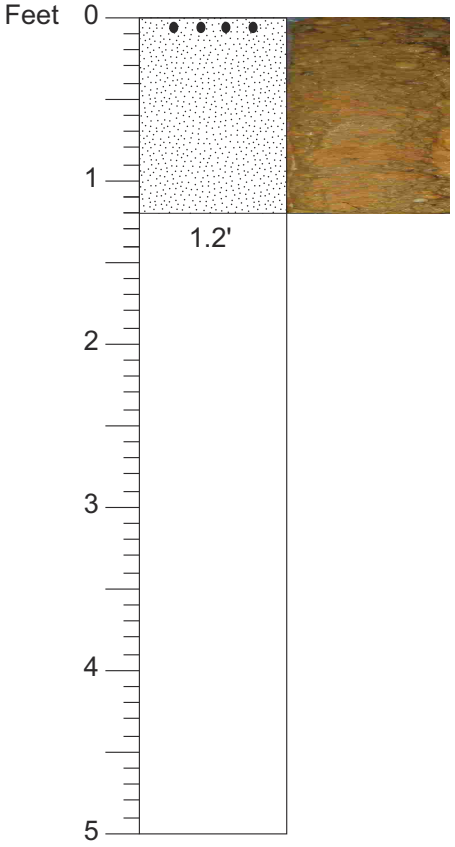
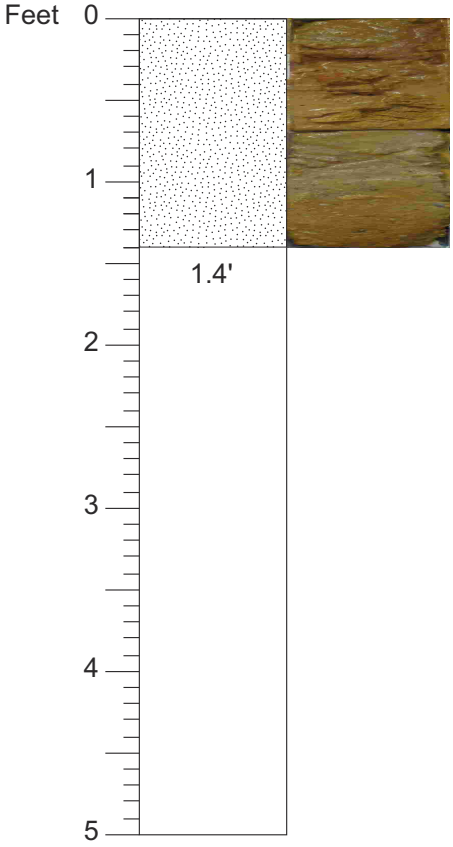


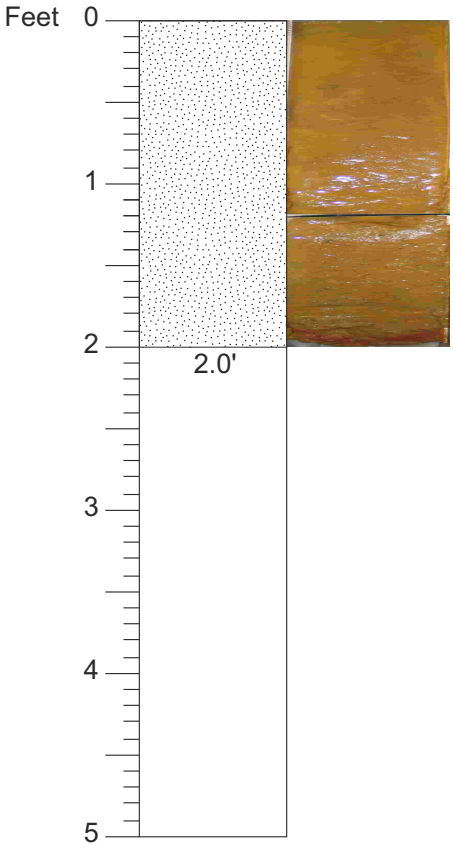
SAND; quartz, medium, gravel (up to 20 mm) on top 0-0.3; reddish yellow (7.5YR 7/6).

Core #1
Start depth: 5 ft
Stop depth: 10 ft
Recovery: 1.2 ft
Date: 10/10/08
Described by: JVB, PJS



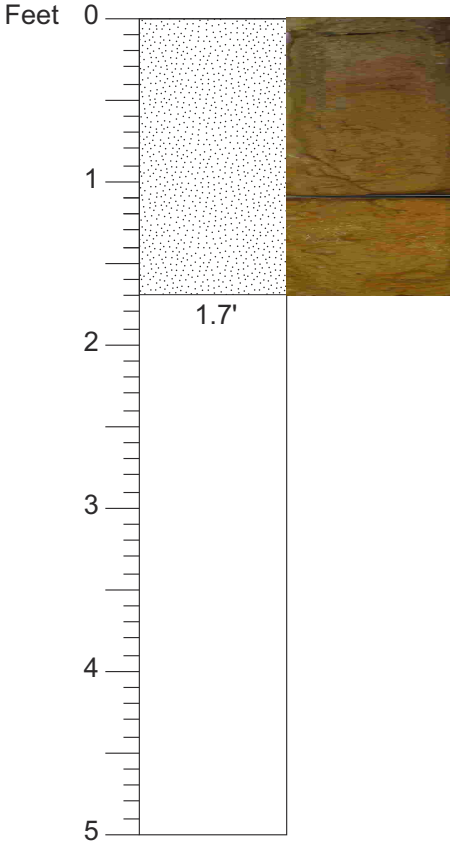
SAND; medium to coarse with granules, slightly silty, trace gravel (6-7 mm); soupy, aquifer, ~2% ohms; reddish yellow (7.5YR 7/6)

Core #2
Start depth: 10 ft
Stop depth: 15 ft
Recovery: 1.4 ft
Date: 10/10/08
Described by: JVB, PJS



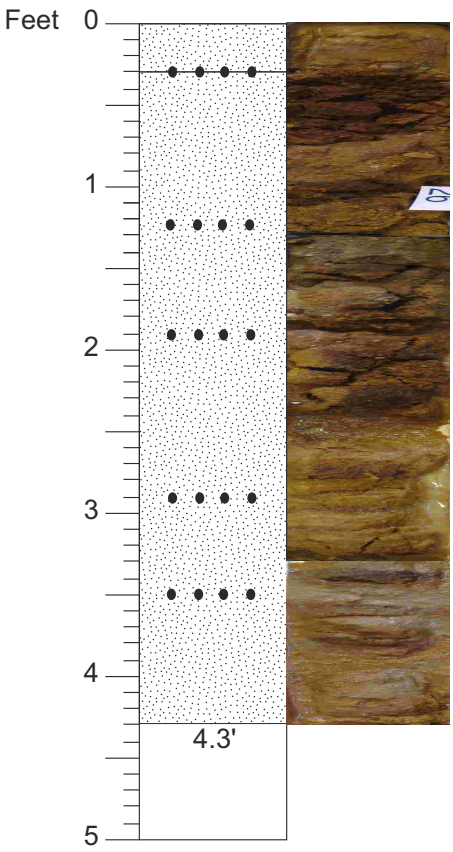
SAND; medium to very coarse, (4%) opaques, quartz; water saturated, red oxidized band at the bottom; ?beach; reddish yellow (7.5YR 7/6).

Core #3
Start depth: 15 ft
Stop depth: 20 ft
Recovery: 2 ft
Date: 10/10/08
Described by: JVB, PJS, DHM



SAND; medium to very coarse, trace of silt, (2%) ohms, quartz; maybe hints of laminations and faint ?leisegang banding; 0-0.45 ft: pale brown (10YR 7/4); 0.45-1.7 ft: reddish yellow (7YR 6/8).

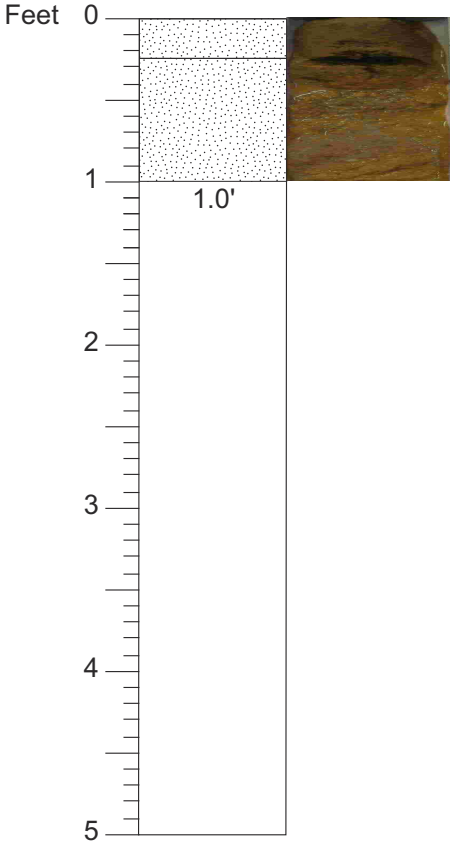
Core #4
Start depth: 20 ft
Stop depth: 25 ft
Recovery: 1.7 ft
Date: 10/10/08
Described by: JVB, PJS, DHM



SAND; silty, medium, (~1%) ohm; yellow (10YR 7/6).

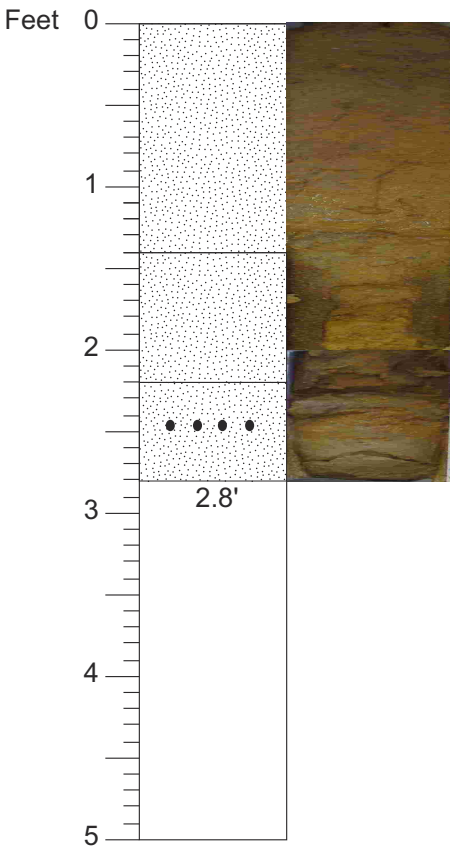
SAND; bedded/laminated; gravel beds at 0.3, 1.25, 1.9, 2.9, and 3.5 ft (bases of channels); series of channels with red, medium, cross-bedded quartz sand at bottom and finer quartz sand on top; at the bottom sand is finer; dusky red (slightly lighter between), darkest red (10R 3/3).

Core #5
Start depth: 25 ft
Stop depth: 30 ft
Recovery: 4.3 ft
Date: 10/10/08
Described by: JVB, PJS, DHM



SAND; coarse quartz, poorly sorted with silt to small pebbles (5 mm); many ohms, dark ohm laminae at 0.25 ft; very soupy; top to 0.3 ft is slightly siltier; bottom 0.4 ft is finer grained, but may be slurry; reddish yellow (7.5YR 7/8).

Core #6
Start depth: 30 ft
Stop depth: 35 ft
Recovery: 1 ft
Date: 10/10/08
Described by: JVB, PJS, DHM

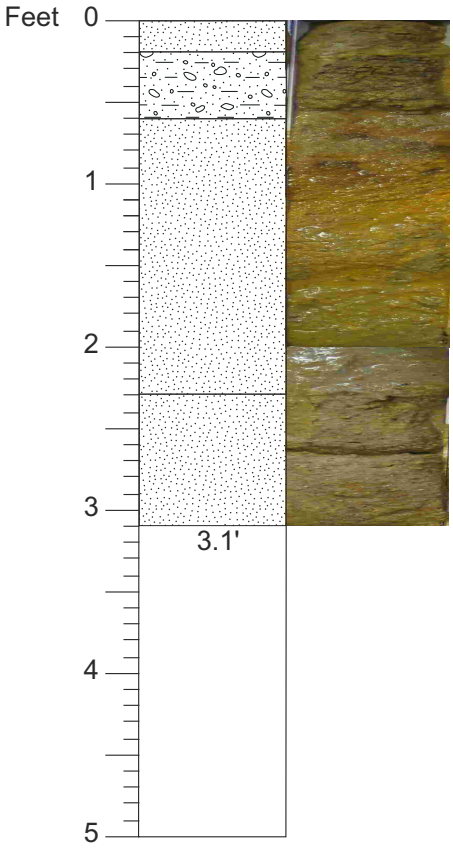


SAND; medium to coarse, coarser layer at 0.4 ft, possibly fining down.

SAND; fine to very coarse, silty, poorly sorted.

SAND; fine, silty, gravel at 2.4 ft; yellow (10YR 7/6).

Core #7
Start depth: 35 ft
Stop depth: 40 ft
Recovery: 2.8 ft
Date: 10/10/08
Described by: JVB, PJS, DHM

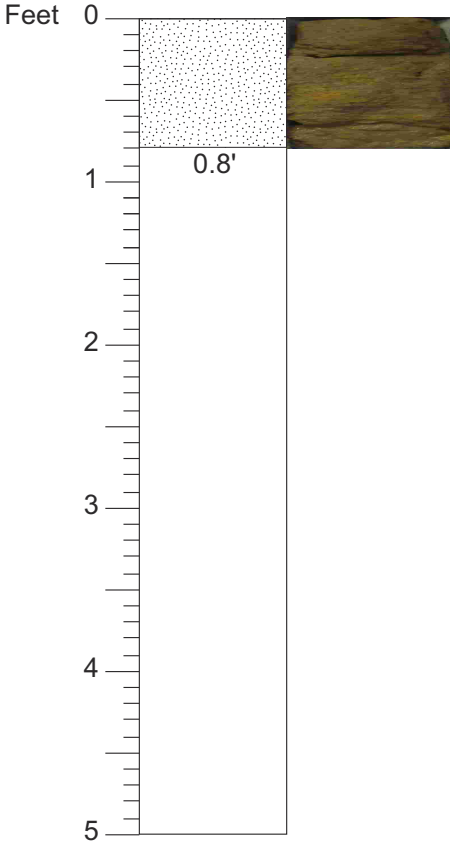


SAND; fine, well sorted quartz, slightly silty, (3%) ohm, 0.2 ft clayey silt laminae.
GRAVEL; poorly sorted, sub-subangular.

SAND; fine to medium, silty, very water-rich.

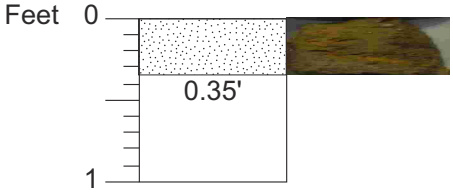
SAND; fine to very coarse, poorly sorted, silty, holds together well; yellow (10YR 7/6).

Core #8
Start depth: 40 ft
Stop depth: 45 ft
Recovery: 3.1 ft
Date: 10/10/08
Described by: JVB, PJS, DMH



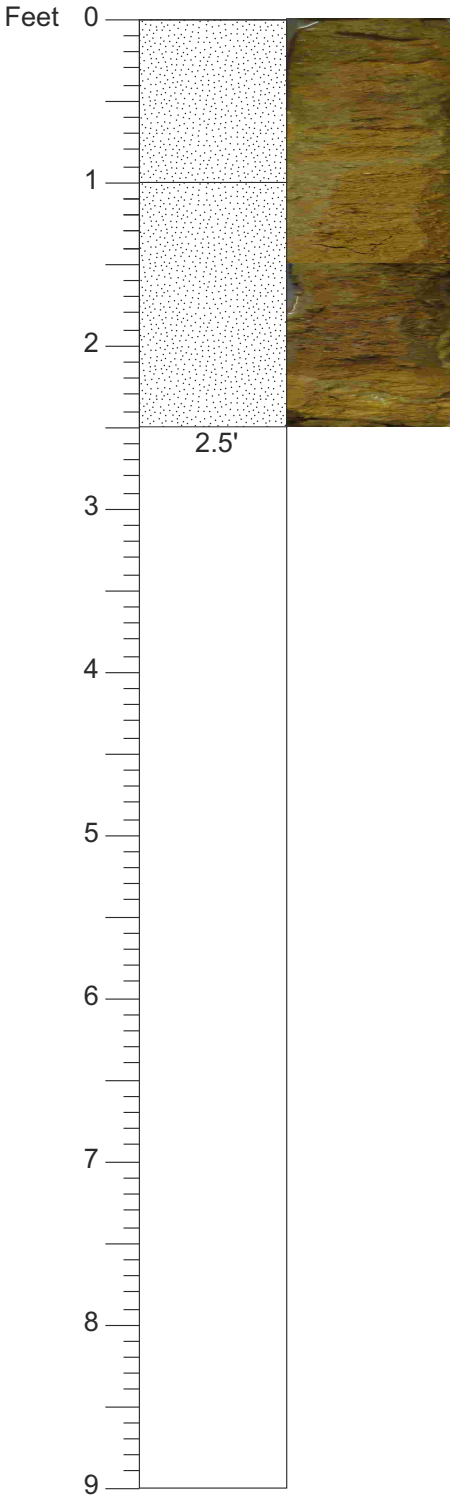
SAND; medium, coarse to fine, poor sorting, subrounded, (~1%) ohm; pink (7.5YR 8/3).

Core #9
Start depth: 45 ft
Stop depth: 50 ft
Recovery: 0.8 ft
Date: 10/10/08
Described by: JVB, DHM, PJS



SAND; medium quartz, silty laminae (~1 mm); pink (7.5YR 8/3).

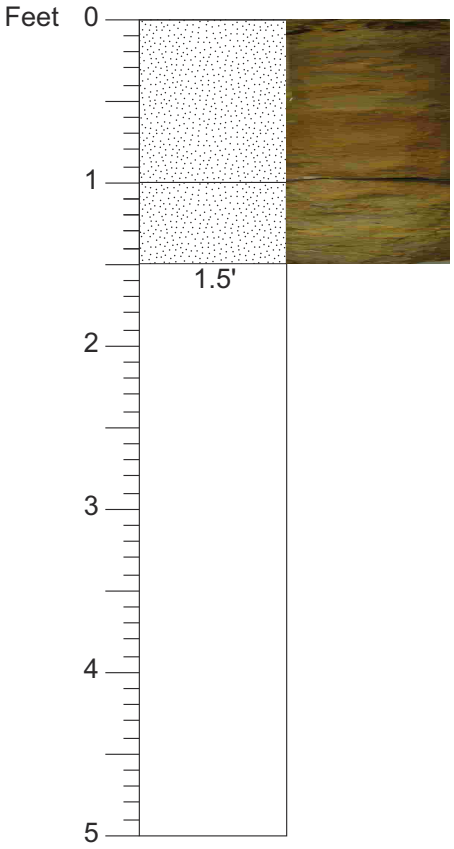
Core #10
Start depth: 50 ft
Stop depth: 51 ft
Recovery: 0.35 ft
Date: 10/10/08
Described by: JVB, DHM, PJS



SAND; coarse to very coarse, poorly sorted, slightly silty; yellow (10YR 7/6).

SAND; silty, fine to medium; reddish yellow (7.5YR 7/8).

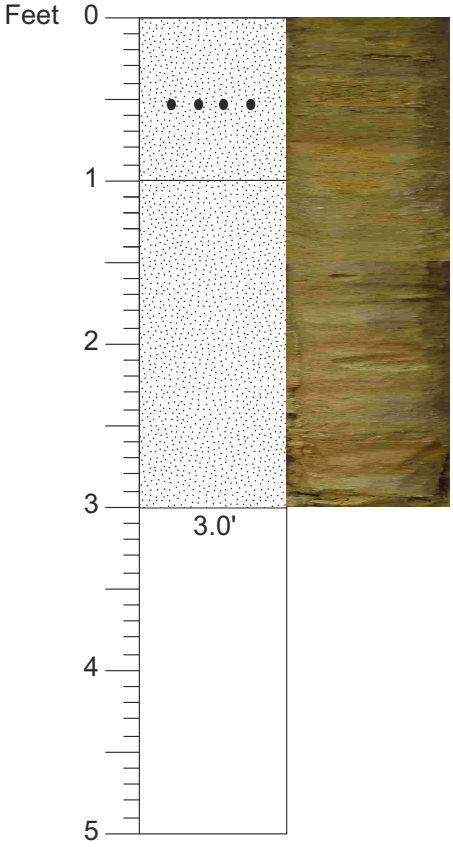
Core #11
Start depth: 51 ft
Stop depth: 60 ft
Recovery: 2.5 ft
Date: 10/10/08
Described by: JVB, PJS



SAND; silty, very fine to fine sections, good sorting, thinly bedded.

SAND; medium to very coarse, poor sorting, (~2%) ohm; yellow (10YR 7/6).

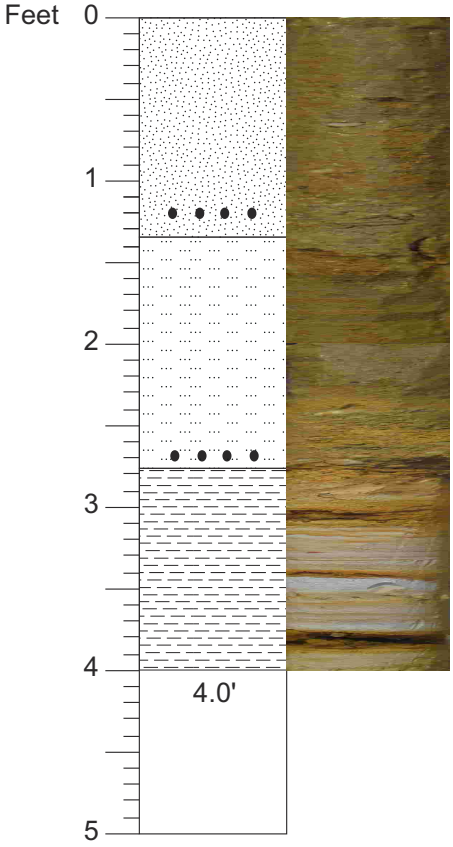
Core #12
Start depth: 60 ft
Stop depth: 65 ft
Recovery: 1.5 ft
Date: 10/10/08
Described by: JVB, PJS



SAND; medium, gravel laminations and layer at 0.5 to 0.6 ft, silt laminations common.

SAND; fine to medium, some coarse quartz, silty throughout core, holds together; laminated to bedded (20-40 mm); reddish yellow (7.5YR 7/6).

Core #13
Start depth: 65 ft
Stop depth: 70 ft
Recovery: 3 ft
Date: 10/10/08
Described by: JVB



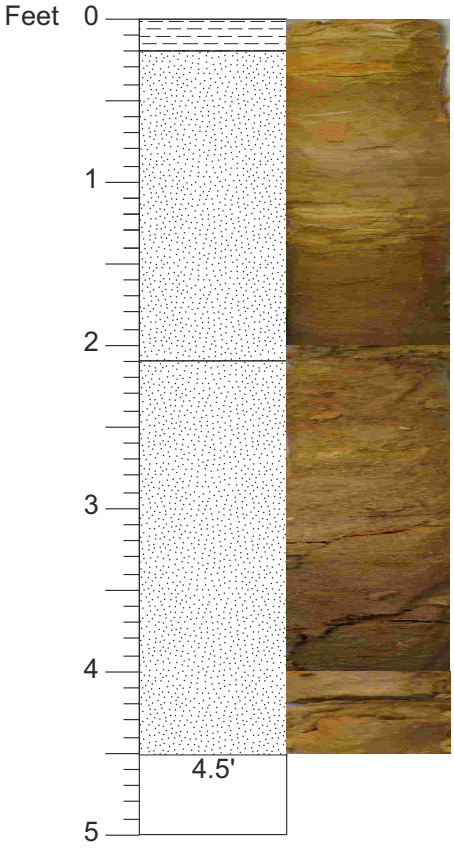
SAND; medium, some coarse quartz; moderate sorting; (1-3%) ohm (fine to very fine), silty, gravel between 1.15 to 1.35 ft, grains to 1 cm.

SILT; more common below 1.35 ft, possible burrows of silt with sand; ?LSF; reddish yellow (7.5YR 7/6).

pebble leg at sharp surface

CLAY; slightly silty with mica, color banding (liesegang), hard (Fe-rich), layer at 3.0 ft, ?soil; colors range from red to gray.

Core #14
Start depth: 70 ft
Stop depth: 75 ft
Recovery: 4 ft
Date: 10/11/08
Described by: JVB

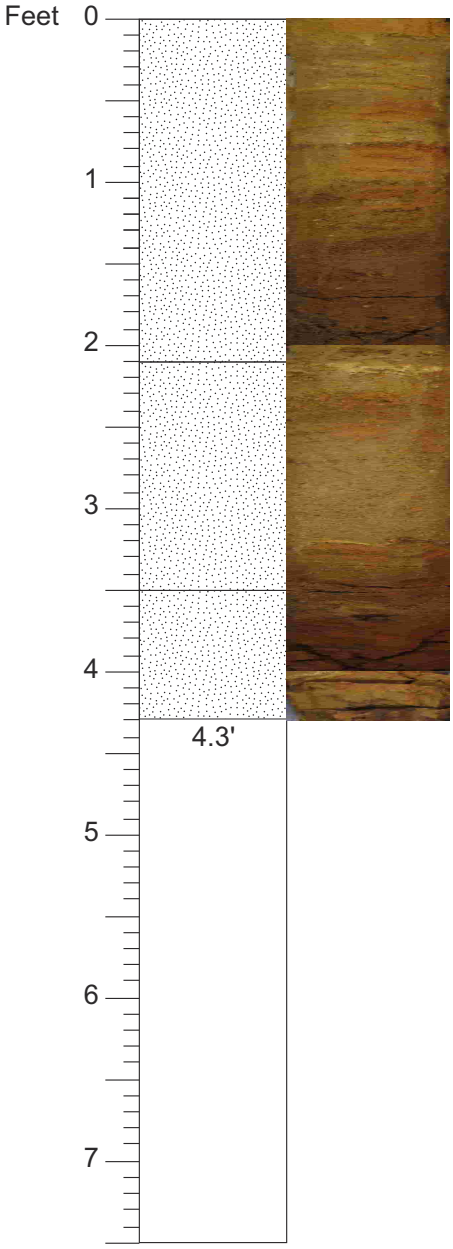


CLAY; similar to above, slightly silty, ?soil/terrestrial; contact zone at 0.2 ft, 2 lithologies are mixed.

SAND; fine to very fine quartz, silty, micaceous, finely laminated with ohms, cross bed set at 1.4 ft; foreshore-swash zone; yellow (10YR 7/6).

SAND; medium to coarse, homogenous, rare granules/pebbles on the outside of the core; no obvious burrows; reddish yellow (7.5YR 6/6).

Core #15
Start depth: 75 ft
Stop depth: 80 ft
Recovery: 4.5 ft
Date: 10/11/08
Described by: JVB

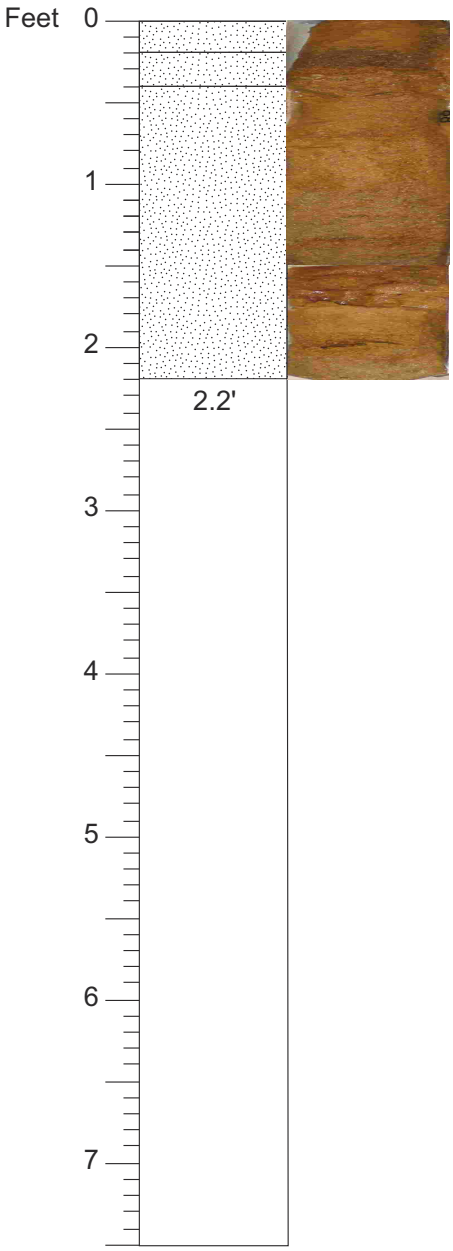


SAND; fining upward from coarse, poorly sorted, subangular quartz (1-2% ohm) on bottom; top of the core is silty, medium with some fine, better sorted; banded, light and dark yellow/red, channel; yellowish brown (10YR 5/8).

SAND; coarse to very coarse, quartz, clayey silt on top; soil, uniform, channel.

SAND; medium to coarse, quartz, (1-3%) ohm (coarser than above), silty clay (solid) on top; organic rich interval on top (small bleb), channels filling in, red and iron stained; red (2.5YR 5/8).

Core #16
Start depth: 80 ft
Stop depth: 87.5 ft
Recovery: 4.3 ft
Date: 10/11/08
Described by: JVB, NAA, DHM

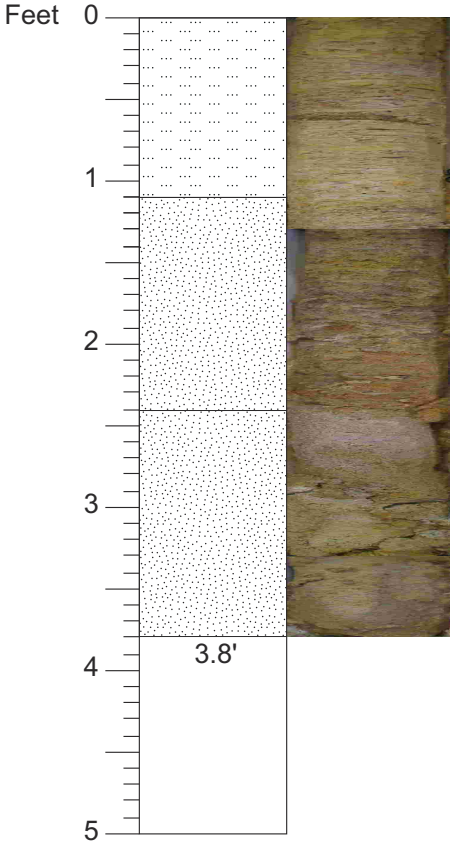


SAND; fine, slightly silty, a few fine laminae, finely micaceous.

SAND; coarse, dark (organized) quartz, subangular; dark yellowish brown (10YR 3/6).

SAND; very coarse to fine, granules at base, poorly sorted, (~3%) ohm; brownish yellow (10Y 6/6).

Core #17
Start depth: 87.5 ft
Stop depth: 95 ft
Recovery: 2.2 ft
Date: 10/11/08
Described by: JVB, NAA, LMM

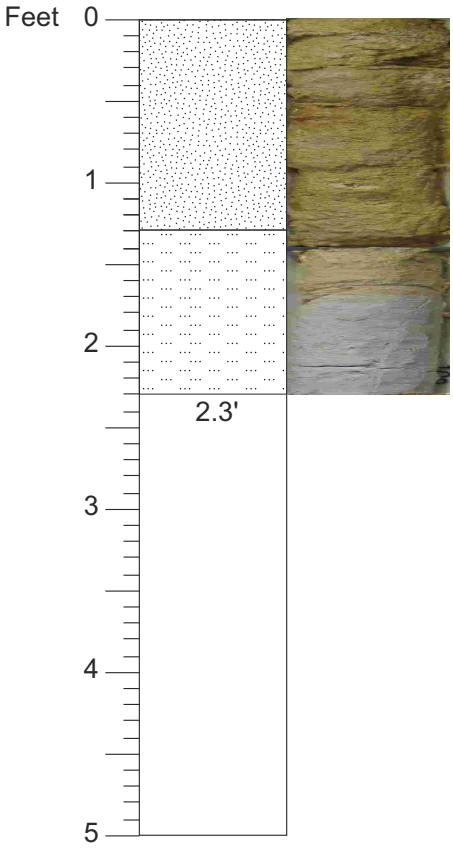


SILT; interlaminated sand, mostly 1-2mm, a few up to 1cm; yellow, white and red laminations disturbed by drilling; light gray (2.5Y 7/2).

SAND; silty, coarse, poor sorting, looks like a mix of above and below lithologies; contact; mottled colors.

SAND; silty, more sand, less silt, coarse, poor sorting; no obvious bioturbation, homogenous.

