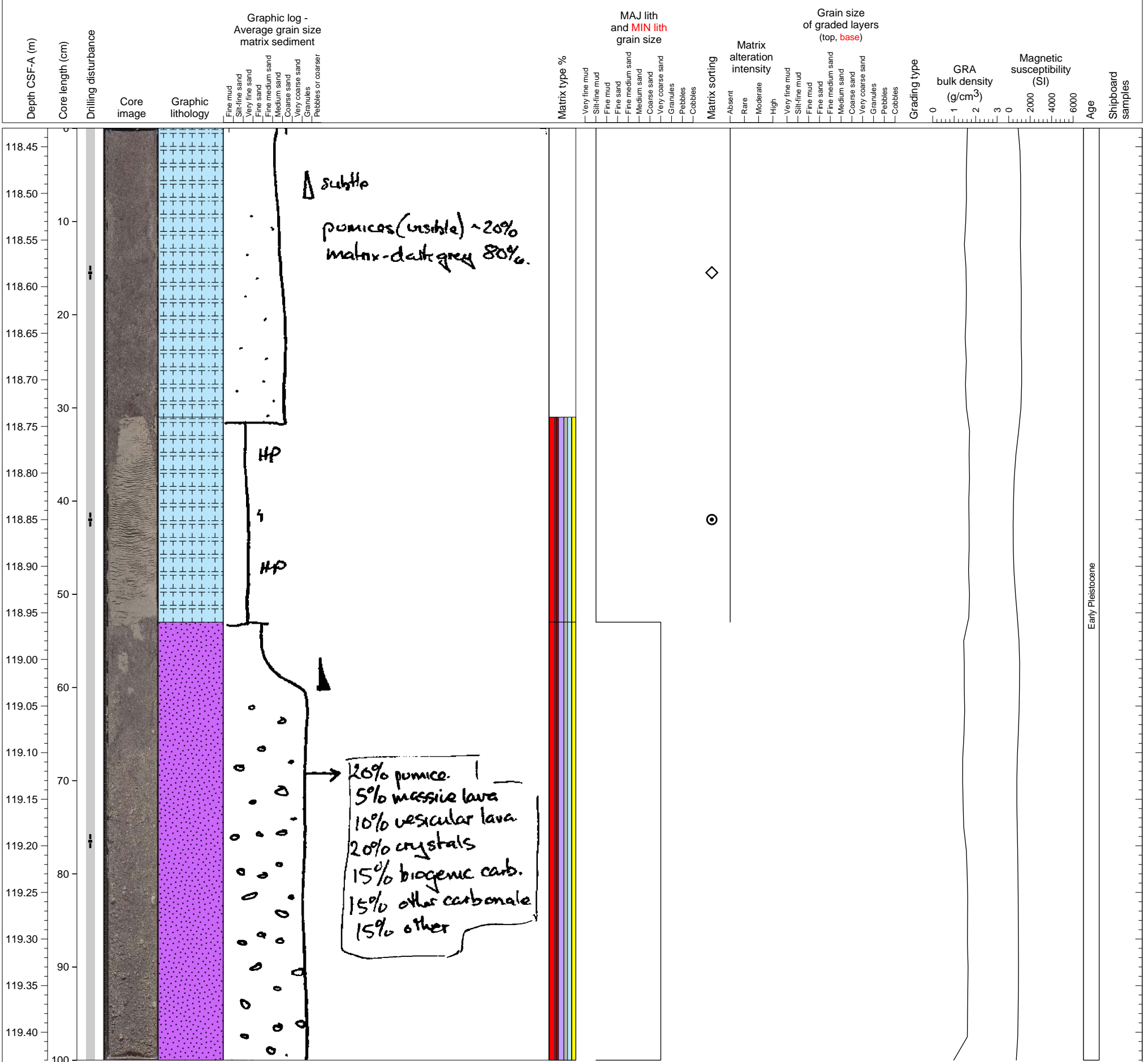


Hole 340-U1395B-14H Section 4, Top of Section: 117.4 CSF-A (m)

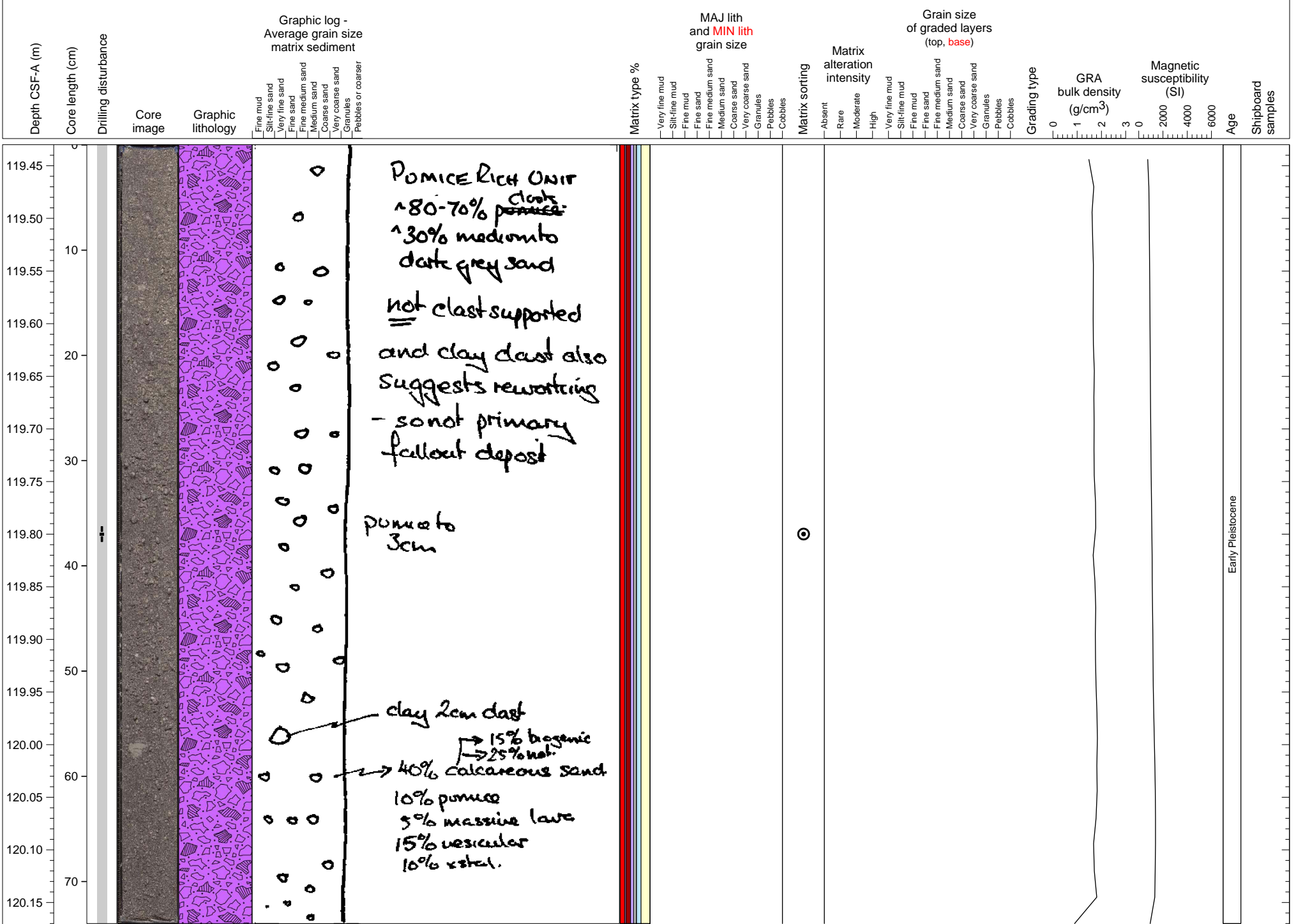
Upper part is sandy volcanoclastic turbidite, continuing from the previous section, and the lower part is pumice-rich turbidite with normal grading.



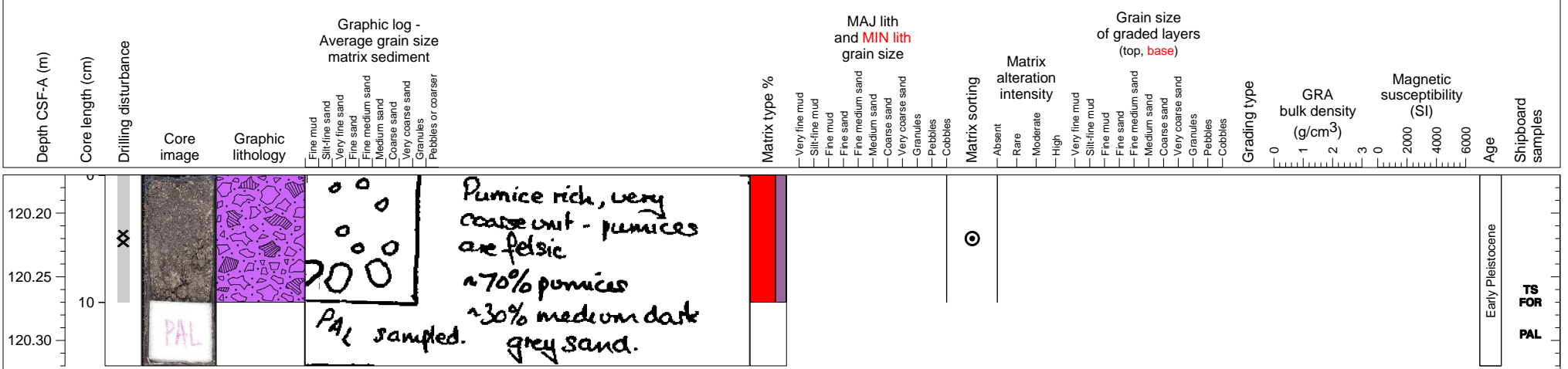
volcaniclastic turbidite within hemipelagite



