

Dolostone, fine- to medium-crystalline with floating quartz sands 1-5 % in proportion; medium gray; strongly to pervasively bioturbated by 2-5 mm-wide *Chondrites* burrows; gradually less sandy, finer grained, and more bioturbated upward; quartz sand grains are very well rounded, medium- to coarse-grained; 0.05-1 mm-sized phosphate grains common; crinoidal wackestone; vesicular porosity-rich layers (grainstone?) abundant in the lower part; ferruginous hardgrounds common in the lower part; bounded above by a argillaceous parting.

(JE4,3,2)

JE-2

Sandy dolostone to dolomitic sandstone; gradually less sandy upward; light to medium gray; strongly bioturbated by less than 0.5 cm-wide *Chondrites* burrows; the quartz grains are medium- to coarse-grained and well rounded; quartz grains comprise less than 50 % in proportion except basal 5 cm interval; contains and bounded above by ferruginous hardgrounds associated with *Thalassinoides* burrows; dark brown shaly partings at base.

(JE1)

JE-1

Quartz-arenite, medium-grained, well rounded, well sorted; light greenish yellow; upper 1 cm interval is poorly sorted with coarse grains; pyrite mineralization on top.

(JE1)

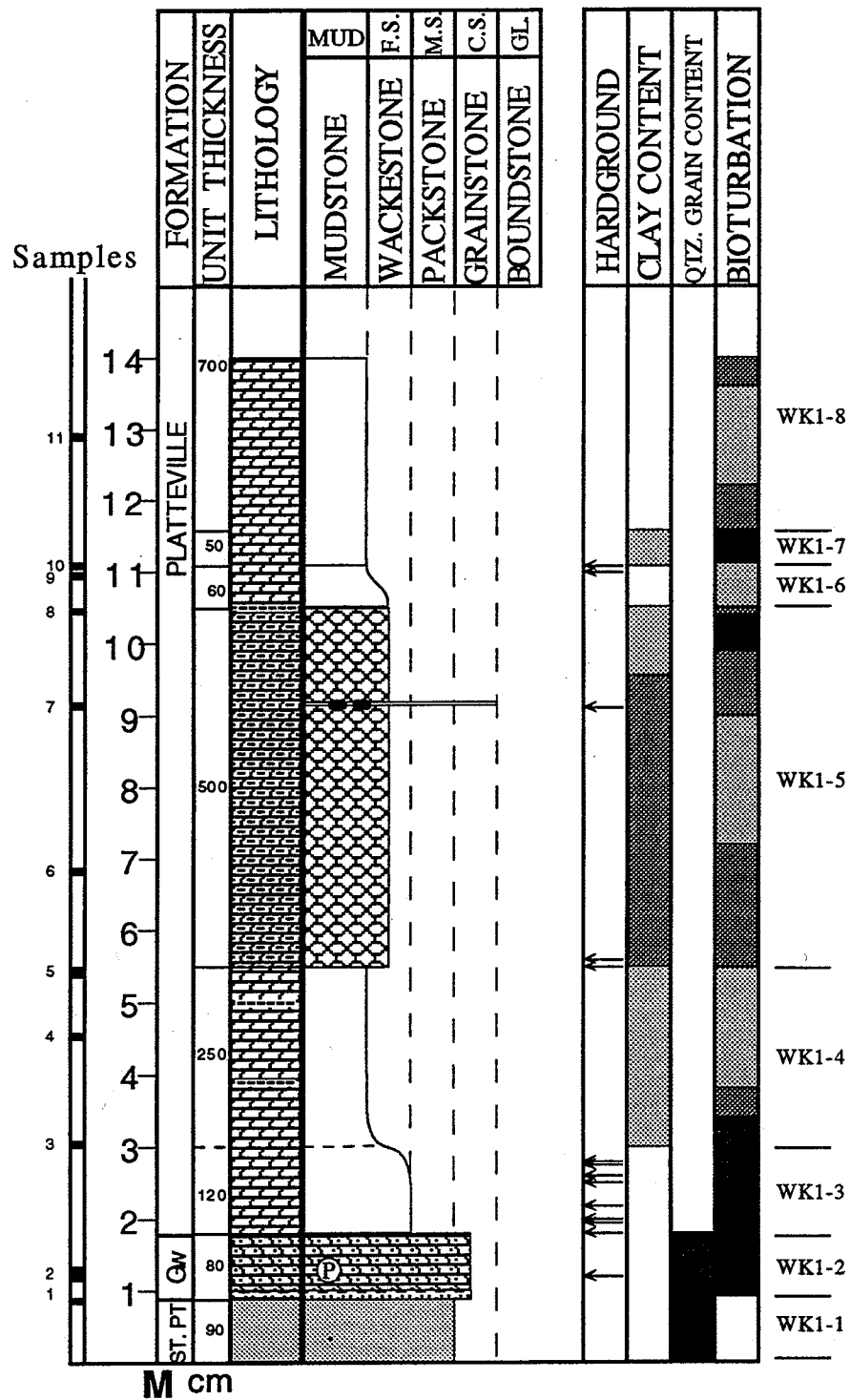


Fig. B-21. Columnar section measured from core, Locality WK-1. Descriptions of units followed next.

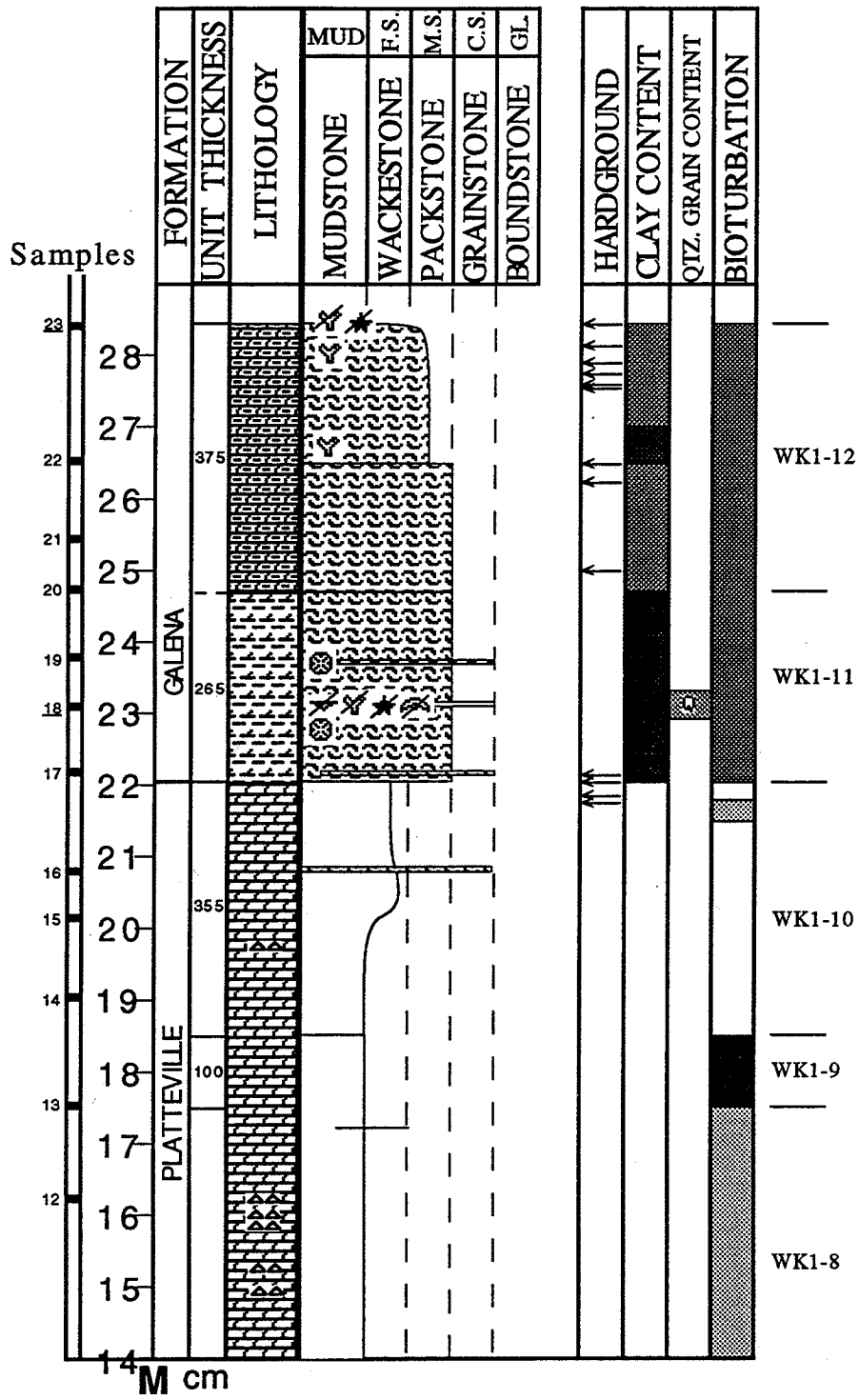


Fig. B-21. Continued.

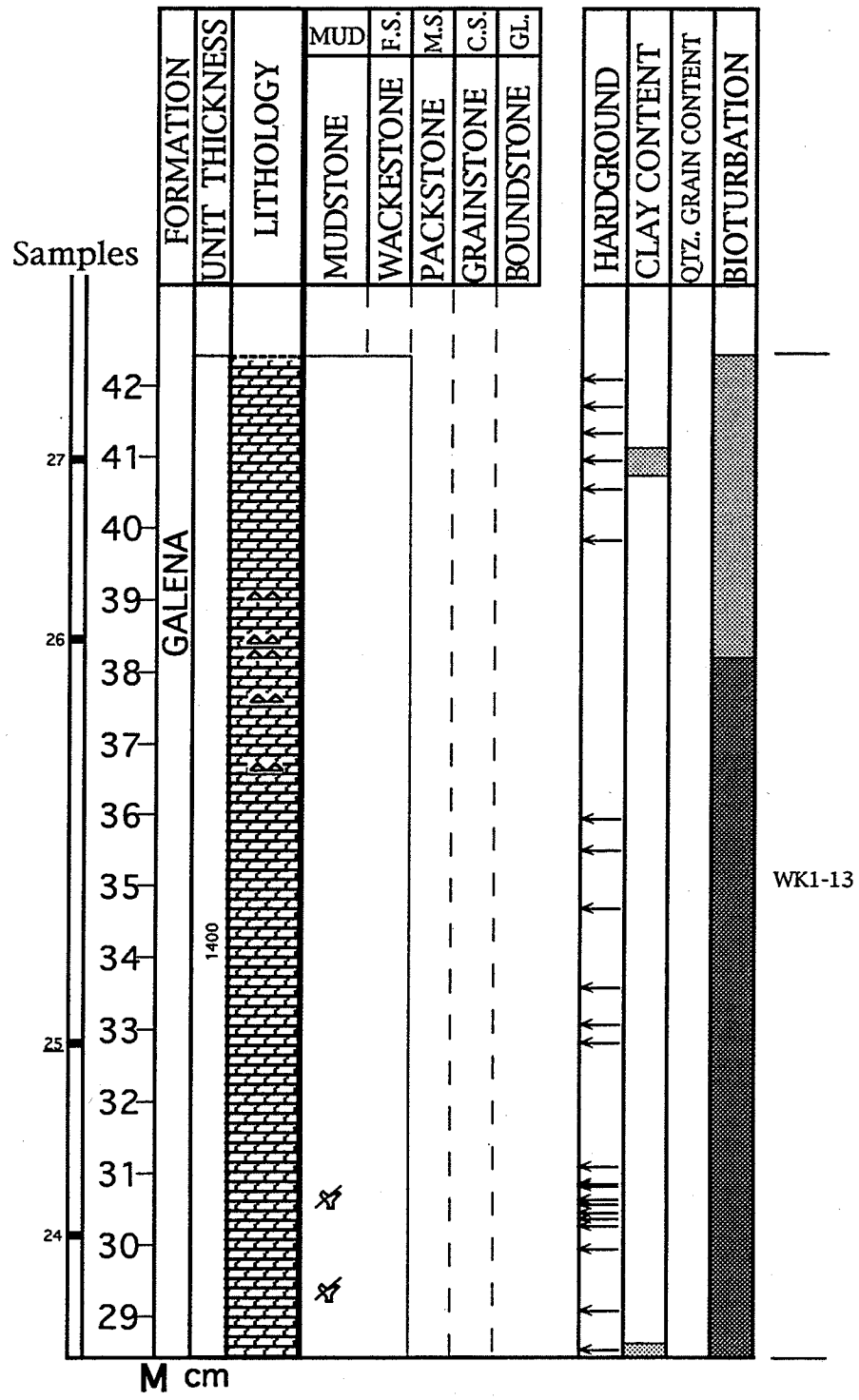


Fig. B-21. Continued.