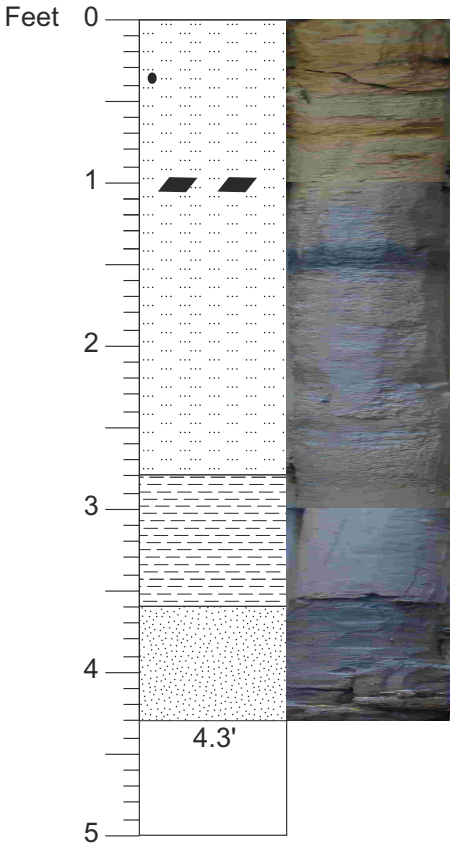
Core #18
Start depth: 95 ft
Stop depth: 100 ft
Recovery: 3.8 ft
Date: 10/11/08
Described by: JVB, NAA, LMM



SAND; coarse, medium to very coarse, quartz; poor sorting; white clay clast at 0.3 ft; yellow (2.5Y 8/6).

SILT; sandy, less sand at the bottom, slightly micaceous, (1-3%) ohm, more clay at the bottom; light gray (2.5Y 7/1).

Core #19
Start depth: 100 ft
Stop depth: 105 ft
Recovery: 2.3 ft
Date: 10/11/08
Described by: JVB, NAA, LMM



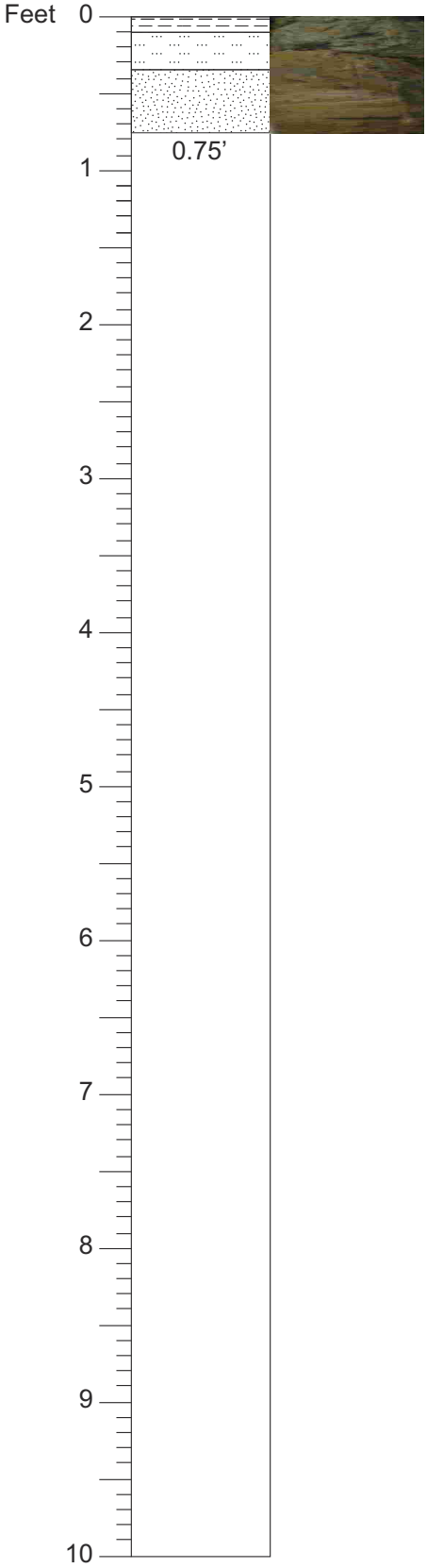
SILT; small percent of very fine sand, ~1-25 ohms, slightly micaceous; organic-rich band at 1.4-1.6 ft; light gray (10YR 7/1).

0.3 ft very dark-organic rich silty clay bleb; below is an iron-rich circle; possible old root cast?

CLAY; slightly silty; gray (2.5Y 6/1).

SAND; fine to very fine, well sorted but some mottled colors in the organics; gray (2.5Y 5/1).

Core #20
Start depth: 105 ft
Stop depth: 110 ft
Recovery: 4.3 ft
Date: 10/11/08
Described by: NAA, LMM, JVB



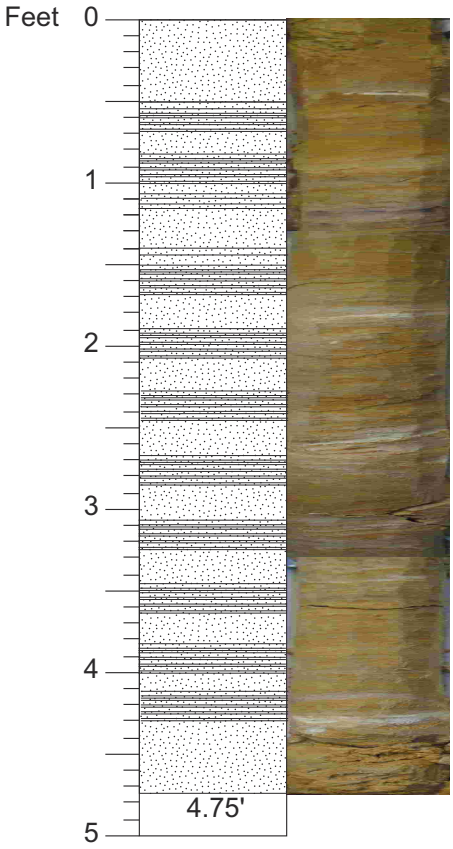
CLAY; light brownish gray (2.5Y 6/2).

SILT; silt and sand, sand grains range from coarse to very coarse (top justified; likely missing a lot of core); light brownish gray (10YR 6/2).

SAND; medium-fine sand, mostly quartz, (1-2%) ohm; well-sorted (top justified, missing most of interval; low recovery); brownish yellow (10YR 6/6).

NOTE; 10 ft drilled; driller believes core slid out, only 0.1 ft left; no idea if it is good core.

Core #21
Start depth: 110 ft
Stop depth: 120 ft
Recovery: 0.75 ft
Date: 10/11/08
Described by: JVB, LMM, NAA

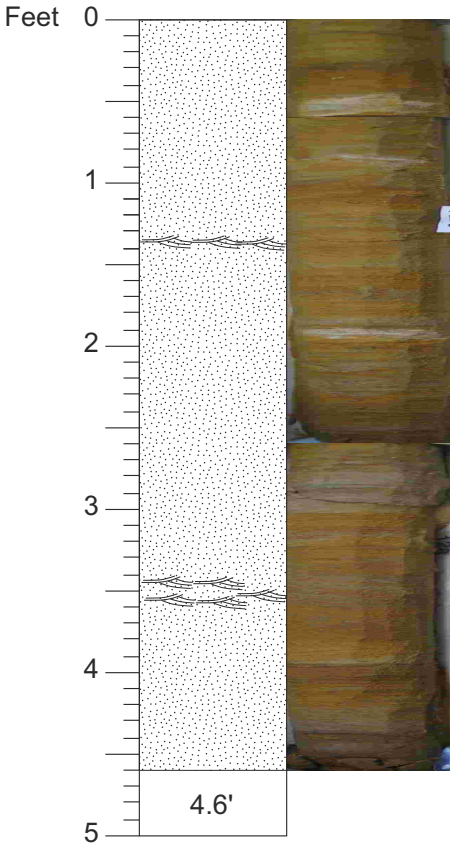


SAND; fine-medium, well-sorted, (1-2%) ohm; brownish yellow (10YR 6/6).

SAND; fine-medium; laminated with burrows (burrows with silt and clay), lamina (0.1 mm), some with higher percent ohm; 0.5 ft: 4-5 mm laminae (10YR 7/2; light gray); 1.15-1.4 ft higher percent ohms, 1.4 resume laminations

Core #22
Start depth: 120 ft
Stop depth: 125 ft
Recovery: 4.75 ft
Date: 10/12/08
Described by: LMM, NAA, PS

below 4.3 ft, laminations cease (maybe because of smearing at end of core).



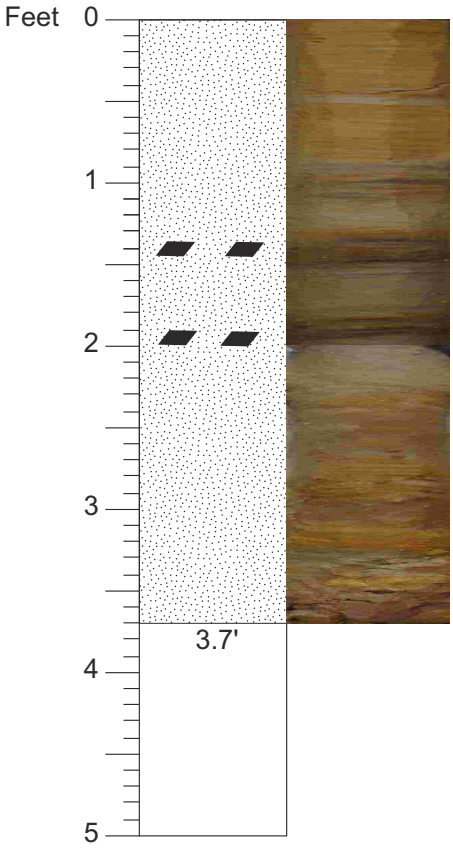
SAND; fine to medium sand, well-sorted, ohms (1-2%) generally concentrated in 1-2 mm laminae; yellowish brown (10YR 5/8).

Color change: very pale brown (10YR 7/2).

1.3-1.4 ft: cross-laminations

3.4-3.6 ft: cross-laminations

Core #23
Start depth: 125 ft
Stop depth: 130 ft
Recovery: 4.6 ft
Date: 10/12/08
Described by: PS, LMM, NAA



SAND; medium; with fine sand laminations, well sorted; mostly quartz, (~1-2%) ohms; yellow (10YR 7/8).

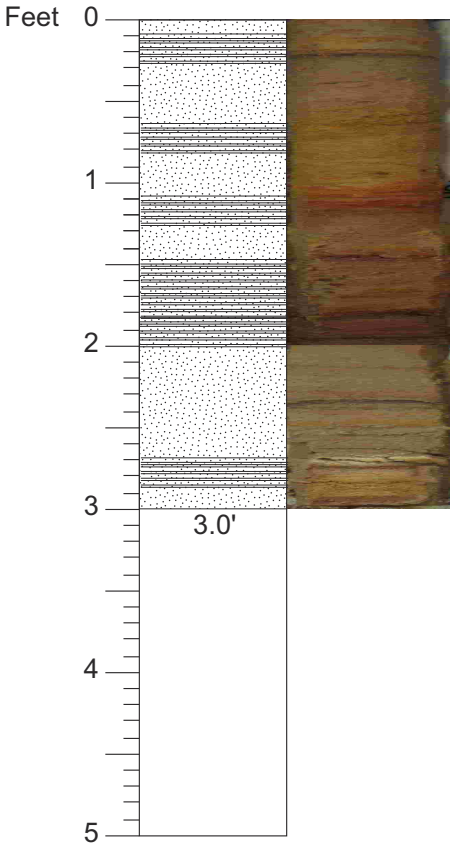
~1cm bed; very pale brown (10YR 7/4).

1.3-1.5 ft: lignitic sands

1.9-2.0 ft: lignitic sands

3.4-3.5 reddish brown (2.5YR 5/4).

Core #24
Start depth: 130 ft
Stop depth: 135 ft
Recovery: 3.7 ft
Date: 10/12/08
Described by: PS, LVM, NAA



SAND; medium, well-sorted; 1-2% ohm; pale brown (10YR 6/3)
0.1-0.3 ft: fine laminae

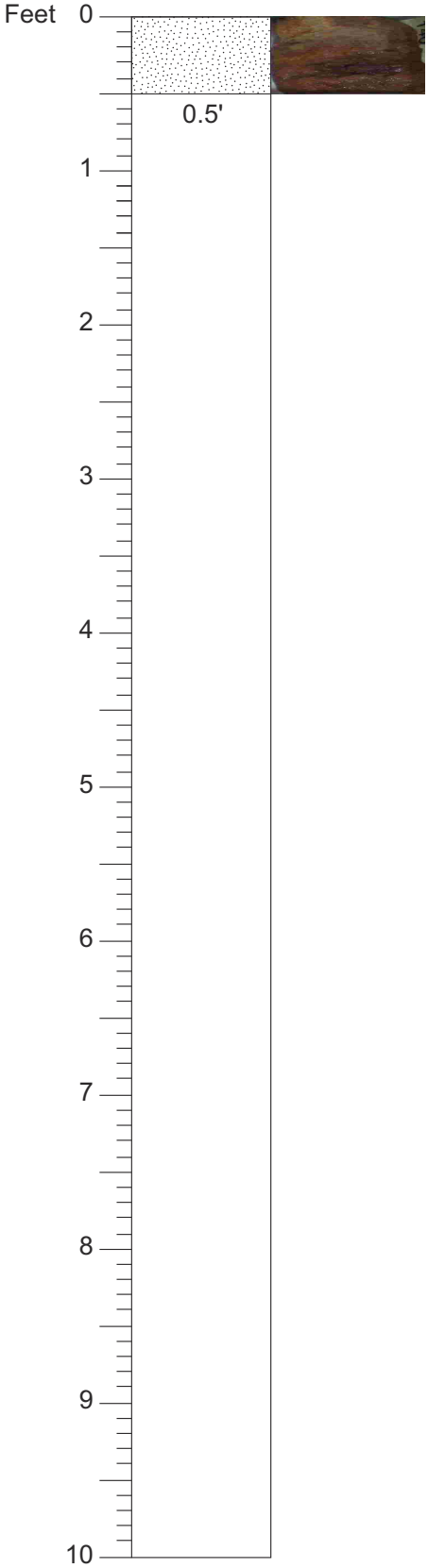
0.7-0.8 ft: fine laminae

1.1-1.3 ft: fine sand, well-sorted, oxidized; fine laminae; red (2.5YR 4/8) and strong brown (7.5YR 5/8).

1.5-2.0 ft: medium sand with laminations

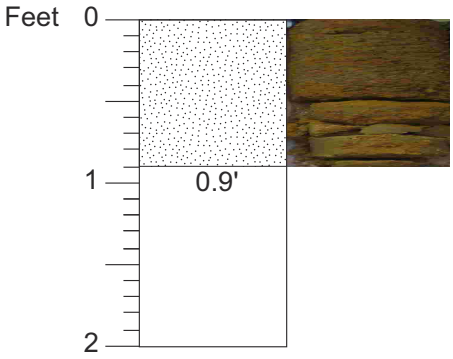
2.0-3.0 ft: poorly sorted, laminated and color variations, laminae below 2.7 ft; pale brown (10YR 6/3)

Core #25
Start depth: 135 ft
Stop depth: 140 ft
Recovery: 3 ft
Date: 10/12/08
Described by: PS, LMM, NAA



SAND; coarse to medium sand, poorly sorted; expanding sands prevented visualization of sedimentary structures; red (2.5YR 5/6) to darkish reddish brown (2.5Y 2.5/3).

Core #26
Start depth: 140 ft
Stop depth: 150 ft
Recovery: 0.5 ft
Date: 10/12/08
Described by: PS, NAA, LMM

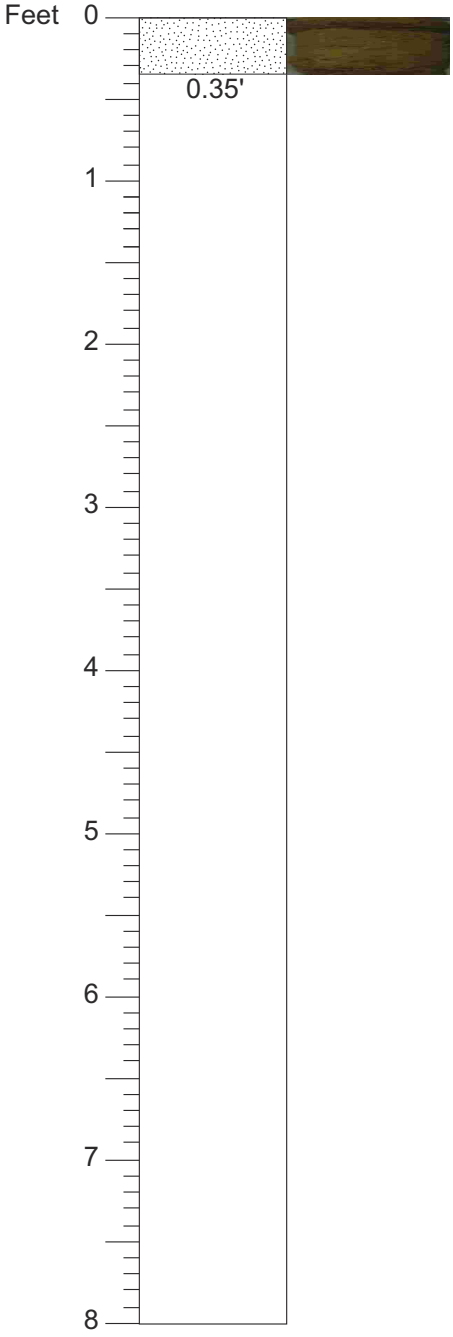


SAND; coarse, quartz, poorly sorted; yellowish brown (10YR 5/6).

0.5-0.9 ft: medium quartz sand, better sorted than above; olive yellow (2.5Y 6/6).

Note: core is encrusted by a very coarse to granular sand rind; coarser grains present may not reflect true core.

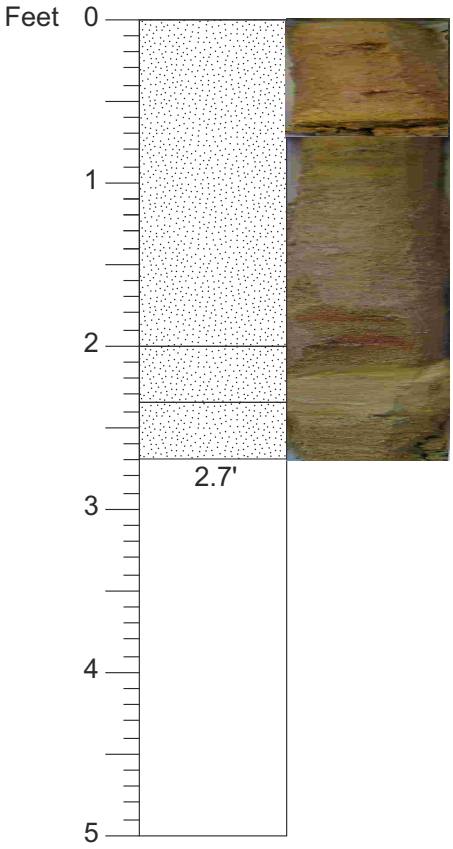
Core #27
Start depth: 150 ft
Stop depth: 152 ft
Recovery: 0.9 ft
Date: 10/12/08
Described by: PS, NAA, LMM



SAND; medium-fine, moderately well-sorted; too homogenized to see laminations or none are present; brownish yellow (10YR 6/6)

Note: core is encrusted by a very coarse to granular sand rind; coarser grains present may not reflect true core.

Core #28
Start depth: 152 ft
Stop depth: 160 ft
Recovery: 0.35 ft
Date: 10/12/08
Described by: PS, LMM, NAA

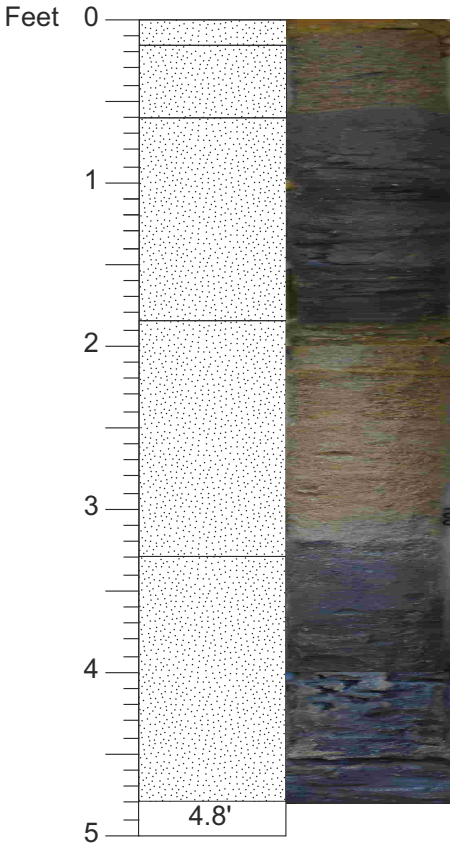


SAND; fine to medium, with some very coarse grains, poorly sorted; mostly quartz; yellowish brown (10YR 5/8) to red (2.5YR 4/6)

SAND; very fine sand, ~1% ohm; abrupt color change, olive yellow (2.5Y 6/6)

SAND; same as above

Core #29
Start depth: 160 ft
Stop depth: 165 ft
Recovery: 2.7 ft
Date: 10/12/08
Described by: PS, LMM, NAA



SAND; medium, well-sorted; strong brown (7.5Y 5/6)
SAND; coarse, poorly-sorted with grains to coarse; light gray (10YR 7/1)

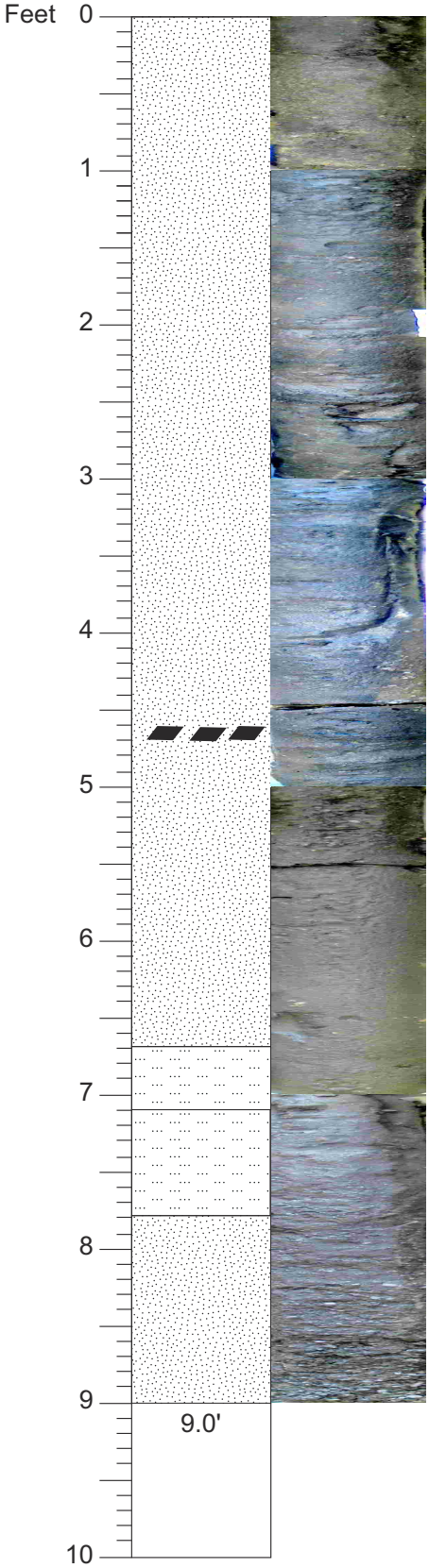
SAND; predominantly very fine, silt, (10-20%) mica; lignitic laminations; black (2.5Y 2.5/1)

SAND; medium to coarse, poorly sorted; micaceous; clay laminae at 2.2 ft; light olive (2.5Y 5/3).

SAND; very fine sand to silt, well-sorted, slightly micaceous (not as much as above); very dark gray (2.5Y 3/1)

Note: Kirkwood/Cohansey contact at 165.1 ft

Core #30
Start depth: 165 ft
Stop depth: 170 ft
Recovery: 4.8 ft
Date: 10/12/08
Described by: PS, LMM, NAA



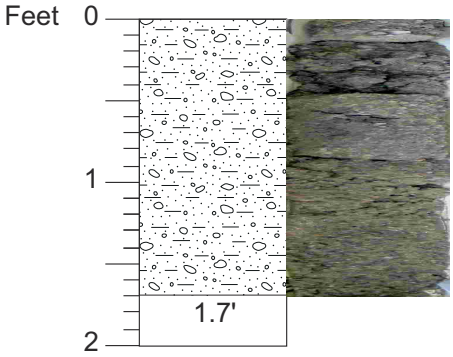
SAND; medium to fine sand, ~10% mica, increasing silt to 6.7 ft, possible lignite or wood at 4.65 ft; very dark gray (2.5Y 3/1)

SILT; sandy with gravel-sized grains, mostly quartz, ~10% mica

SILT; some very fine sand, ~10% micaceous; very dark gray (2.5Y 3/1)

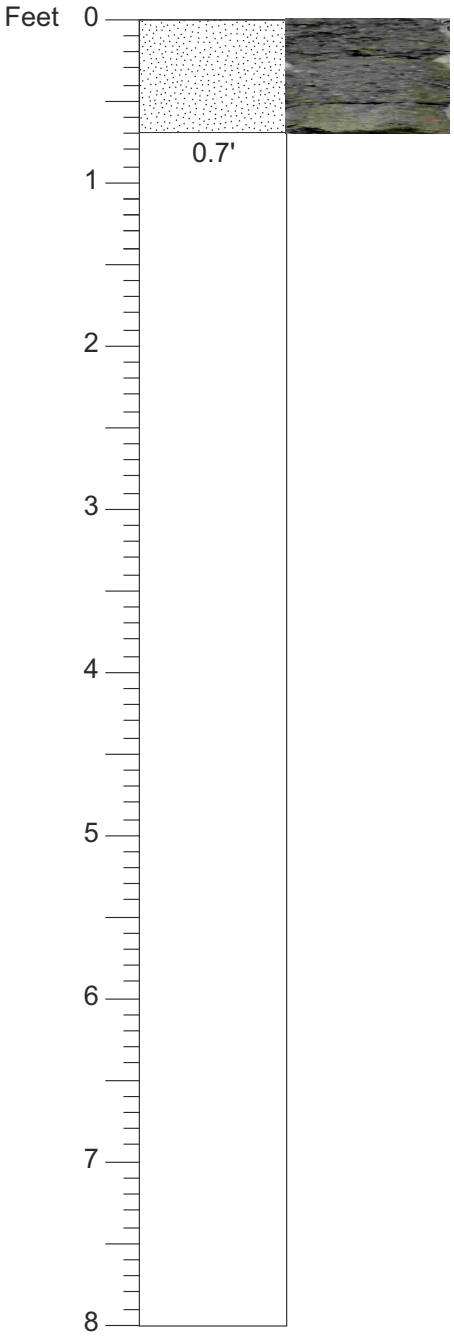
SAND; very fine, abundant quartz granules, fining upward to 7.8 ft, very poorly sorted.

Core #31
Start depth: 170 ft
Stop depth: 180 ft
Recovery: 9 ft
Date: 10/12/08
Described by: PS, LMM, NAA



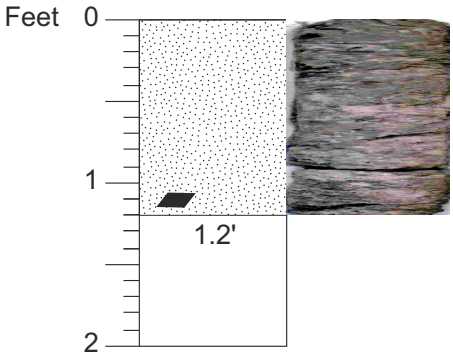
GRAVEL; sand; very coarse, to slightly pebbly granuliferous sand, poorly sorted; coarser up core (may be a washing artifact), gravel includes chert/flint fragments (up to 7 mm); ?channel in delta front environment; 0-0.85 ft sloppy core, 0.85-1.7 ft solid core; gray (2.5Y 5/1)

Core #32
Start depth: 180 ft
Stop depth: 182 ft
Recovery: 1.7 ft
Date: 10/13/08
Described by: KGM, ADH, HW



SAND; slightly pebbly, granuliferous sand to sandy gravel, very coarse, poorly sorted; gray (2.5Y 5/1)

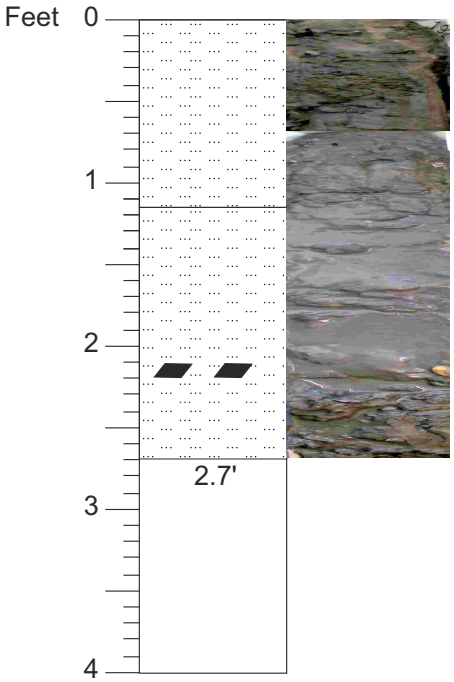
Core #33
Start depth: 182 ft
Stop depth: 190 ft
Recovery: 0.7 ft
Date: 10/13/08
Described by: KGM, ADH, HW



SAND; very fine to fine, silty with interlaminated/interbedded SAND, medium, good sorting, quartz, mica (~3%); greenish black (10GY 2.5/1).

The bottom of the core has a large lignite chunk (1cm x 3cm)

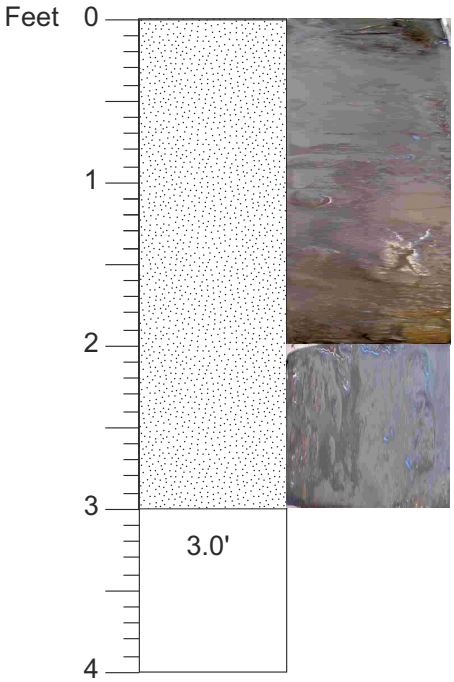
Core #34
Start depth: 190 ft
Stop depth: 192 ft
Recovery: 1.2 ft
Date: 10/17/08
Described by: JVB



SILT; to fine-very fine SAND; clayey; lignite (~2%), subrounded, well-sorted, quartz; greenish black (10Y 2.5/1).

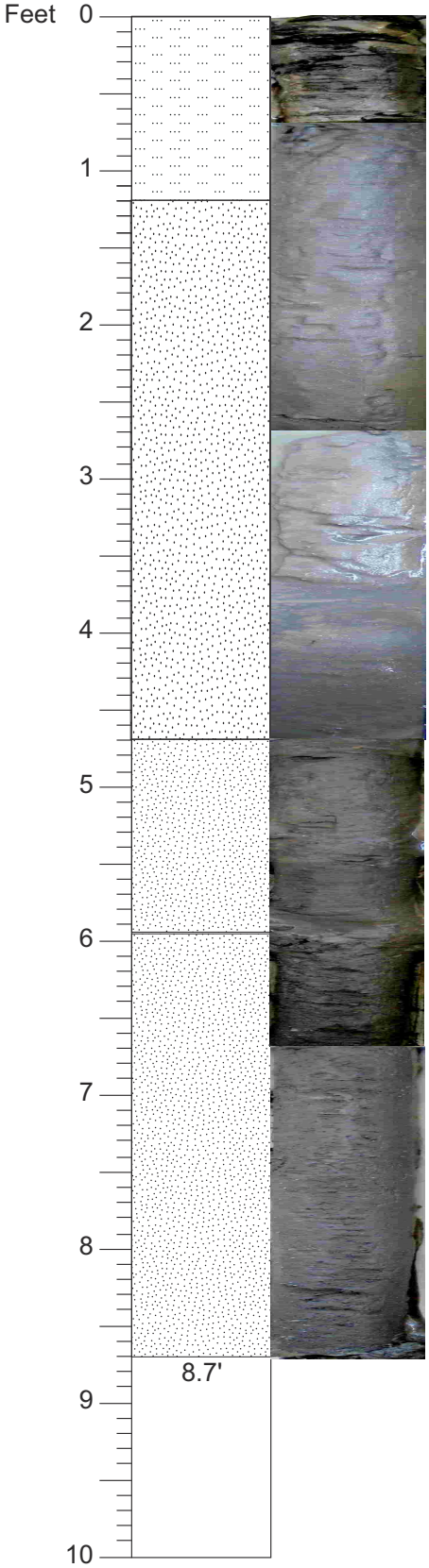
SILT; to fine-very fine SAND; very well-sorted, subangular, subrounded, lignite (5%), micaceous (1-2%); larger lignite pieces at 2.1 to 2.2 ft.