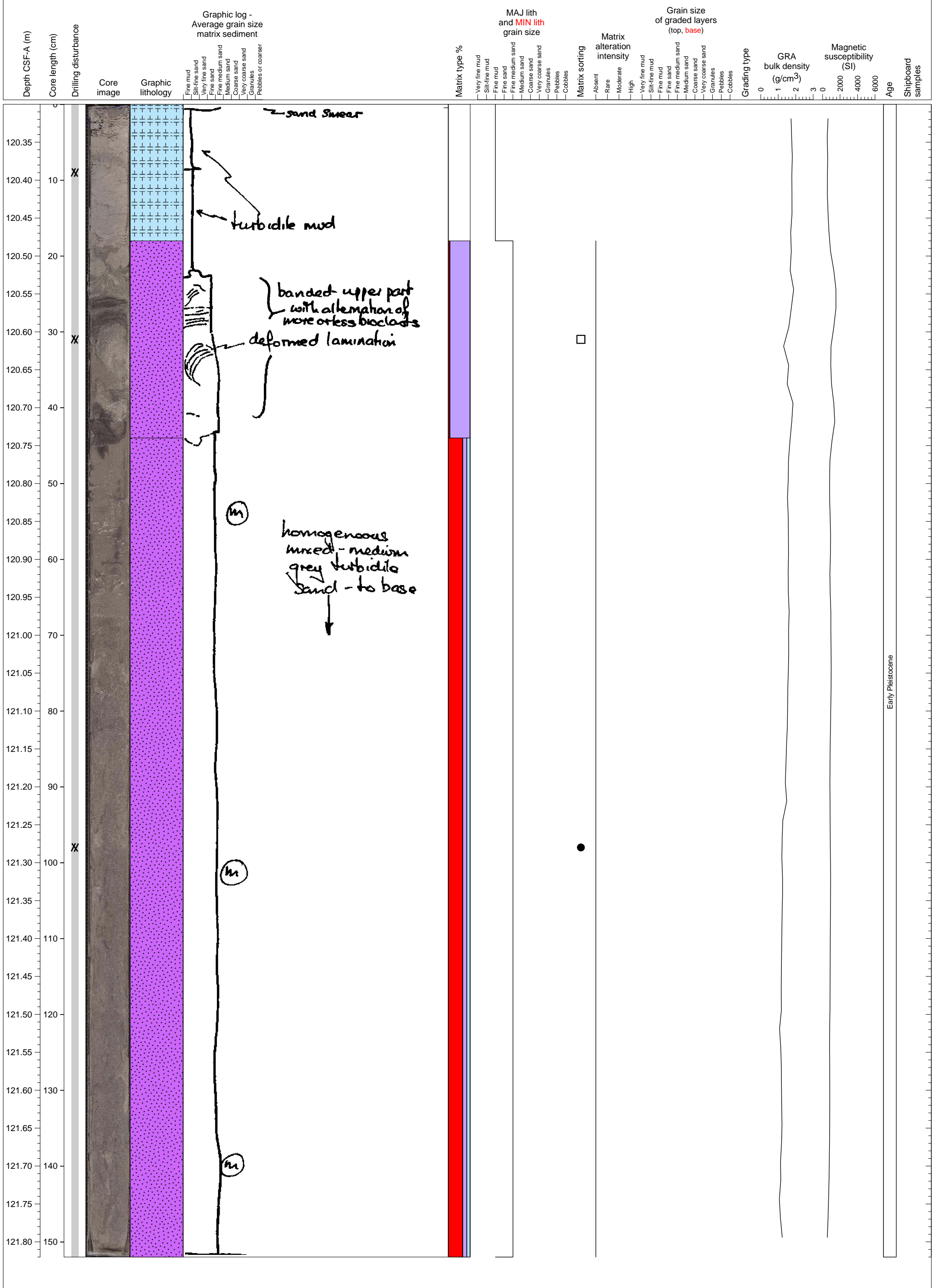
part of coarse-grained volcanoclastic turbidite



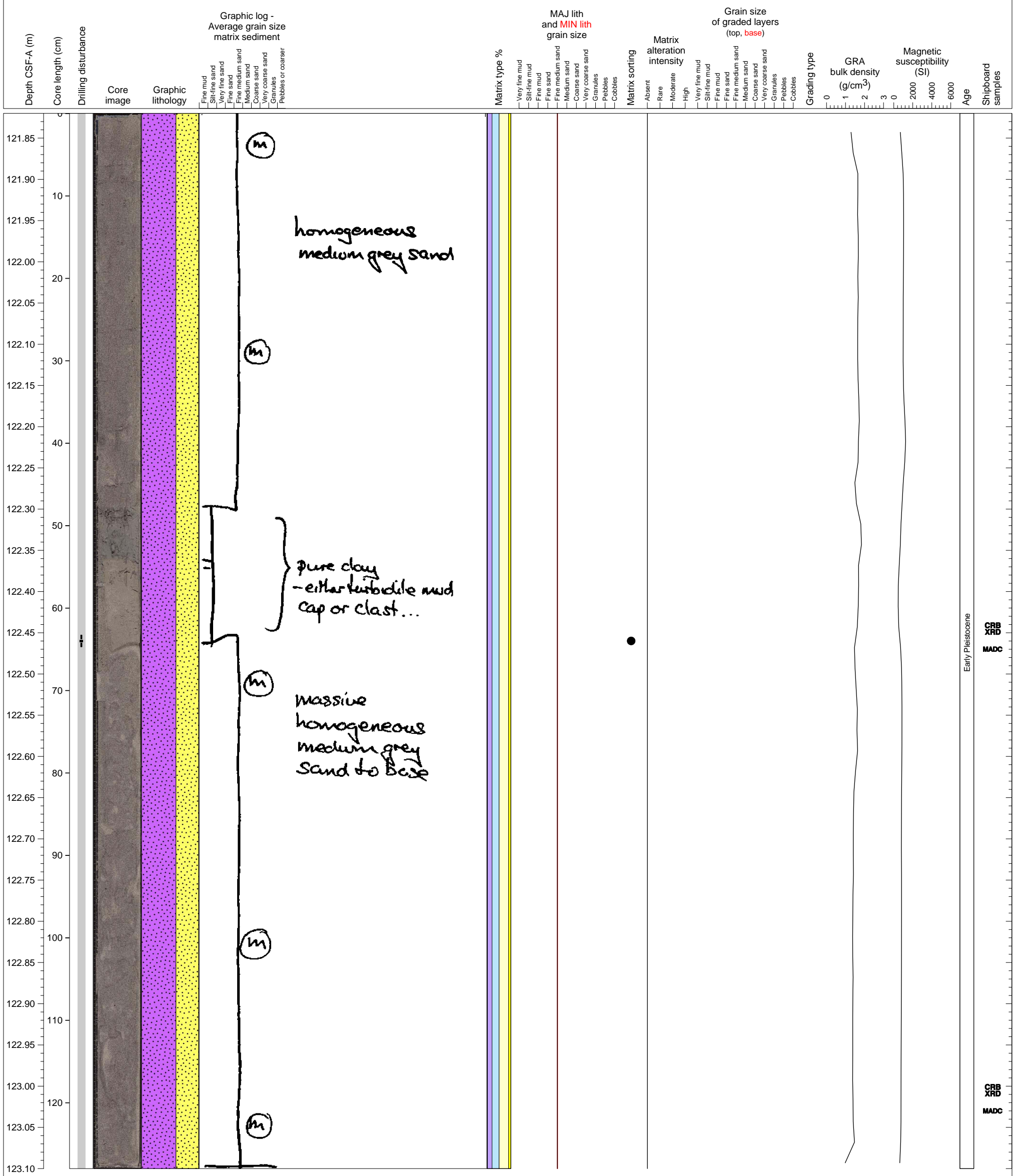
volcaniclastic breccia in core catcher



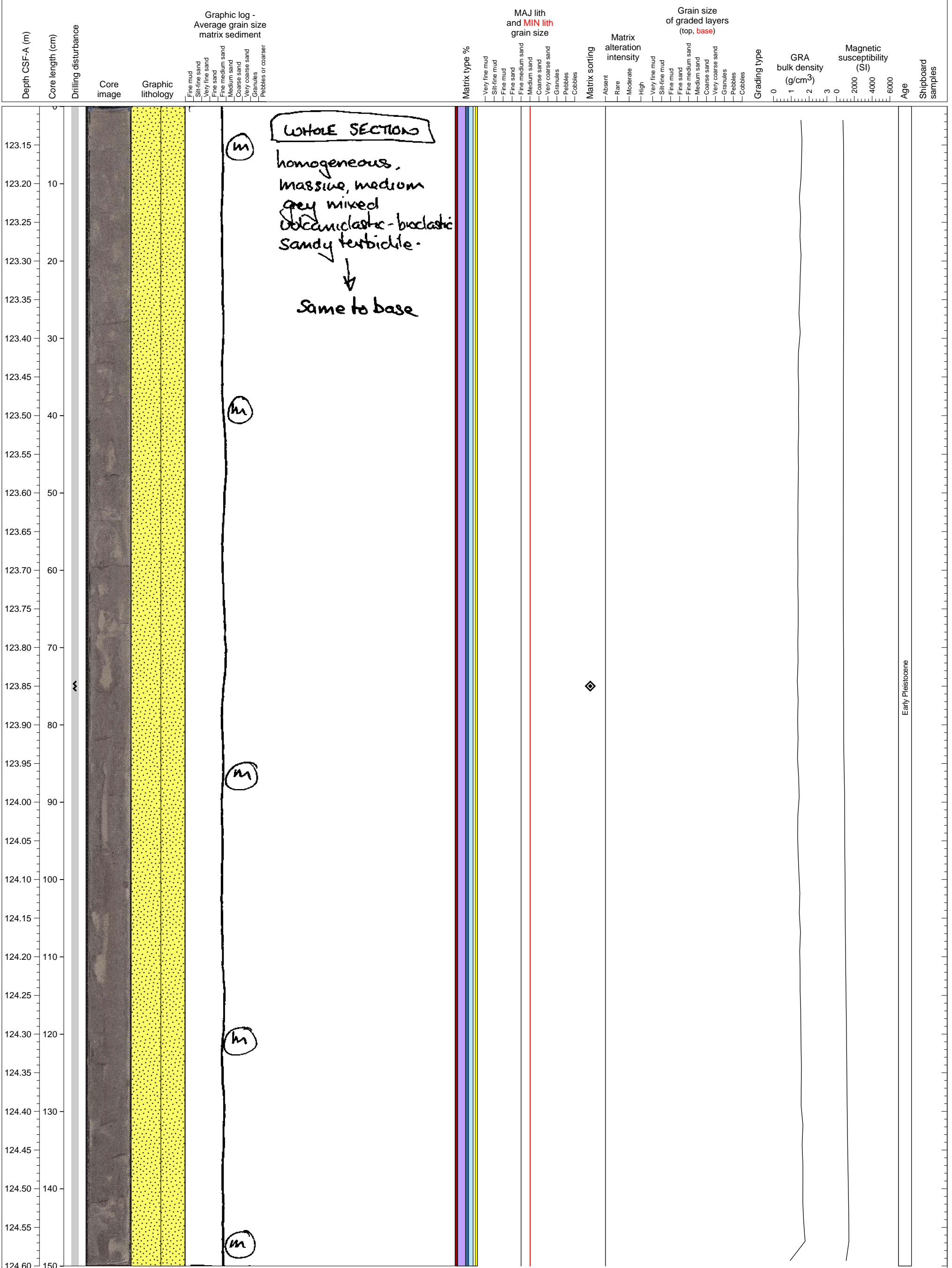
This section has a well sorted volcanic sand which is deemed as a fallout tephra layer from 18 cm to 44 cm. Most part are also volcanic sand but about 15 % biogenic materials are contained.