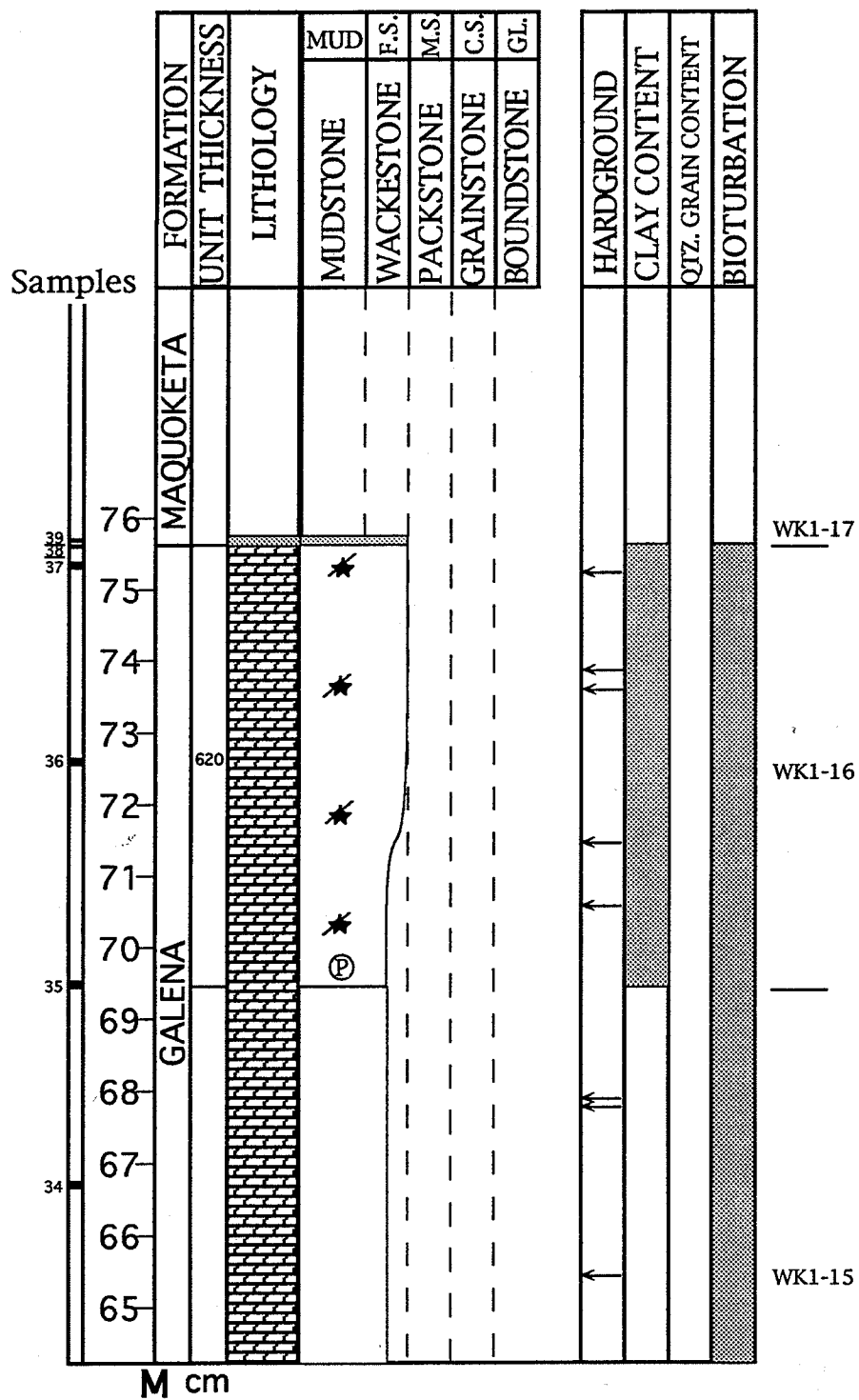


Fig. B-21. Continued.

Description

Rock Unit No.
Top of section

WK1-17

Siltstone; contains quartz, chert, feldspar, and muscovite grains in order of abundance; grains are mostly subangular.
(WK1-39)

WK1-16

Dolostone, fine-crystalline, slightly to moderately argillaceous with dark brown argillaceous partings rich in phosphate grains; light brown; crinoidal wackestone with occasionally intercalating packstone beds; hardgrounds present locally; weakly bioturbated.
(WK1-38,37,36,35)

WK1-15

Dolostone, medium-crystalline, carbonate; light to medium brown; fossiliferous mudstone to wackestone; hardgrounds common; weakly to moderately bioturbated.
(WK1-34,33,32,31)

WK1-14

Dolostone, fine- to medium-crystalline, carbonate; brown to light yellowish brown; bioclastic wackestone with occasionally intercalating thin-bedded bioclastic packstone to grainstone beds; brachiopod molds common; weakly to moderately bioturbated; contains abundant hardgrounds.
(WK1-30,29,28)

WK1-13

Dolostone, medium-crystalline, carbonate; gradually less argillaceous upward; light brown with greenish tint in the lower part; bioclastic wackestone (?); white chert nodules abundant locally; hardgrounds common; vesicular pores common; weakly to moderately bioturbated by burrows filled finer material including clay; brachiopod and bryozoan molds common.
(WK1-27,26,25,24)

WK1-12

Dolostone, medium-crystalline, moderately to very argillaceous; greenish gray; bioclastic packstone to grainstone mixed with clay due to bioturbation; less argillaceous than the unit below; rich in trepostome bryozoans in the upper part; weakly bioturbated; crinoids present; hardgrounds common.
(WK1-23,22,21)

WK1-11

Dolostone, medium-crystalline, shaly; green; shaly bioclastic packstone with intercalating grainstone beds; shaly material occur as burrow fillings as well as mm-thick argillaceous partings or seams; some grainstone beds are laminated; moderately to strongly bioturbated by 2-5 mm-wide burrows filled with shale; fragments of brachiopods, bryozoans, crinoids, and trilobites abundant, corals present; terrigenous silt common in up to 10% proportion.
(WK1-20,19,18,17)

WK1-10

Dolostone, fine- to medium-crystalline; light brown; white chert nodules present locally; irregularly distributed vesicular to vuggy pores; mudstone to wackestone with occasionally intercalating grainstone beds; porosity increases upward; none to weakly bioturbated; a very prominent hardground present on top of the unit.
(WK1-16,15,14)

WK1-9

Dolostone, fine- to medium-crystalline, slightly argillaceous; moderately to pervasively bioturbated by 2-5 mm-wide *Chondrites* burrows; gradually more bioturbated upward; mudstone.
(WK1-13)

WK1-8

Dolostone, very fine-crystalline, slightly argillaceous to carbonate; gradually less argillaceous upward; light brown; contains locally white chert nodules in the upper part; the chert nodules are rounded and laterally elongated and are 2-5 cm-sized in short axis; slightly bioturbated mostly by horizontal burrows, less than 0.5 cm in diameter; mudstone.
(WK1-12,11)

WK1-7

Dolostone, fine- to medium-crystalline, slightly argillaceous; medium gray; strongly bioturbated by 2-5 mm-wide dark gray mottled burrows; mudstone.

WK1-6

Dolostone, very fine-crystalline, carbonate; light purplish gray; weakly bioturbated by 2-5 mm-wide dark gray burrows; mudstone; hardgrounds present in the upper part.
(WK1-10,9)

WK1-5

Dolostone, fine- to medium-crystalline, moderately to very argillaceous with 0.5-1 cm-thick argillaceous seams; gradually less argillaceous upward; greenish gray to light brownish gray; fossiliferous mudstone to wackestone with occasional thin-bedded grainstone beds, less than 5 cm thick; moderately to strongly bioturbated by 1-4 mm-wide *Chondrites* burrows.
(WK1-8,7,6,5)

WK1-4

Dolostone, very fine-crystalline, slightly to moderately argillaceous with 0.5-2 cm-thick wavy argillaceous seams in 5-20 cm intervals; weakly to moderately bioturbated by 3-7 mm-wide dark gray mottled burrows; gradually less argillaceous and less bioturbated upward; light brownish-gray; fossiliferous mudstone containing brachiopod molds; bounded above by a very prominent hardground.
(WK1-4)

WK1-3

Dolostone; medium-crystalline; brownish-gray; strongly to pervasively bioturbated by *Chondrites* burrows; gradually more muddy and less bioturbated upward; bioclastic wackestone; ferruginous hardgrounds abundant; bounded above by an argillaceous parting.

WK1-2

Sandy dolostone to dolomitic sandstone; gradually less sandy upward; light to medium brownish-gray; strongly bioturbated by 5-8 mm-wide *Chondrites* burrows; the quartz

grains are medium- to coarse-grained and well rounded; quartz grains comprise about 50 % in proportion except base; sand-sized phosphate grains abundant; contains and bounded above by ferruginous hardgrounds.

(WK1-2)

WK1-1

Quartz-arenite, medium-grained, well rounded, well sorted; light greenish yellow; upper 10 cm interval is poorly sorted with coarse grains; 1-5 mm-sized pyrite nodules in the upper part.