Core #35
Start depth: 192 ft
Stop depth: 196 ft
Recovery: 2.7 ft
Date: 10/17/08
Described by: DHM, JU



SAND; very fine, silt, very well sorted; subangular-subrounded, lignite (5%), micaceous (1-2%); massive, no sediment structures; lignite appears to increase downwards in the core; very dark greenish gray (10GY 3/1)

Core #36
Start depth: 196 ft
Stop depth: 200 ft
Recovery: 3 ft
Date: 10/17/08
Described by: DHM, JU



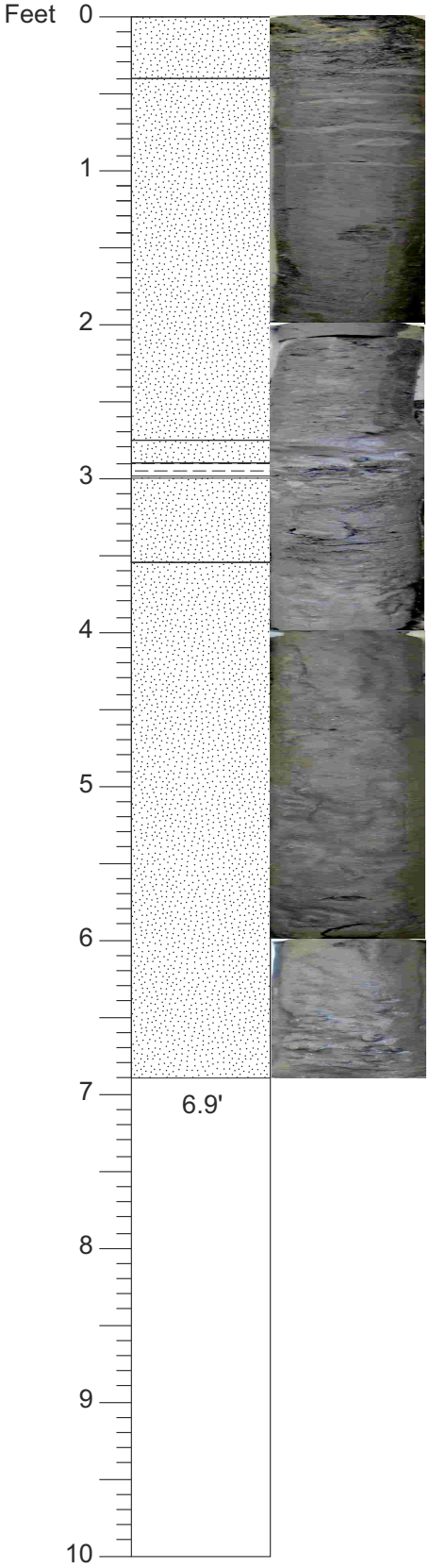
SILT; with interbedded fine sandy silt and clayey silt; individual beds are 0.5-2 cm-thick, lignitic (2-5%), micaceous (5%); very well sorted, subangular-subrounded; very dark grayish brown; (2.5Y 3/2)

SAND; very fine, silt; mica (5%), quartz, lignite (<2%; content increases at the bottom), very well sorted; subangular-subrounded

SAND; fine to very fine, very well sorted; minor lignite (dramatic decrease in lignite); subangular-subrounded; very dark gray (7.5YR 3/1)

SAND; fine to very fine, very minor lignite, slightly micaceous, silty, possibly laminated; might contain clay, holds together better than sand at 1.7 - 4.75 ft; very dark gray (7.5YR 3/1)

Core #37
Start Depth: 200 ft
Stop Depth: 210 ft
Recovery: 8.7 ft
Date: 10/17/08
Described by: DHM, JU, JVB



SAND; very coarse to fine, quartz, very poorly sorted; trace mica, lignite is very fine to medium, sand-sized; subangular-subrounded; irregular contact at 0.1 ft; black (2.5Y 2.5/1)

SAND; medium to very fine, moderate sorting; subangular-subrounded; lignite parallel bedding suggesting laminations, horizontal burrows (1 cm diameter) are clustered from 0.4 - 1.0 ft; very dark gray (5Y 3/1) and burrow infill is dark gray (5Y 4/1)

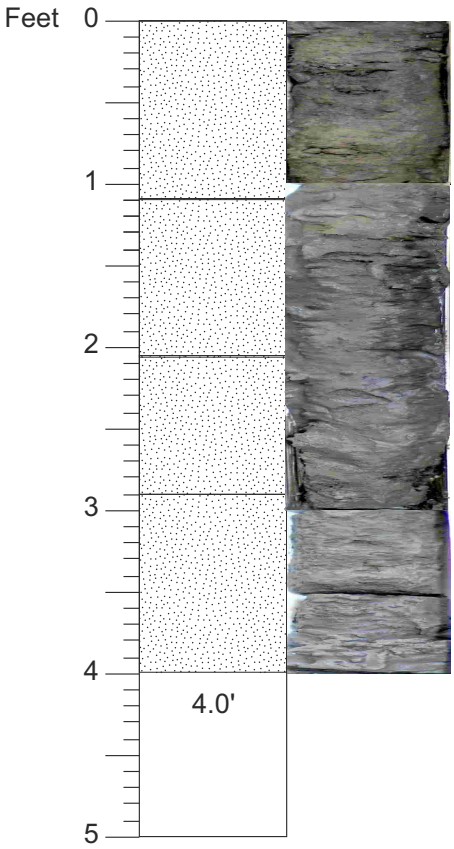
SAND; fine, silty, micaceous (5%), (2-3%) ohm, mica coarser than quartz - medium sand-sized; well sorted.

CLAY; silty, micaceous, organic rich, lignitic fragments up to 4 mm across.

SAND; very fine, silty, micaceous (less than above), (1-2%) ohm, large quartz pebble and lignite (not sure if in place); dark olive gray (5Y 3/2).

SAND; silt, mica up to medium sand-sized, mica (5%), lignite (5%), rare coarse quartz, very well sorted; intervals of increased lignite, lignite not aligned in beds; mottled texture

Core #38
Start Depth: 210 ft
Stop Depth: 220 ft
Recovery: 6.9 ft
Date: 10/18/08
Described by: JU, JVB, DHM



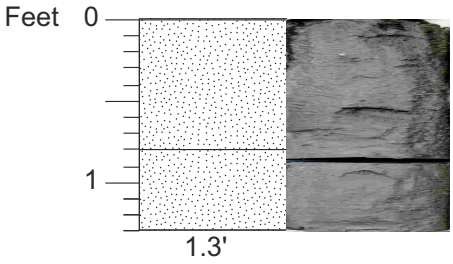
SAND; coarse to very fine and silty, mica (2%), ohm trace, lignite size up to medium sand-sized (~2%), coarser appearing at base of cemented sand, one pebble clast, poorly sorted; subrounded, laminated locally that appears slightly inclined from 0.1-0.3 ft; very dark gray (5Y 3/1)

SAND; medium to fine sand, ohm (2-3%), clayey, mica (1%), lignite (1-2%), well sorted; subrounded-subangular, lignitic silty clay laminae is parallel to bedding.

SAND; very fine, mica (1%), lignite disseminated (1-2%), very well sorted; subangular-subrounded; very dark gray (5Y 3/1).

SAND; medium-fine, silt, clay; could be parental horizontal for pebble described above; stiffer core, indurated, grains other than quartz are immature, yellow grains, mica trace, lignite to (2%), poorly sorted; traces of laminations; very irregular contact at top; very dark gray (5Y 3/1).

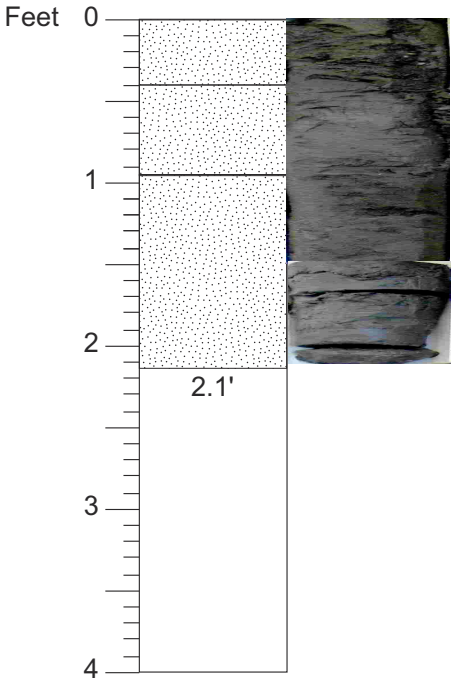
Core #39
Start Depth: 220 ft
Stop Depth: 225 ft
Recovery: 4 ft
Date: 10/17/08
Described by: JVB, JU, DHM



SAND; coarse to very fine, mica trace, (1-2%) lignite of varying size, other rock fragments of varying sizes and lignitic clasts, poorly sorted; subangular-subrounded; black (5Y 2.5/1)

SAND; very fine sand, silty, lignite (2%), mica trace, ohm trace, rock fragment trace, well sorted; subangular-subrounded, slightly coarser at base; black (5Y 2.5/1)

Core #40
Start Depth: 225 ft
Stop Depth: 226 ft
Recovery: 1.3 ft
Date: 10/17/08
Described by: JU, JVB, DHM

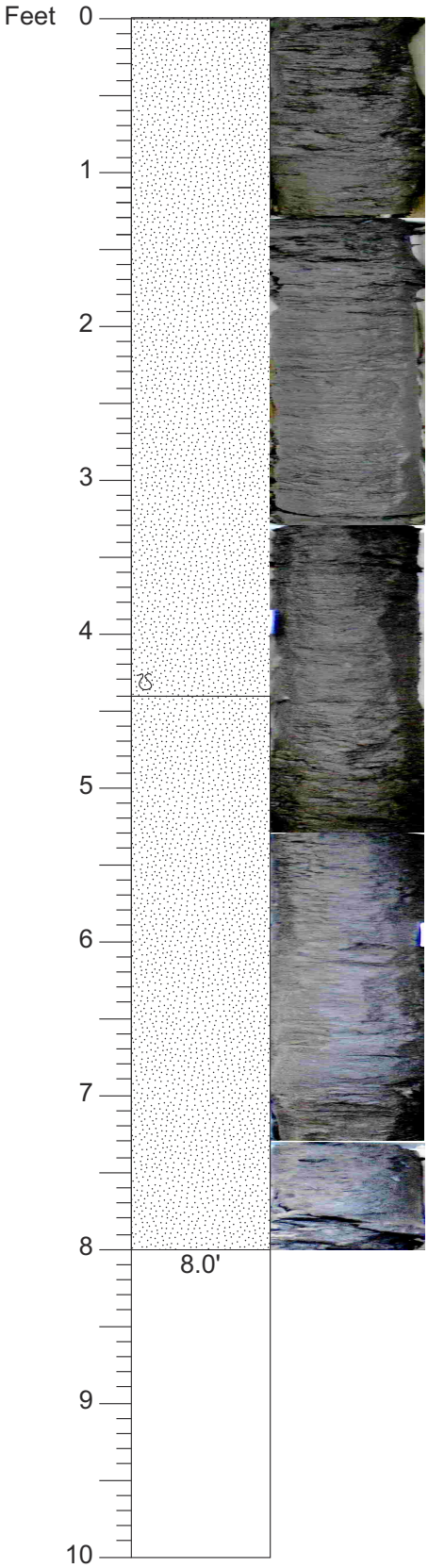


SAND; medium, quartz, trace mica, lignite (1-3%) very fine, no rock fragments, moderate sorting; subangular-subrounded; inclined contact; very dark gray (5Y 3/1).

SAND; very fine, silty, slightly clayey, coarser at the bottom to fine-grained, well sorted; subangular-subrounded; lignite (1-3%), mica (1%); horizontal laminations (mm scale) in top section

SAND; very fine sand to silt, slightly clayey, mica (2-3%), lignite decreases below 1.25 ft; more organic rich; laminated; some of the sand is iron stained, some iron cement granules; lignite laminae are black (7.5YR 2.5/1).

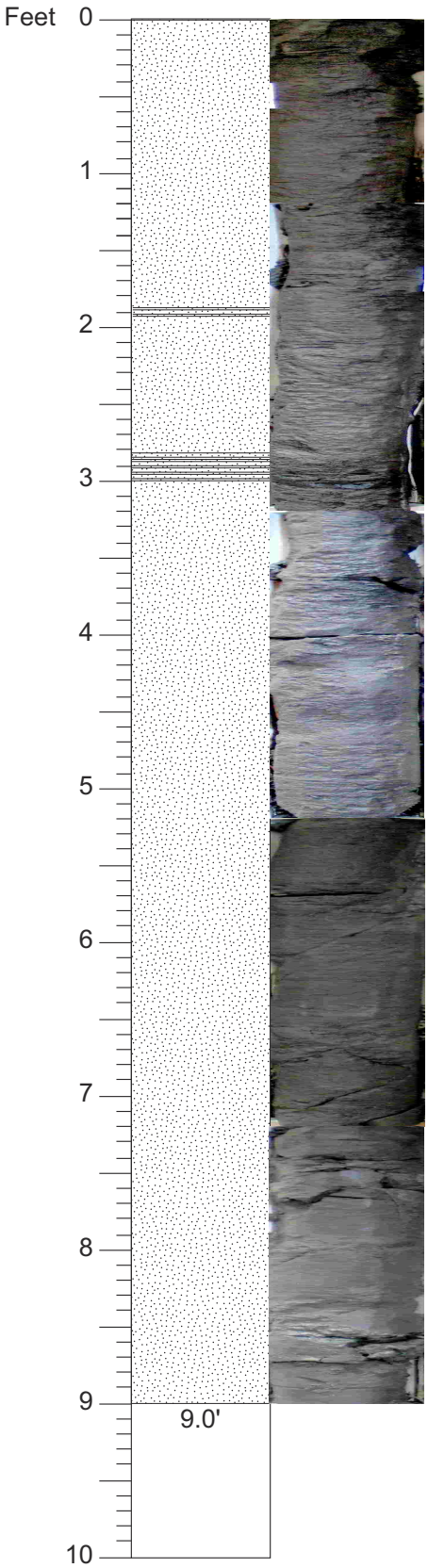
Core #41
Start Depth: 226 ft
Stop Depth: 230 ft
Recovery: 2.1 ft
Date: 10/17/08
Described by: JU, JVB, DHM



SAND; very fine to silt, mica (1-2%), ohm (1-2%), some quartz; subangular-subrounded; evidence of mm scale laminations throughout the core; possibly Fe stained; some horizontal burrows; black (5Y 2.5/1)

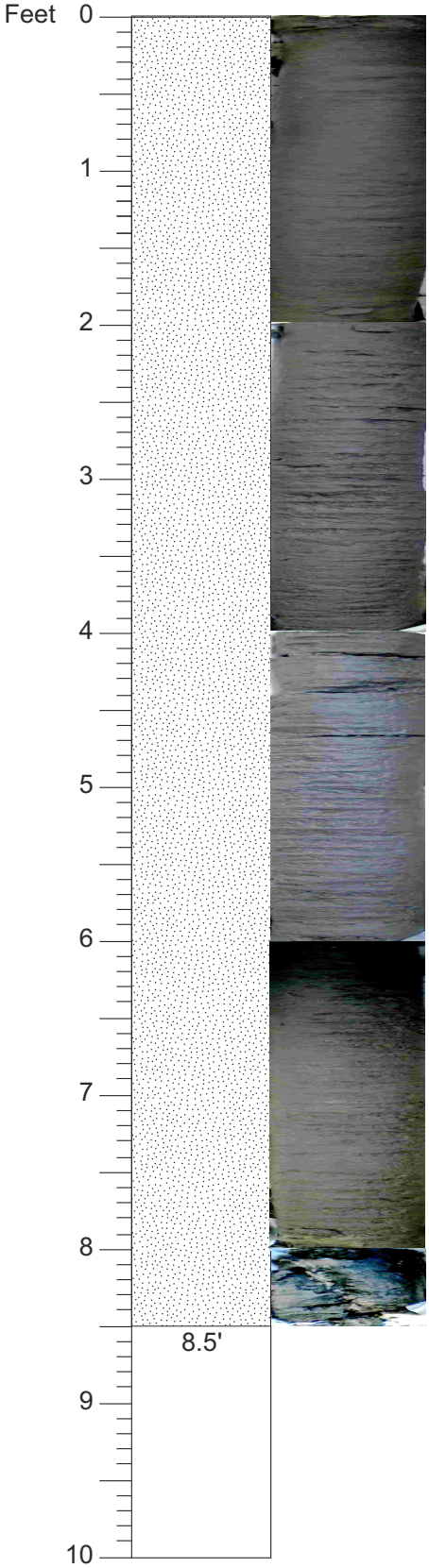
SAND; very fine to silt, very well sorted; minor clay; some larger lignite and increased mica content

Core #42
Start Depth: 230 ft
Stop Depth: 240 ft
Recovery: 8.0 ft
Date: 10/17/08
Described by: JU, JB, DM



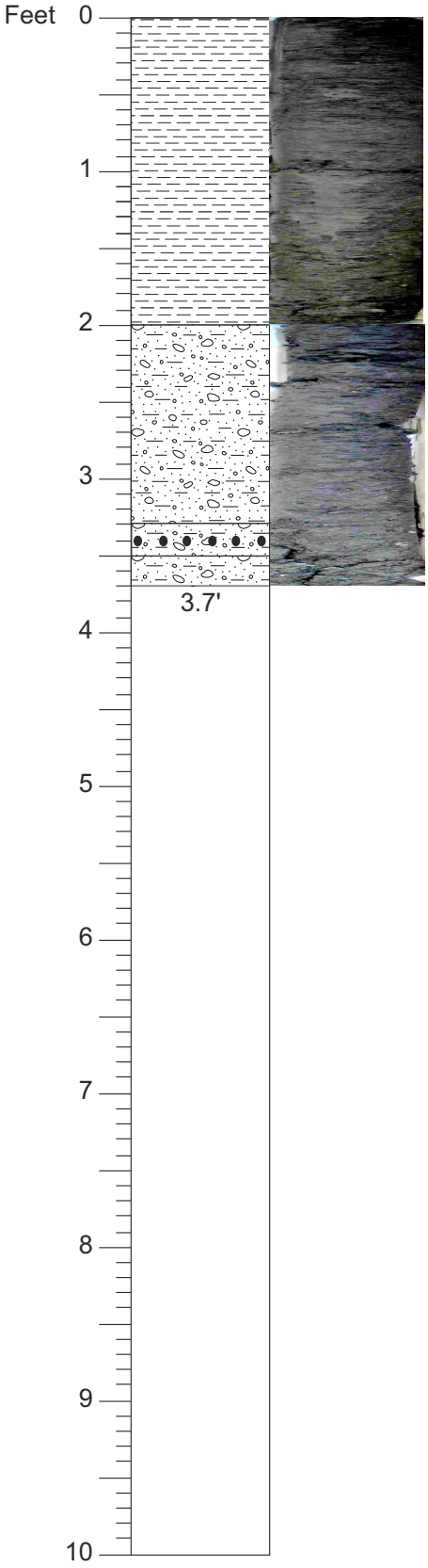
SAND; silty fine, mica (2-5%), lignite trace, clay content increases from 6.0 ft downward; very well sorted; hints of laminations (mm scale), some laminae could be inclined; clay laminae, (2-5 mm) thickness, and lignitic clay from 2.9 to 3.0 ft; black (5Y 2.5/1)

Core #43
Start Depth: 240 ft
Stop Depth: 250 ft
Recovery: 9 ft
Date: 10/17/08
Described by: JU, JVB, DHM



SAND; fine, very micaceous, 1 cm thick; interlaminated with SILT; clayey; 0.5 cm thick; prodelta/distal delta front; black (5YR 2.5/1), downward becomes very dark gray (2.5Y 3/1)

Core #44
Start Depth: 250 ft
Stop Depth: 260 ft
Recovery: 8.5 ft
Date: 10/18/08
Described by: NAA, PJS, HW

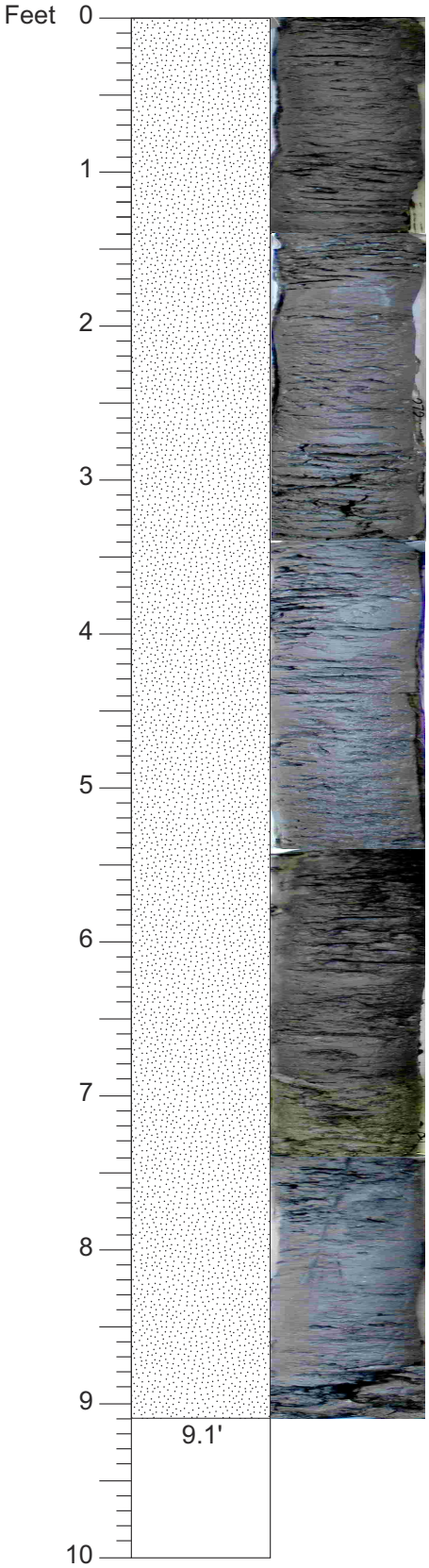


SAND; fine, micaceous, 1 cm thick; interlaminated with SILT; clayey; 0.5 cm thick, fining upward sequence, with an increase in sand down core; micaceous; fine laminations throughout; black to very dark gray (2.5Y 2.5/1 to 3/1)

GRAVEL becomes more common

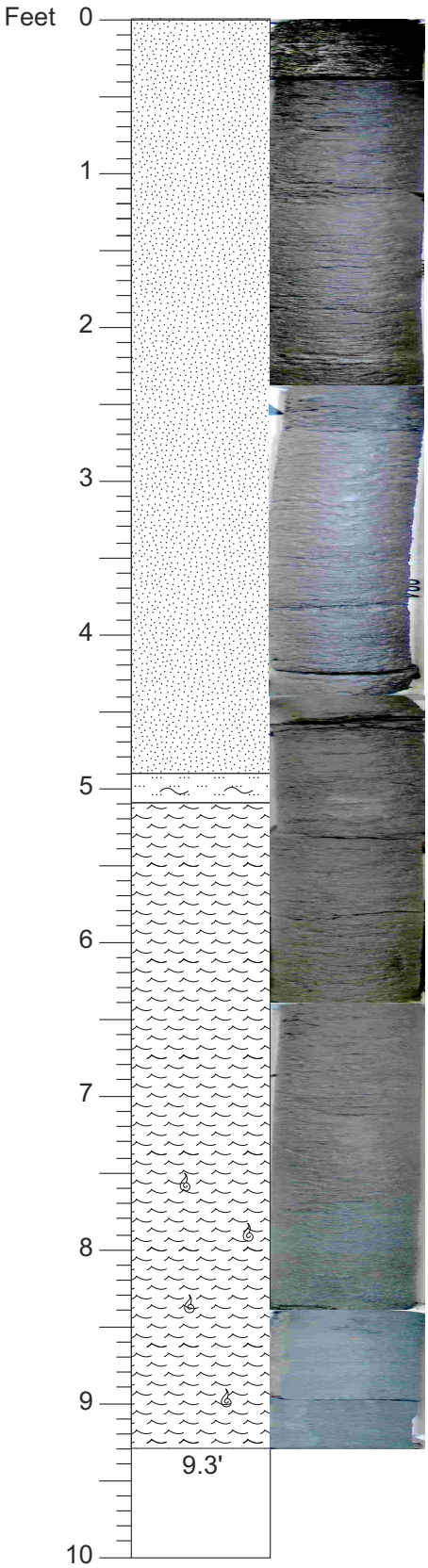
Gravel at base is not in situ

Core #45
Start Depth: 260 ft
Stop Depth: 270 ft
Recovery: 3.7 ft
Date: 10/18/08
Described by: NAA, PJS, HW



SAND; fine, micaceous, 1 cm thick; interlaminated with SILT; clayey, 0.5 cm thick; some drilling mud and gravel at the base of the core is not in place; black to very dark gray (2.5Y 2.5/1 to 3/1).

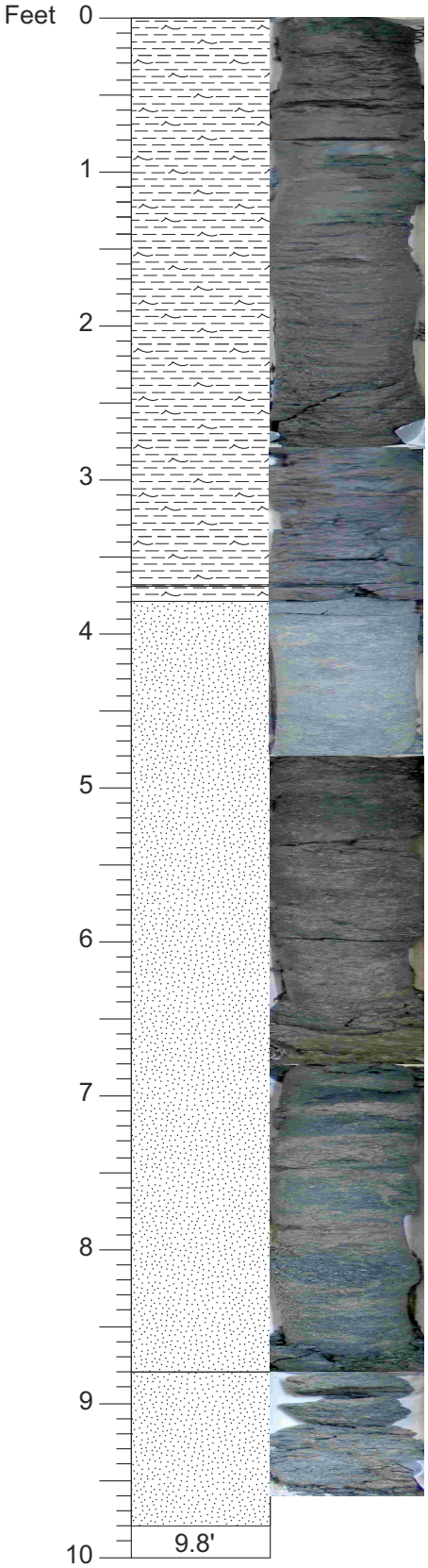
Core #46
Start Depth: 270 ft
Stop Depth: 280 ft
Recovery: 9.1 ft
Date: 10/18/08
Described by: NAA, PJS, HW



SAND; fine, very micaceous, 1 cm thick; interlaminated with SILT; clayey; 0.5 cm thick; black to very dark gray (2.5Y 3/1).

SAND; medium to very coarse; glauconitic; horizontal burrows, shell fragments; greenish black (gley 5G 2.5/1).

Core #47
Start Depth: 280 ft
Stop Depth: 290 ft
Recovery: 9.3 ft
Date: 10/18/08
Described by: NAA, PJS, HW

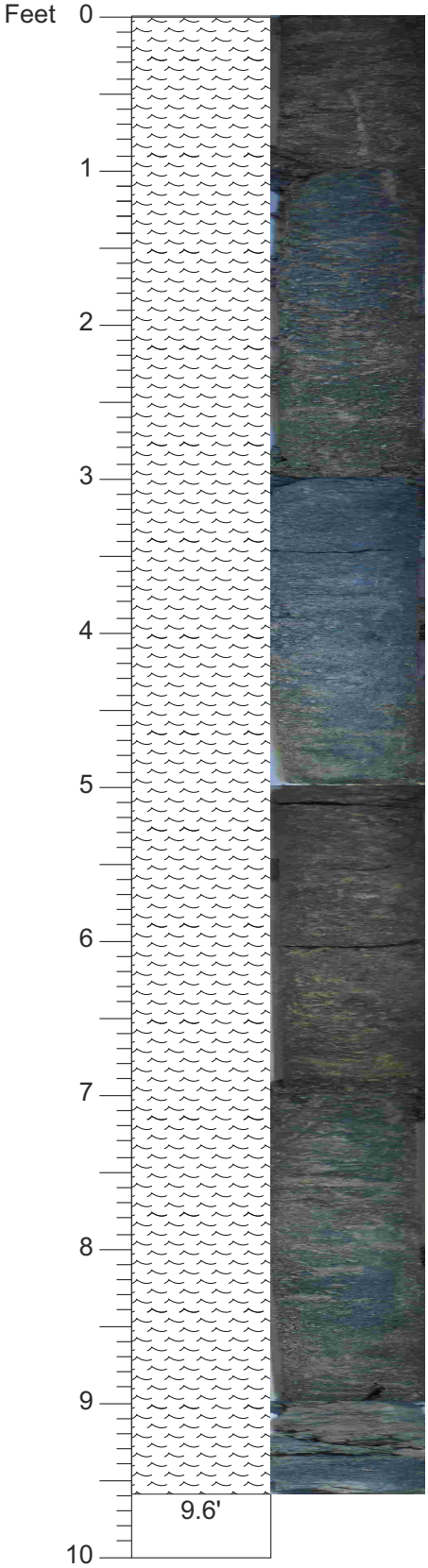


CLAY; with coarse to fine grained glauconite; <5% mica; heavily burrowed and some bedding; greenish black (5G 2.5/1), interbedded with black (2.5Y 3/2)

Lignite sliver
Abrupt contact

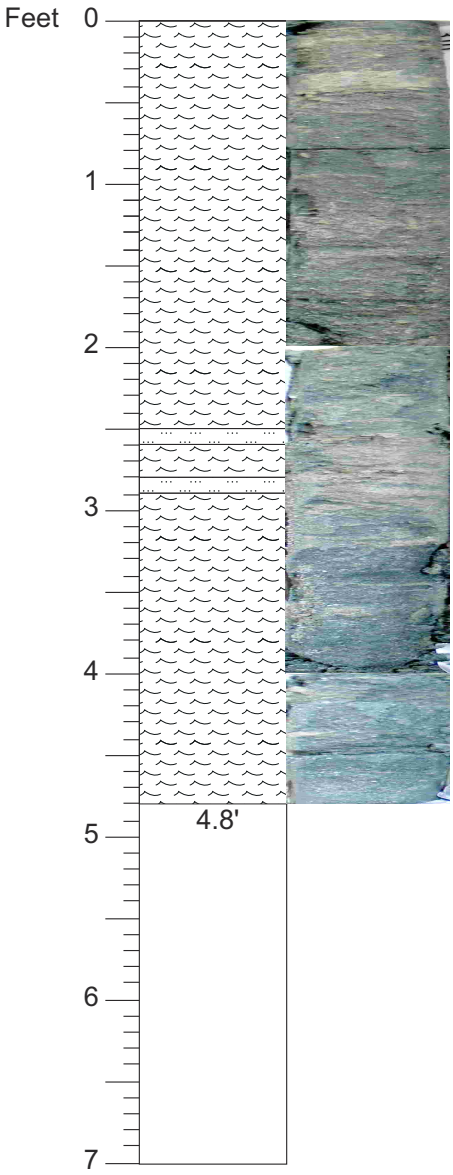
SAND; fine to very coarse; very poorly sorted, semi angular; highly burrowed shelf sand, dark greenish gray (10Y 4/1), very dark grayish green (5G 3/1)

Core #48
Start Depth: 290 ft
Stop Depth: 300 ft
Recovery: 9.8 ft
Date: 10/18/08
Described by: NAA, PJS, HW



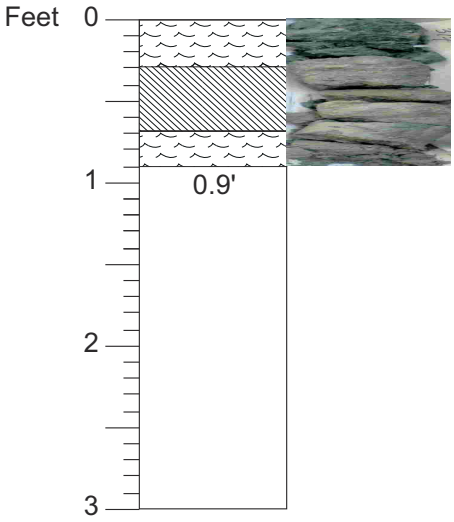
SAND; fine to granules; glauconite grains in a matrix of quartz grains; poorly sorted, highly burrowed; light olive gray (5Y 6/2)

Core #49
Start Depth: 300 ft
Stop Depth: 310 ft
Recovery: 9.6 ft
Date: 10/18/08
Described by: NAA, PJS, HW



SAND; very coarse to fine, poorly sorted; glauconitic, highly burrowed; highly cemented shale beds from 2.55 to 2.6 ft and 2.8 to 2.9 ft; greenish black (10GY 2.5/1)

Core #50
Start Depth: 310 ft
Stop Depth: 317 ft
Recovery: 4.8 ft
Date: 10/18/08
Described by: NAA, PJS, HW

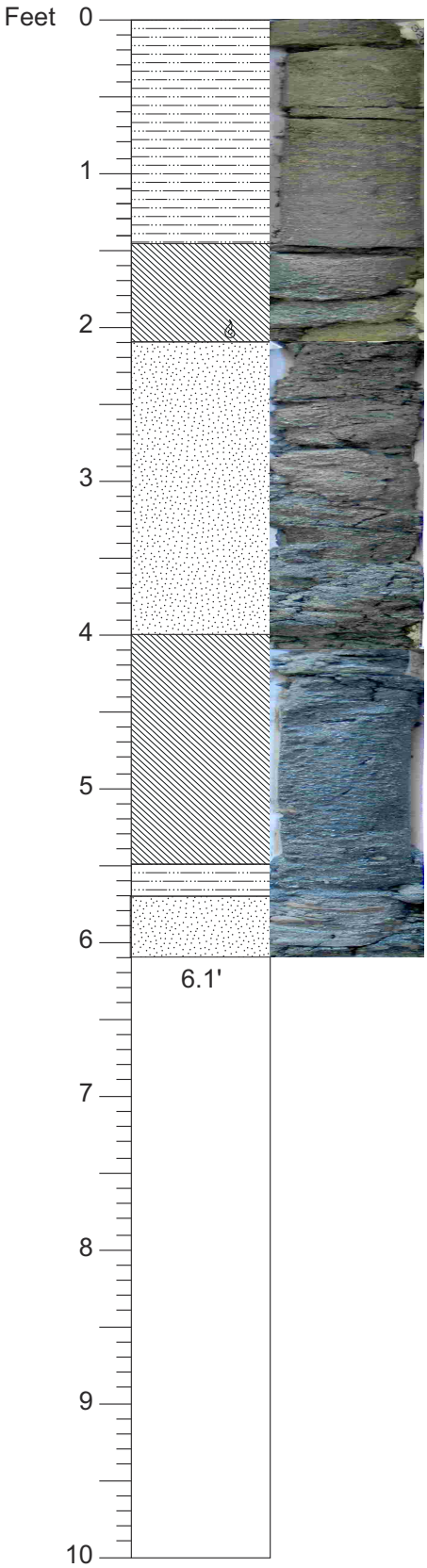


SAND; glauconite and quartz; greenish black (5GY 2.5/1).