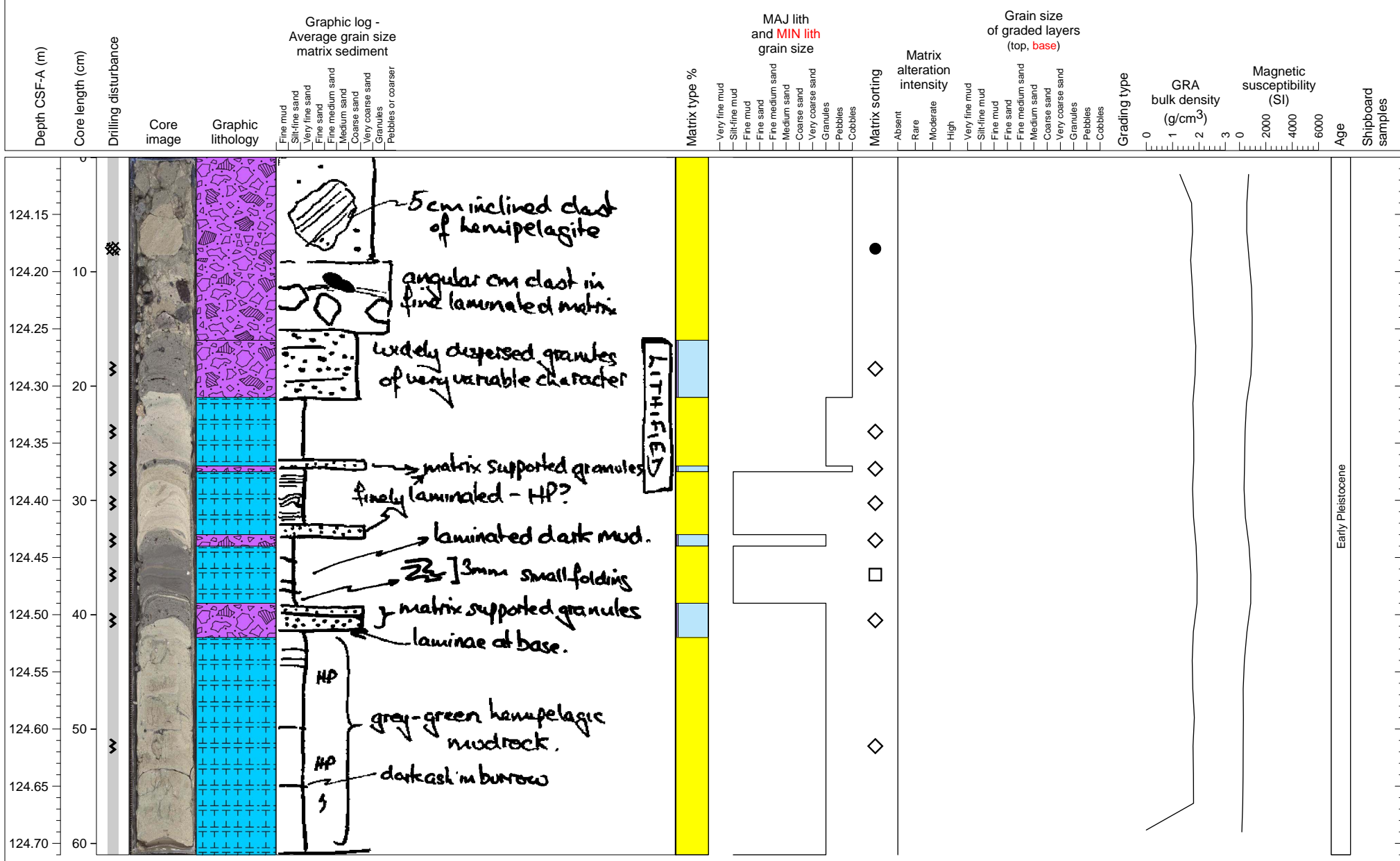
Massive volcanoclastic/bioclastic sand unit with 2 large mud clasts.



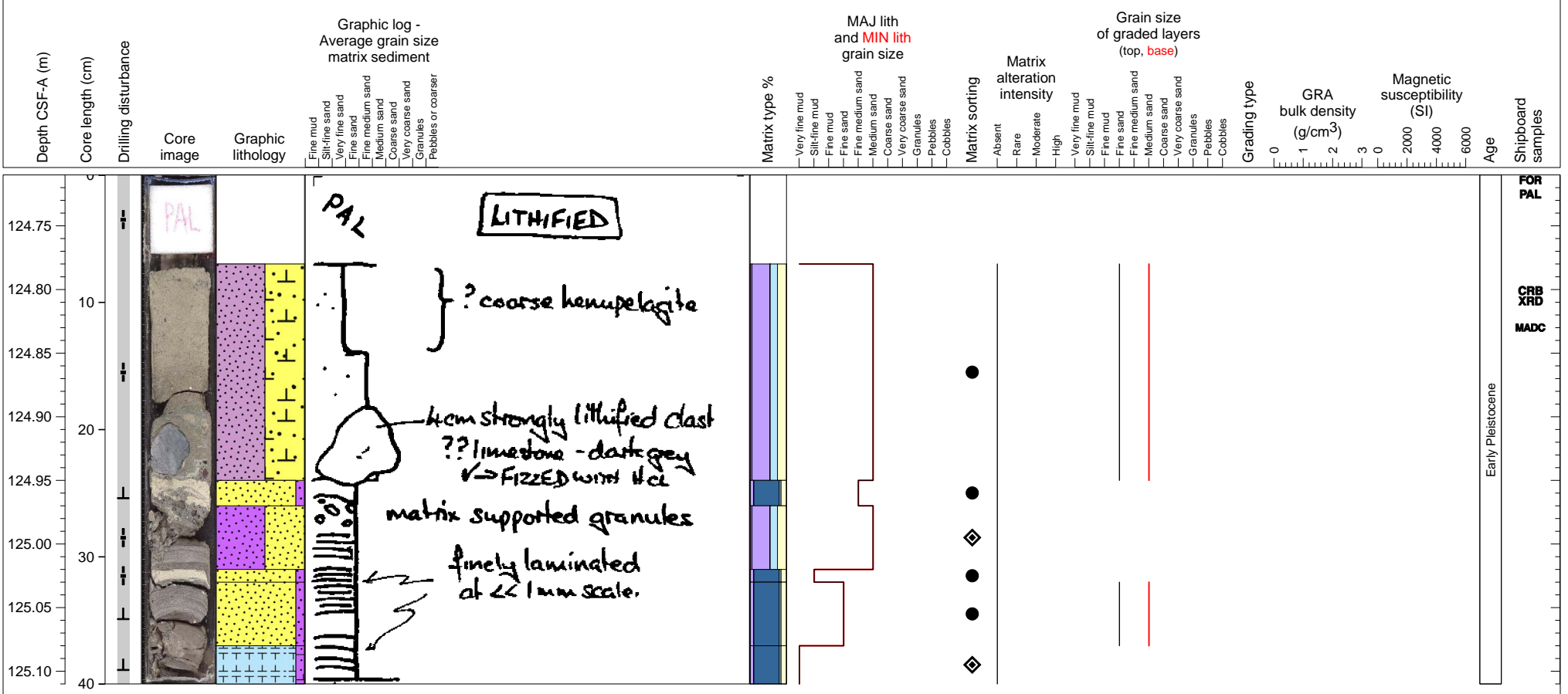
mixture of calcareous and volcanoclastic sand through whole section.



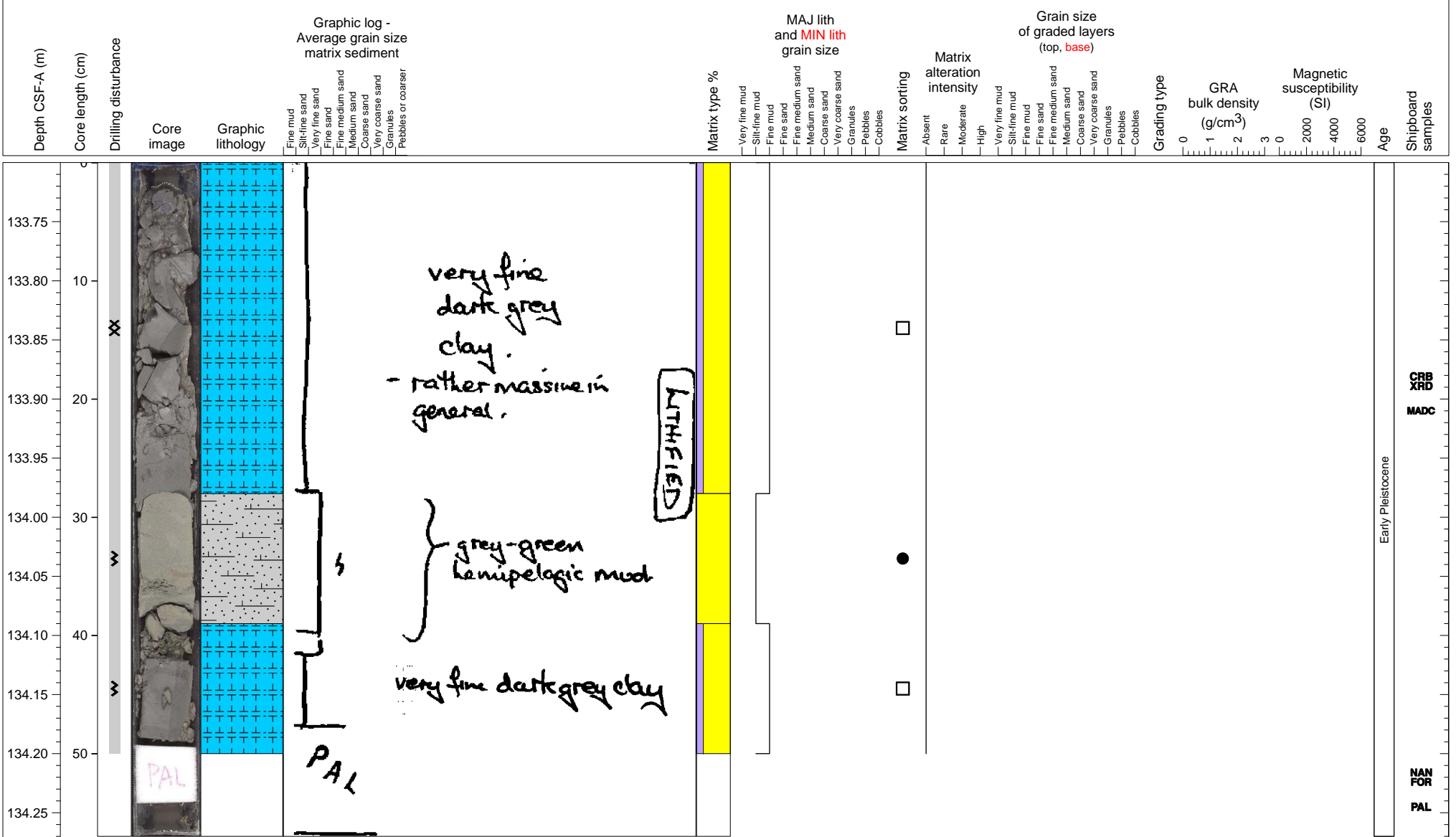
This section contains four volcanic breccia layers containing granule-pebble clasts of gray color and the top of the section is destroyed volcanic breccia containing pebble size andesite.