(WK1-1)

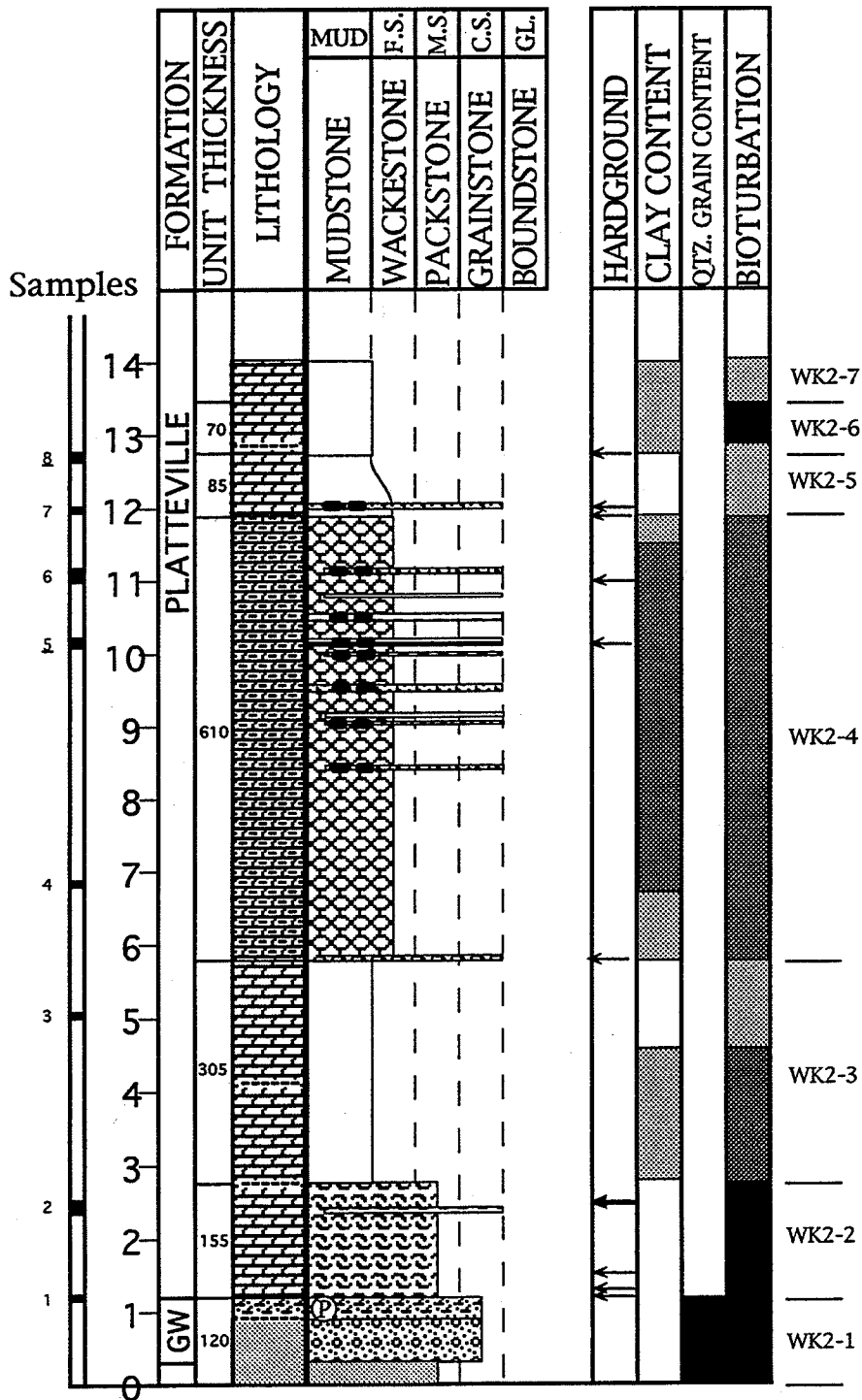


Fig. B-22. Columnar section measured from core, Locality WK-2. Descriptions of units followed next.

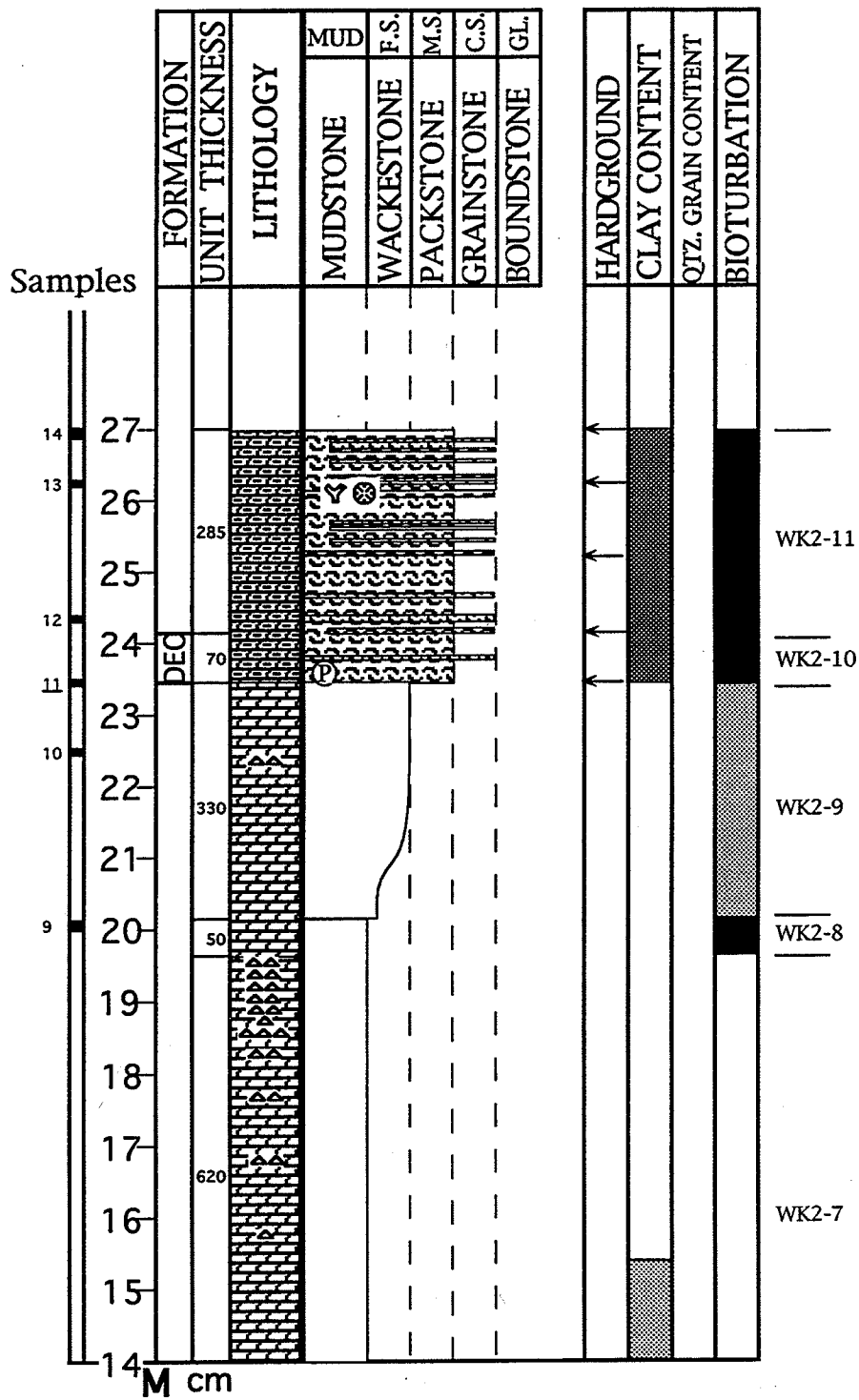


Fig. B-22. Continued.

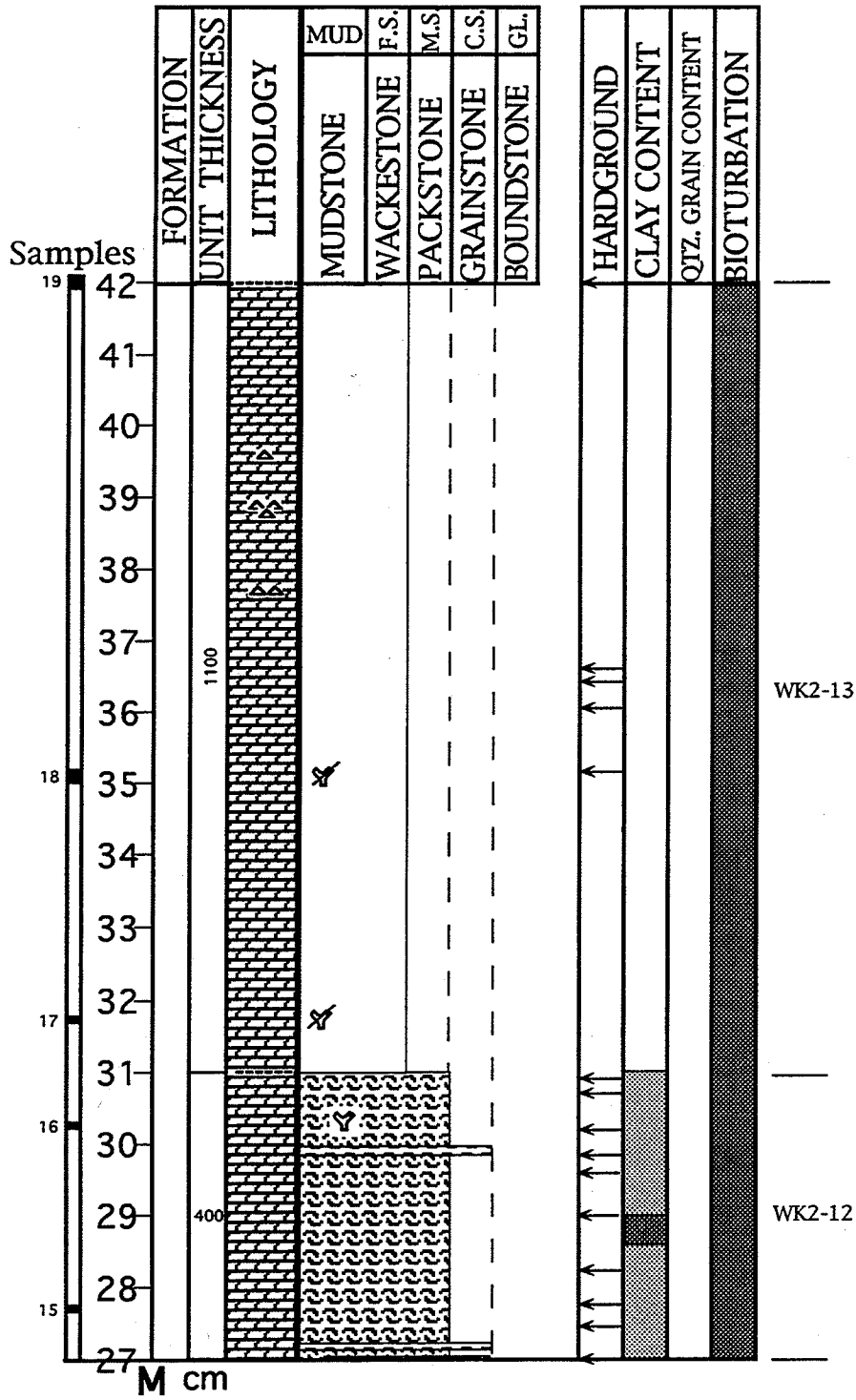


Fig. B-22. Continued.