INDURATED; dark grayish brown (10YR 4/2).

SAND; silty, fine to very coarse, glauconitic quartz sand; poorly sorted; greenish black (5GY 2.5/1).

Core #51
Start Depth: 317 ft
Stop Depth: 320 ft
Recovery: 0.9 ft
Date: 10/18/08
Described by: NAA, PJS, HW



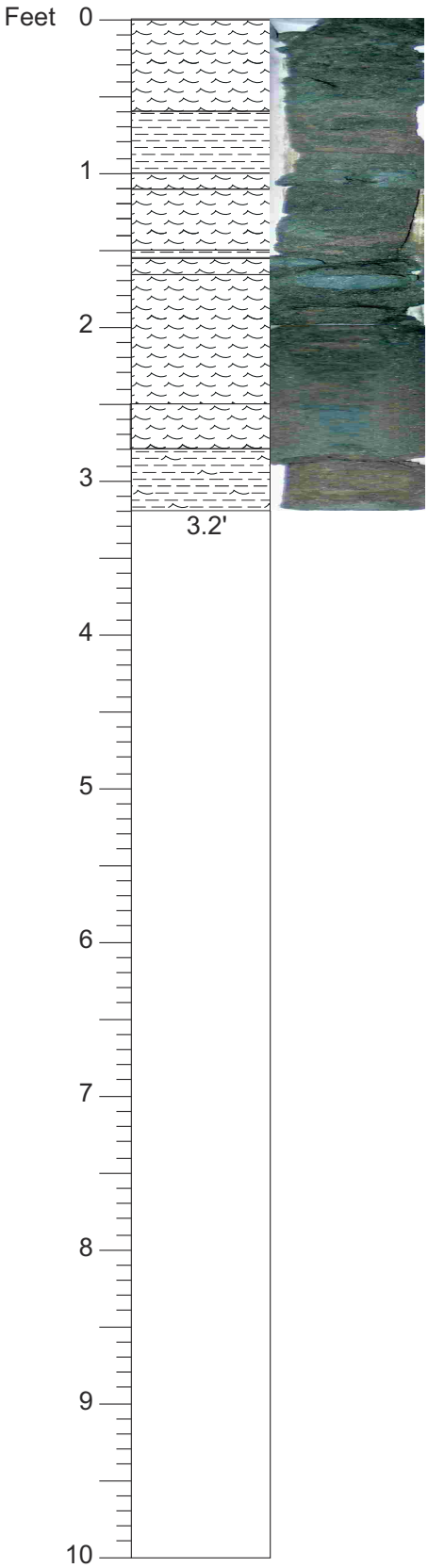
SAND, glauconite, indurated; silty clay matrix; large shell located at 2.0 ft; granules to fine quartz sand, poorly sorted; structureless except for the indurated zone starting at 4 ft; (5GY 2.5/1).

less indurated larger percent glauconite, dark green glauconite

Shale beds

Note: core appears to have been twisted with green muds being pushed into the otherwise sandy beds

Core #52
Start Depth: 320 ft
Stop Depth: 330 ft
Recovery: 6.1 ft
Date: 10/18/08
Described by: PJS, NAA, HW



SAND; medium to coarse, clayey, poorly sorted; glauconite and quartz, ohm present; very dark grayish green (5GY 5/2).

CLAY; bioturbated clay laminae

SAND; clayey, distinctly more green glauconite-quartz.

SAND; less clayey, glauconite-quartz sand.

CLAY; laminae; dark greenish gray (5G 4/1).

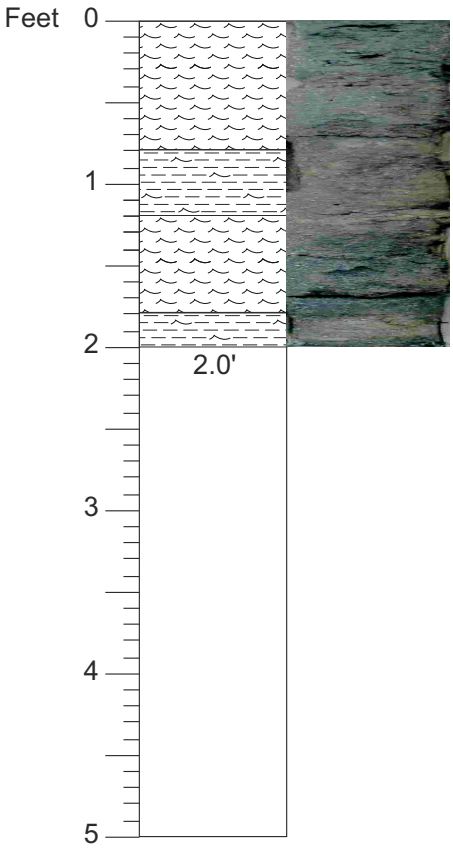
SAND; clayey, distinctly more green glauconite-quartz.

SAND; clayey, glauconite-quartz.

SAND; medium sand, glauconite more dominant than quartz, moderately well sorted.

CLAY; medium to coarse,quartz-glauconite sand; poorly sorted; indurated.

Core #53
Start Depth: 330 ft
Stop Depth: 340 ft
Recovery: 3.2
Date: 10/19/08
Described by: KGM, LMM, ZUL



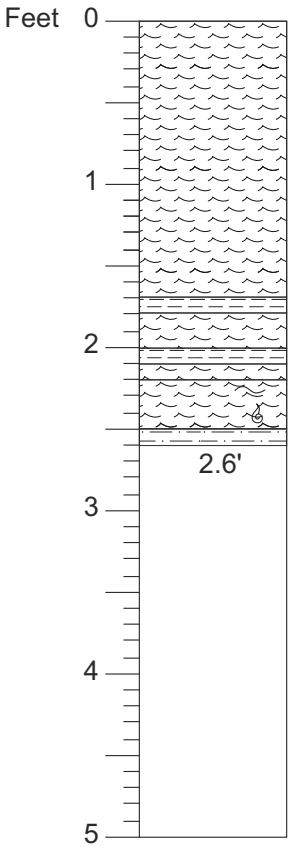
SAND; medium to coarse, clayey, glauconite-quartz, less ohm, poorly-sorted; very dark grayish green (5G 2.5/2).

CLAY; with coarse glauconite sand, more ohm than above; indurated brown clay

SAND; medium to coarse, clayey; glauconite-quartz; more clay toward the bottom.

CLAY; glauconite quartz sand, indurated brown clay.

Core #54
Start Depth: 340 ft
Stop Depth: 345 ft
Recovery: 2 ft
Date: 10/19/08
Described by: KGM, LMM, ZUL

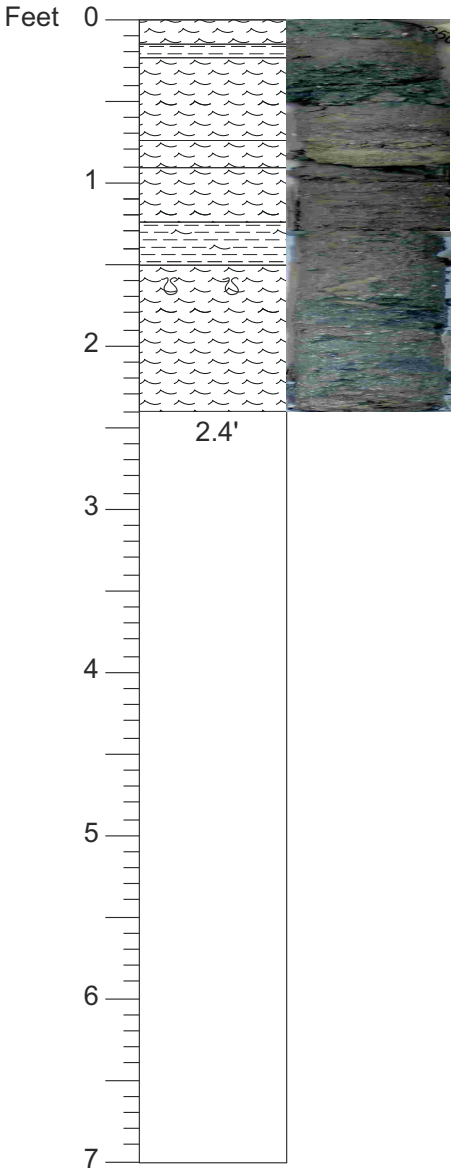


SAND; medium to coarse, clayey, poorly sorted; mostly glauconite, some quartz, ohm present; dark greenish gray (5GY 4/1)

CLAY; lamina (1mm); very dark brown (10YR 2/2).
SAND; clayey, glauconite sand, ohm, moderately sorted.
CLAY; bed (2 cm).
SAND; glauconitic.
SAND; clayey, glauconite-quartz sand; indurated and alternating; cemented thin bed (1cm); clay lamina.
CLAY; sandy clay; indurated; pelecypoda internal mold; pectenid hash in core catcher

NOTE: No photos for 345 to 350 ft.

Core #55
Start Depth: 345 ft
Stop Depth: 350 ft
Recovery: 2.6 ft
Date: 10/19/08
Described by: KGM, LMM, ZUL



SAND; clayey, glauconite, some quartz; very dark grayish green (5G 3/2).

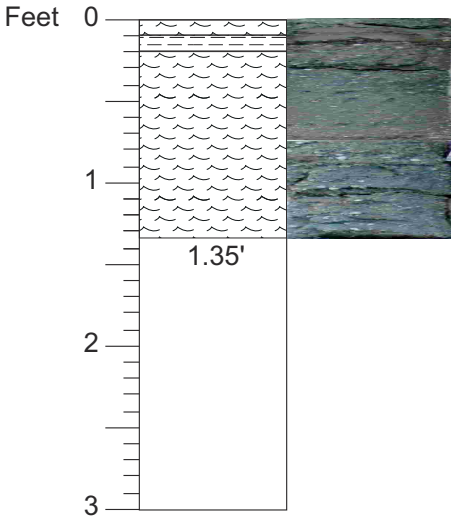
CLAY; thin bed; dark greenish gray (10Y 4/1).

SAND; medium to coarse; glauconite, some quartz granule-sized grains, fining upward, poorly sorted; very dark grayish green (5G 2.5/2).

SAND; clayey, medium-grained, more dominant glauconite sand; poorly sorted, fossiliferous with pecten internal molds, shell hash?; clay induration at the bottom; grayish brown (10YR 5/2)

SAND; medium to coarse, poorly sorted; glauconite-quartz, quartz granules increasing toward the bottom, clay rich area from 1.25 to 1.5 ft, indurated clay burrows (especially 1.6-1.8)

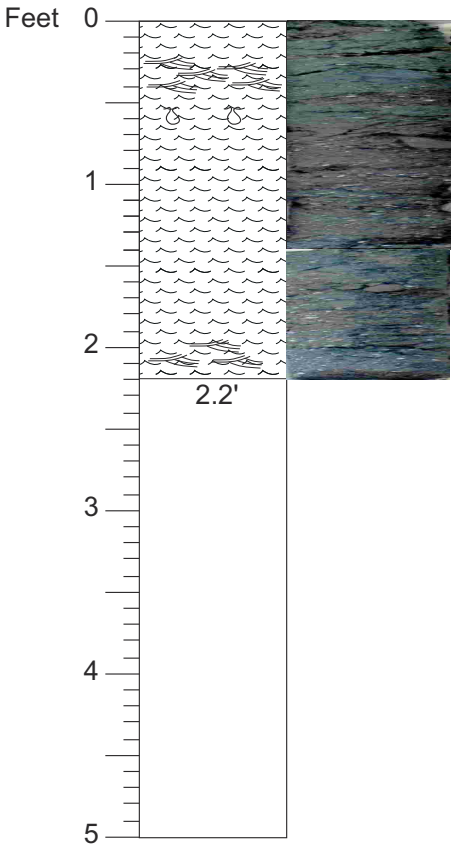
Core #56
Start Depth: 350 ft
Stop Depth: 357 ft
Recovery: 2.4 ft
Date: 10/19/08
Described by: KGM, LMM, ZUL



SAND; medium to coarse, clayey, poorly sorted; glauconite-quartz; very dark grayish green (5G 3/2).
CLAY; thin bed, indurated; very dark greenish gray (10Y 3/1).

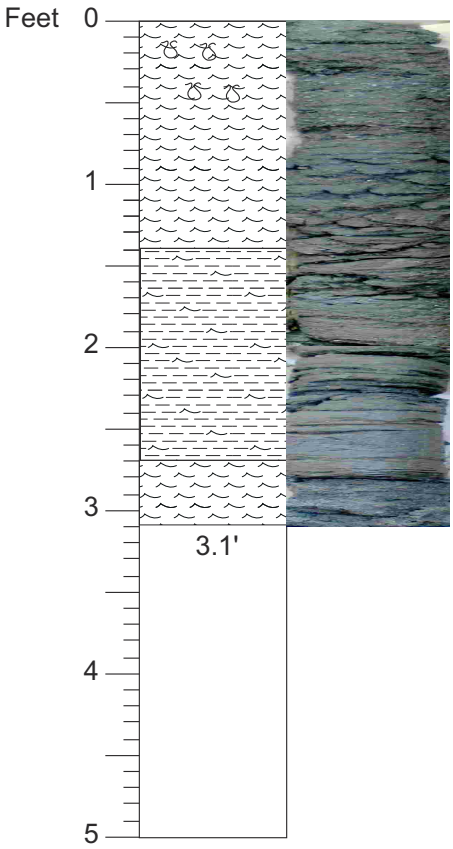
SAND; increasing clay, glauconite-quartz sand, increased amount of quartz and glauconite granules (gravel sized); very dark grayish green (5G 3/2).

Core #57
Start Depth: 357 ft
Stop Depth: 360 ft
Recovery: 1.35 ft
Date: 10/19/08
Described by: KGM, LMM, ZUL



SAND; medium to coarse, some very coarse granules; clay in laminae, thin beds, and burrows; quartzose, glauconite, ohms may include phosphorite; alternating green and brown laminated to cross-bedded; ?distal lower shoreface; nice structuring; very dark grayish green (5G 2.5/2).

Core #58
Start Depth: 360 ft
Stop Depth: 365 ft
Recovery: 2.2 ft
Date: 10/19/08
Described by: KGM, LMM, ZUL

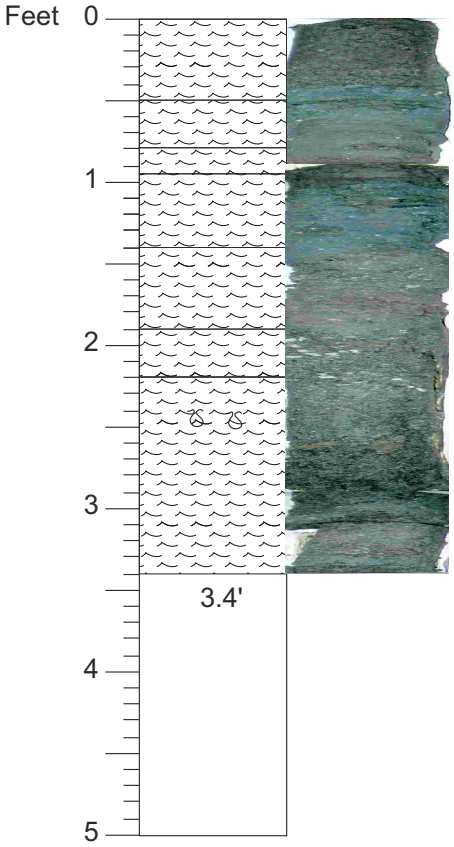


SAND; medium to coarse, slightly clayey, slightly granuliferous; quartz-glauconite; heavily burrowed; dLSF.

CLAY; with interbedded and interlaminated glauconite-quartz SAND; sand beds at: 1.5-1.7, 1.9-1.95, 2.2-2.25 ft; greenish gray (5G 5/1).

SAND; medium to coarse, quartz-glauconite; not as granuliferous as above; dLSF to offshore; very dark greenish gray (5GY 3/1).

Core #59
Start Depth: 365 ft
Stop Depth: 370 ft
Recovery: 3.1 ft
Date: 10/19/08
Described by: KGM, LMM, ZUL



SAND; clayey, medium to coarse, gravel sized clasts, glauconite-quartz sand, phosphatic; moderately sorted; greenish black (10GY 2.5/1).

SAND; more abundant clay, medium, glauconite sand; more well-sorted than above; very dark grayish green (5G 2.5/2).

SAND; less clayey, glauconite-quartz sand, phosphorite granules; clay lamina (4-5 mm), well-sorted.

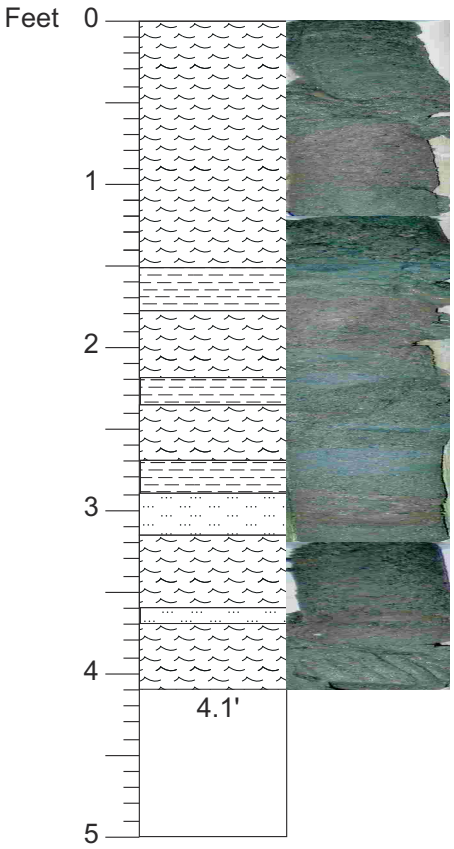
SAND; more abundant clay, coarse quartz grains, glauconite sand; moderately well sorted.

SAND; coarsening upward, more abundant quartz gravel in upper 0.1', more ohm in sand than clay; alternating clay and sand lamina.

SAND; coarse grained, abundant quartz gravel among glauconite-quartz sand, abundant ohm/phosphitic medium grains.

SAND; medium to fine grained, coarse glauconite-quartz sand, abundant ohm; clay burrows at 2.4-2.5 ft; some intermixed lamina with greater clay; greenish black (10GY 5/1).

Core #60
Start Depth: 370 ft
Stop Depth: 375 ft
Recovery: 3.4 ft
Date: 10/19/08
Described by: KGM, LMM, ZUL



SAND; predominatly medium to coarse, glauconitic-quartz sand, abundant fine-grained ohm; medium-sorted; some areas are more clay-rich (at 1.5-1.8, 2.2-2.35, 2.7-2.9 ft); sand is greenish black (5G 2.5/1), clay is very dark grayish green (5G 2.5/2).

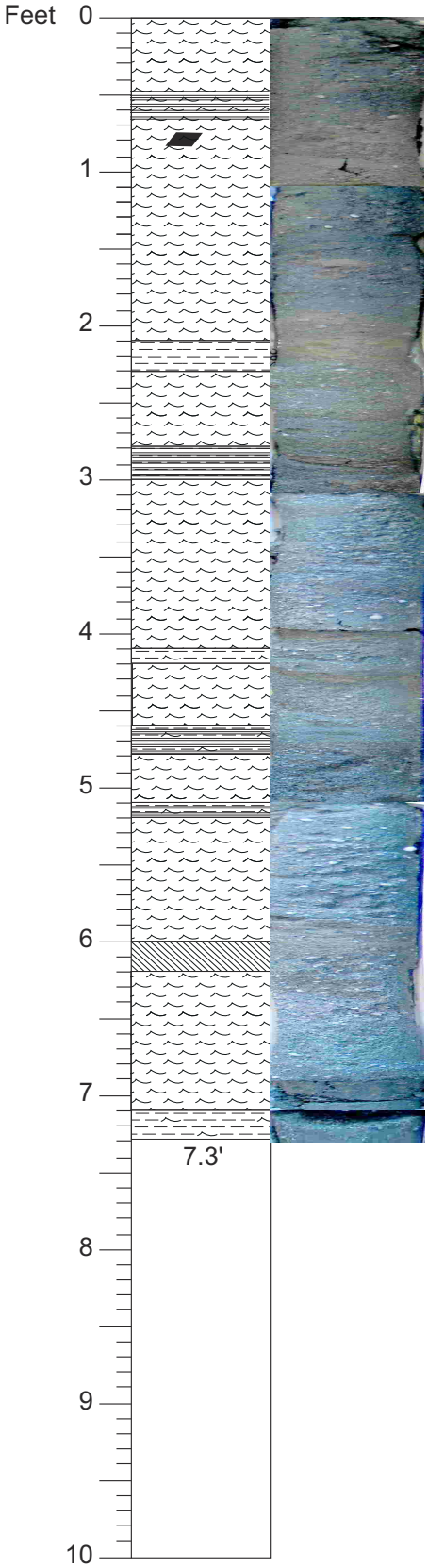
SILT; fine-grained quartz minerals, more quartz than glauconite, slightly micaceous, abundant ohm; well-sorted; fine lamina and very fine lignitic lamina; very dark greenish gray (10Y 3/1).

SAND; medium-coarse, glauconite-quartz sand, abundant ohm; medium-sorted.

SILT; coarse quartz minerals, slightly micaceous.

SAND; medium to coarse, glauconite-quartz sand; moderately sorted.

Core #61
Start Depth: 375 ft
Stop Depth: 380 ft
Recovery: 4.1 ft
Date: 10/19/08
Described by: LMM, ZUL



SAND; clayey, medium to coarse with quartz granules, glauconite-quartz, fine grained ohm evident and abundant (alternates with areas that are more clay-present); poorly sorted; cross-laminated sand and clay beds, siderized burrows (~1cm) long; greenish black (5G 2.5/1).

CLAY; bed with large sand filled burrows.

CLAY; very fine laminae.

CLAY; glauconitic clay bed.

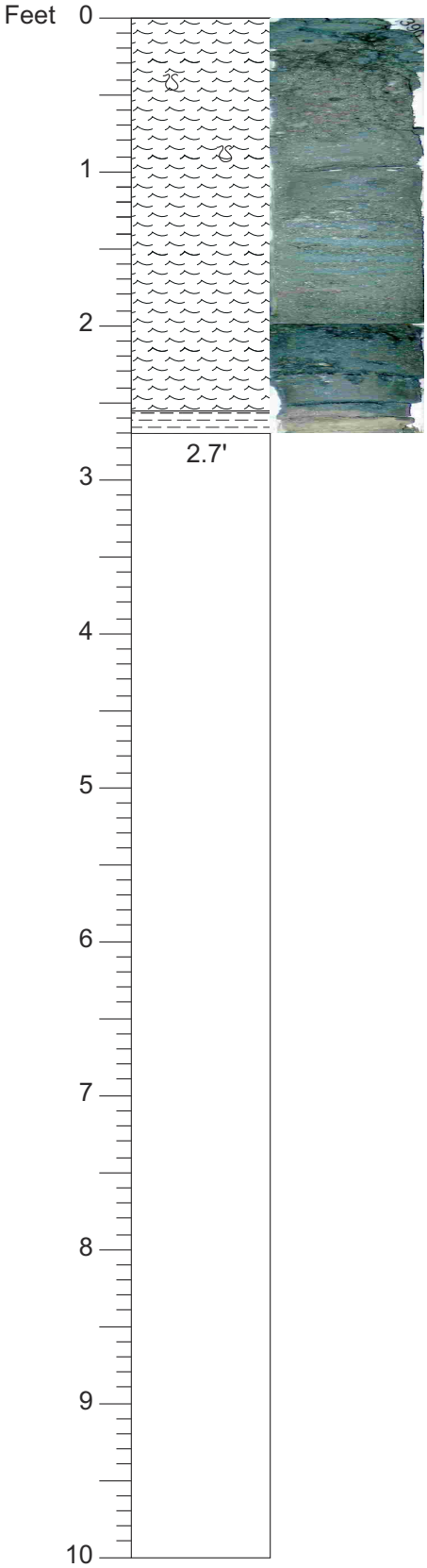
CLAY; glauconite, clay lamina.

CLAY; glauconite, clay lamina.

CLAY; indurated.

CLAY; glauconitic clay bed.

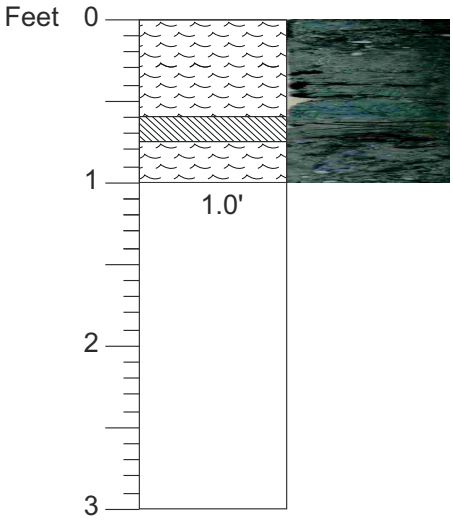
Core #62
Start Depth: 380 ft
Stop Depth: 390 ft
Recovery: 7.3 ft
Date: 10/19/08
Described by: KGM, LMM, ZUL



SAND; slightly clayey, some grains approaching gravel size, granuliferous glauconitic quartz; heavily burrowed; greenish black (5G 2.5/1).

Sharp contact
CLAY; gray brown clay, glauconite burrowed down; laminated; dark grayish brown (2.5Y 4/2).

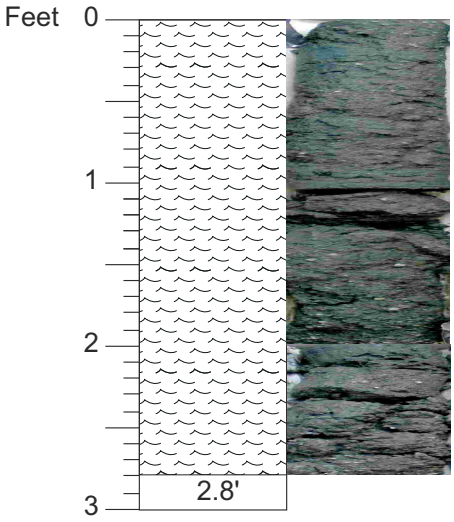
Core #63
Start Depth: 390 ft
Stop Depth: 400 ft
Recovery: 2.7 ft
Date: 10/19/08
Described by: KGM, LMM, ZUL



SAND; slightly clayey, quartz-glauconitic; granuliferous; greenish black (5GY 2.5/1).

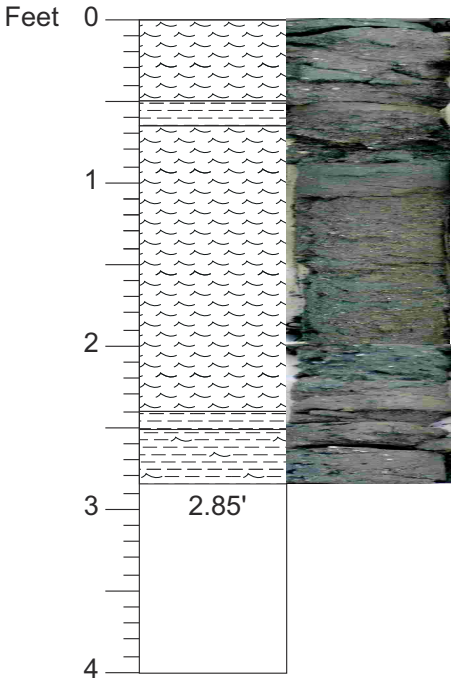
CLAY; cross laminated; very dark greenish gray (10GY 3/1-5GY 2.5/1).
SAND; similar to above except not as granuliferous at top.

Core #64
Start Depth: 400 ft
Stop Depth: 403 ft
Recovery: 1 ft
Date: 10/20/08
Described by: KGM, ADH



SAND; slightly clayey, fine to very coarse, dominately medium, very slightly gravelly, glauconite-quartz; poorly sorted, granuliferous; very dark greenish gray (5G 3/1).

Core #65
Start Depth: 403 ft
Stop Depth: 406 ft
Recovery: 2.8 ft
Date: 10/20/08
Described by: KGM, ADH



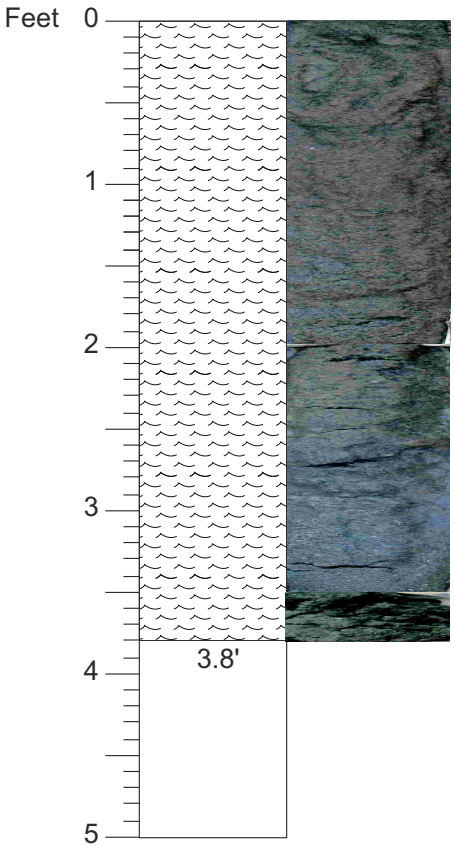
SAND; little or no clay, slightly pebbly, granuliferous, quartz-glauconitic sand

CLAY; brown laminae (no sand); dark greenish gray (10GY 3/1).

SAND; slightly clayey to clayey, granuliferous quartz-glauconite sand, no pebbles; heavily bioturbated, brown clay burrowed in; very dark gray (sand) (5G 3/1)

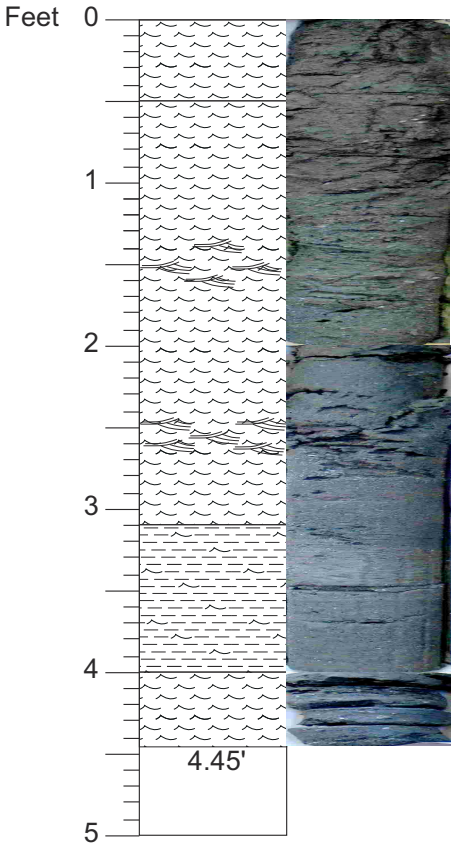
CLAY; sandy; very dark greenish gray (10Y 3/1).