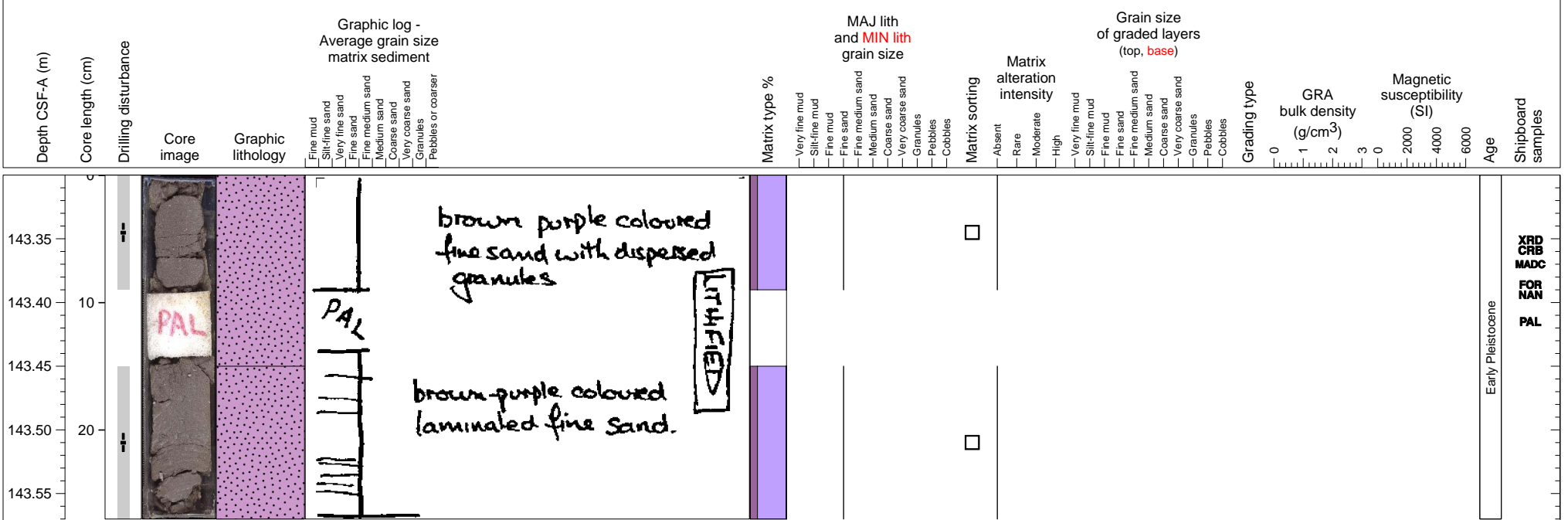
3 normal graded units with pebble size clasts, and 12 thin parallel laminations.



Weakly lithified lime mudstone interlayered with more strongly lithified mudstone. PAL sample from base of section.

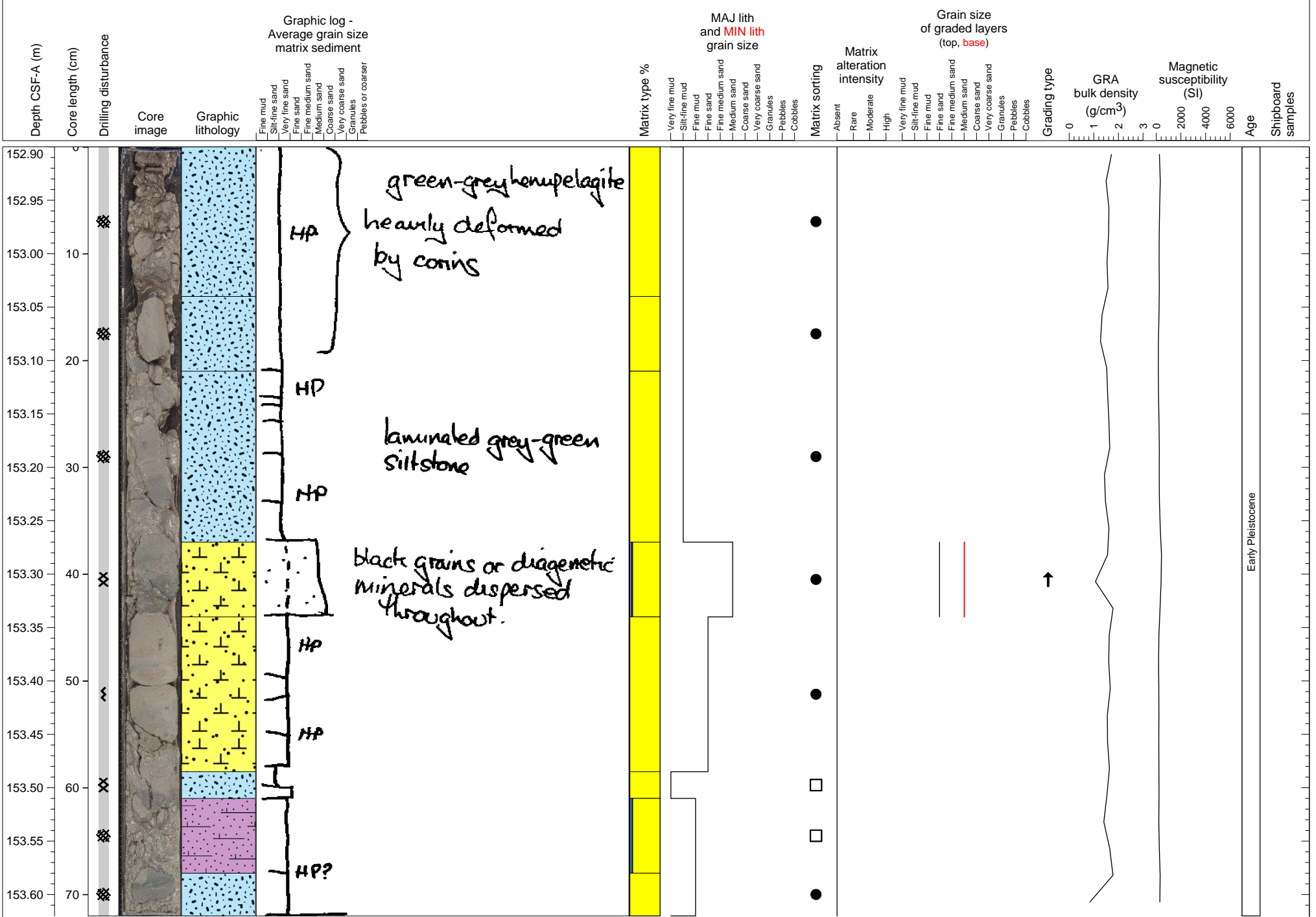


volcaniclastic sandstone in core cather

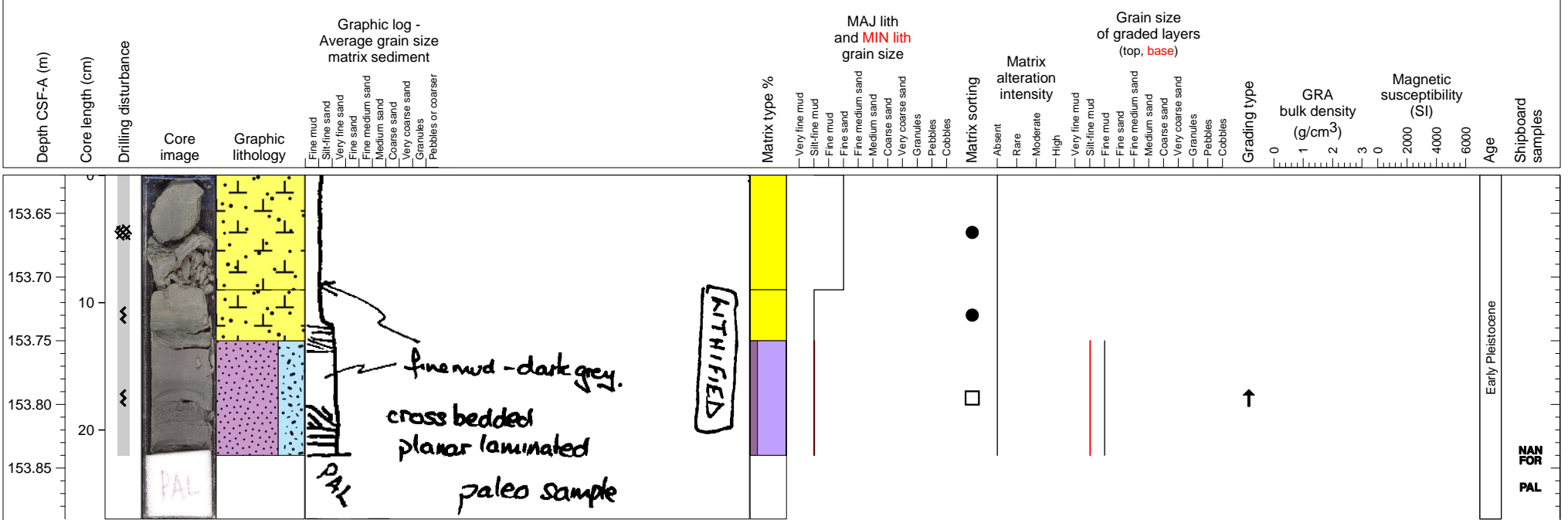


Hole 340-U1395B-19X Section 1, Top of Section: 152.9 CSF-A (m)