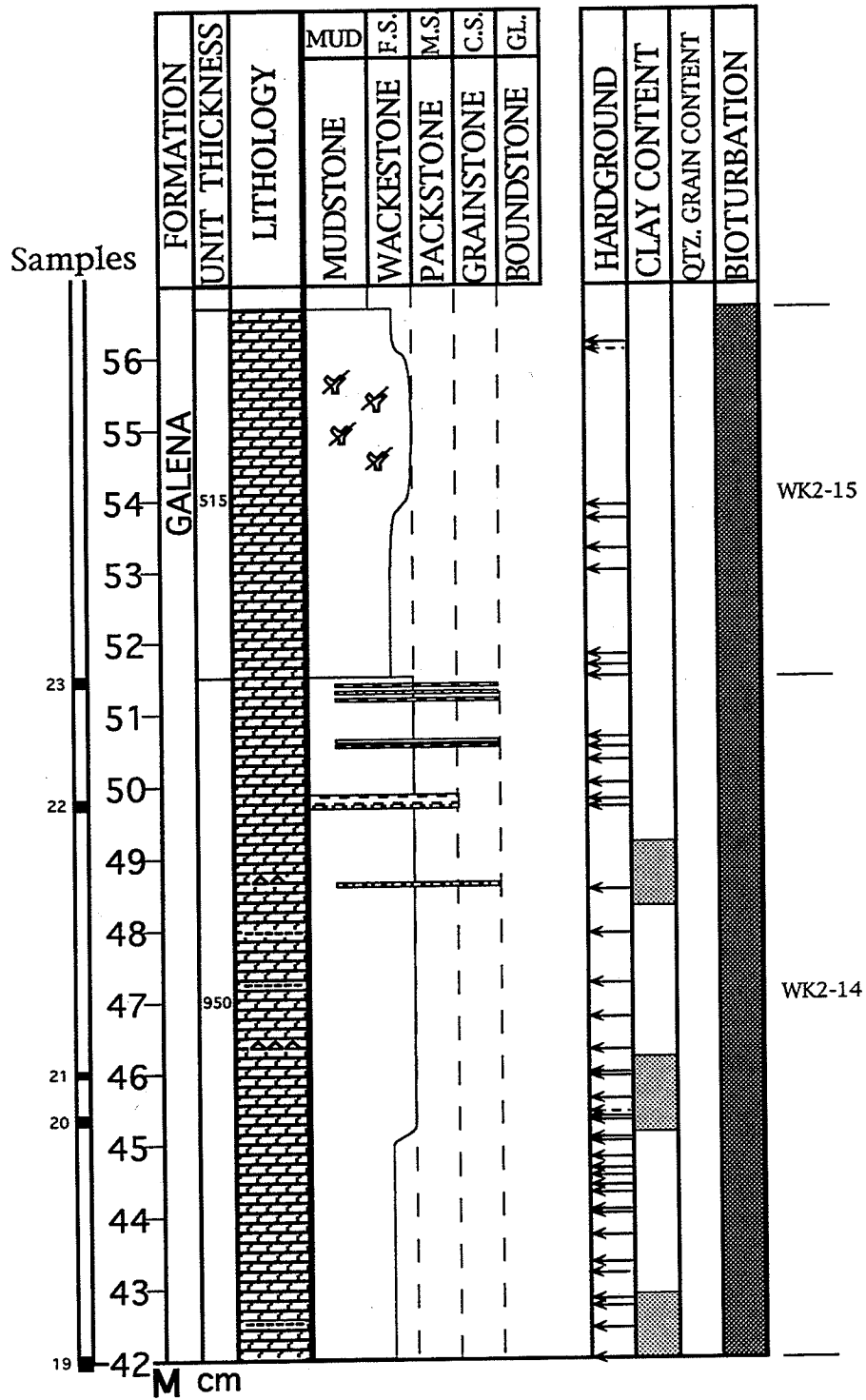


Fig. B-22. Continued.

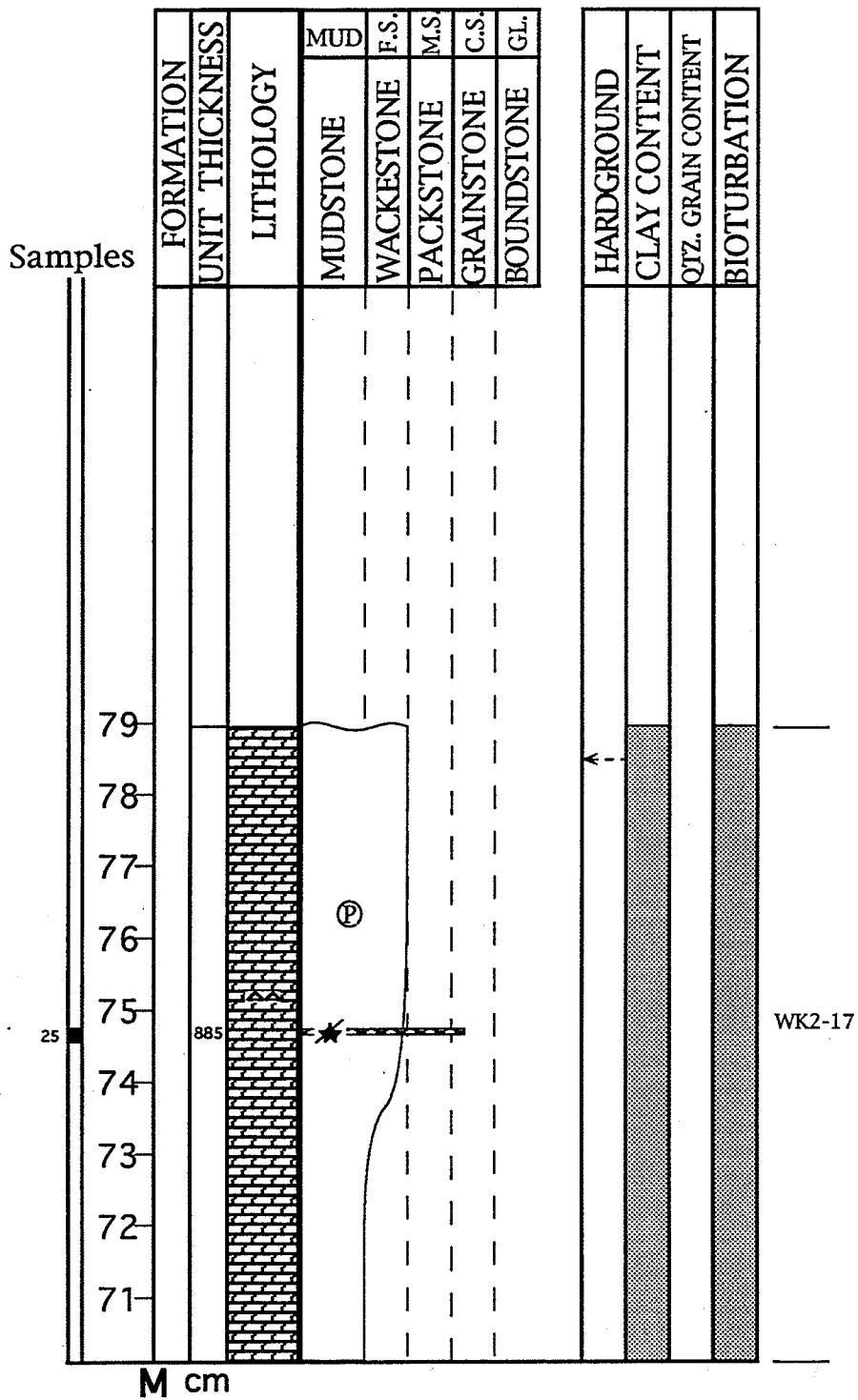


Fig. B-22. Continued.

Description

Rock Unit No.
Top of section

WK2-17

Dolostone, fine-crystalline, slightly to moderately argillaceous with dark brown argillaceous partings rich in phosphate grains; light brown; crinoidal wackestone with occasionally intercalating packstone beds; weakly bioturbated.

(WK2-25)

WK2-16

Dolostone, fine-crystalline, carbonate; light yellowish gray; fossiliferous mudstone to wackestone; small brachiopod molds common; weakly to moderately bioturbated.

(WK2-24)

WK2-15

Dolostone, medium-crystalline, carbonate; light to medium brown; fossiliferous mudstone to wackestone; bryozoan molds filled with finer material common; hardgrounds common; weakly to moderately bioturbated.

WK2-14

Dolostone, fine- to medium-crystalline, slight argillaceous to carbonate; brown to light yellowish brown; bioclastic wackestone with occasionally intercalating thin-bedded bioclastic packstone to grainstone beds; brachiopod molds common; vesicular and vuggy pores are common; weakly to moderately bioturbated; contains abundant hardgrounds.

(WK2-23,22,21,20)

WK2-13

Dolostone, medium-crystalline, carbonate; light brownish gray but dark brownish gray in the middle part; bioclastic wackestone to packstone (?); white chert nodules abundant locally; hardgrounds present in the middle part; irregularly distributed vesicular pores abundant; vuggy pores common particularly in the middle part; weakly to moderately bioturbated.

(WK2-19,18,17)

WK2-12

Dolostone, medium-crystalline, slightly to moderately argillaceous; light gray; bioclastic wackestone to packstone; moderately bioturbated; hardgrounds abundant.

(WK2-16,15)

WK2-11

Dolostone, fine- to medium-crystalline, moderately to very argillaceous; green; argillaceous bioclastic packstone with intercalating grainstone beds; argillaceous material occur as burrow fillings as well as mm-thick partings or seams; some grainstone beds are laminated; moderately to strongly bioturbated by 2-5 mm-wide burrows filled with finer materials; fragments of brachiopods, bryozoans, crinoids, and trilobites abundant; hardgrounds common.

(WK2-14,13,12)

WK2-10

Dolostone, medium-crystalline, slightly to moderately argillaceous with 1-5 mm-thick dark brown partings; abundant phosphate grains resulting in light purplish brown color; bioclastic packstone to grainstone; fauna includes brachiopods and trilobites; prominent hardground on top.

(WK2-11)

WK2-9

Dolostone, fine- to medium-crystalline; light brown; white chert nodules present locally; irregularly distributed vesicular to vuggy pores; mudstone to wackestone with occasionally intercalating grainstone beds; porosity increases upward; none to weakly bioturbated by mottled burrows in the upper part; a very prominent hardground present on top of the unit.

(WK2-10)

WK2-8

Dolostone, fine-crystalline, slightly argillaceous; medium to dark gray; moderately to strongly bioturbated by 2-5 mm-wide, light gray *Chondrites* burrows and occasional 1-2 cm-sized burrows; mudstone.

(WK2-9)

WK2-7

Dolostone, very fine-crystalline, slightly argillaceous to carbonate; gradually less argillaceous upward; light brown; contains locally white chert nodules in the upper part; the chert nodules are rounded and laterally elongated and are 2-5 cm-sized in short axis; rarely to weakly bioturbated mostly by horizontal burrows, less than 0.5 cm in diameter; mudstone.

WK2-6

Dolostone, fine- to medium-crystalline, slightly argillaceous; medium gray; strongly bioturbated by 2-5 mm-wide dark gray mottled burrows; mudstone.