Core #66
Start Depth: 406 ft
Stop Depth: 410 ft
Recovery: 2.85 ft
Date: 10/20/08
Described by: ADH, KGM



SAND; very little or no clay, medium to coarse, glauconitic sand, quartz, some light green grains and weathered glauconite; rounded to subrounded; soupy, but real core, no obvious structures, 'dirty' upper shore face; very dark greenish gray (5G 3/1).

Core #67
Start Depth: 410 ft
Stop Depth: 415 ft
Recovery: 3.5 ft
Date: 10/20/08
Described by: KGM, ADH



SAND; as above; very dark greenish gray (5G 3/1).

SAND; slightly clayey, medium to coarse, granuliferous glauconitic quartz sand as above; dark greenish gray (5G 4/1).

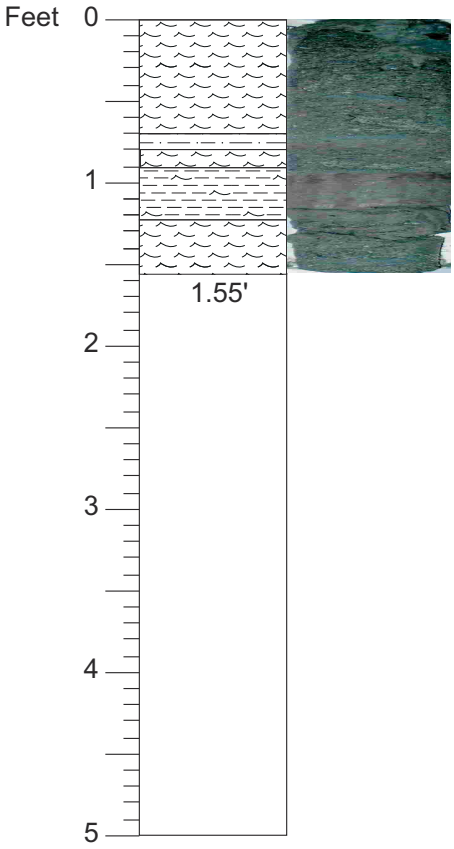
SAND; clayey, medium, granuliferous; quartz to glauconitic-quartz sand

Cross-bedding.

Irregular surface.
CLAY; slightly glauconitic; laminated; glauconitic concentrated in burrows; dark greenish gray (5GY 4/1).

SAND; clayey, glauconite.

Core #68
Start Depth: 415 ft
Stop Depth: 420 ft
Recovery: 4.45 ft
Date: 10/20/08
Described by: KGM, ADH



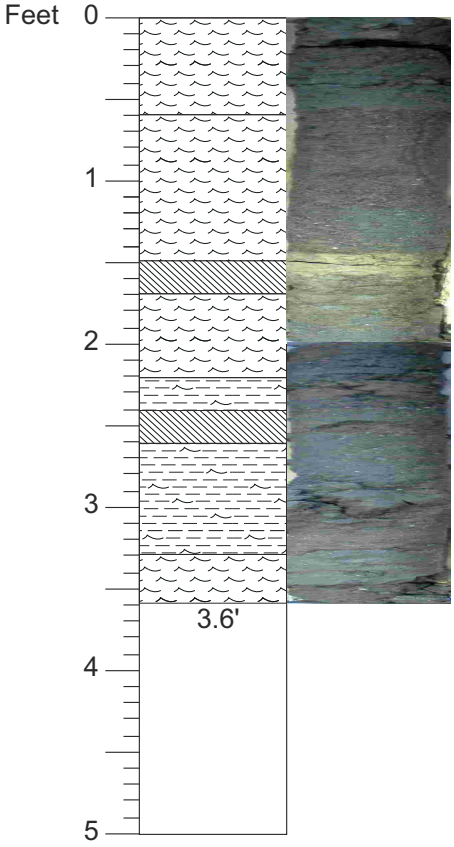
SAND; clayey, granuliferous, glauconitic quartz; very dark greenish gray (5G 3/1).

CLAY; sandy.
SAND; clayey, granuliferous, glauconitic quartz; very dark greenish gray (5G 3/1).
CLAY; glauconitic; laminated; dark greenish gray (5GY 4/1).

SAND; clayey, granuliferous, glauconitic quartz; very dark greenish gray (5G 3/1).

NOTE: clay is offshore and sands are dLSF transition.

Core #69
Start Depth: 420 ft
Stop Depth: 425 ft
Recovery: 1.55 ft
Date: 10/20/08
Described by: KGM, ADH



SAND; slightly clayey, very slightly granuliferous, glauconitic quartz sand; (5G 4/1).

SAND; clayey, granuliferous, glauconitic quartz sand; (5GY 3/1).

INDURATED; semi-indurated; light olive gray (5Y 6/2).

SAND; clayey, granuliferous, glauconitic quartz sand (5GY 3/1).

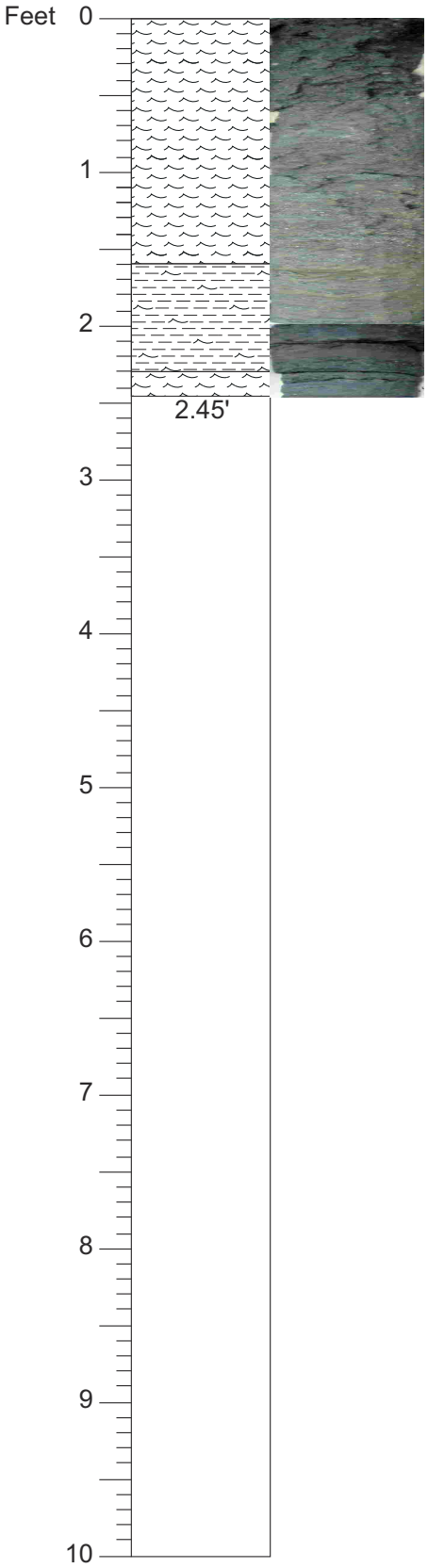
CLAY; glauconitic.

INDURATED; semi-indurated; light olive gray (5Y 6/2).

CLAY; glauconitic.

SAND; slightly clayey, very slightly granuliferous, glauconitic quartz sand; (5G 4/1).

Core #70
Start Depth: 425 ft
Stop Depth: 430 ft
Recovery: 3.6 ft
Date: 10/20/08
Described by: KGM, ADH

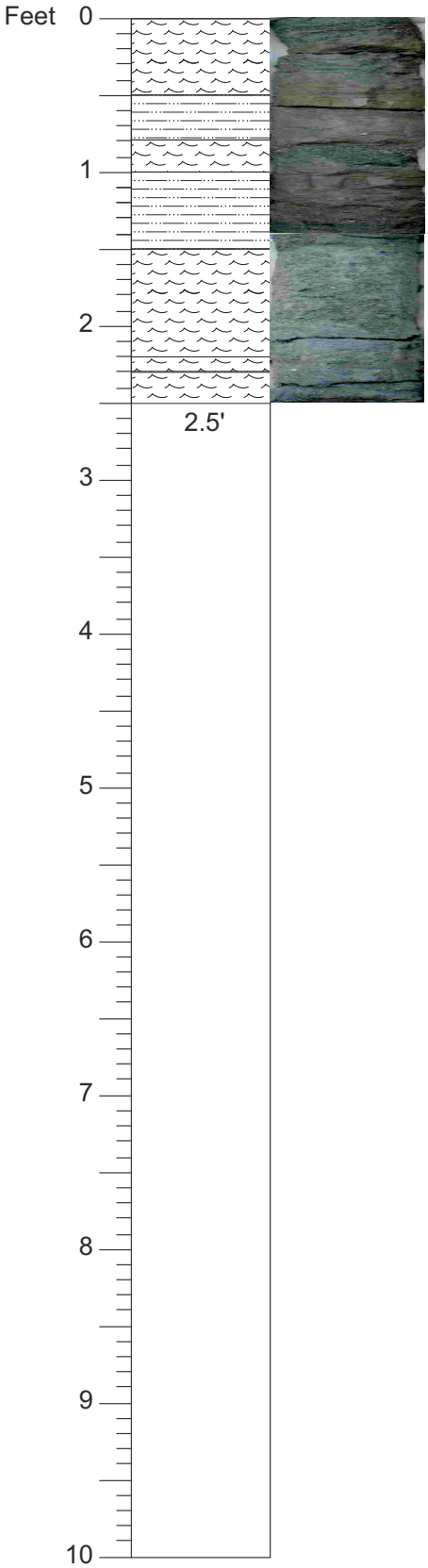


SAND; slightly clayey, slightly granuliferous, glauconite quartz; (5G 4/1).

CLAY; glauconitic; laminated; olive gray (5Y 4/2).

SAND; clayey, glauconitic.

Core #71
Start Depth: 430 ft
Stop Depth: 440 ft
Recovery: 2.45 ft
Date: 10/20/08
Described by: KGM, ADH



SAND; medium to coarse, glauconitic (10% medium), quartz sand, slightly micaceous.

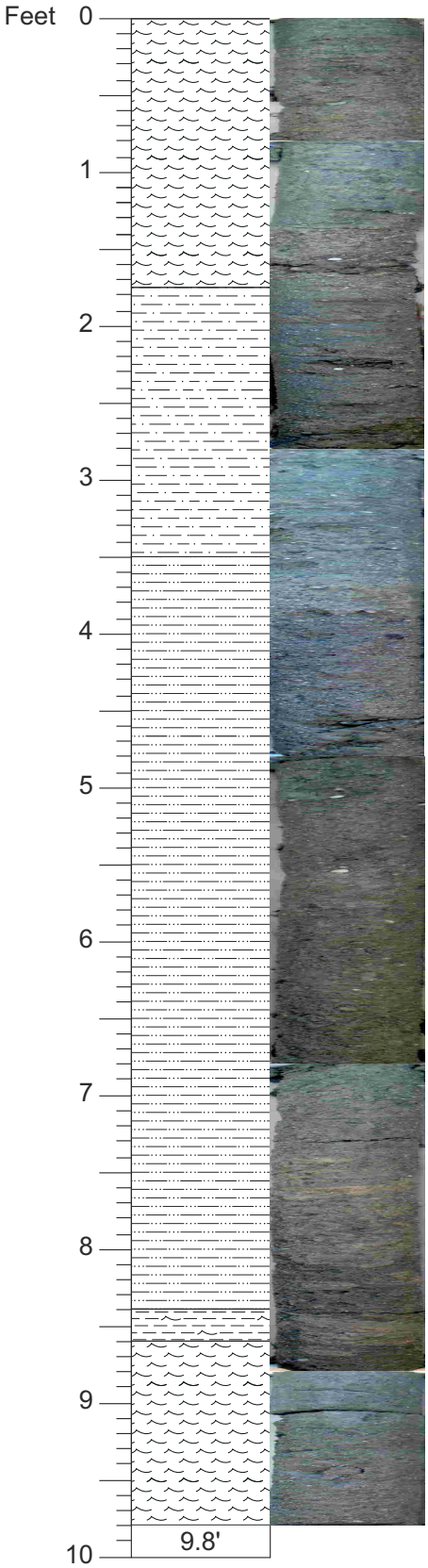
CLAY; silty; laminated; olive gray (5Y 4/2).

SAND; medium to coarse, glauconitic (10% medium), quartz sand, slightly micaceous.
CLAY; silty; olive gray (5Y 4/2).

SAND; dark greenish gray (10Y 4/1).

SAND; clay silt matrix, coarse granules, glauconitic (20%), quartz.

Core #72
Start Depth: 440 ft
Stop Depth: 450 ft
Recovery: 2.5 ft
Date: 10/21/08
Described by: JVB, PJS



SAND; silty, clayey, medium to coarse quartz, glauconite (15%).

SILT; sandy, glauconitic clay-silt; very dark greenish gray (10Y 3/1).

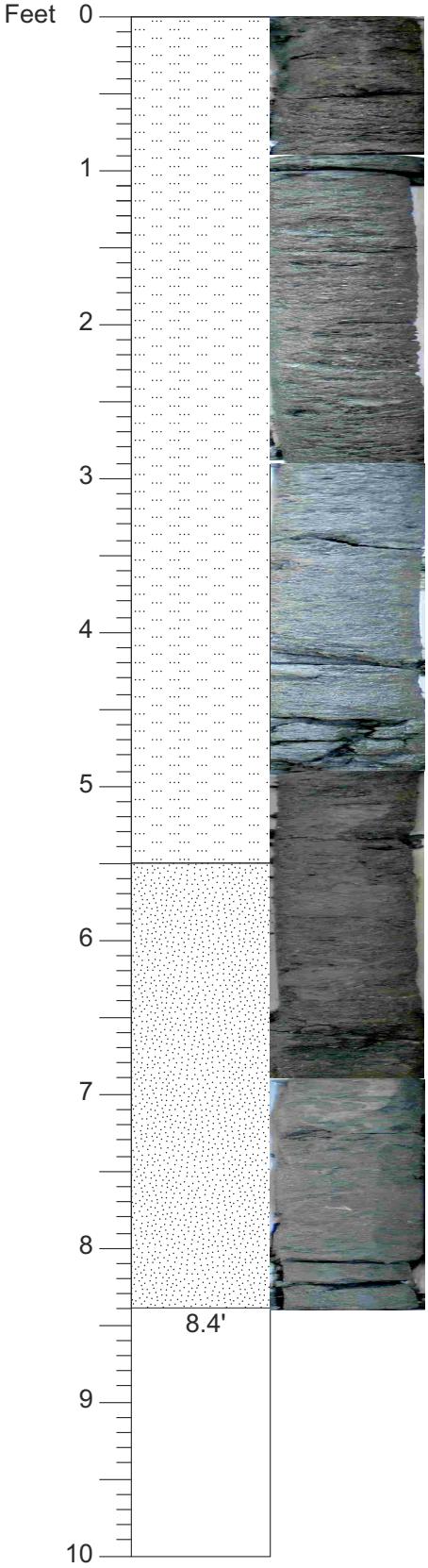
CLAY; sandy, silty, medium to very coarse, quartz and glauconite (10%), quartz sand (10%).

SILT, clayey; slightly quartzose, glauconitic; brown; possible burrows

CLAY; yellowish brown (2.5Y 6/3).

SAND; silty, fine, glauconitic, quartz; poorly sorted.

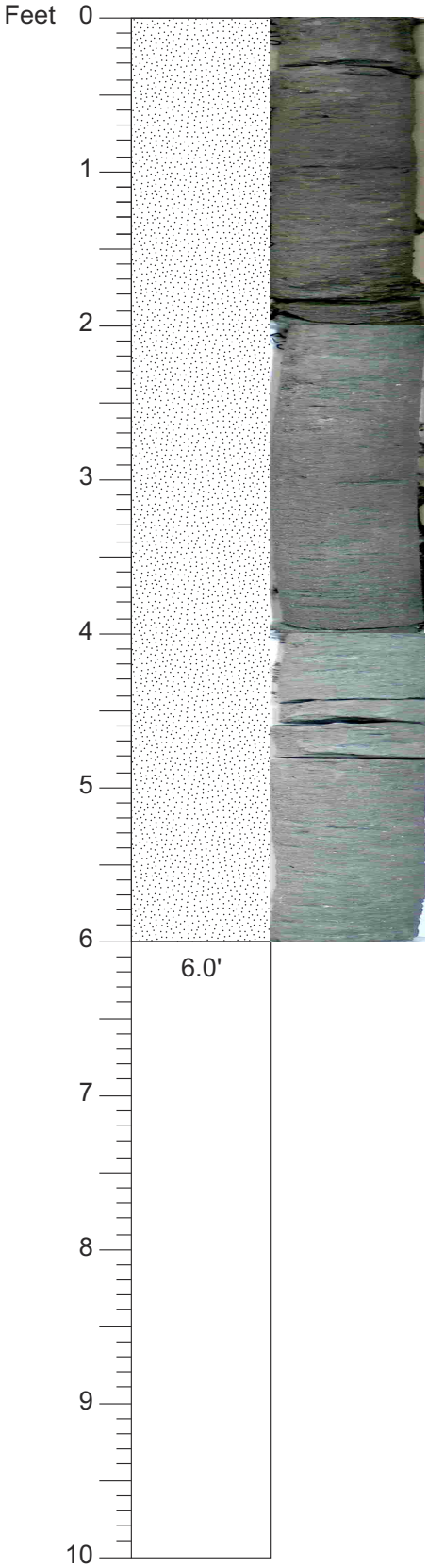
Core #73
Start Depth: 450 ft
Stop Depth: 460 ft
Recovery: 9.8 ft
Date: 10/21/08
Described by: JVB, PJS, BG



SILT; sand and clay beds, quartz, glauconite (5%); laminae, heavily burrowed in places, shells start at 3 ft; dark greenish gray (10Y 4/1).

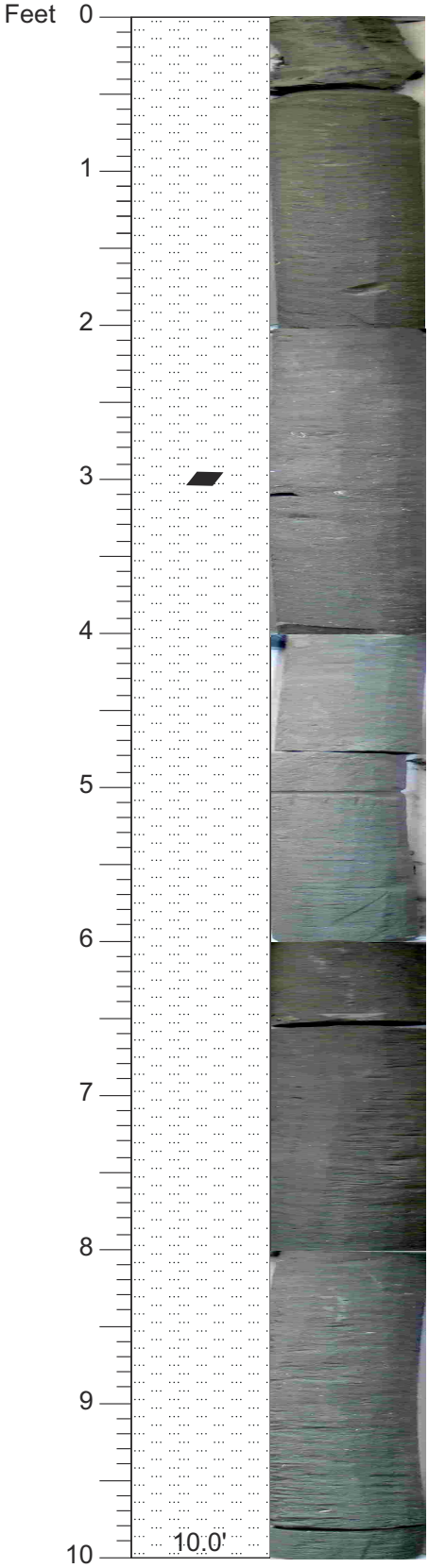
SAND; clay; interburrowed; brown to dark grayish brown (2.5Y 4/2).

Core #74
Start Depth: 460 ft
Stop Depth: 470 ft
Recovery: 8.4 ft
Date: 10/21/08
Described by: JVB, PJS, BG



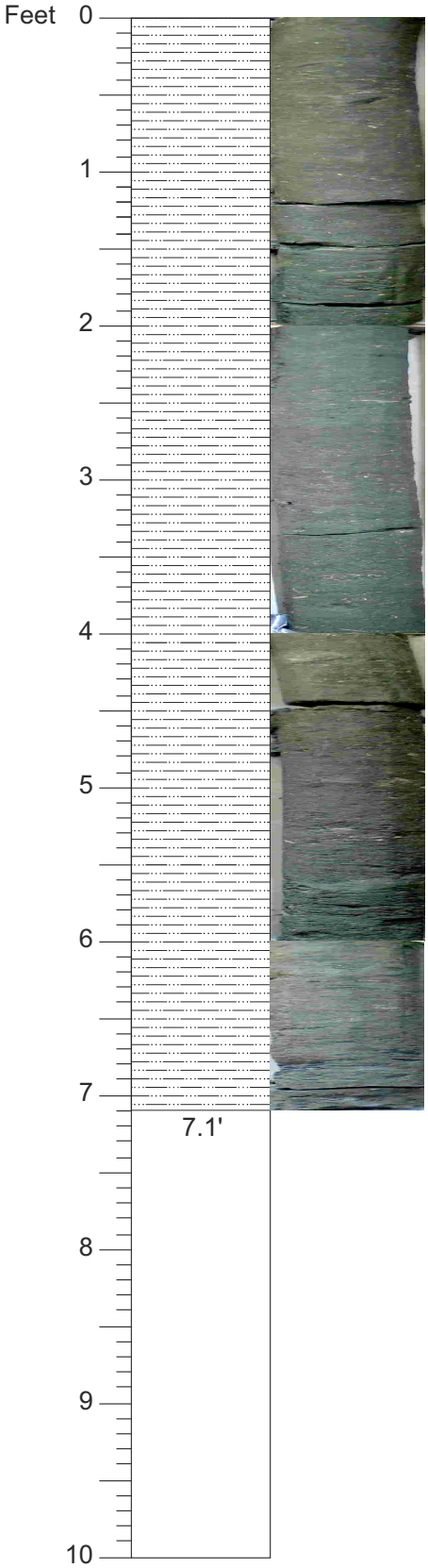
SAND; fine and well-sorted, rare granules, quartz, glauconite (30%), micaceous; rare laminations, many burrows and traces, shelly-bivalves and forams (lenticulinids); dark greenish gray (10Y 4/1).

Core #75
Start Depth: 470 ft
Stop Depth: 480 ft
Recovery: 6 ft
Date: 10/21/08
Described by: JVB, PJS



SILT; clayey (2%), glauconite and mica traces; shelly to (50%), heavy bioturbation and completely homogenized, forams and numerous very thin shells, large chunk of lignite at 3 ft; dark greenish gray (10Y 4/1)

Core #76
Start Depth: 480 ft
Stop Depth: 490 ft
Recovery: 10 ft
Date: 10/21/08
Described by: JVB, PJS



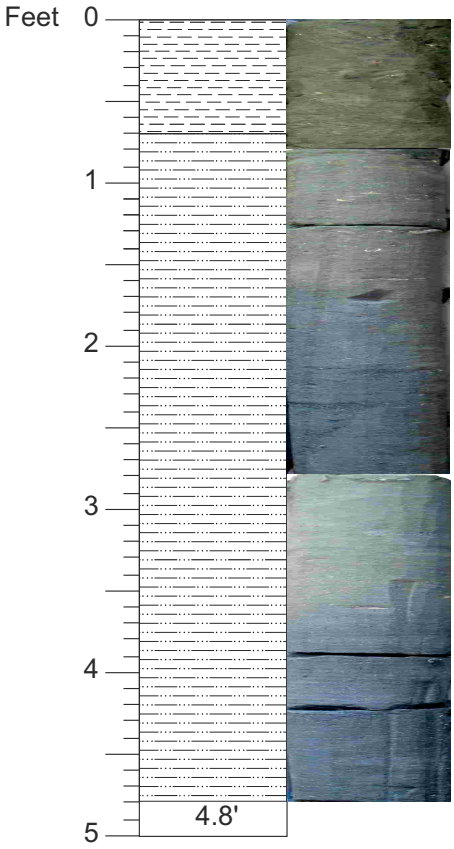
SILT; clayey, few large micas, few percent (fine) glauconite mostly in burrows, increases down core to about 30-40%; heavily burrowed, shelly (abundant) including coral; dark greenish gray (10Y 4/1), very dark greenish gray (10Y 3/1).

4.7, 4.9, 5.3, 5.5 - 5.6, 6.3 are glauconite rich beds.

4.9, 5.6 - 5.7, 6.2 - 6.3 are clay beds

NOTE: bottom 2.6 ft came up in core #78; photos indicate more recovery than data says.

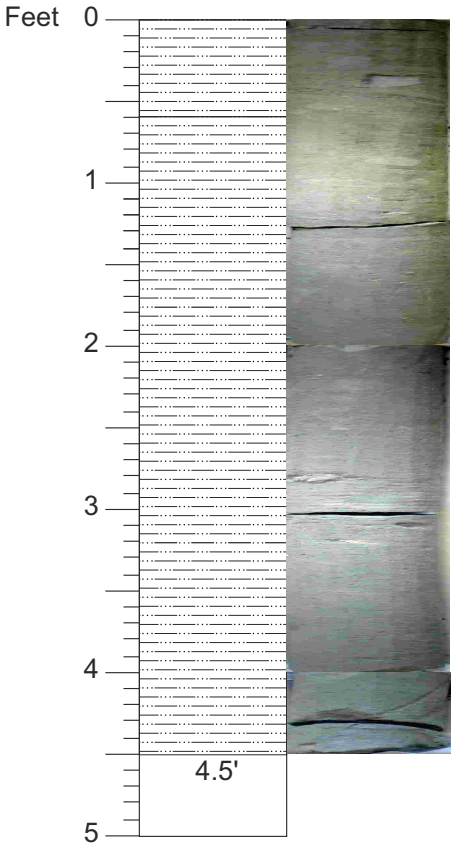
Core #77
Start Depth: 490 ft
Stop Depth: 500 ft
Recovery: 7.1 ft
Date: 10/21/08
Described by: PJS, JVB



CLAY; abundant glauconite sand in burrows, thick shells and corals

SILT; clayey, glauconite sand to 20%; heavily bioturbated, large pyrite chunk at 1.3 ft, very shelly; dark greenish gray (10Y 4/1).

Core #78
Start Depth: 500 ft
Stop Depth: 505 ft
Recovery: 4.8 ft
Date: 10/21/08
Described by: JVB, PJS

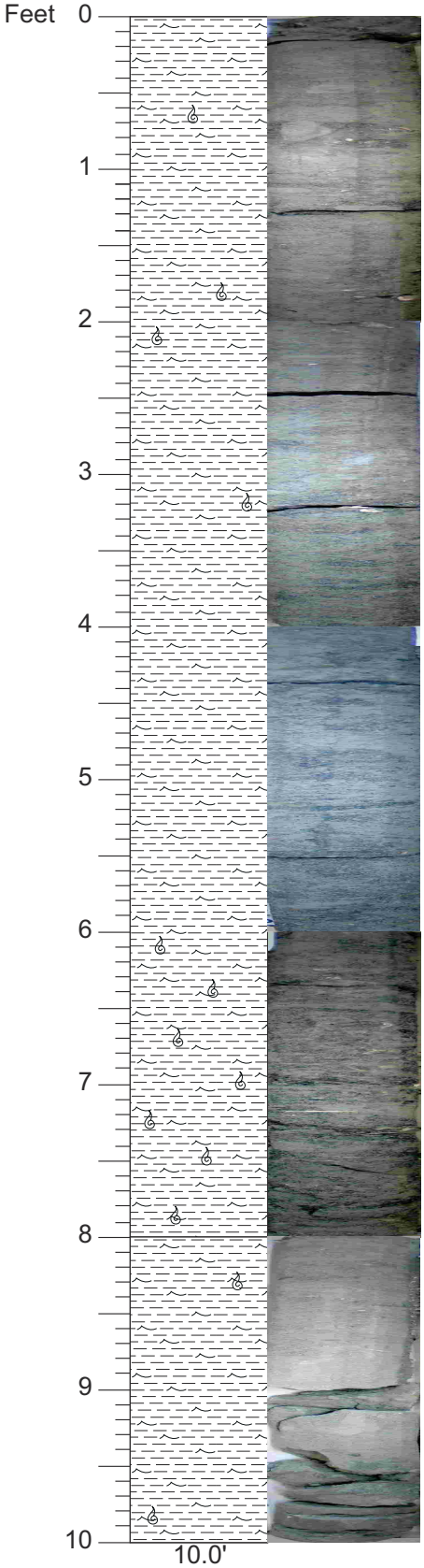


SILT; clayey; glauconite in burrows (20%), shelly.

Burrowed contact; burrows up to 2 cm across and down to 1 ft.

CLAY; silty, slightly glauconitic; abundant shell material, large pyrite chunk at 2.8 ft, coral at 3.1 ft; dark greenish gray (10Y 4/1).

Core #79
Start Depth: 505 ft
Stop Depth: 510 ft
Recovery: 4.5 ft
Date: 10/21/08
Described by: JVB, PJS



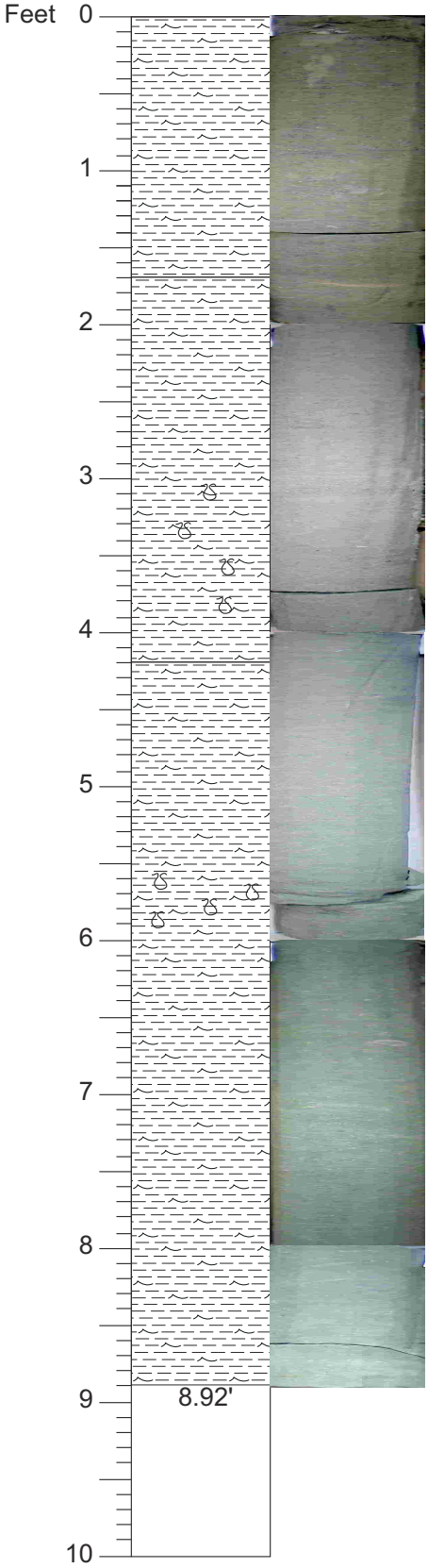
CLAY; silty, very fine, glauconitic overall (20-25%), variable throughout; extensive burrows up to 2 cm diameter throughout, but prominent to 0.7 ft (lower glauconite).

0.65, 1.8, 2.1, 3.2, 6.6-8.0, 8.2 ft have shells up to 1cm; 6.6-8.0 ft has shells that are 3-4 cm; glauconite becomes more apparent at 3.2 ft; glauconite and shells increase in frequency at 5.0 ft; layer of glauconite at 5.15 ft; many shells highly bioturbated at 6.6 ft; at 7.0 ft, minor quartz sand (fine), glauconite (30%), but still dominately clay, highly bioturbated, shells; by 8.0 ft, dramatic decrease in glauconite, shell size decreases (20-25%); glauconite drops at 8.9 ft; glauconite is dark greenish gray (5GY 4/1), clay is greenish gray (5GY 6/1).

Possible irregular surface (may be break in the core).

SILT; glauconite (10-15%) at 8.9 ft, better sorted; silt fraction burrowed still, siderized shell at 8.3 ft, small scallop mold at 9.85 ft.