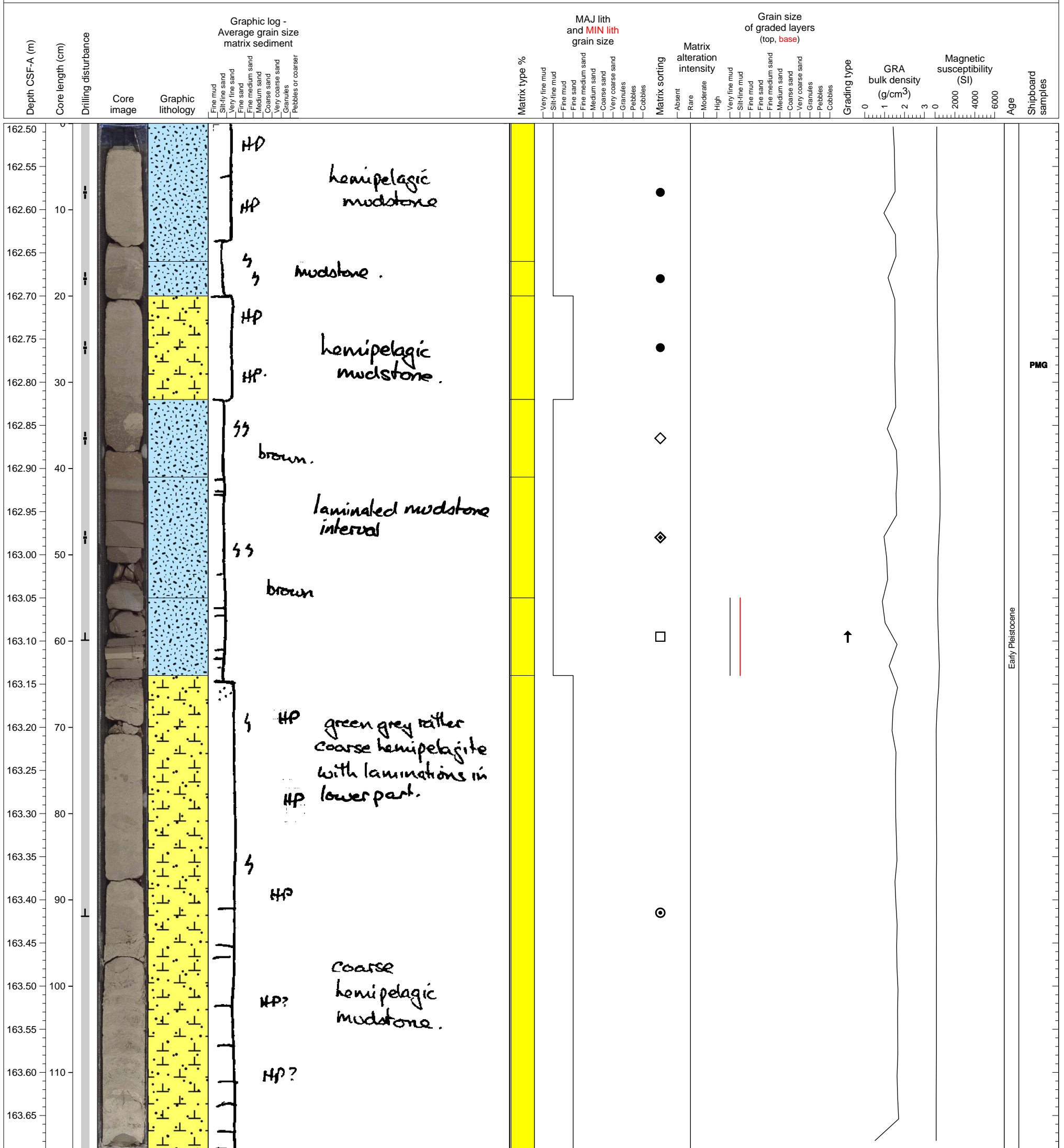
This section is highly destroyed by drilling disturbance, and basically composed of calcareous sand-silt-mud stone. In the lower part very fine mud stone are recognized.



Consolidated hemipelagic layer on volcanoclastic silt stone with normal grading and cross-lamination



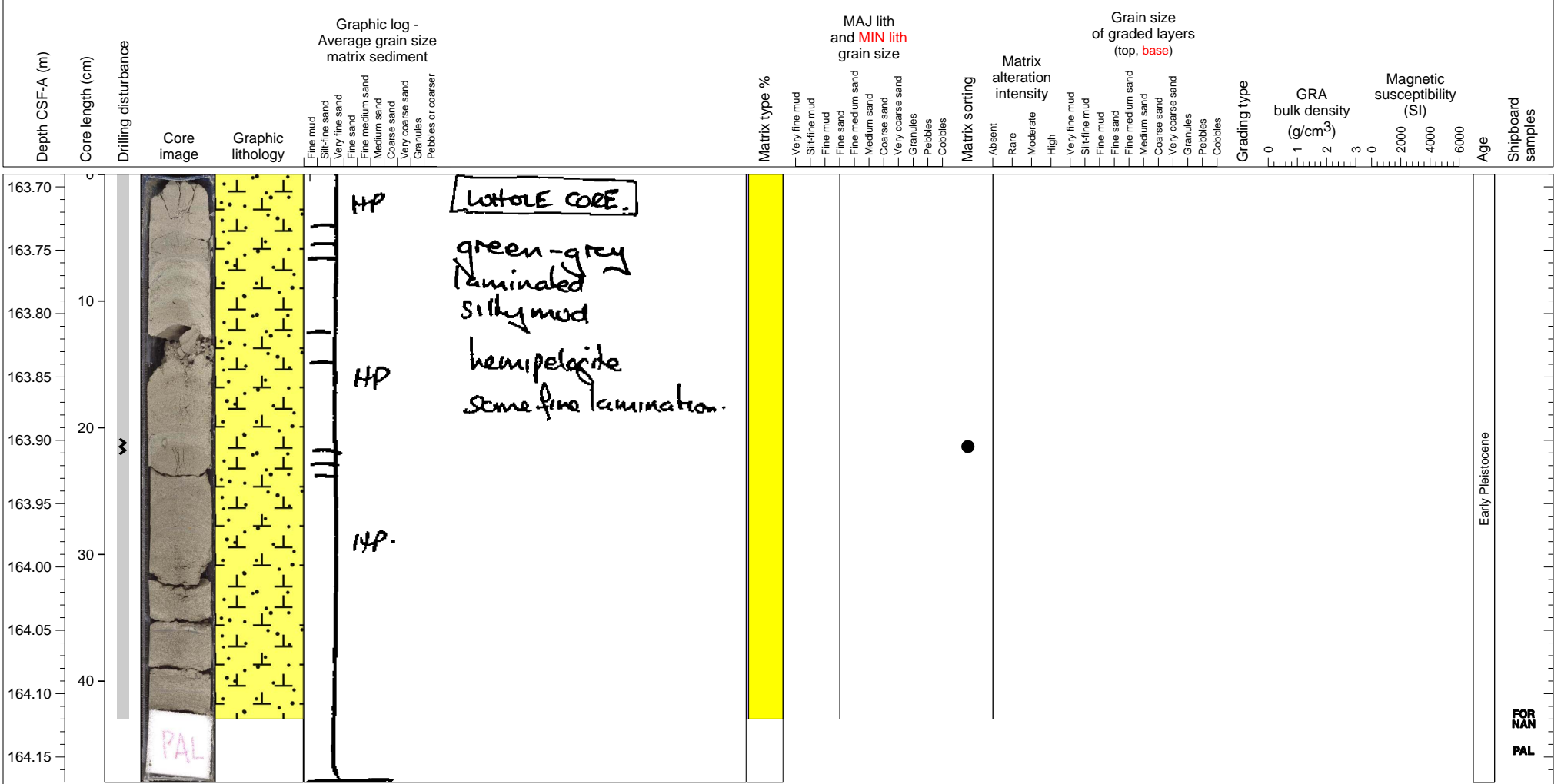
Alternation of commonly to strongly bioturbated calcareous sand-silt stone and very well sorted parallel thin layers (ash fall origin ?).