WK2-5

Dolostone, fine- to medium crystalline, carbonate; light gray to light purplish brown; weakly bioturbated by 2-4 mm-wide dark gray mottled burrows; mudstone with occasionally intercalating grainstone beds; bounded above by a prominent hardground.

(WK2-8,7)

WK2-4

Dolostone, fine- to medium-crystalline, moderately to very argillaceous with 0.5-1 cm-thick argillaceous seams; gradually more argillaceous upward in the lower part, gradually less argillaceous and less bioturbated upward in the middle to upper part; light brownish gray in the lower part with phosphate grains, greenish gray in the upper part; fossiliferous mudstone to wackestone with occasional thin-bedded grainstone beds, less than 5 cm thick; moderately to strongly bioturbated by 1-4 mm-wide *Chondrites* burrows.

(WK2-6,5,4)

WK2-3

Dolostone, very fine-crystalline, slightly to moderately argillaceous with 0.5-2 cm-thick wavy argillaceous seams in 5-20 cm intervals; weakly to moderately bioturbated by 3-7 mm-wide dark gray mottled burrows; gradually less-argillaceous upward; light brownish-gray; fossiliferous mudstone; bounded above by a very prominent hardground.

(WK2-3)

WK2-2

Dolostone; medium-crystalline; medium gray; strongly to pervasively bioturbated by 1-3 mm-wide burrows filled with mud; bioclastic wackestone to packstone; moldic pores common; ferruginous hardgrounds common; bounded above by a argillaceous parting.
(WK2-2)

WK2-1

Quartz-arenite to dolomitic sandstone, medium- to coarse grained, well rounded, well sorted; light yellow; upper 30 cm interval contains sand-sized phosphate grains and coarse-grained quartz sands inside burrows; strongly bioturbated by 3-7 mm-wide *Chondrites* burrows; bounded above by a ferruginous hardground.
(WK2-1)

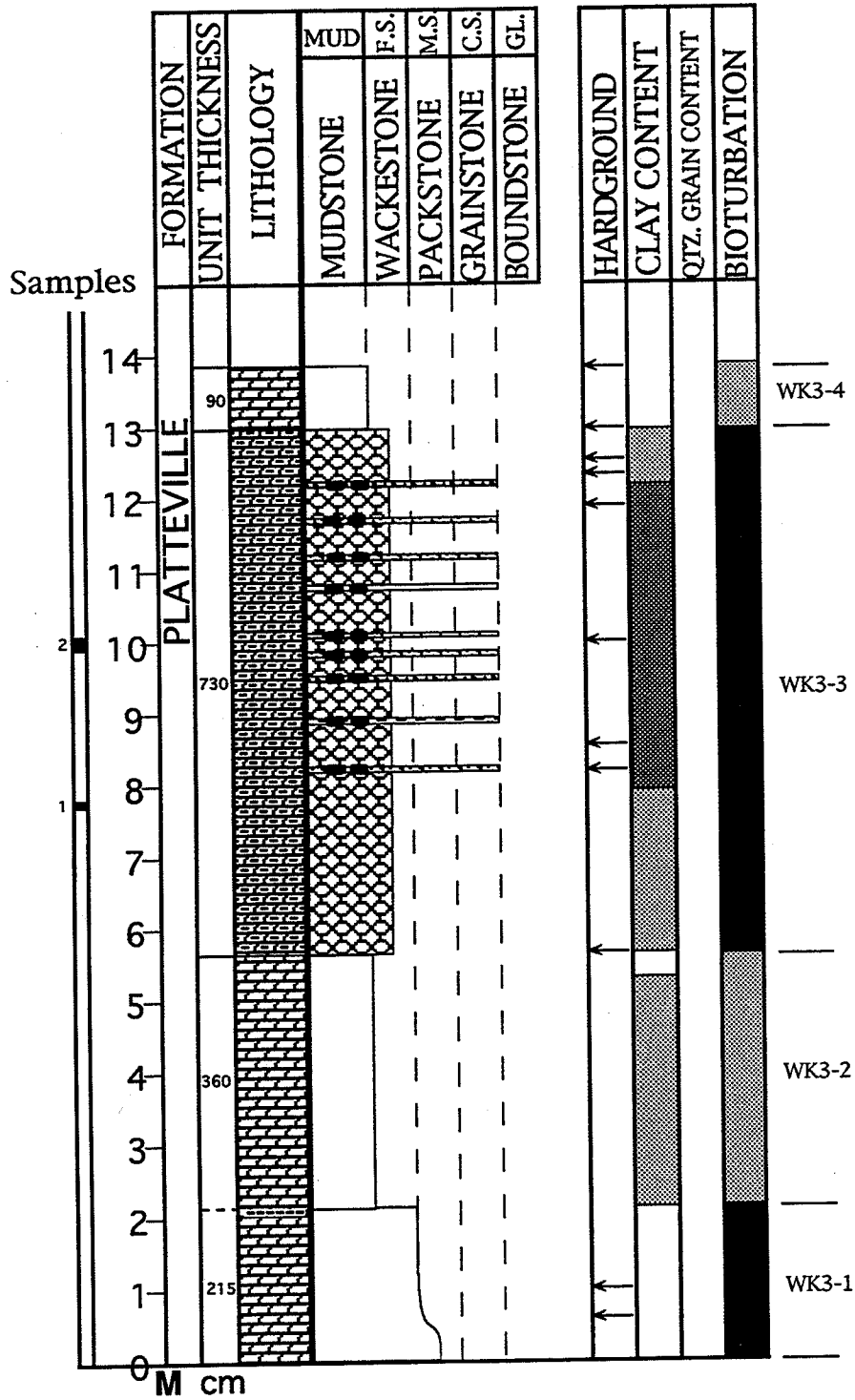


Fig. B-23. Columnar section measured from core, Locality WK-3. Descriptions of units followed next.

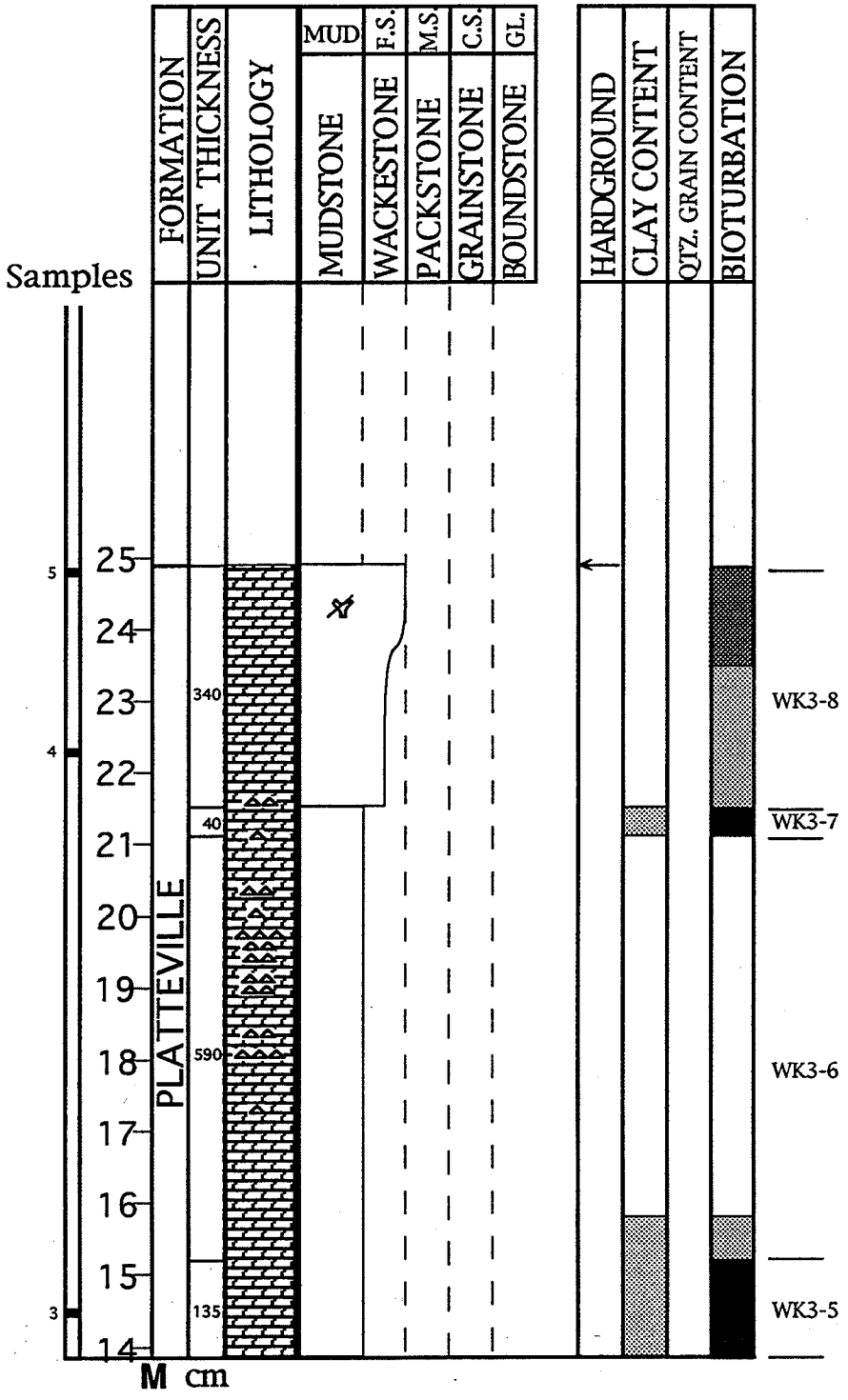


Fig. B-23. Continued.