Core #80
Start Depth: 510 ft
Stop Depth: 520 ft
Recovery: 10 ft
Date: 10/22/08
Described by: DHM, JU, KGM

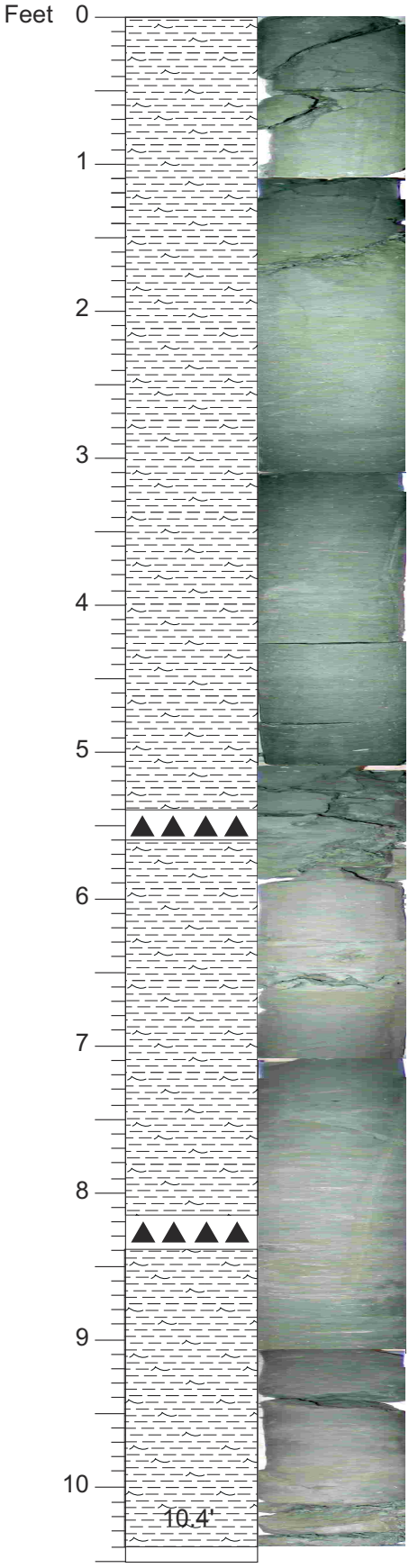


CLAY; glauconitic; foram rich, glauconite (10%); echnoid spines, shells and forams, Shark River Formation; dark greenish gray (5GY 4/1).

CLAY; very fine grained, glauconitic; foram rich (~0.5%), glauconite dissiminated, glauconite appears burrowed down; brownish burrowing extends 1.3 ft below boundary in (~2cm) burrows, very large burrows (~4cm) from 3.0-3.9 ft, oxidized clay laminae, slightly wavy contact, major color change; greenish gray (5GY 5/1).

CLAY; horizontal glauconite (<=3%); 5.6, 5.7, 5.8 ft are foram filled burrows, horizontal wormy burrows

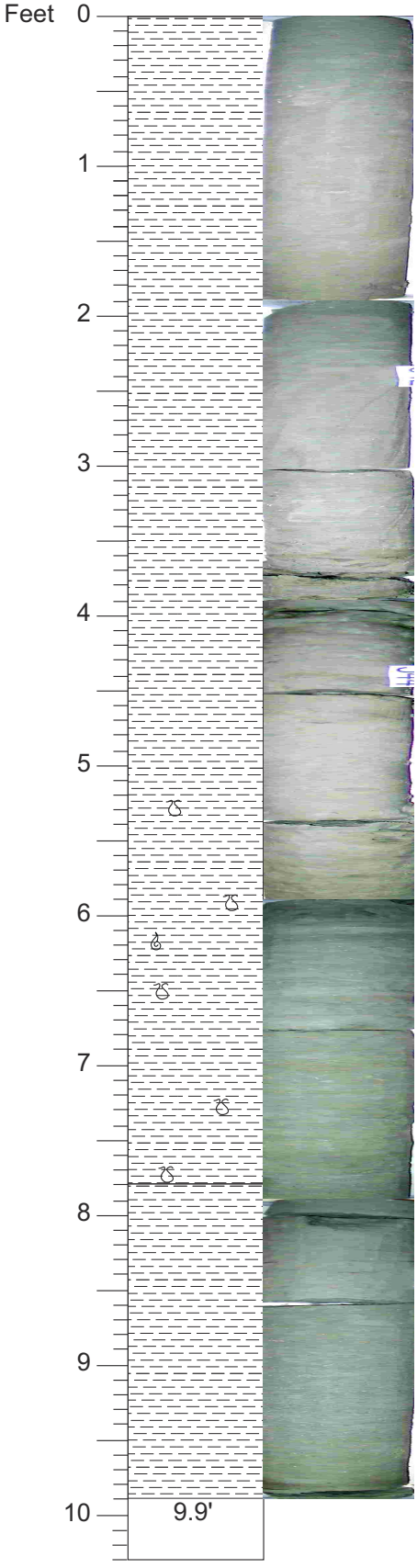
Core #81
Start Depth: 520 ft
Stop Depth: 530 ft
Recovery: 8.92 ft
Date: 10/22/08
Described by: DHM, JU, KGM



CLAY; slightly silty, porcellanitic clay, slightly glauconitic, (1-3%); forams, wormy burrows, horizontal, shell fragments evident; very dense; 5.4, 5.5, 5.6, 8.2 ft are porcellanite type laminae (1cm) thick; dark greenish gray (5GY 5/1 to 4/1).

CLAY; appears to be clayey, porcellanitic, less glauconite down core; some burrows have a higher percent glauconite and forams.

Core #82
Start Depth: 529 ft
Stop Depth: 539.5 ft
Recovery: 10.4 ft
Date: 10/22/08
Described by: DHM, JU, KGM

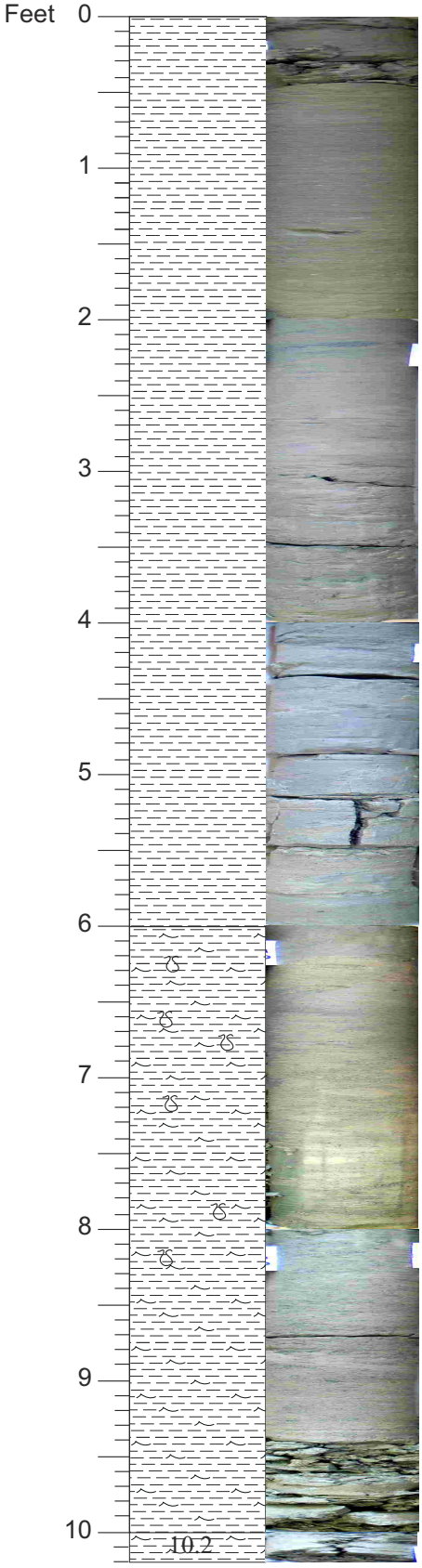


CLAY; porcellanitic, slightly glauconitic; silty clay forams, wormy burrows in upper section and continue down; greenish gray (5GY 5/1).

CLAY; porcellanitic glauconitic foram rich; burrows, larger burrows begin at 5.3 ft and continue down to 7.8 ft, (1 cm, large axis); mottled with above color; greenish gray (5GY 6/1).

CLAY; glauconite decreases near the base of the core; abundant “wormy” burrows starting at 7.8 ft.

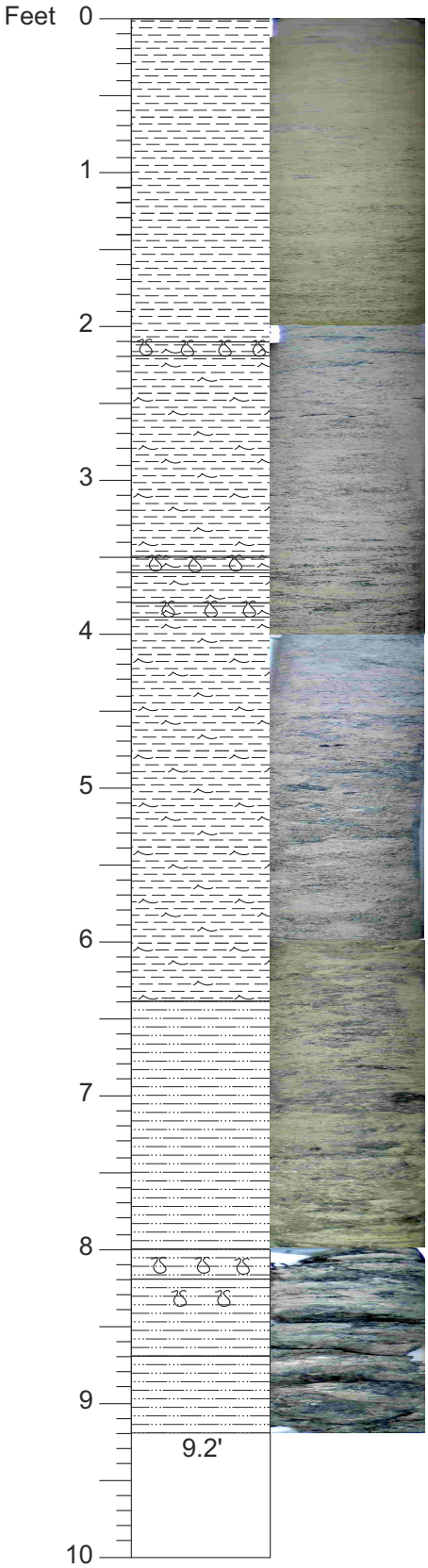
Core #83
Start Depth: 539.5 ft
Stop Depth: 549.8 ft
Recovery: 9.9 ft
Date: 10/22/08
Described by: DHM, JU, KGM



CLAY; porcellanitic, glauconite increases downsection; glauconite filled burrows; greenish gray (5GY 5/1).

CLAY; porcellanite at 9.8 ft, large glauconite burrows increase.

Core #84
Start Depth: 549.8 ft
Stop Depth: 560 ft
Recovery: 10.2 ft
Date: 10/23/08
Described by: PSJ, ADH

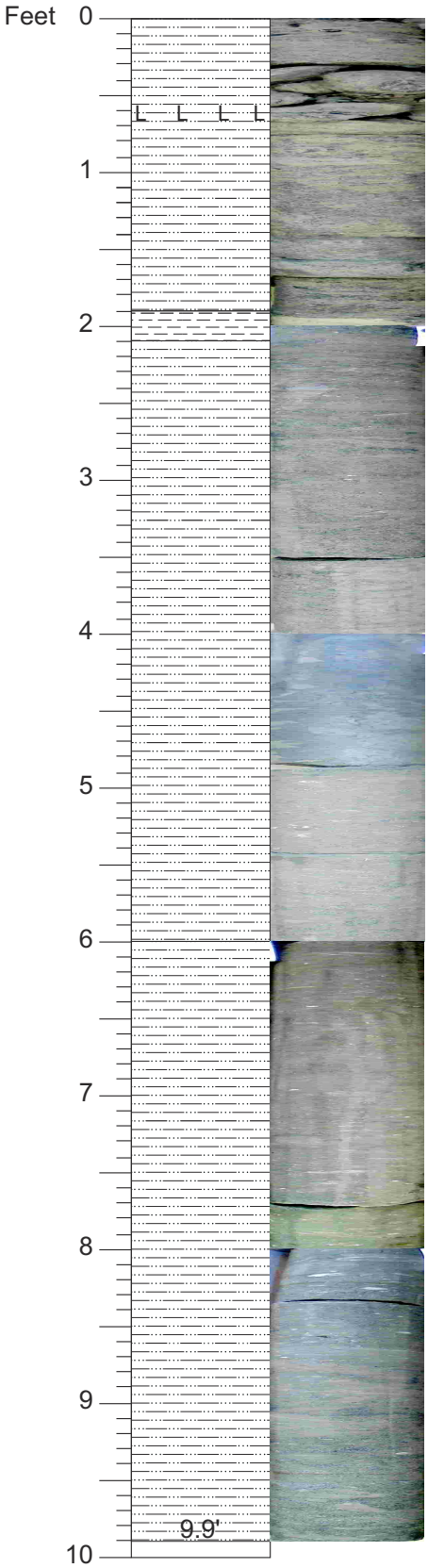


CLAY; glauconite (20%), porcellanitic; medium well sorted; glauconite filled burrows, glauconite increases downsection; 2.1-2.2, 3.5-3.6, 3.8-3.9 are glauconite burrow concentrates; greenish gray (5G 5/1).

SILT; clayey, glauconitic; heavily burrowed from 8.0-8.4 ft, 8.7-9.4 ft glauconite increases downsection; very dark greenish gray (10GY 3/1) to grayish green (5G 5/2).

NOTE: Bottom 0.3 had large amounts of drilling mud and was discarded.

Core #85
Start Depth: 560 ft
Stop Depth: 570 ft
Recovery: 9.2 ft
Date: 10/23/08
Described by: ADH, PJS

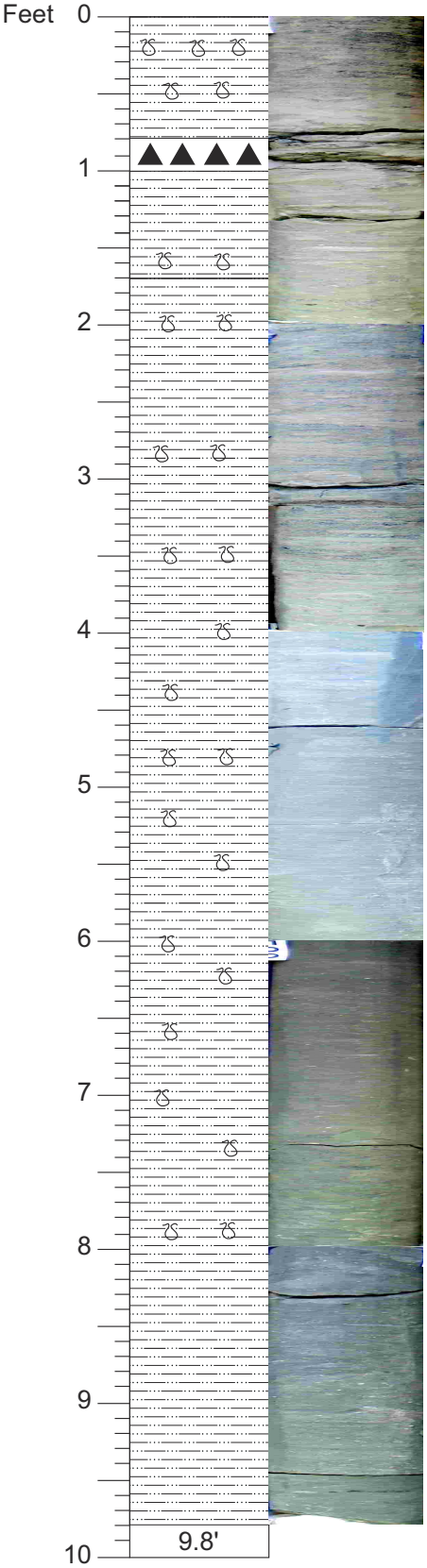


CLAY; silty; glauconite filled burrows.

Light brown clay clast (contact Shark River/Manasquan)
CLAY; silty; glauconite filled burrows.

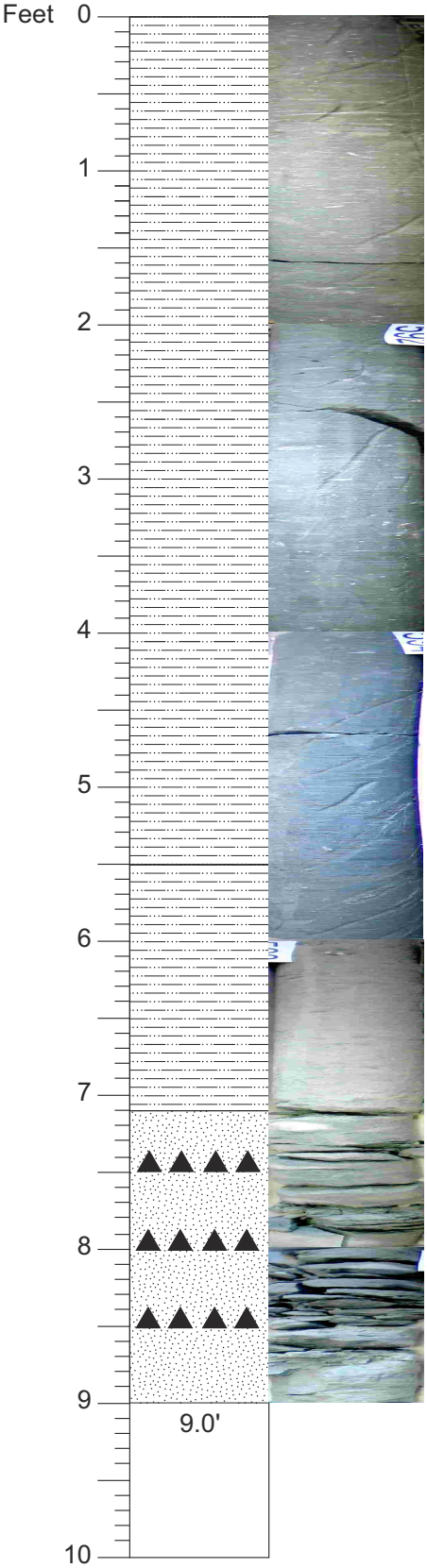
CLAY; silty, porcellanitic; heavily burrowed, occasional glauconite burrows.

Core #86
Start Depth: 570 ft
Stop Depth: 580 ft
Recovery: 9.9 ft
Date: 10/23/08
Described by: ADH, PJS



CLAY; silty, glauconite concentrated down to 0.8 ft, porcellanite from 0.8 to 1 ft; heavily burrowed, glauconite filled burrows from 1 to 3 ft, clay filled burrows from 1.5 ft, clay increases downsection; greenish gray (10GY 5/1).

Core #87
Start Depth: 580 ft
Stop Depth: 590 ft
Recovery: 9.8 ft
Date: 10/23/08
Described by: ADH, PJS

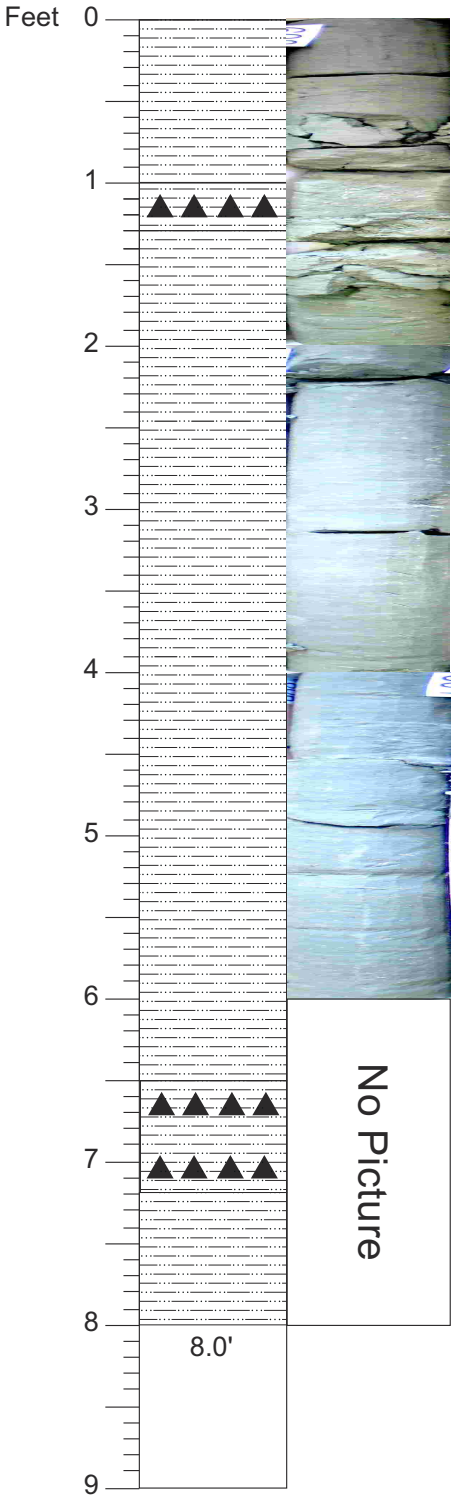


CLAY; silty, fine quartz and glauconite sand (1-2%) in burrows.

SILT; clays and silts; interbedded.

SAND; very fine, slightly glauconitic (5%), porcellanite from 7.1 ft down.

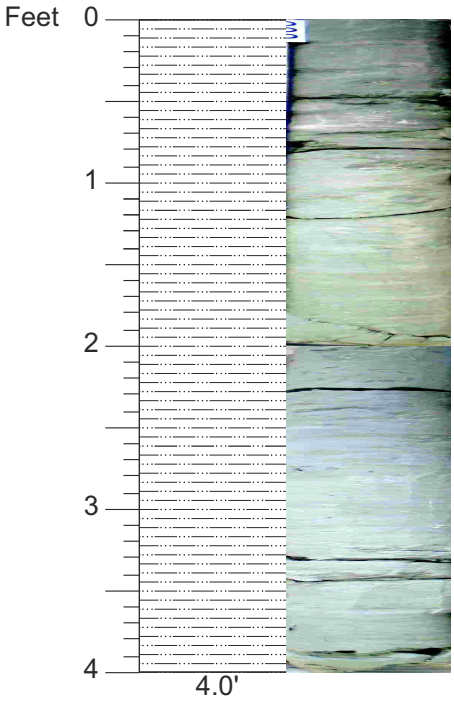
Core #88
Start Depth: 590 ft
Stop Depth: 600 ft
Recovery: 9 ft
Date: 10/23/08
Described by: ADH, PJS



CLAY; silty, porcellanite zone at 1.0-1.3 ft; very burrowed, glauconite (few) and sand filled burrows; greenish gray (5G 5/1).

Porcellanite zone

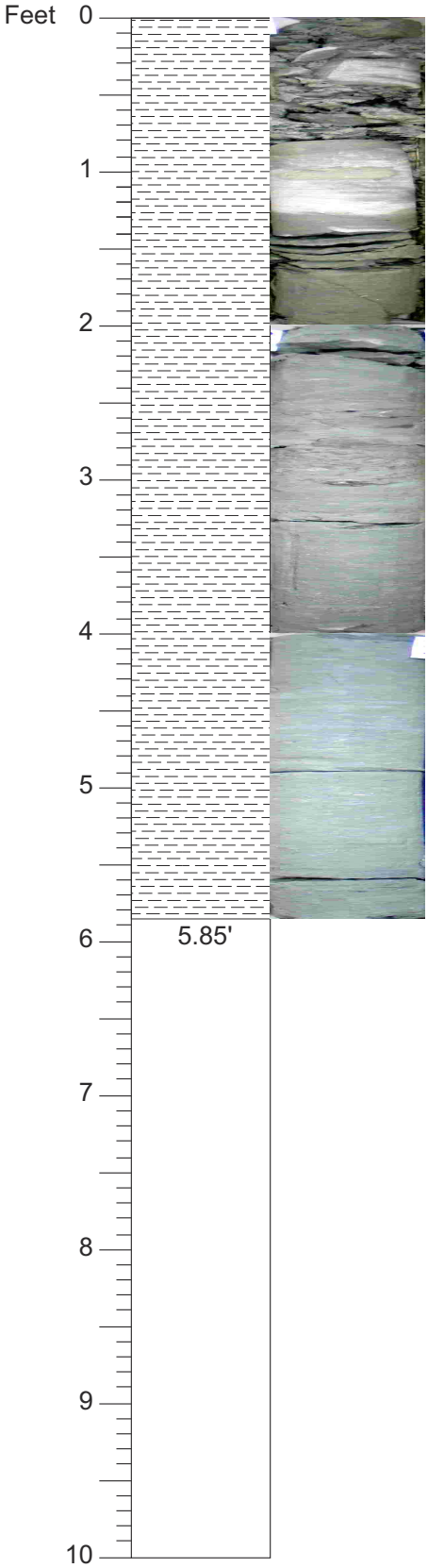
Core #89
Start Depth: 600 ft
Stop Depth: 609 ft
Recovery: 8 ft
Date: 10/23/08
Described by: ADH, PJS



CLAY; silty, some porcellanite; greenish gray (5G 5/1).

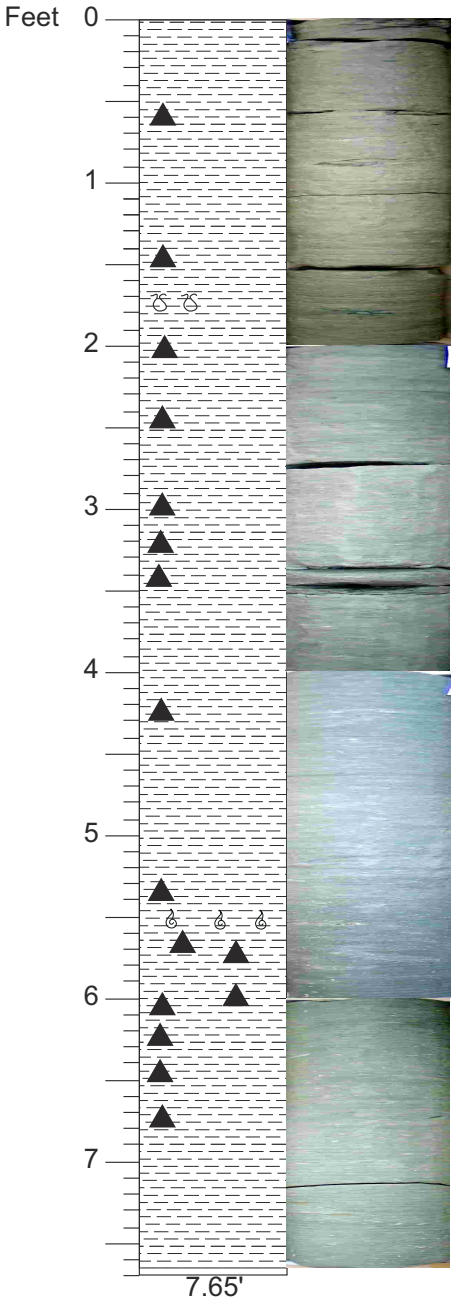
NOTE: We recovered 4 ft and assigned the bottom 2 ft to 608 - 610, and the top 2 ft to 606 - 608.

Core #90
Start Depth: 609 ft
Stop Depth: 610 ft
Recovery: 4 ft
Date: 10/23/08
Described by: PJS, ADH



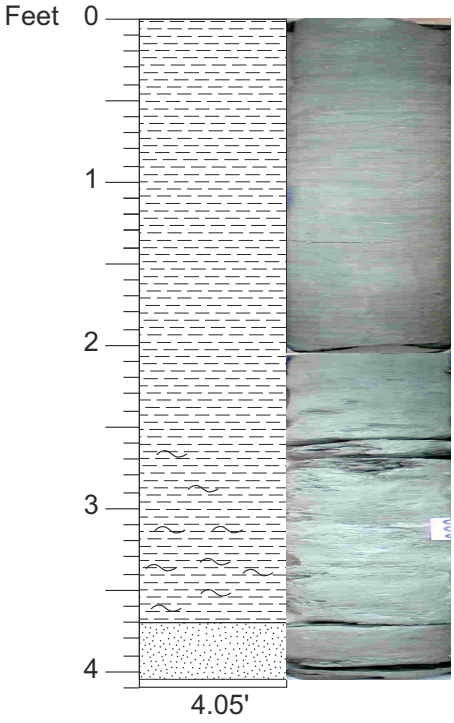
CLAY; silty, slightly glauconitic (very fine sand-sized, 5%), strong porcellanite to 1.9 ft, small zone at 2.1 ft; intermittant induration to base of the core, porcellanitic "wormy" burrows at 2.7-3.0, 3.7-3.85 ft, generally burrowed throughout, some forams present; greenish gray; (5GY 5/1).

Core #91
Start Depth: 610 ft
Stop Depth: 620 ft
Recovery: 5.85 ft
Date: 10/24/08
Described by: JU, SFM, DHM



CLAY; silty, slightly glauconitic (1-2%), porcellanitic zones (1 cm thick) at .65, 1.55, 2.0, 2.45, 3.0, 3.2, 3.4, 4.3, 5.4-6.2 ft; green-lined burrows at 1.75 ft sub cm in diameter (6.6), burrowed throughout (larger burrows more common), 5.4-6.2 ft is particularly well-burrowed; shell layer at 5.5 ft possibly siderite associated, miner forams; greenish gray (5GY 5/1).

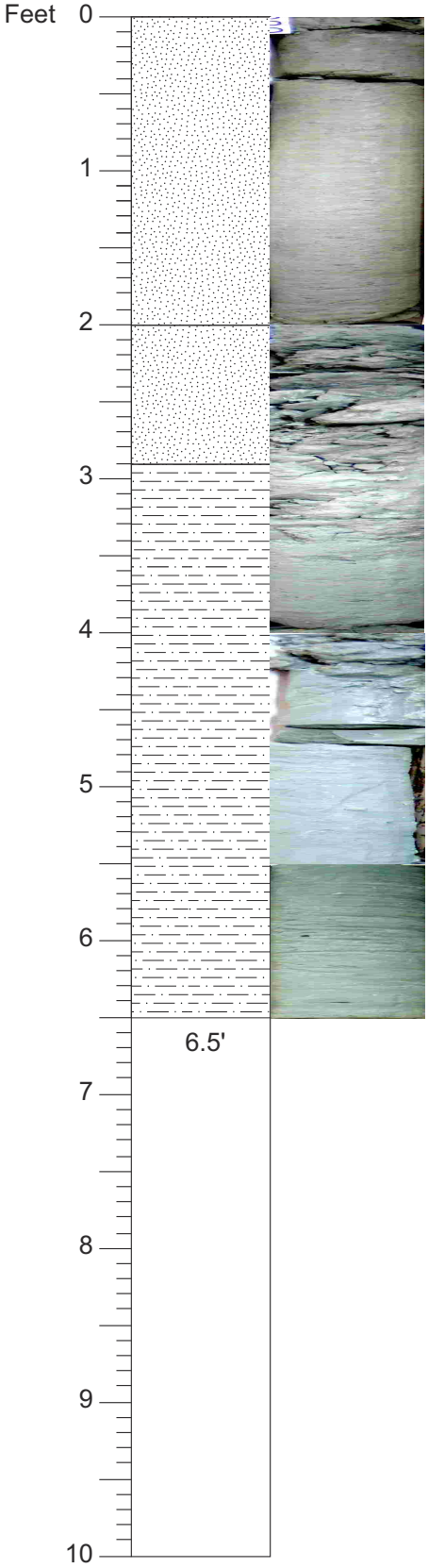
Core #92
Start Depth: 620 ft
Stop Depth: 627 ft
Recovery: 7.65 ft
Date: 10/24/08
Described by: JU, SFM, DHM



CLAY; silty (less silt overall), slightly glauconitic (very fine sand-sized, 1-3%), porcellanitic; highly burrowed throughout, foram bearing; from 2.5-3.7 ft, siltier, glauconite increases to (~5%), less competent, “wormy” burrowed zone; greenish gray (5GY 5/1).

SAND; clayey, silty, very fine, glauconite (very fine sand-sized, 5%); indurated, gradation contact; greenish gray (5GY 5/1).

Core #93
Start Depth: 627 ft
Stop Depth: 630 ft
Recovery: 4.05 ft
Date: 10/24/08
Described by: JU, SFM, DHM



SAND; clayey, glauconite (very fine sand-sized, 5%), porcellanitic down to 2 ft; highly burrowed - some correspond in porcellanitic zone.

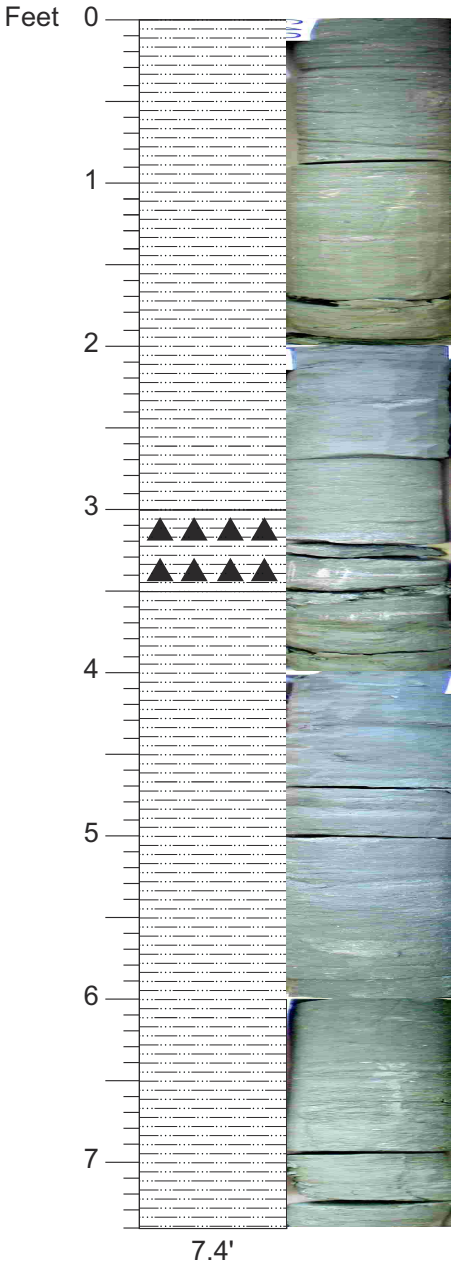
Gradational contact

SAND; very fine sand and silt, glauconite (3%); some forams visible; greenish gray (5GY 5/1).