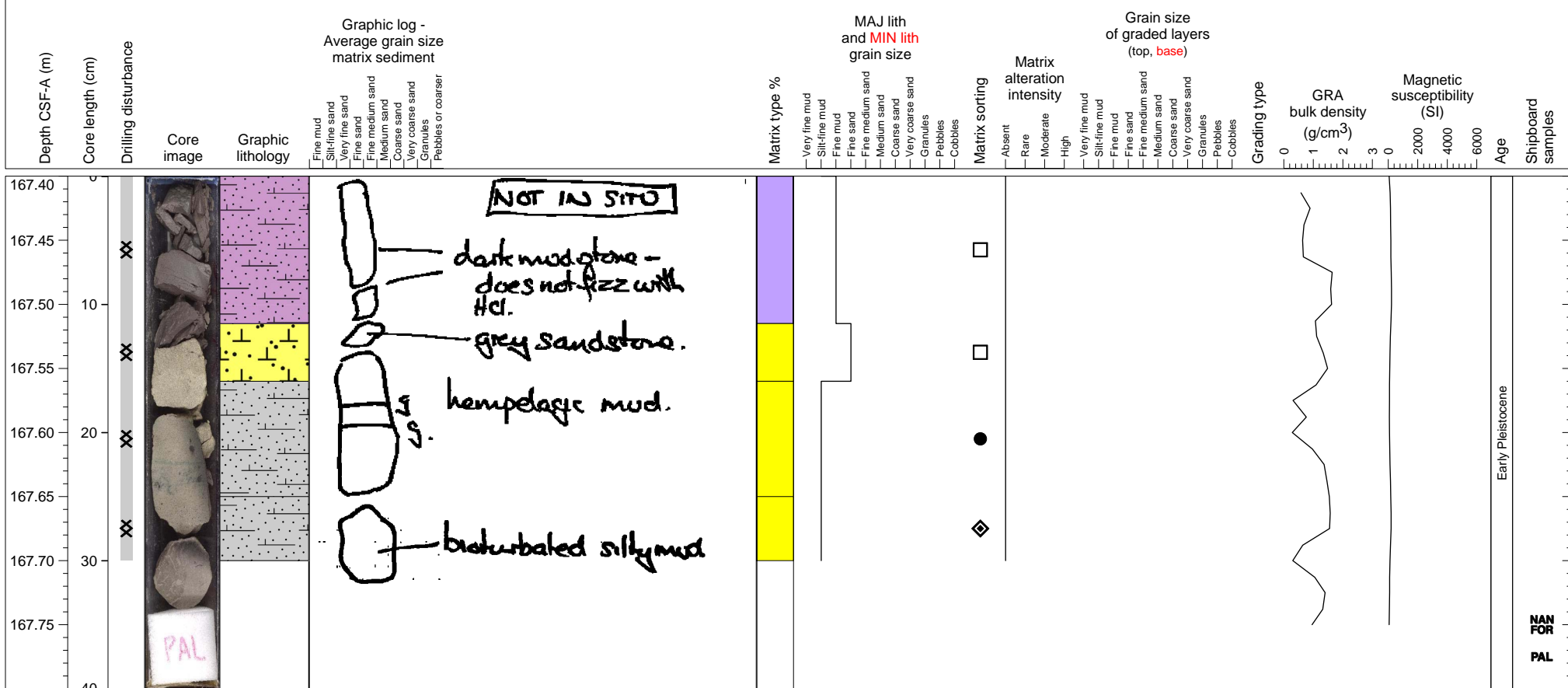
PMG

Early Pleistocene

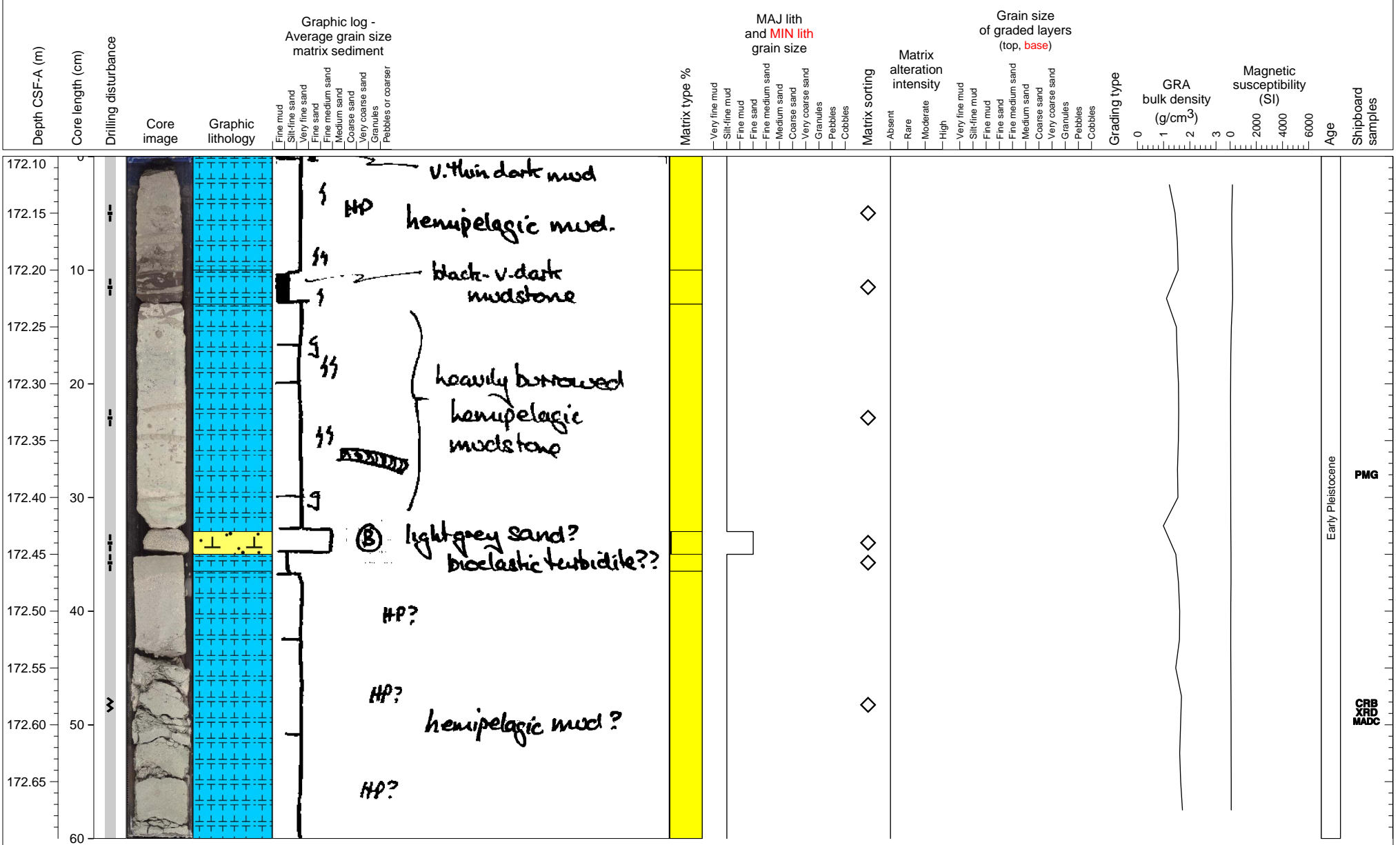
Block of calcereous sandstone with some calcereous mudstone laminations at the base. PAL sample taken from bottom of section.



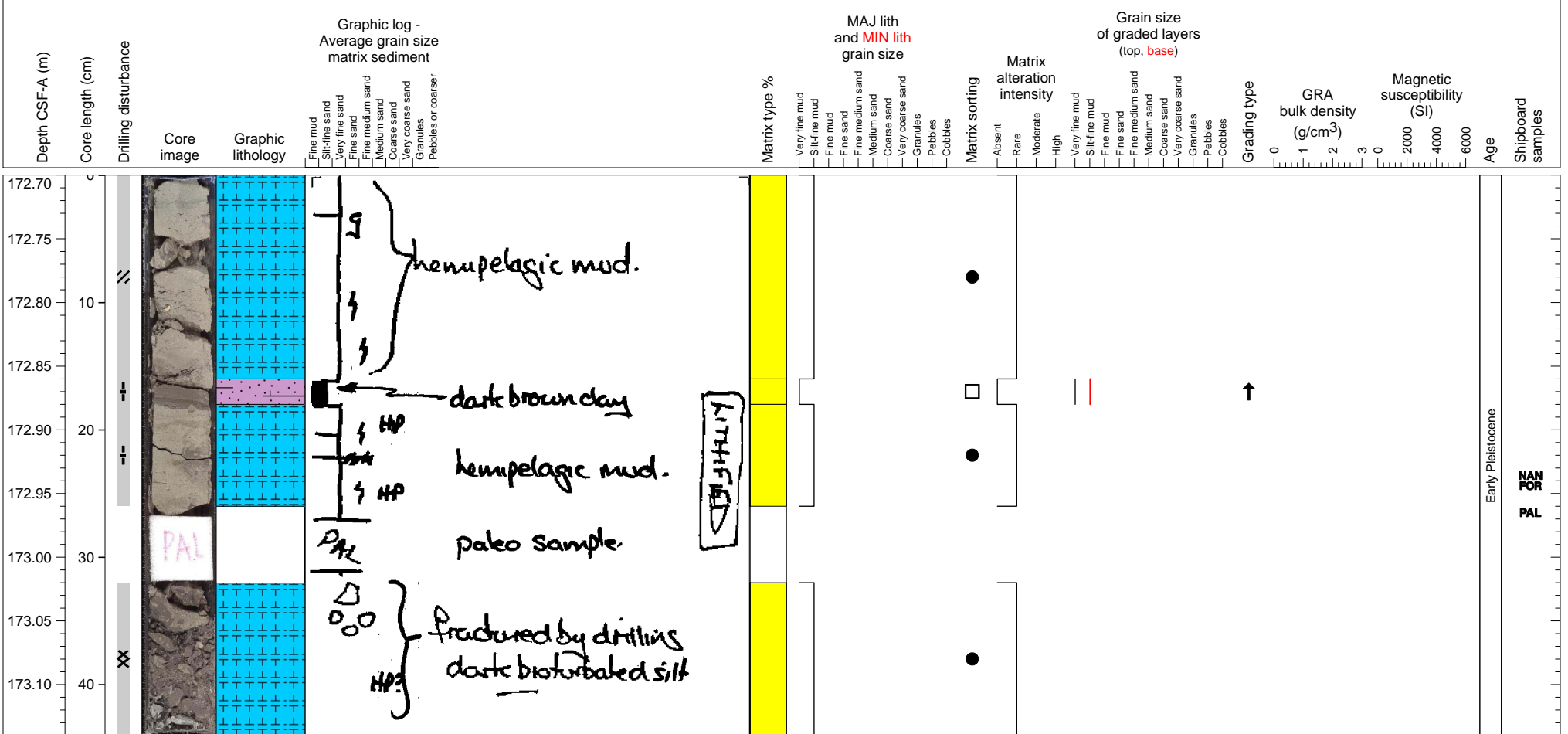
Fine grained volcanoclastic mudstone overlying large pebbles of heavily bioturbated mudstone and calcereous sandstone. PAL sample from base of section.



Calcareous mudstone with intercalation of sandstone. Pervasive bioturbation. Volcaniclastic layer absent. Large foraminifera are observed (Globigerinoides sacculifer).



Strongly bioturbated lime mud stone interbed thin (2 cm) volcanic mud stone (ash fall ?).



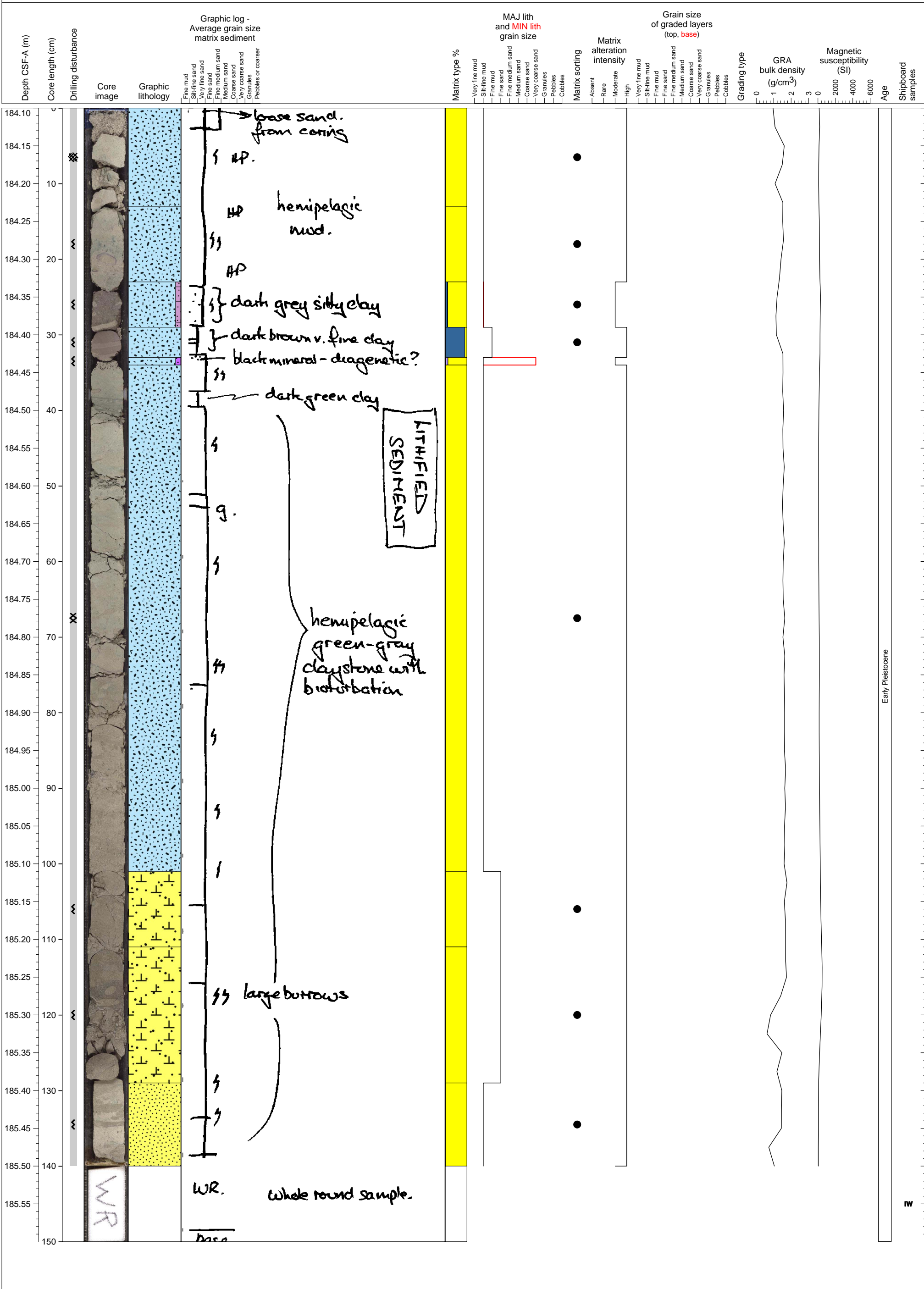
Calcareous breccia with carbonate mud matrix. Biogenic, pumice, scoriaceous, and massive igneous clasts are present. PAL sample from middle of section.