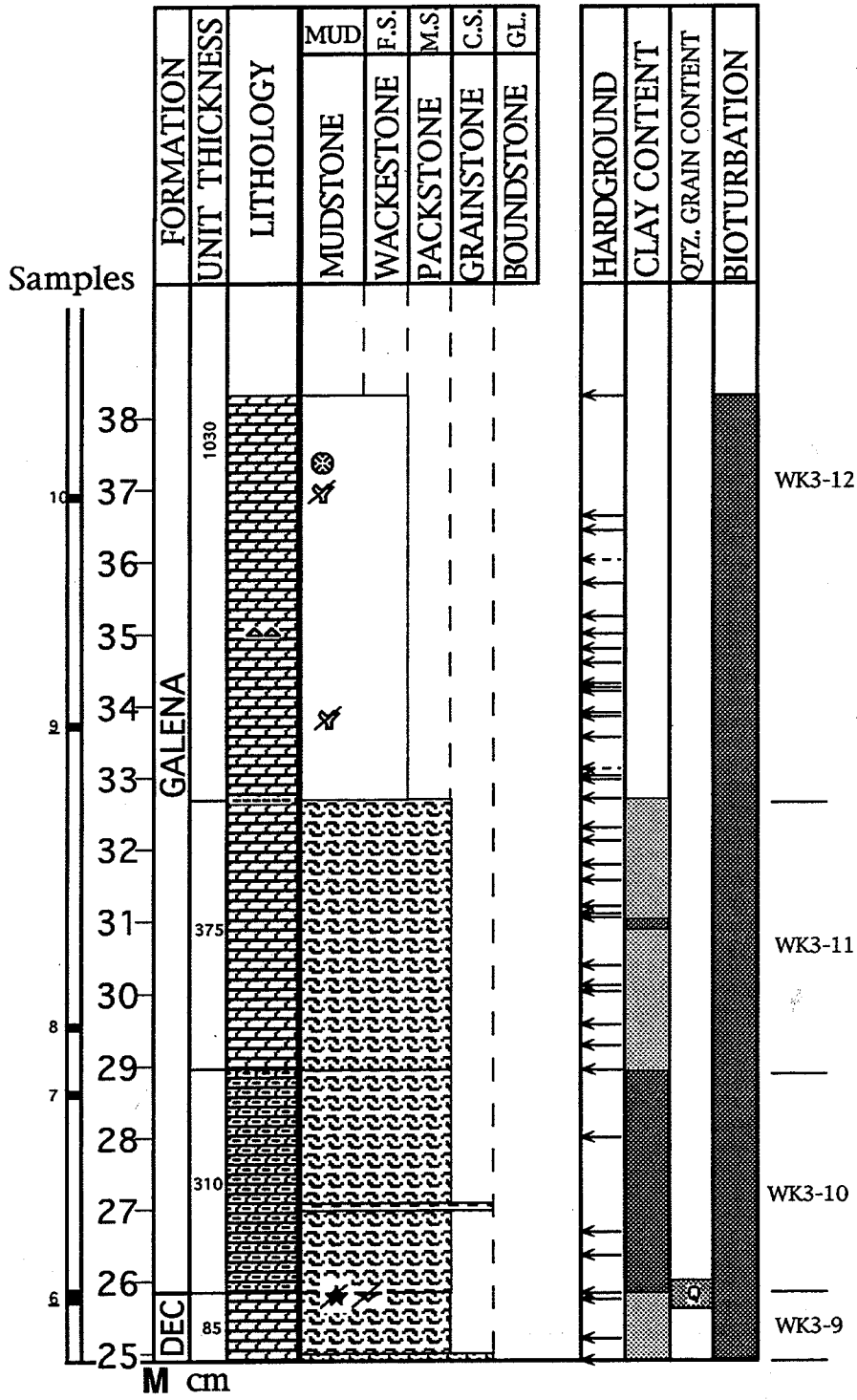


Fig. B-23. Continued.

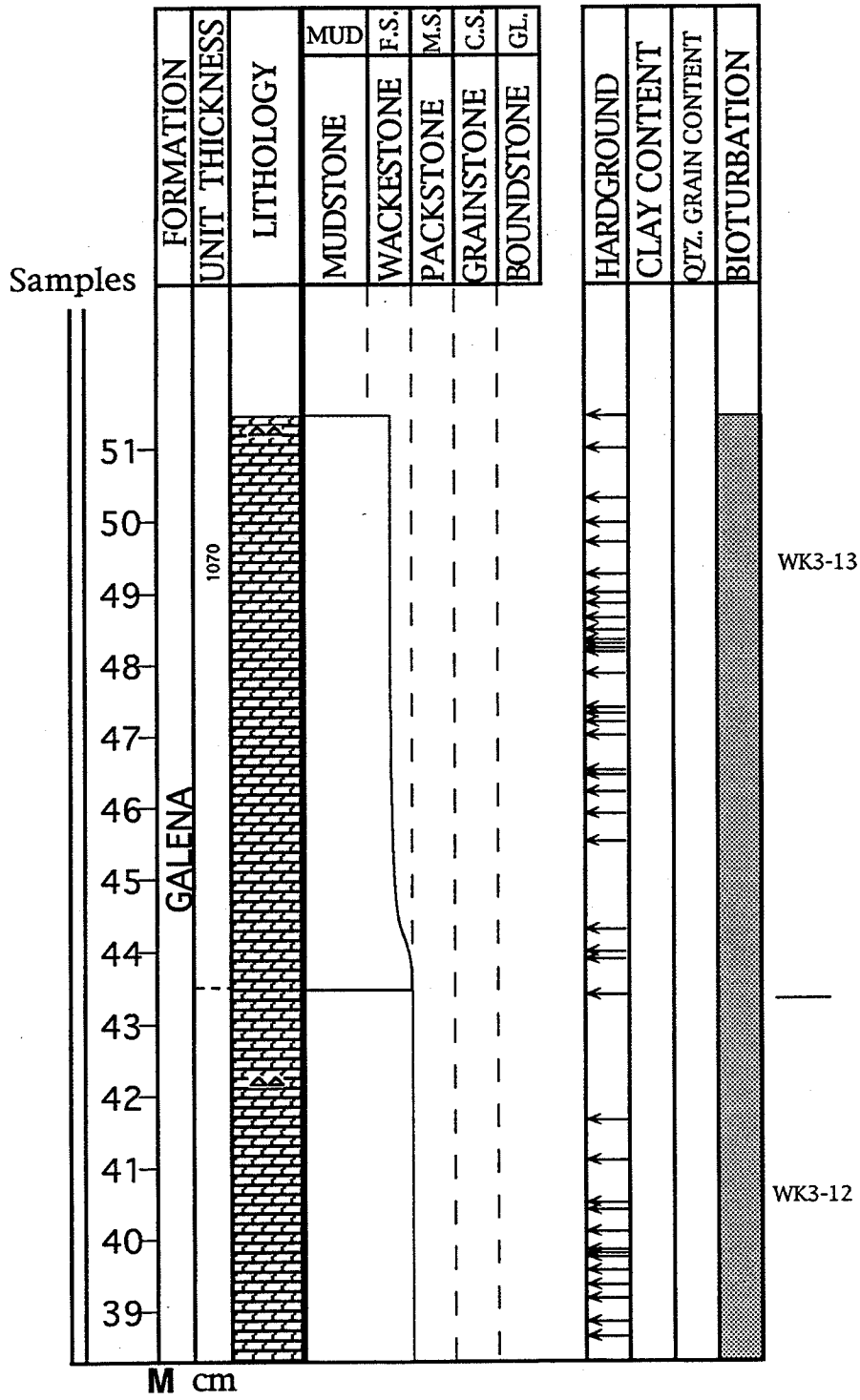


Fig. B-23. Continued.

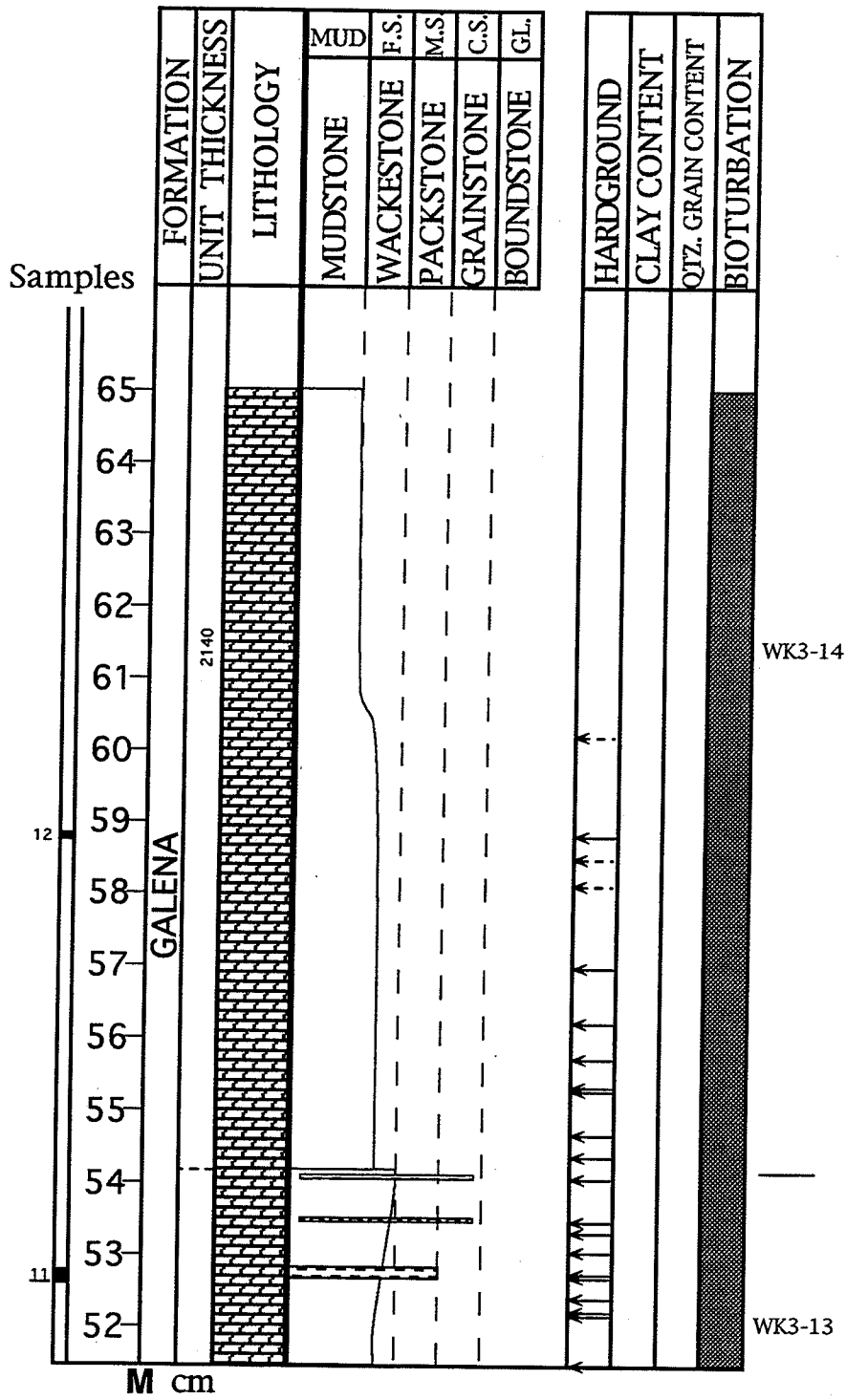


Fig. B-23. Continued.

Description

Rock Unit No.
Top of section

WK3-15

Dolostone, fine-crystalline, slightly to moderately argillaceous with dark brown argillaceous partings rich in phosphate grains; light brown; crinoidal wackestone to packstone; weakly bioturbated.

(WK3-14)

WK3-14

Dolostone, fine- to medium-crystalline, carbonate; light brownish gray; fossiliferous mudstone to wackestone; bryozoan molds filled with finer material common; hardgrounds common in the lower part; moderately bioturbated.

(WK3-13,12)

WK3-13

Dolostone, fine- to medium-crystalline, carbonate; light brownish gray; bioclastic wackestone with occasionally intercalating thin-bedded bioclastic packstone to grainstone beds; vesicular and vuggy pores abundant locally; weakly to moderately bioturbated; contains abundant hardgrounds.

(WK3-11)

WK3-12

Dolostone, medium-crystalline, carbonate; light brown; bioclastic wackestone to packstone (?); white chert nodules present locally; hardgrounds abundant; very porous with irregularly distributed vesicular pores; vuggy pores locally abundant; weakly to moderately bioturbated; bryozoan molds abundant; corals present.

(WK3-10,9)

WK3-11

Dolostone, medium-crystalline, slightly to moderately argillaceous; light gray to greenish gray; bioclastic wackestone to packstone; moderately bioturbated; hardgrounds abundant.