Gradational contact

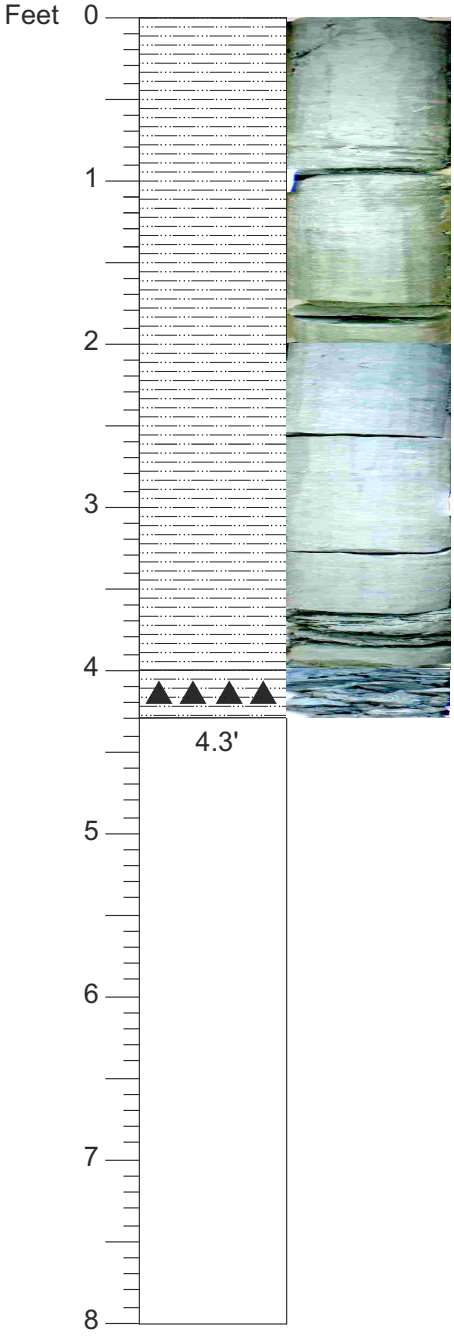
SAND; clayey, very fine sand and silt, glauconite; wormy burrows at 4.3-6.58 ft, some brown fossil material at 4.65 ft.

Core #94
Start Depth: 630 ft
Stop Depth: 640 ft
Recovery: 6.5 ft
Date: 10/24/08
Described by: JU, SFM, DHM



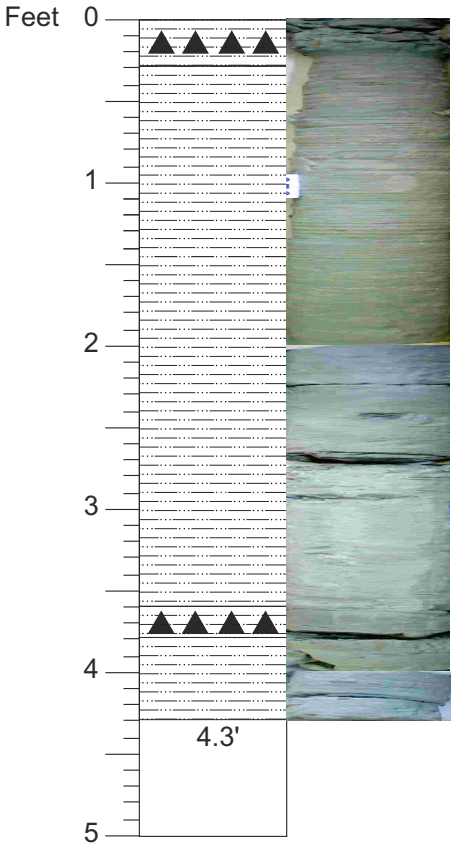
CLAY; silty, porcellanitic zone from 3.0-3.5 ft; glauconite in burrows (1-2%); greenish gray (5GY 5/1).

Core #95
Start Depth: 640 ft
Stop Depth: 647 ft
Recovery: 7.2 ft
Date: 10/25/08
Described by: ADH



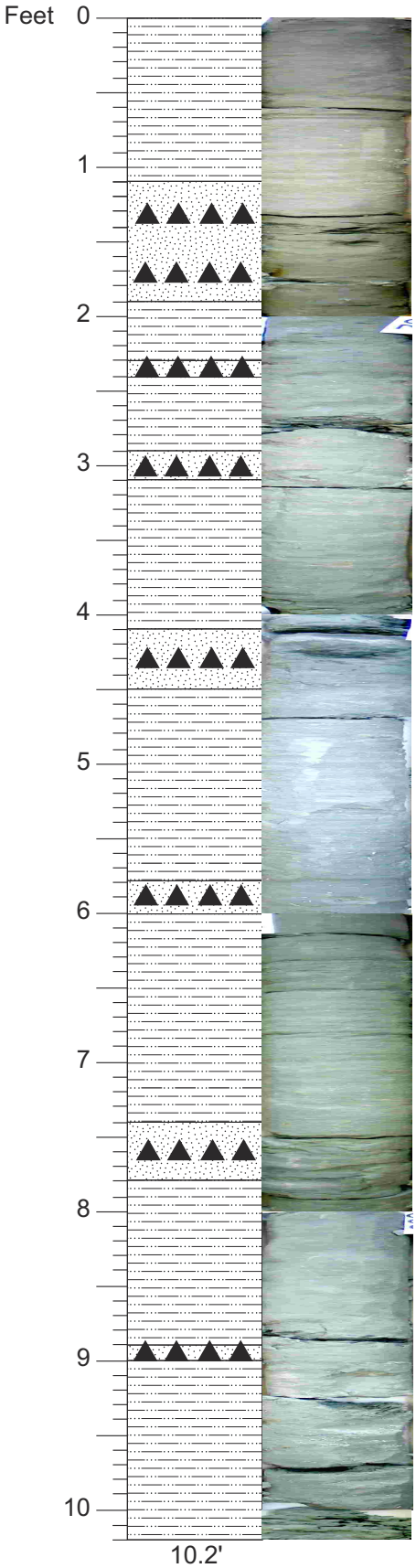
CLAY; slightly silty, very fine glauconite (2%), porcellanite from 4.0 to 4.3 ft; burrowed; greenish gray (5GY 5/1).

Core #96
Start Depth: 647 ft
Stop Depth: 655 ft
Recovery: 4.3 ft
Date: 10/25/08
Described by: ADH, BG, PJS



CLAY; silty, porcellanite from 0.0-0.3, 3.6-3.8 ft; burrowed; (5GY 5/1).

Core #97
Start Depth: 655 ft
Stop Depth: 660 ft
Recovery: 4.3 ft
Date: 10/25/08
Described by: BG, ADH, PJS



CLAY; silty clays, clayey silts; interbedded burrows.

SAND; some silt, very fine, glauconite (1-2%), porcellanite; (5GY 5/1).

SAND; some silt, very fine, glauconite (1-2%), porcellanite; (5GY 5/1).

SAND; some silt, very fine, glauconite (1-2%), porcellanite; (5GY 5/1).

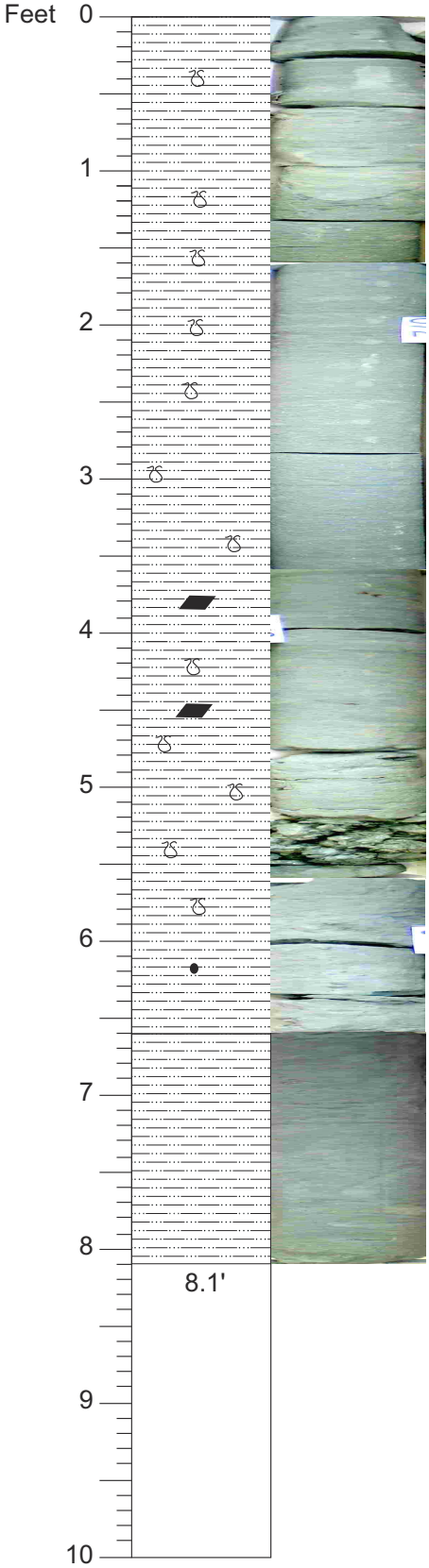
SAND; some silt, very fine, glauconite (1-2%), porcellanite; (5GY 5/1).

SAND; some silt, very fine, glauconite (1-2%), porcellanite; (5GY 5/1).

SAND; some silt, very fine, glauconite (1-2%), porcellanite; (5GY 5/1).

SAND; some silt, very fine, glauconite (1-2%), porcellanite; (5GY 5/1).

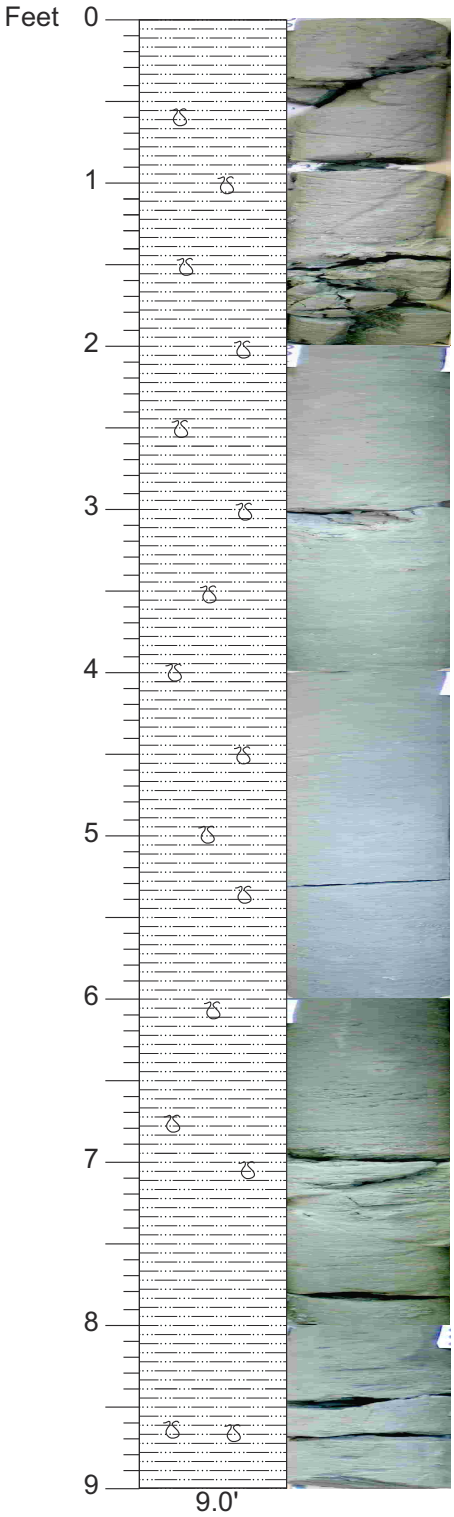
Core #98
Start Depth: 660 ft
Stop Depth: 670 ft
Recovery: 10.2 ft
Date: 10/25/08
Described by: PJS, ADH, BG



CLAY; silty, glauconite (1-2%), porcellanite; very fine sand filled burrows, wood present at 3.8 ft and 4.5 ft, clay clast at 6.2 ft.

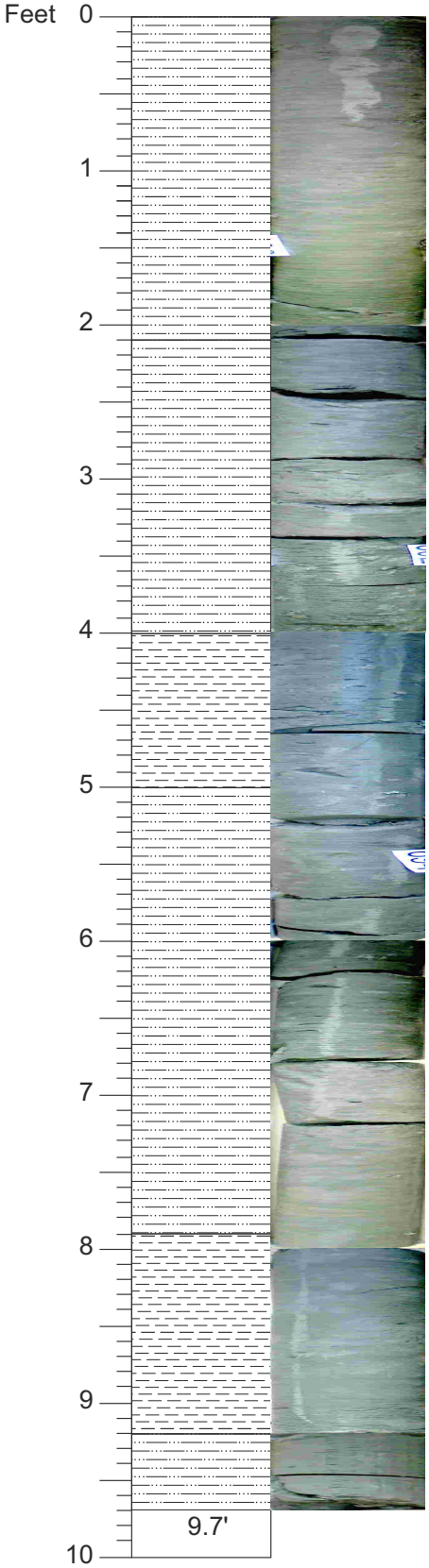
SILT; clayey, porcellanitic; very fine sand and silt filled burrows.

Core #99
Start Depth: 670 ft
Stop Depth: 680 ft
Recovery: 8.1 ft
Date: 10/25/08
Described by: PJS, ADH, BG



SILT; clayey, glauconite (2-3%); heavily burrowed, very fine sand and shell filled burrows; greenish gray (5GY 5/1).

Core #100
Start Depth: 680 ft
Stop Depth: 688.5 ft
Recovery: 9 ft
Date: 10/25/08
Described by: BG, ADH, PJS



CLAY; silty; burrowed with fine sand and glauconite (1-2%).

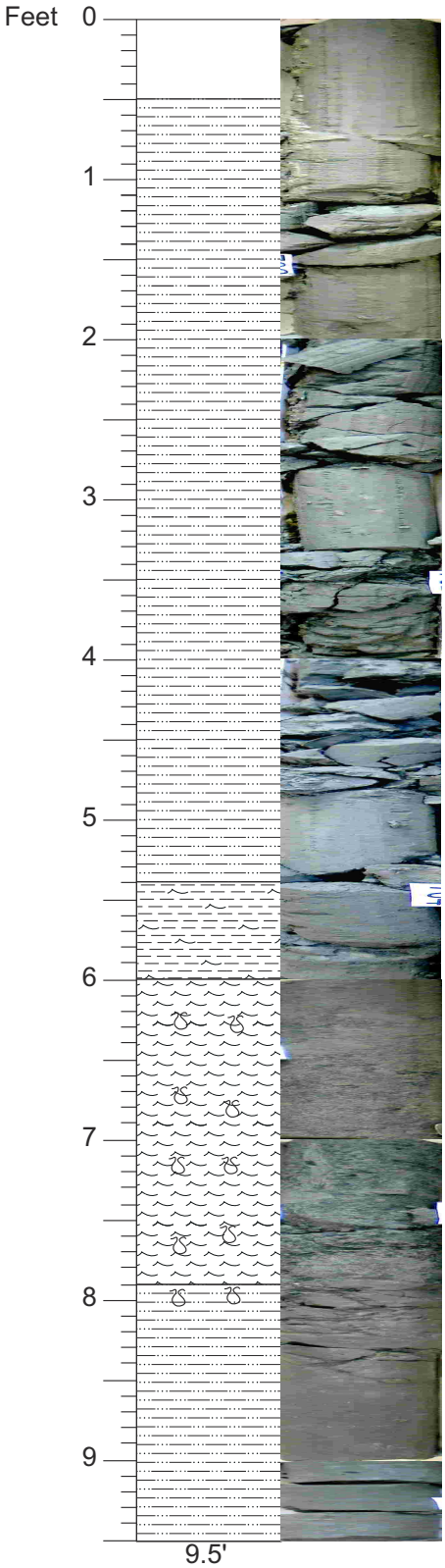
CLAY; silty; mixed up - from 2.1-7.9 ft, the core fell coming out of the hole

CLAY; 1.0 ft zone; no burrows.

Core #101
Start Depth: 688.5 ft
Stop Depth: 698.5 ft
Recovery: 9.7 ft
Date: 10/25/08
Described by: PJS, ADH, BG

CLAY; in place.

CLAY; silty.



NOTE: Driller says .5 ft left from last run.

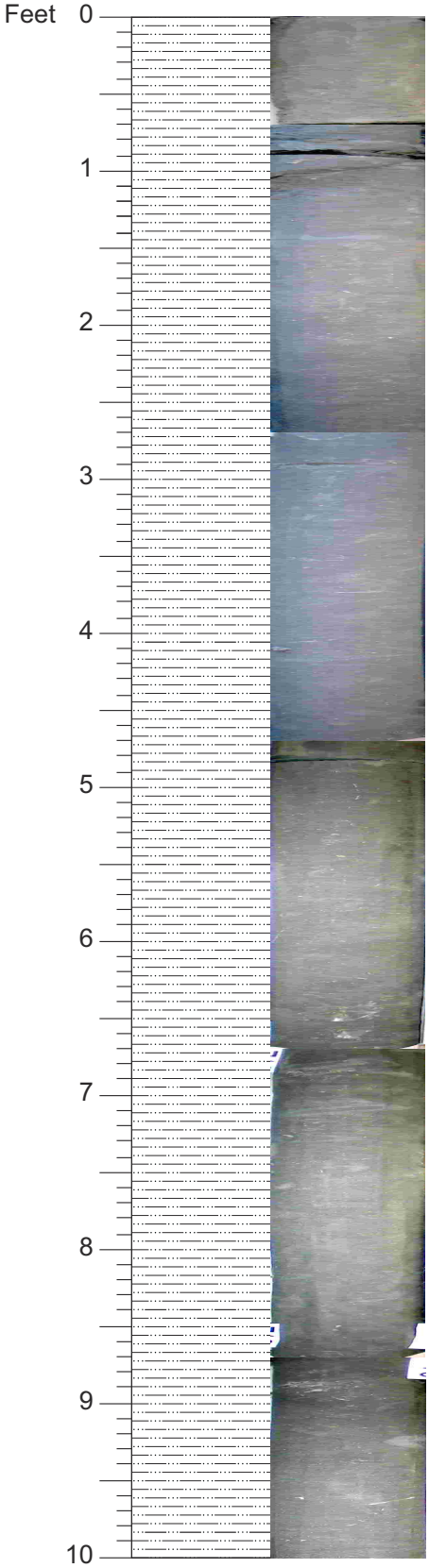
CLAY; silty, porcellantic zones; some burrows.

CLAY; glauconite increases downsection; very dark greenish gray (5GY 3/1).

SAND; glauconitic; clay-lined burrows.

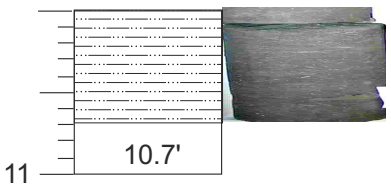
Contact.
SILT; clayey, glauconitic, some mica; glauconite sand-filled burrows; dark green gray (10GY 4/1).

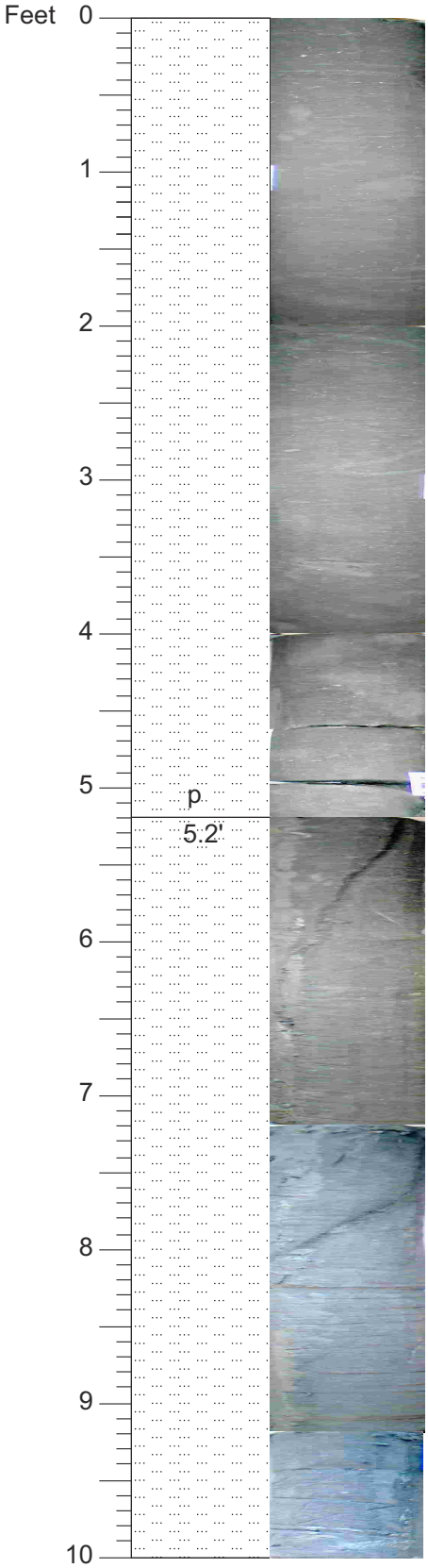
Core #102
Start Depth: 698.5 ft
Stop Depth: 708 ft
Recovery: 9.5 ft
Date: 10/25/08
Described by: PJS, ADH, BG



CLAY; silty to clayey SILT, slightly micaceous, ohm (1%); heavily burrowed, between 6.0-7.0 ft scattered 1 cm diameter, clay-lined horizontal burrows (the top has more obvious burrows); greenish black (10Y 2.5/1).

Core #103
Start Depth: 708 ft
Stop Depth: 719 ft
Recovery: 10.7 ft
Date: 10/26/08
Described by: JVB, SFM



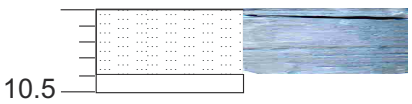


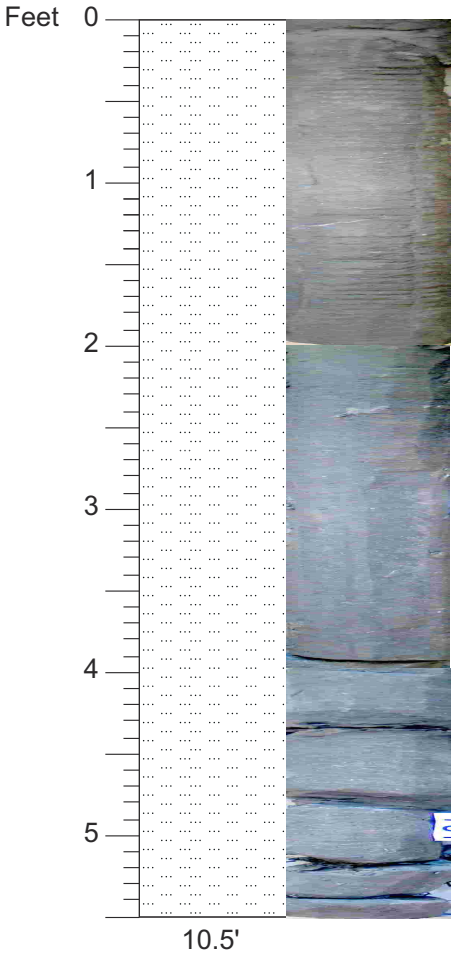
SILT; glauconite is more prominent at bottom, micaceous, (1%) ohm; heavily burrowed, several very fine sand-filled burrows, with a large chunk of pyrite at 5 ft; greenish black (5GY 2.5/1).

SILT; glauconite is more prominent at bottom, micaceous, (1%) ohm; heavily burrowed, several very fine sand-filled burrows; greenish black (5GY 2.5/1).

NOTE: 5.0 ft from core #105.

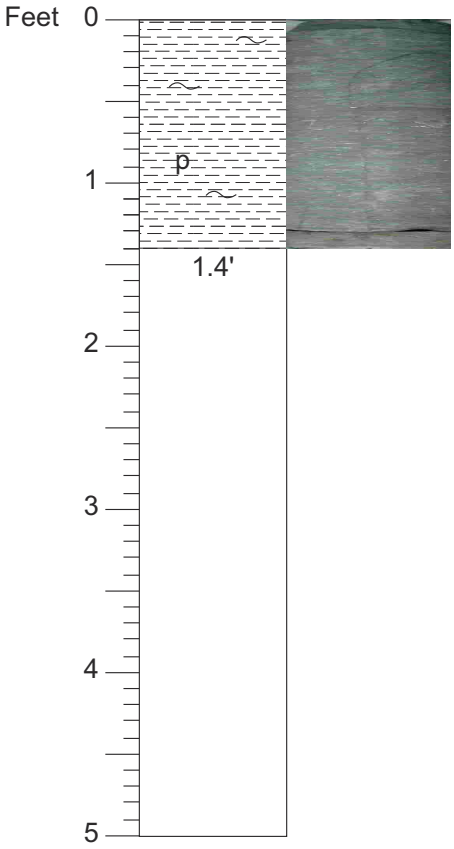
Core #104
Start Depth: 719 ft
Stop Depth: 729.5 ft
Recovery: 5.2 ft
Date: 10/26/08
Described by: JVB





SILT; clayey, micaceous; small amount of very fine sand, small light green clay clasts at the bottom; very dark greenish gray (10GY 3/1).

Core #105
Start Depth: 729.5 ft
Stop Depth: 735 ft
Recovery: 10.5 ft
Date: 10/27/08
Described by: JVB

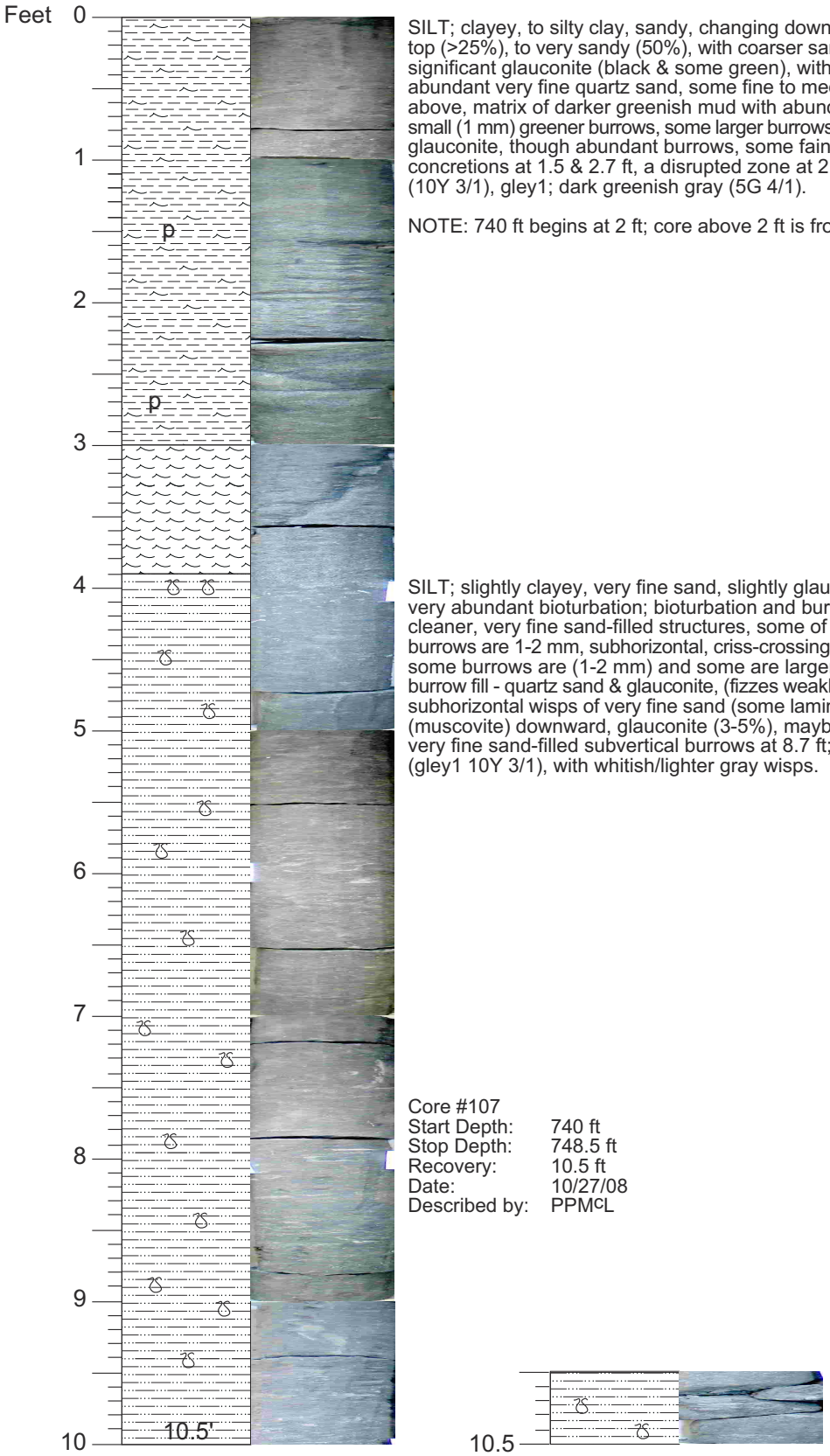


CLAY; silty, common very fine to medium glauconite sand (5%); abundant foraminifera (>10%), clay matrix is very dark greenish gray (gley1 10Y 3/1).

Abundant (20% vol), small (0.5-1.5 mm diameter) horizontal burrows (*Planolites*), filled with lighter green clay; (dark greenish gray 5G 4/1).

Some scattered very fine to fine quartz grains, numerous very small sand grains "twinkle" in the sun (quartz grain faces? mica is not seen); a few larger burrows (1.5 cm diameter); some lamination faint, evident in variation in glauconite sand content; a few pyrite nodules at 0.85 ft, some very thin shells, including 0.6 ft of two v-shaped features that look like shell (or is it a thin vein?); a few blebs of reddish/orangish brown clay.

Core #106
Start Depth: 735 ft
Stop Depth: 740 ft
Recovery: 1.4 ft
Date: 10/27/08
Described by: PPM^{C}L

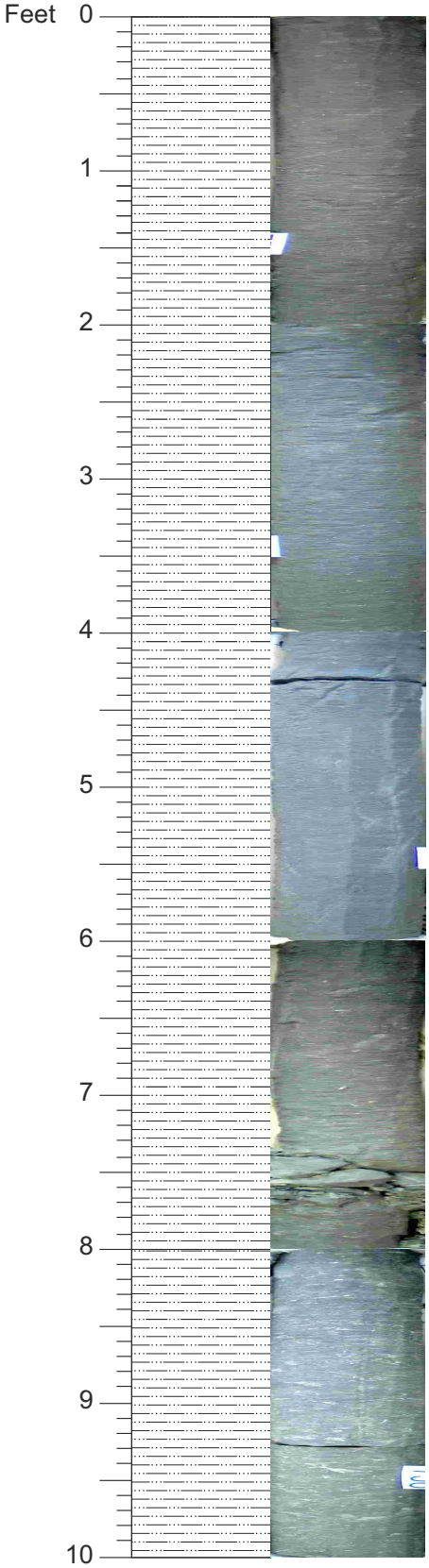


SILT; clayey, to silty clay, sandy, changing downward from slightly sandy near the top (>25%), to very sandy (50%), with coarser sand near the bottom, sand includes significant glauconite (black & some green), with glauconite (>50% of sand), plus abundant very fine quartz sand, some fine to medium quartz; abundant forams, as above, matrix of darker greenish mud with abundant forams and abundant very small (1 mm) greener burrows, some larger burrows (cm scale) with more concentrated glauconite, though abundant burrows, some faint lamination is preserved; pyrite concretions at 1.5 & 2.7 ft, a disrupted zone at 2.3-2.6 ft; very dark greenish gray (10Y 3/1), gley1; dark greenish gray (5G 4/1).