Depth CSF-A (m)	Core length (cm)	Drilling disturbance	Core image	Graphic lithology	Graphic log - Average grain size matrix sediment		Matrix type %	MAJ lith and MIN lith grain size	Matrix sorting	Matrix alteration intensity	Grain size of graded layers (top, base)		Grading type	GRA bulk density (g/cm ³)	Magnetic susceptibility (SI)	Age	Shipboard samples
					Fine mud	Silt-fine sand					Fine mud	Very fine sand					
177.10																	
177.15																	
177.20	10																
177.25																	
177.30	20																
177.35																	

} drilling disturbance - as below
 PAL
 palaeo sample.
 } drilling disturbance assorted clasts and DRILL BIT(!) excavated in mud.

XRD
 CRB
 FOR
 CRB
 NAN
 XRD
 PAL
 Early Pleistocene

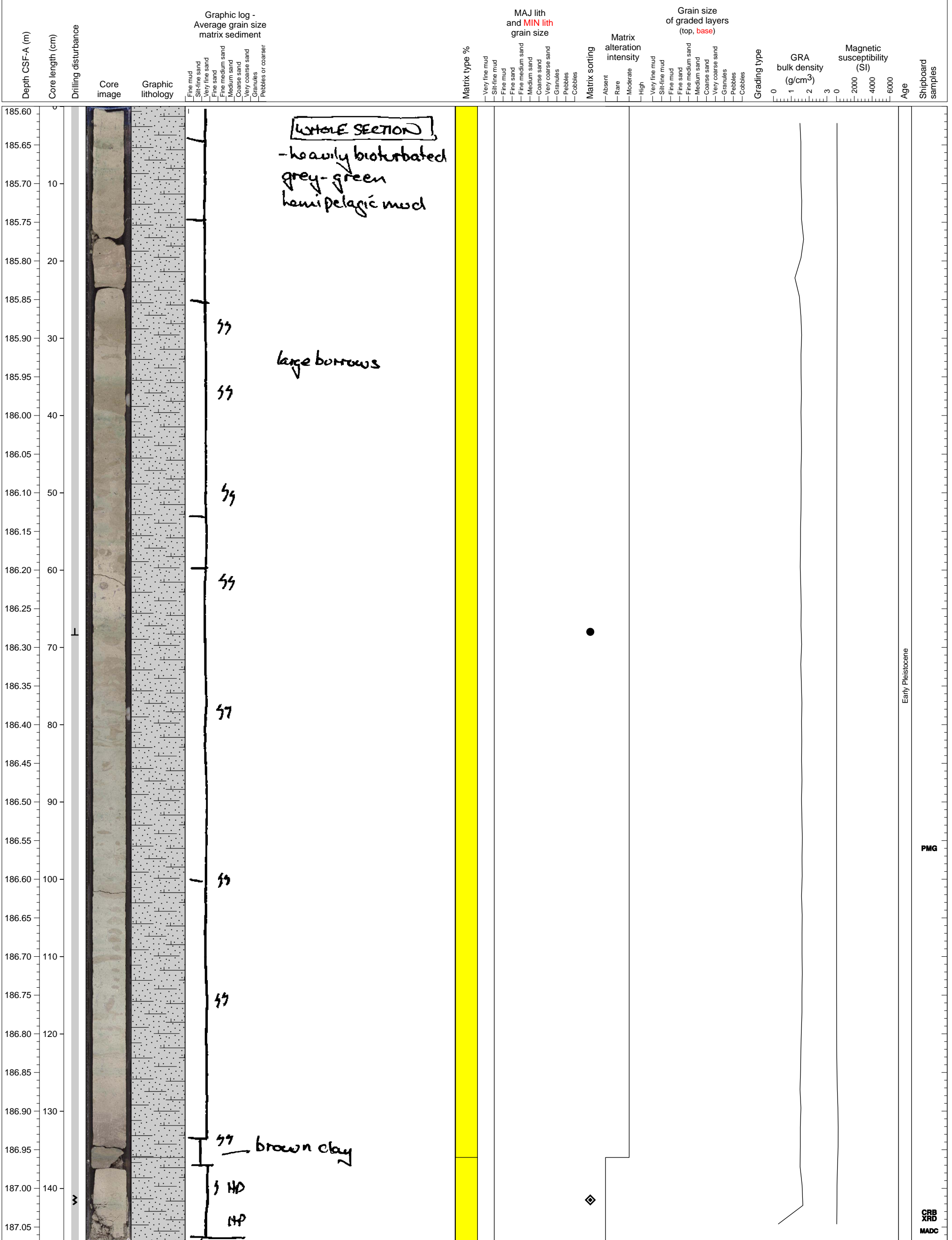
Calcareous mud and sand stone. At 29-34 cm, a thin reddish colored silty mud stone and 1-cm-crystal-rich layer are interlayered.



Early Pleistocene

W

Completely bioturbated mudstone overlying a mudstone with less bioturbation.