(WK3-8)

WK3-10

Dolostone, medium-crystalline, moderately argillaceous with green shaly partings; argillaceous bioclastic packstone with intercalating grainstone beds; argillaceous material occur as burrow fillings as well as mm-thick partings or seams; some grainstone beds are laminated or contains dark intraclastic pebbles; moderately bioturbated by 2-5 mm-wide burrows filled with finer materials; fragments of brachiopods, bryozoans, crinoids, and trilobites abundant; hardgrounds common.

(WK3-7)

WK3-9

Dolostone, medium-crystalline, slightly argillaceous with 1-5 mm-thick dark brown partings; abundant phosphate grains resulting in light purplish brown color; bioclastic packstone to grainstone; prominent hardground on top.

(WK3-6)

WK3-8

Dolostone, fine- to medium-crystalline; light brown; irregularly distributed vesicular to vuggy pores; wackestone with occasionally intercalating grainstone beds; porosity increases upward; none to weakly bioturbated by mottled burrows in the upper part; a very prominent hardground present on top of the unit.
(WK3-5)

WK3-7

Dolostone, fine-crystalline, slightly argillaceous; medium to dark gray; moderately to strongly bioturbated by 2-5 mm-wide burrows; mudstone.

WK3-6

Dolostone, very fine-crystalline, slightly argillaceous to carbonate; gradually less argillaceous upward; light brown to light tan; contains locally white chert nodules in the upper part; the chert nodules are rounded and laterally elongated and are 2-6 cm-sized in short axis; rarely to weakly bioturbated mostly by horizontal burrows, less than 0.5 cm in diameter; mudstone.

WK3-5

Dolostone, fine-crystalline, slightly argillaceous; medium gray; strongly to pervasively bioturbated by 2-5 mm-wide dark gray mottled burrows; mudstone.
(WK3-3)

WK3-4

Dolostone, very fine- to fine crystalline, slightly argillaceous to carbonate; light purplish brown; weakly bioturbated by 2-4 mm-wide dark gray mottled burrows; mudstone with occasionally intercalating grainstone beds; bounded above by a prominent hardground.

WK3-3

Dolostone, fine- to medium-crystalline, moderately to very argillaceous with 0.5-1 cm-thick argillaceous seams; moderately to strongly bioturbated; gradually more argillaceous upward in the lower part, gradually less argillaceous and less bioturbated upward in the middle to upper part; light brownish gray in the lower part, greenish gray in the upper part; fossiliferous mudstone to wackestone with occasional thin-bedded grainstone beds, less than 5 cm thick; weakly to strongly bioturbated by 1-5 mm-wide *Chondrites* burrows.
(WK3-2)

WK3-2

Dolostone, very fine-crystalline, slightly to moderately argillaceous with 0.5-2 cm-thick wavy argillaceous seams in 5-20 cm intervals; weakly to moderately bioturbated by 3-7 mm-wide dark gray mottled burrows; gradually less argillaceous upward; light brownish-gray; fossiliferous mudstone; bounded above by a very prominent hardground.
(WK3-1)

WK3-1

Dolostone; medium-crystalline; medium gray; strongly to pervasively bioturbated by 1-5 mm-wide *Chondrites* burrows; bioclastic wackestone to packstone; moldic pores common; lower 30 cm interval is highly porous; bounded above by a prominent argillaceous parting.

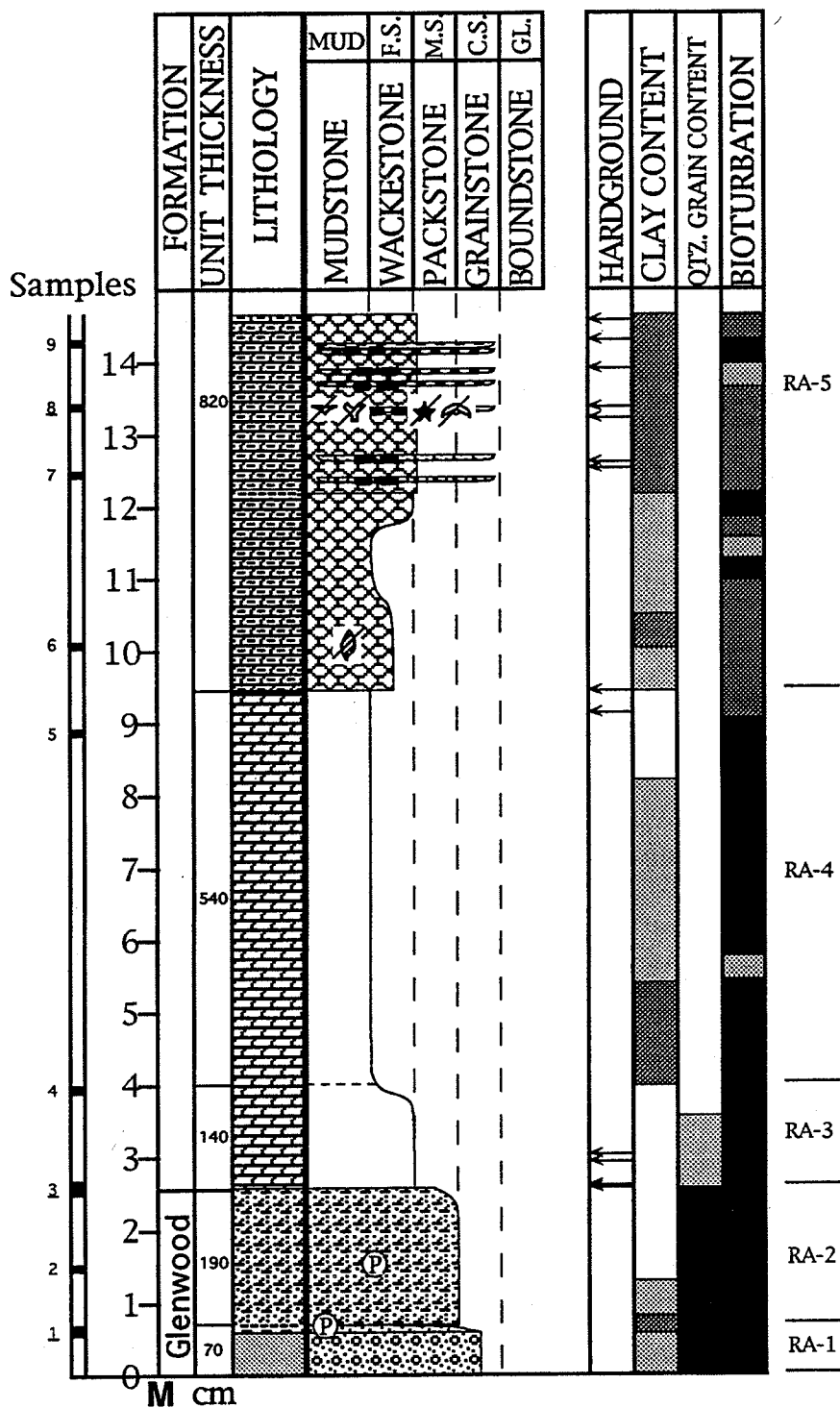


Fig. B-24. Columnar section measured from core, Locality RA. Descriptions of units followed next.

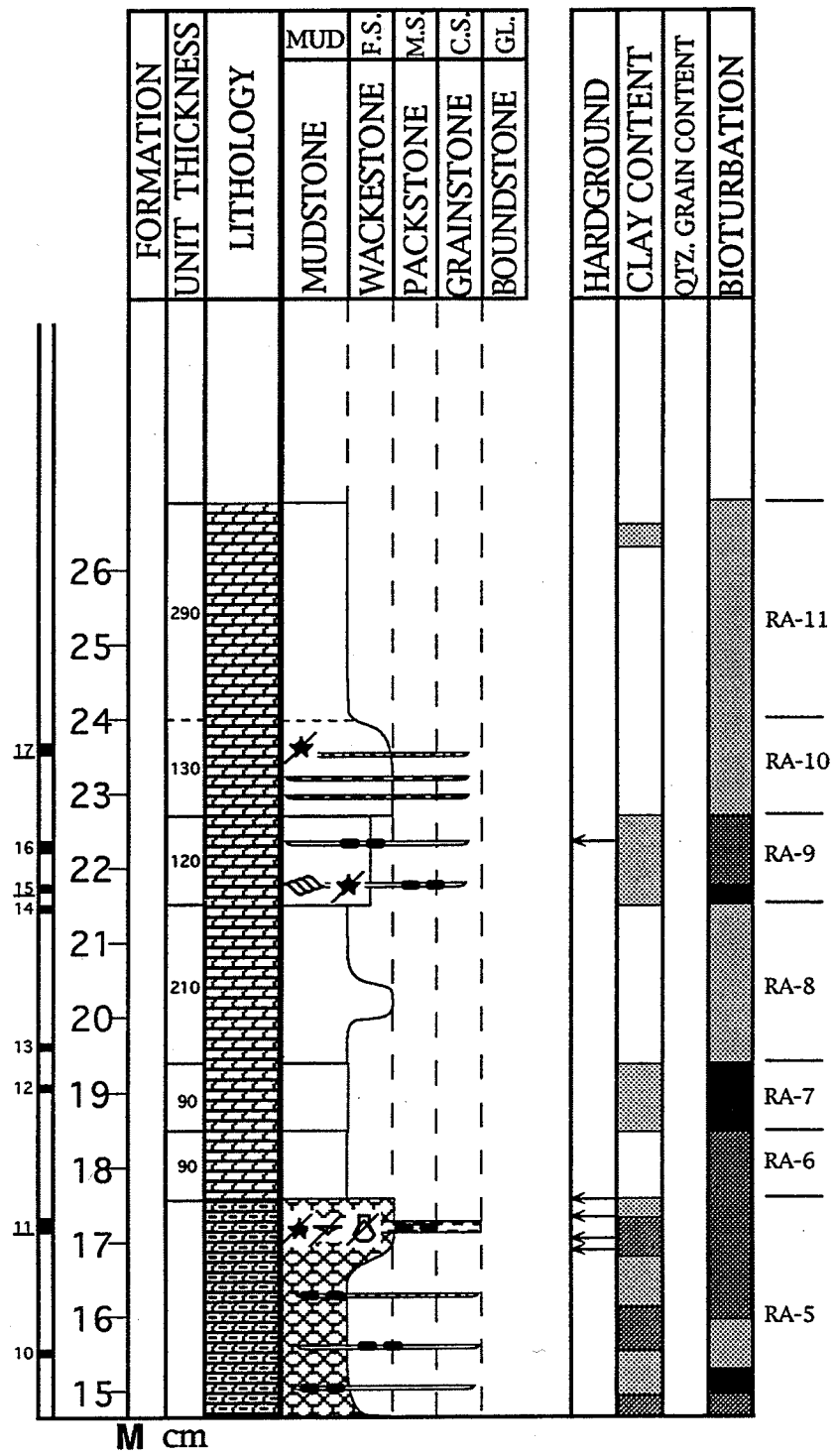


Fig. B-24. Continued.