NOTE: 740 ft begins at 2 ft; core above 2 ft is from bottom of core #106

SILT; slightly clayey, very fine sand, slightly glauconitic; darker gray-green silt has very abundant bioturbation; bioturbation and burrows are highlighted by slightly cleaner, very fine sand-filled structures, some of the burrow-fill is very wispy; most burrows are 1-2 mm, subhorizontal, criss-crossing, but common subvertical burrows; some burrows are (1-2 mm) and some are larger; concretion at 8.5 ft looks like burrow fill - quartz sand & glauconite, (fizzes weakly, dolomite?); below 8 ft, abundant subhorizontal wisps of very fine sand (some laminations? burrow fills?), more mica, (muscovite) downward, glauconite (3-5%), maybe 10% in some burrows; wispy, very fine sand-filled subvertical burrows at 8.7 ft; overall, very dark greenish gray (gley1 10Y 3/1), with whitish/lighter gray wisps.

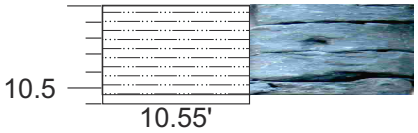
Core #107
Start Depth: 740 ft
Stop Depth: 748.5 ft
Recovery: 10.5 ft
Date: 10/27/08
Described by: PPMCL

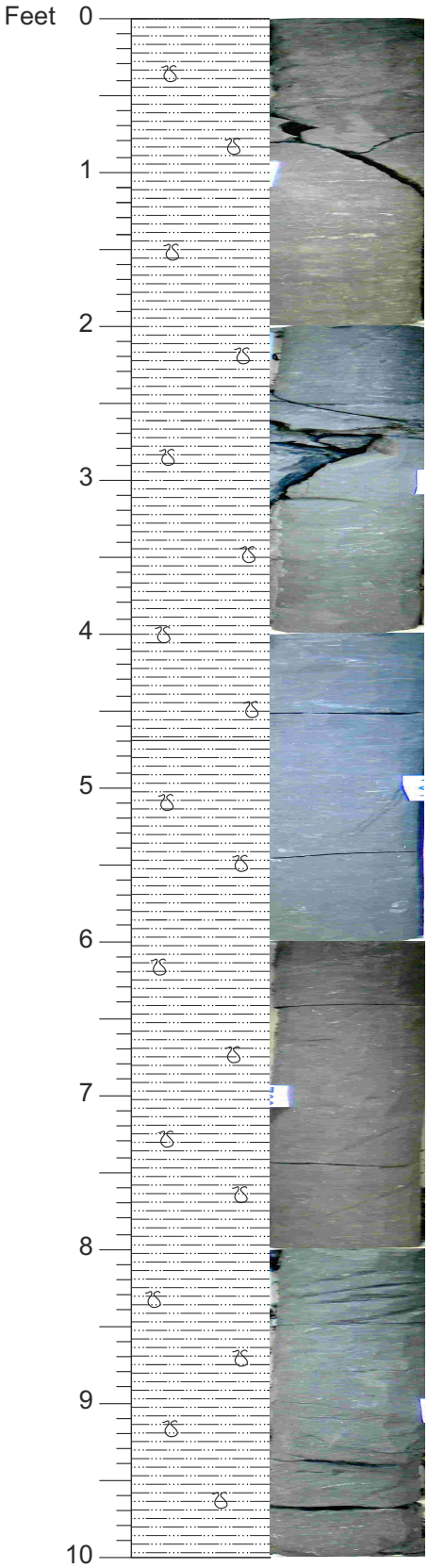


SILT; clayey, very fine sand (20%), sand consistency of (50%) glauconite, lesser quartz, muscovite (10% each); laminations present from the top of section to 7 ft (<1mm); from 7 ft to the bottom, core is more homogeneous, with laminations largely absent and abundant burrowing present; burrows mostly parallel to bedding, with fewer oblique; burrows are (1-2 mm diameter), mostly straight, fewer branching or sinuous; very dark greenish gray (gley1 10Y 3/1).

Core #108
Start Depth: 748.5 ft
Stop Depth: 759 ft
Recovery: 10.55 ft
Date: 1027/08
Described by: PJM

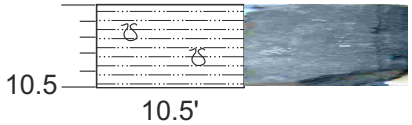
SILT; clayey, very sandy and very fine, quartz grains are more visible, possibly more abundant (50% total, very fine sand volume), 40-50% sand, more homogeneous; laminations largely absent, abundant burrowing present, burrows are mostly parallel to bedding with fewer oblique, burrows (1-2mm diameter), mostly straight, fewer branching or sinuous.

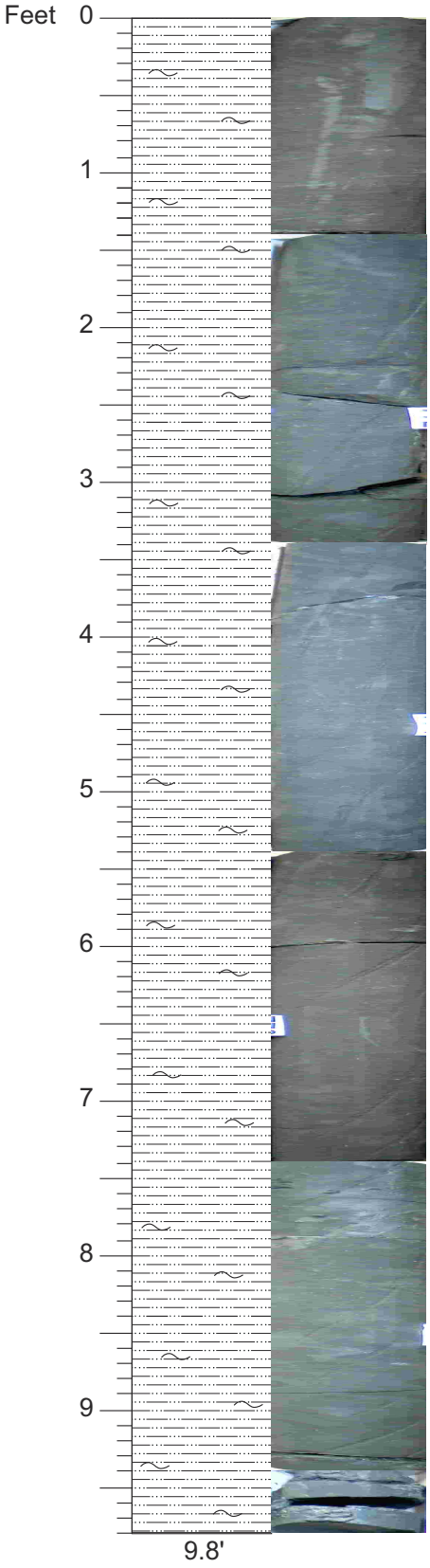




SILT; clayey; very fine sand (50% total volume), composed of (10%) glauconite at the top, decreasing to (5%) at the bottom, quartz and mica (muscovite) retain proportions throughout (~10:1); bioturbation is extensive throughout, mostly horizontal with fewer vertical and oblique, size varies from (<1 mm to 20 mm diameter), larger burrows infilled and reburrowed throughout by smaller ones, burrows vary in infilling - some mud and some are sand-lined; shelly material throughout the section, both forams and larger (<1.5 cm) arcuate forms (<1mm thick), a few dark brown, glassy brown fragments are present below 5.6 ft (possibly fish remains), due to extensive bioturbation, section is lacking any laminations; a red/brown clay spot (3 mm diameter) present at 0.25 ft; very dark greenish gray (gley1 10Y 3/1).

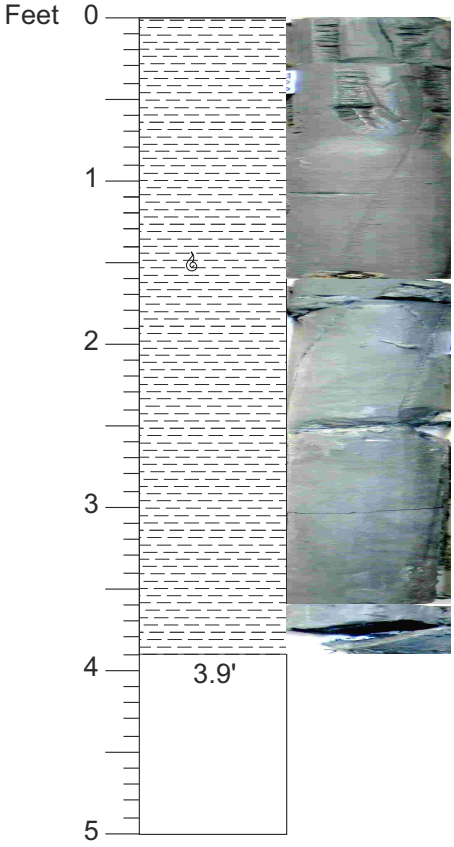
Core #109
Start Depth: 759 ft
Stop Depth: 769.5 ft
Recovery: 10.5 ft
Date: 10/27/08
Described by: PJM





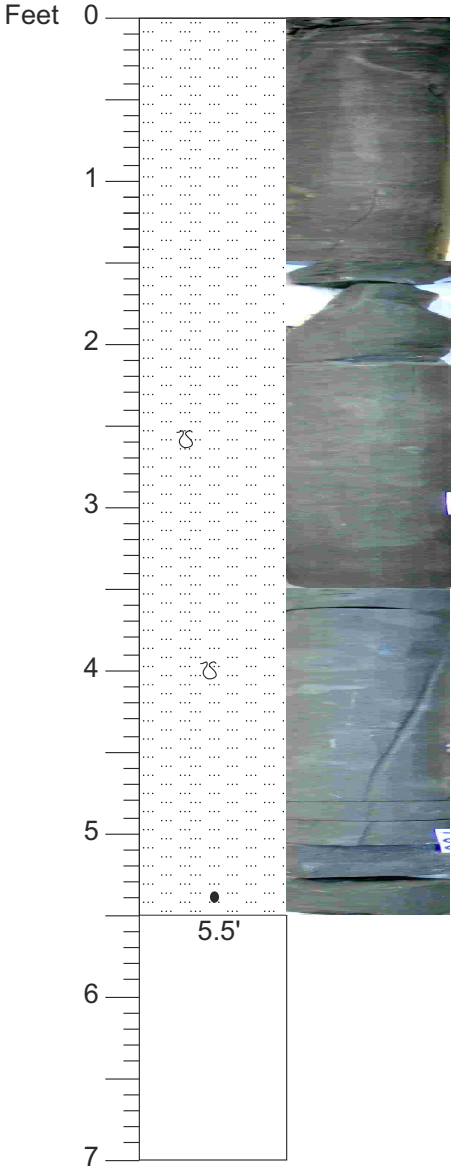
SILT; clayey to silty clay; monotonous gray muds that may vary in bioturbation and with greener burrow-fills; fine grained glauconitic (5%), slightly micaceous; heavily burrowed (especially the bottom), burrows at the top half are more wormy; very dark gray (N 3/1); very dark greenish gray (gley1 10 3/1).

Core #110
Start Depth: 769.5 ft
Stop Depth: 780 ft
Recovery: 9.8 ft
Date: 10/28/08
Described by: JVB, JU, KGM



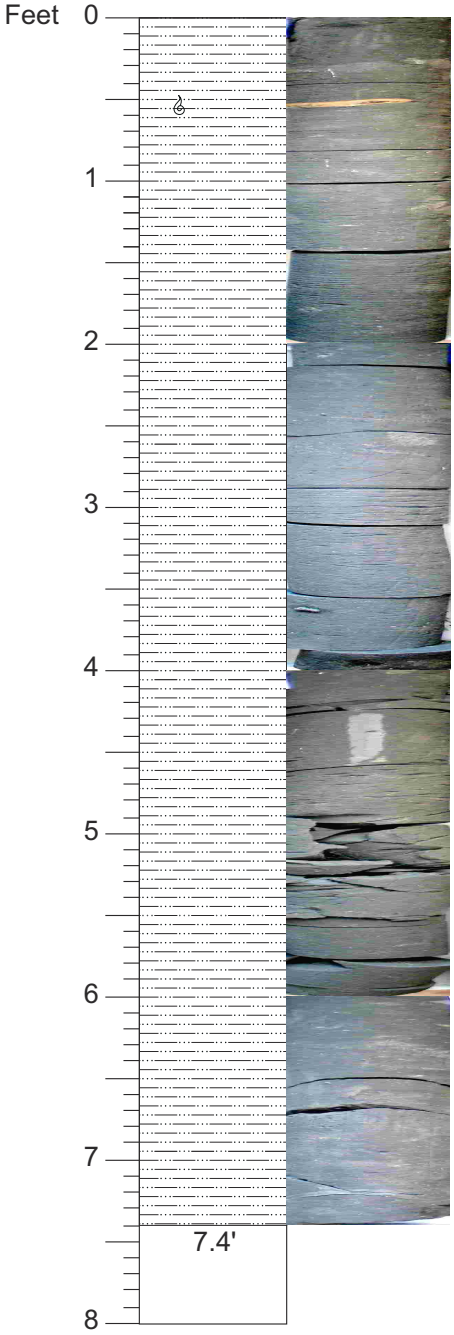
CLAY; silty, slightly glauconitic (5%), slightly micaceous; heavily bioturbated, large burrows, especially below 2 ft, wormy burrows present; sideritized shell at 1.5 ft; very dark gray (N 3/1); very dark greenish gray (10 3/1).

Core #111
Start Depth: 780 ft
Stop Depth: 785 ft
Recovery: 3.9 ft
Date: 10/28/08
Described by: KGM, JVB, JU



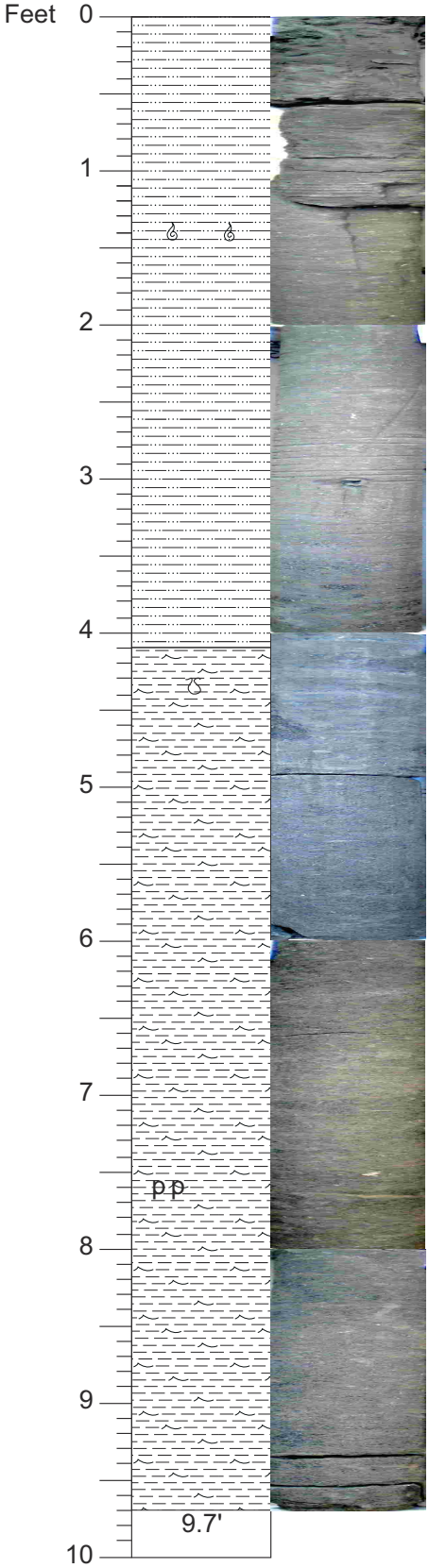
SILT; clayey, very fine sandy, glauconitic, very micaceous; heavily bioturbated, concretion in shoe at 5.4 ft, some wormy burrows but mostly large, wormy burrows are glauconitic and sand filled (some large and some small); greenish black (10Y 2.5/1).

Core #112
Start Depth: 785 ft
Stop Depth: 792 ft
Recovery: 5.5 ft
Date: 10/28/08
Described by: KGM, JVB, JU



CLAY; silty, some very fine sand in burrows with glauconite and trace mica; concretion from a shell at 0.6 ft; very dark greenish gray (10Y 3/1).

Core #113
Start Depth: 792 ft
Stop Depth: 800 ft
Recovery: 7.4 ft
Date: 10/29/08
Described by: PJS, BG

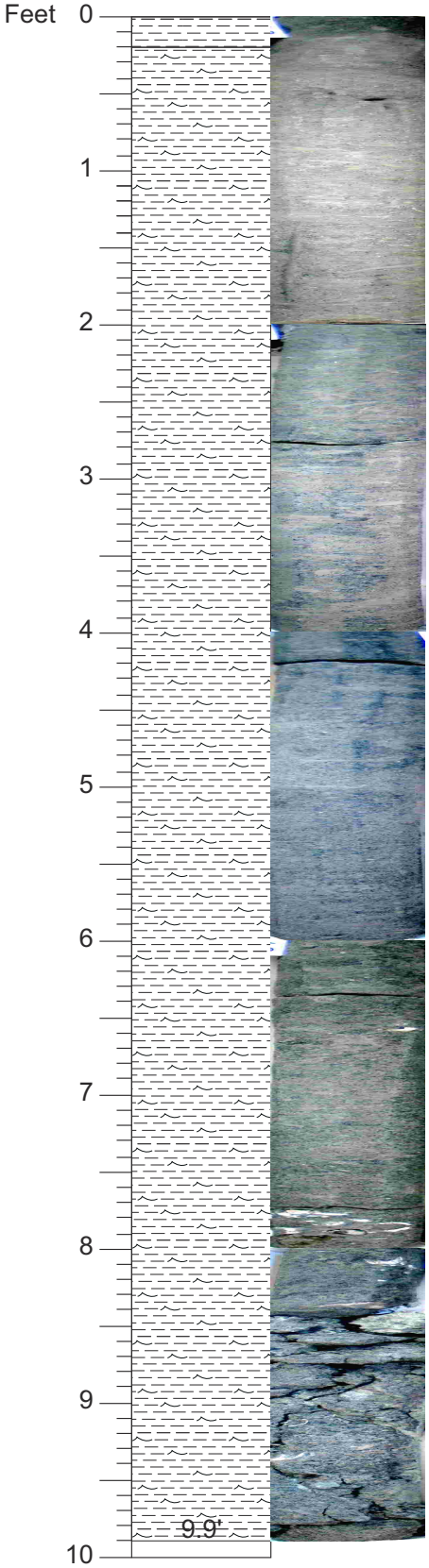


CLAY; silty, very fine sand, slightly micaceous in burrows; shell fragments at 1.4 ft, first glauconite filled burrow at 2.3 ft, glauconite sand burrowed up from burrows at 4 ft; dark greenish gray (5GY 4/1).

Contact

CLAY; clayey, silty, quartzose, glauconite sand, slightly micaceous; heavily burrowed, clay lined burrows present between 4.3 to 4.4 ft; disseminated shell material; pyrite concretion present at 7.6 ft; dark greenish gray (5G 4/1).

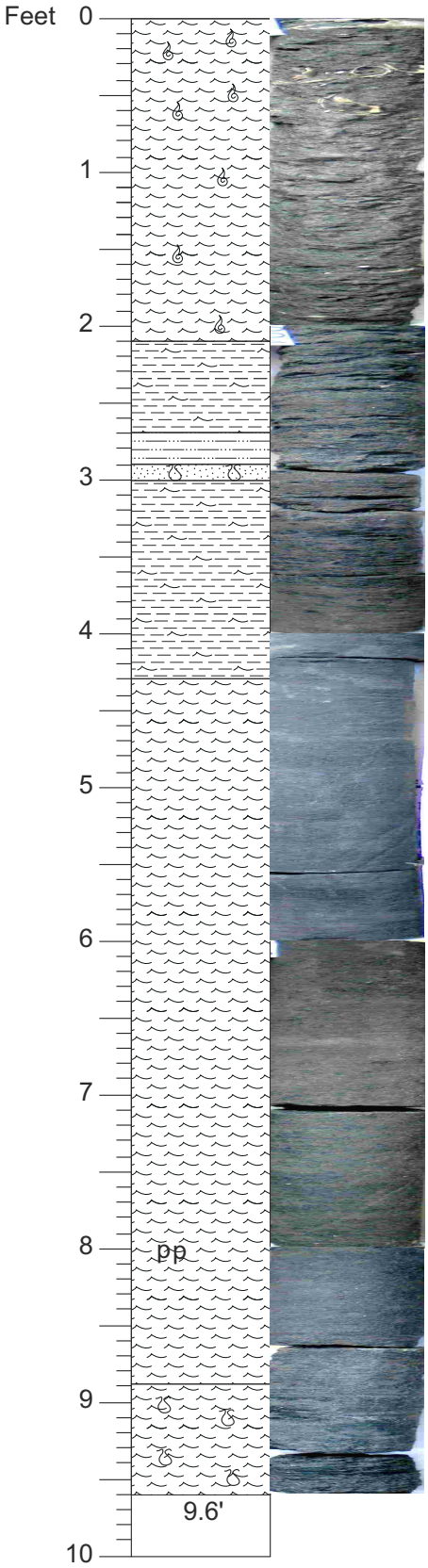
Core #114
Start Depth: 800 ft
Stop Depth: 810 ft
Recovery: 9.7 ft
Date: 10/30/08
Described by: PJS, BG, ADH, KGM



CLAY; glauconitic (30%), clayey glauconite sand; slightly micaceous; very heavily bioturbated, possible sequence boundary and lithology change at 0.2 ft; dark greenish gray (10Y 4/1).

Down the core, sandier, glauconite increases to >50%; shell fragments become present, shell bed (probably *Gryphaea dissimilis)* some siderized, present at 7.6 ft, >50% glauconite; possible contact, core broken up; very dark greenish gray (10Y 3/1).

Core #115
Start Depth: 810 ft
Stop Depth: 820 ft
Recovery: 9.9 ft
Date: 10/30/08
Described by: PJS, KGM, ADH, BG



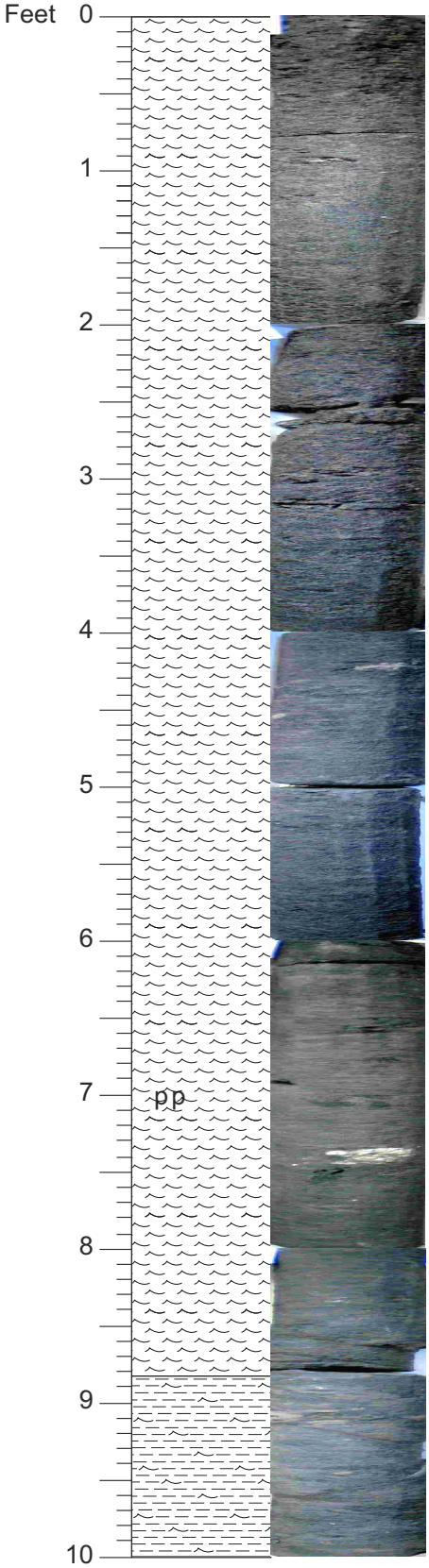
SAND; slightly silty, very fine glauconitic, very fine to fine quartz; shells common down to 0.7 ft, fewer shells fro 0.7 down to 2 ft; dark greenish gray (10Y 3/1); very dark greenish gray (10Y 4/1).

CLAY; clay beds at 2.1 ft, brown glauconitic silty clays at 2.7 ft, glauconitic clay from 3.8 to 4.3 ft; sand filled burrows from 2.8 to 3 ft

SAND; clayey, glauconitic sand; burrowing becomes less intense downsection, pyrite bed at 8 ft; very dark grayish brown (10YR 3/2).

Core #116
Start Depth: 820 ft
Stop Depth: 830 ft
Recovery: 9.6 ft
Date: 10/30/08
Described by: PJS, KGM, ADH, BG

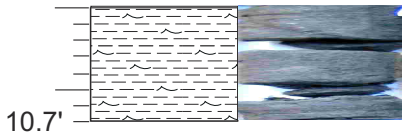
SAND; clayey, coarse, glauconitic; glauconite filled burrows; very dark greenish gray (10Y 3/1).

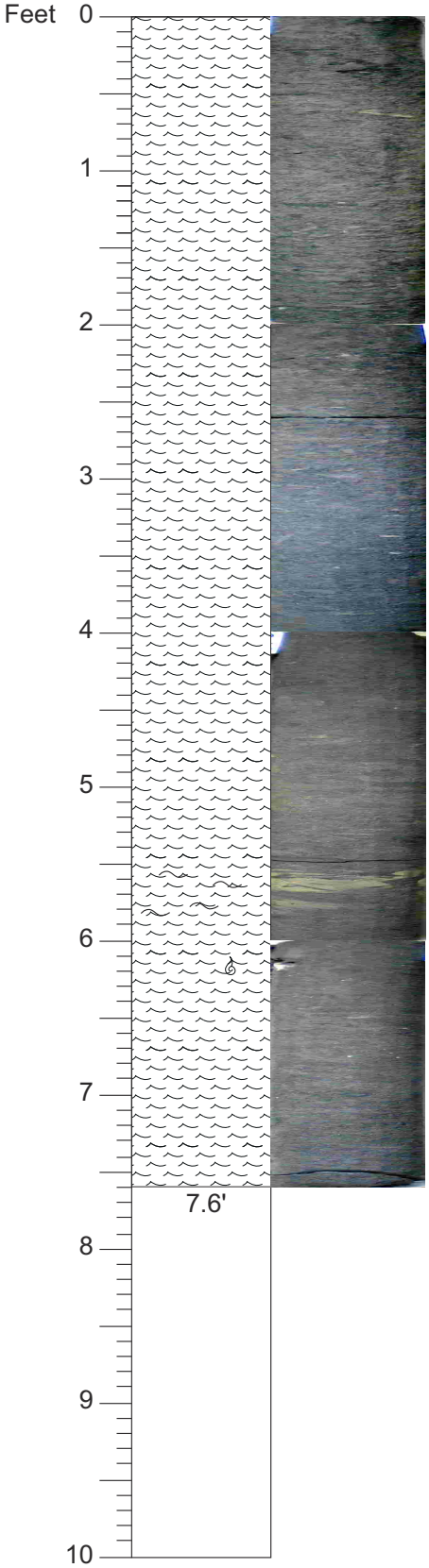


SAND; slightly clayey, grades down to clayey glauconite sand, glauconitic (medium), very slightly micaceous; from 2 ft downward, small shell fragments are disseminated, clay clasts are present, brown clay that has been burrowed up from below can be seen; pyrite concretions can be found at 7 ft; very dark greenish gray (5GY 3/1).

Core #117
Start Depth: 830 ft
Stop Depth: 840 ft
Recovery: 10.7 ft
Date: 10/30/08
Described by: PJS, KGM, ADH, BG

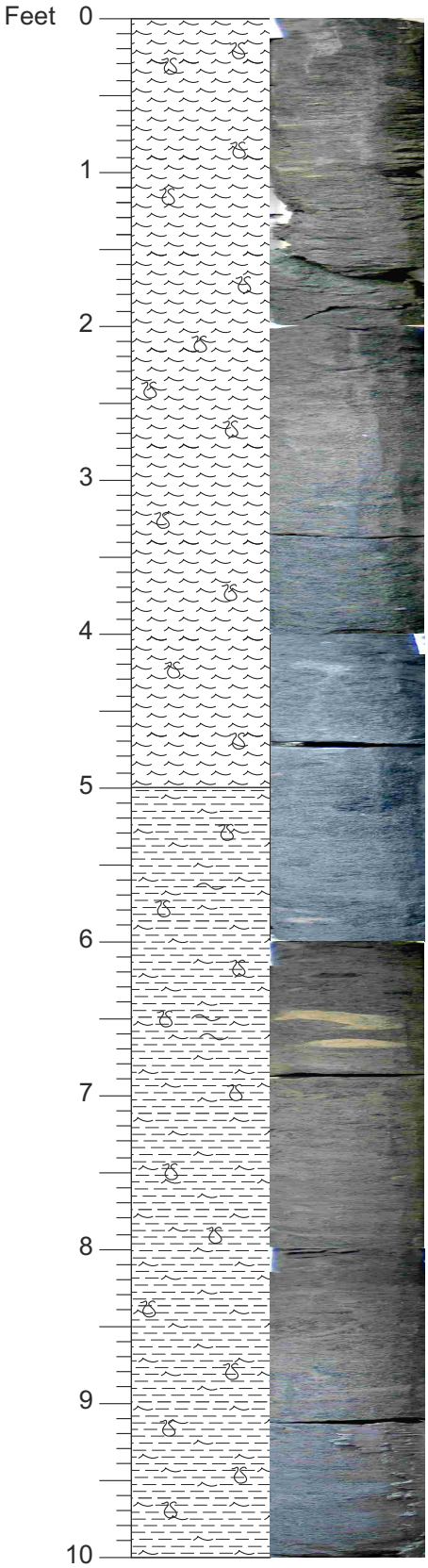
CLAY; glauconitic; glauconite sand-filled burrows, heavily burrowed, echinoid spine, 23 mm clast with a burrow through it; very dark gray (2.5Y 3/1).





SAND; silty, clayey glauconite sand (70% medium to very coarse); burrowed (more intense at the top); clay clast present at 0.7 ft, light brown clay clasts from 5.5 to 5.9 ft, larger burrows below clay that then grades down to typical type Navesink; very dark greenish gray (10Y 3/1).

Core #118
Start Depth: 840 ft
Stop Depth: 850 ft
Recovery: 7.6 ft
Date: 10/30/08
Described by: PJS, KGM, ADH, BG

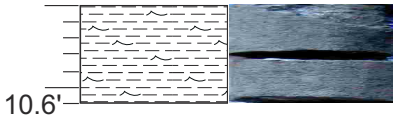


SAND; clayey, glauconitic; heavily burrowed.

Possible contact

CLAY; slightly glauconitic; clay clasts present at 5.65 to 6.5 ft; burrowing increasing towards the base of the core; very dark gray (2.5Y 3/1).

Core #119
Start Depth: 850 ft
Stop Depth: 858 ft
Recovery: 10.6 ft
Date: 10/30/08
Described by: PJS, ADH, KGM, BG



Cumulative percent

- Clay/silt
- Glauconite sand
- Fine quartz sand
- Medium quartz sand
- Coarse quartz sand
- Very coarse quartz sand
- Granules/pebbles
- Foraminifers/shells
- Mica
- Other

Lithology columns

- Gravelly sand
- Sand
- Muddy sand/ Sandy mud
- Mud
- Glauconite sand
- Glauconitic
- Laminations
- Pebbles
- Porcellanite
- Shells

HST	Highstand systems tract
MFS	Maximum flooding surface
TST	Transgressive systems tract
USF	Proximal upper shoreface
LSF	Lower shoreface
B	Barren
D	Dinoflagellate sample
	Sequence boundary