WHOLE SECTION

- heavily bioturbated grey-green hemipelagic mud

large burrows

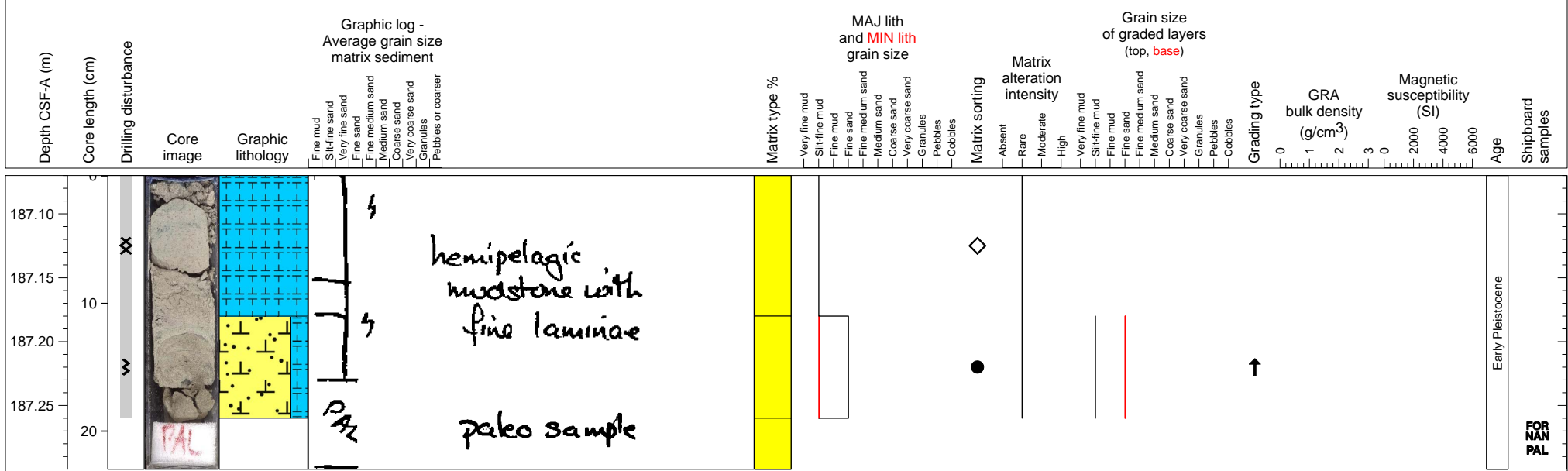
brown clay

Early Pleistocene

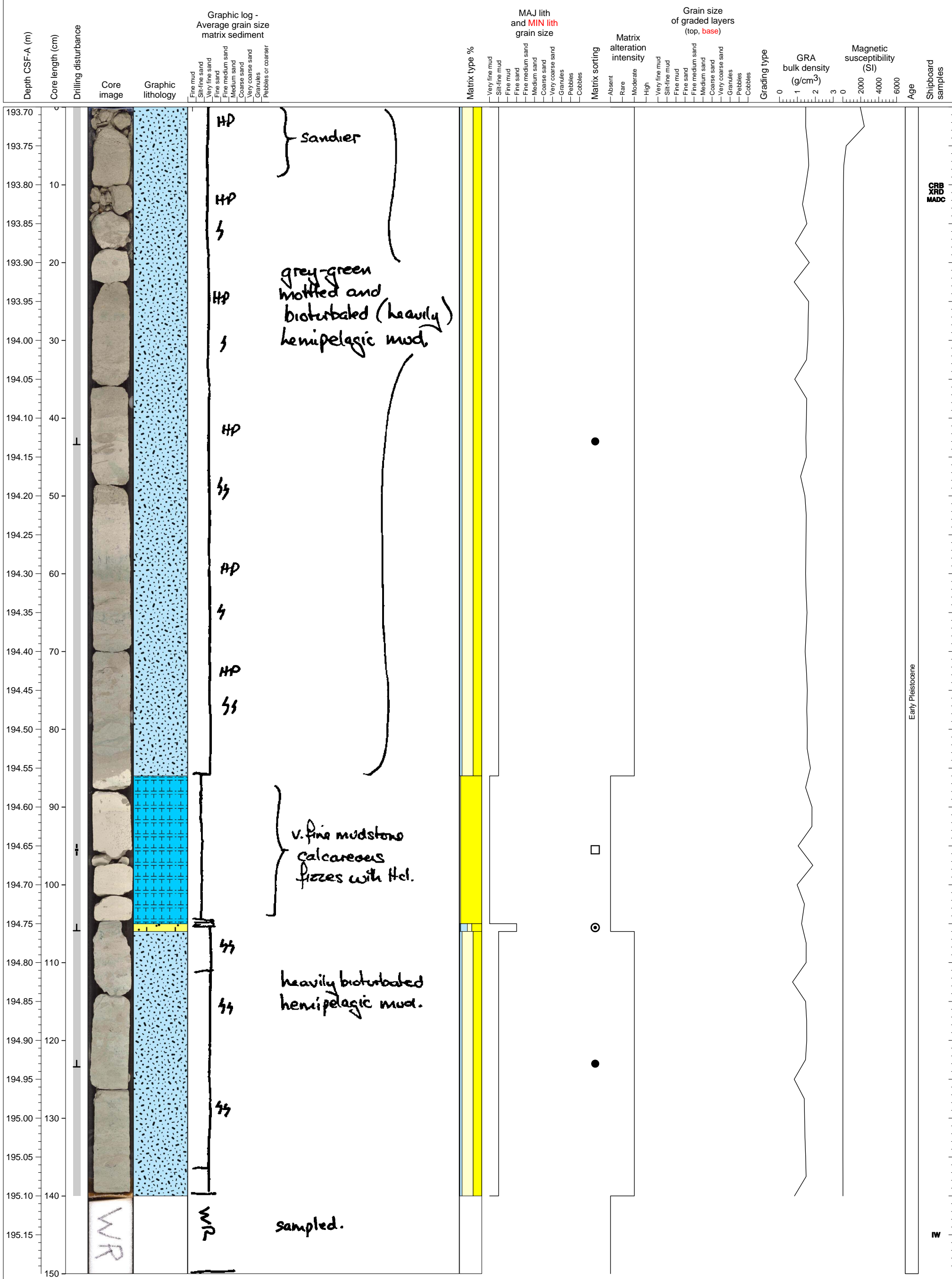
PMG

CRB XRD
MADC

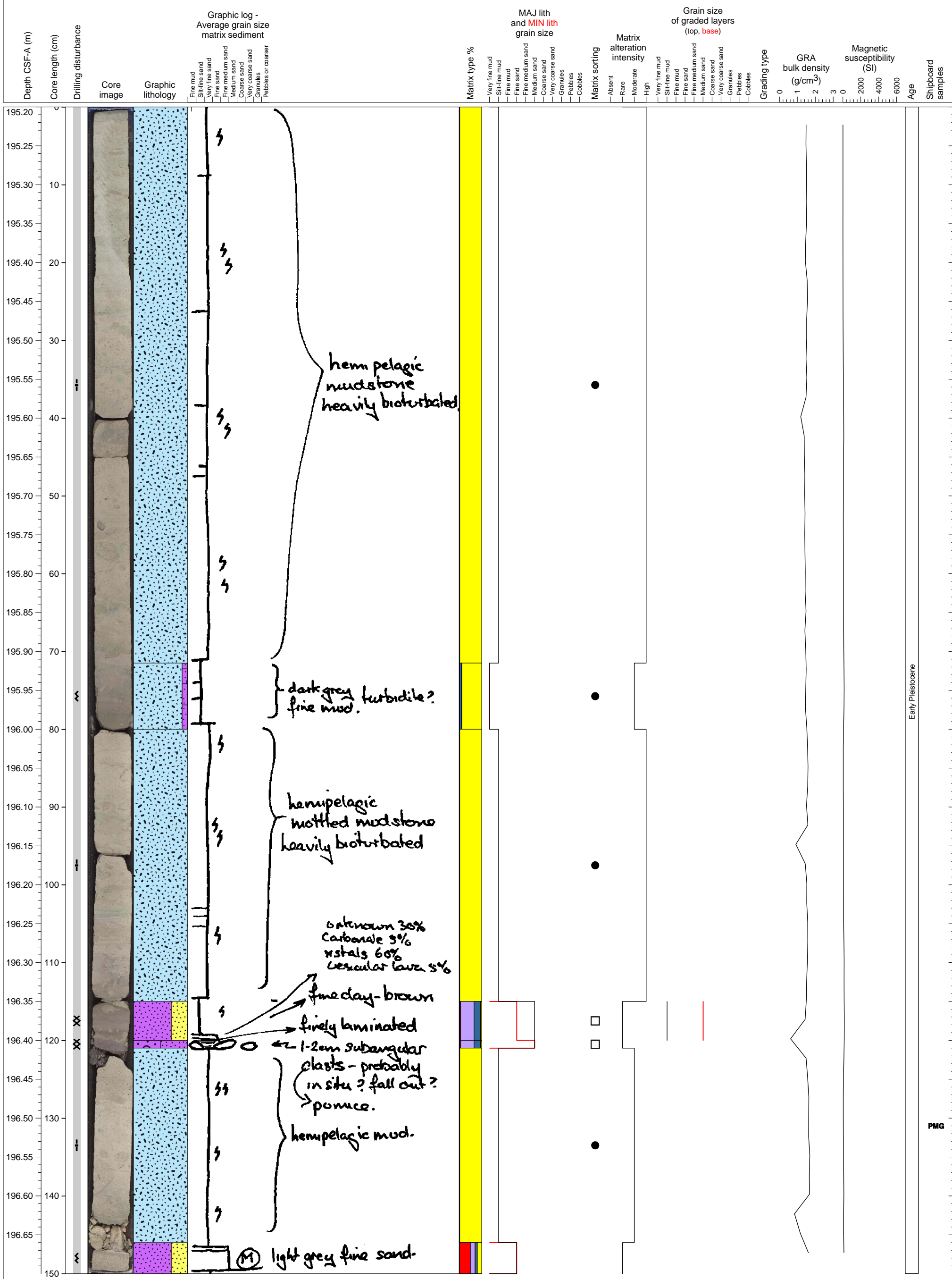
Consolidated lime mud stone with graded 3 thin lamination layers.



2 greenish gray strongly bioturbated hemipelagic mud stone layer interbeds a pale gray pure lime mud stone.



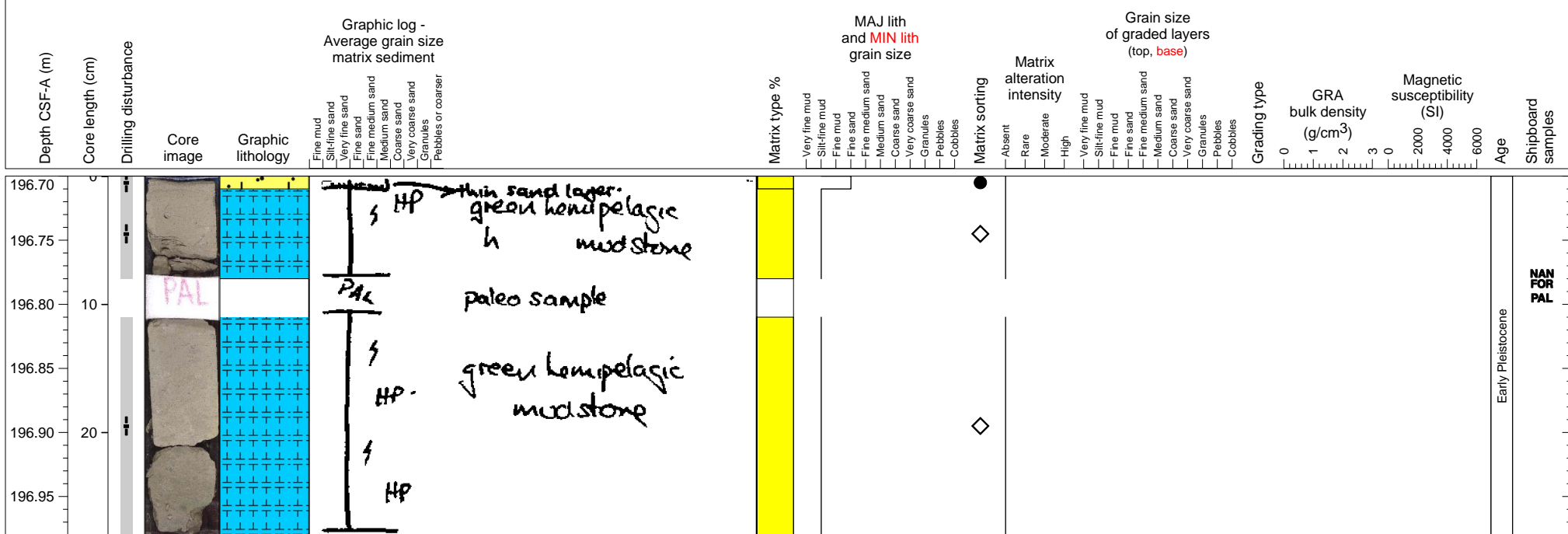
Slightly consolidated hemipelagic sediments. At 120 cm, tephra (crystal-rich and pebble-sized pumice) is embedded, and at the bottom there is a weakly stratified pumice-rich sand.



Early Pleistocene

PMG

Semiconsolidated calcareous sandstone and mudstone with bioturbation. There are no recognizable structure in the mudstone. Sandstone shows weak lamination.



Thin section

Sample	Top (cm)	Bottom (cm)	Top Depth (m)	Bottom Depth (m)	Groundmass percentage (%)	Groundmass modal grain size (mm)	Groundmass comments	Volcanic grain (%)	Volcanic grain modal size (mm)	Biogenic grain (%)	Mineral grain (%)	Mineral grain modal size (mm)	Litic grain (%)	Litic grain modal size (mm)	Olivine present (%)	Olivine size MIN (mm)	Olivine shape	Olivine comment	Plagioclase present (%)	Plagioclase size MAX (mm)	Plagioclase shape	Plagioclase habit	Plagioclase comment	Clinopyroxene present (%)	Clinopyroxene size MAX (mm)	Clinopyroxene shape	Clinopyroxene habit	Clinopyroxene special features	Orthopyroxene present (%)	Orthopyroxene size MAX (mm)	Orthopyroxene shape	Orthopyroxene habit	Orthopyroxene comments	Amphibolite present (%)	Amphibolite size MAX (mm)	Amphibolite shape	Amphibolite habit	Amphibolite comments	Oxides present (%)	Oxides size MAX (mm)	Oxides shape	Oxides habit	Oxides comments	Quartz present (%)	Quartz size MAX (mm)	Quartz shape	Quartz habit	Comment					
340-U1395B-14H-CC-W 8/10-TSB-TS#16	0	2	120.25	120.27																																																	Pumice clast - too thin to properly log.