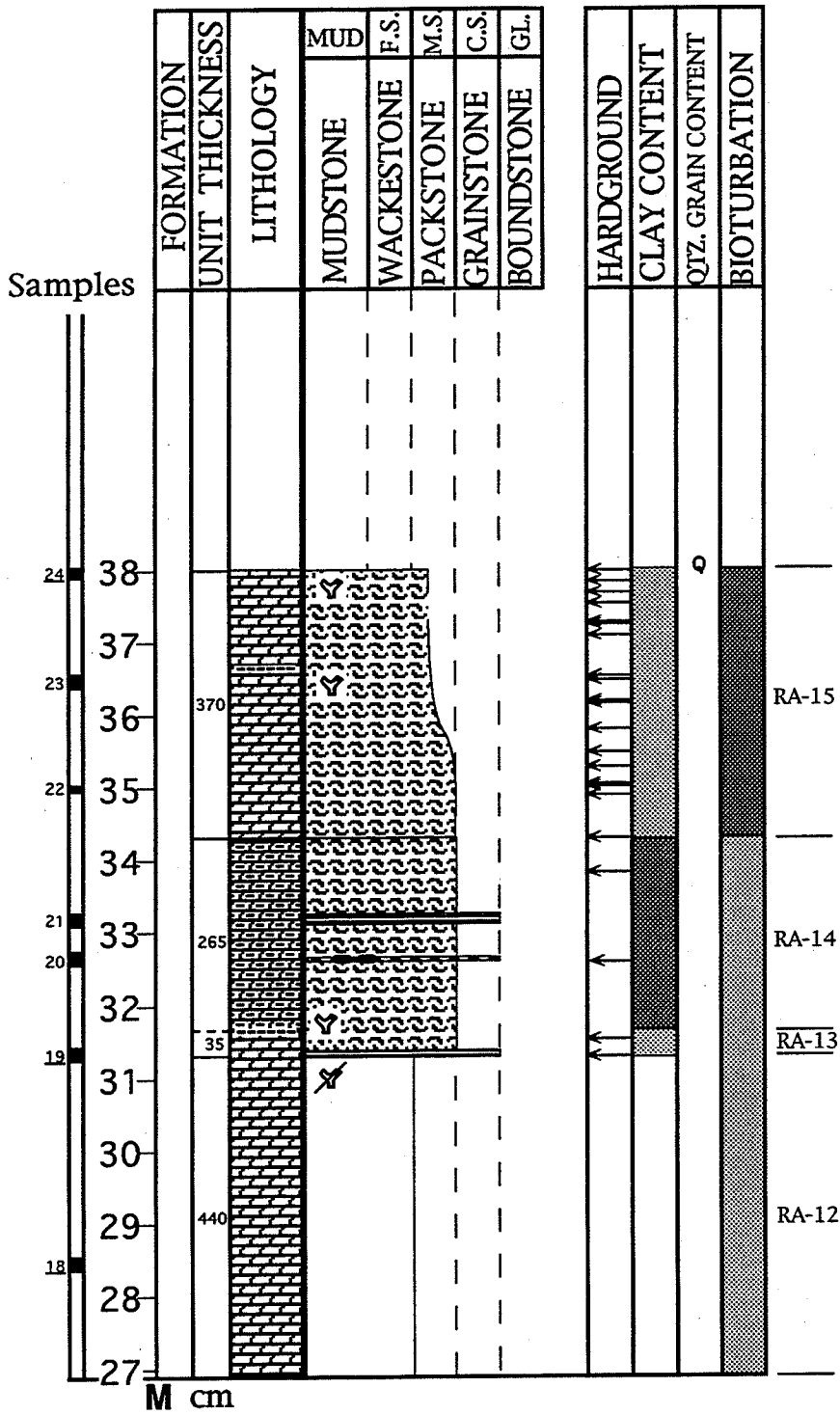


Fig. B-24. Continued.

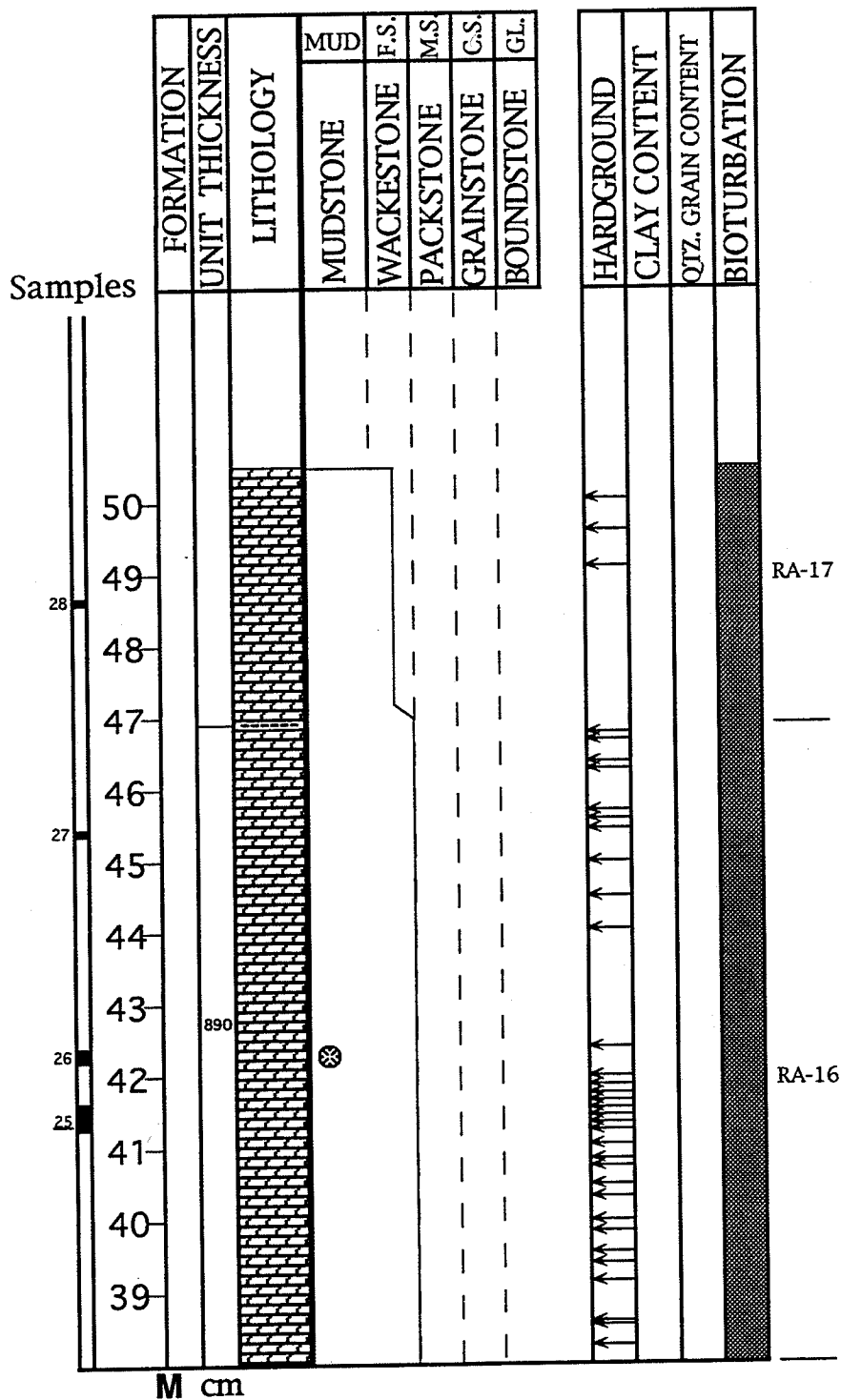


Fig. B-24. Continued.

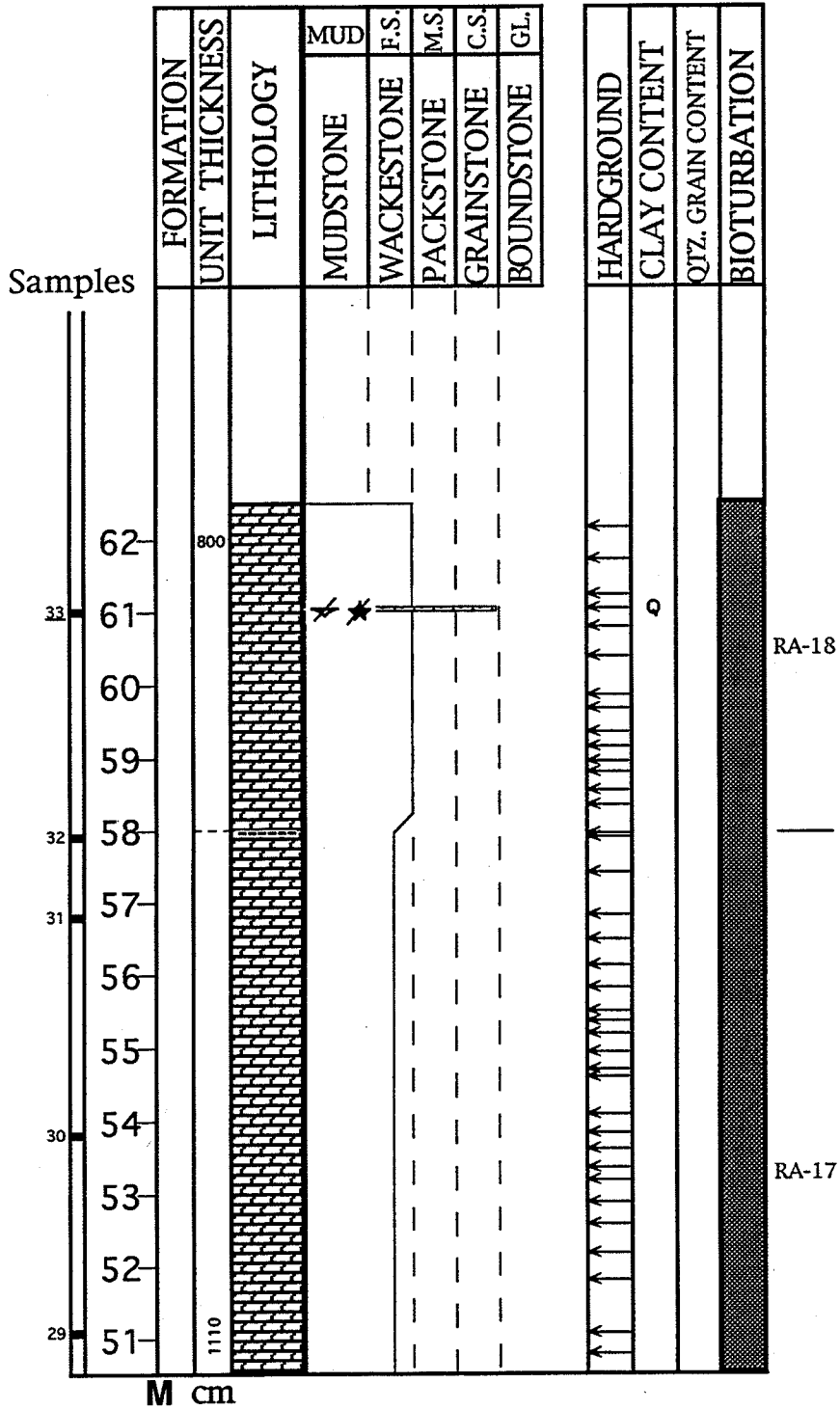


Fig. B-24. Continued.

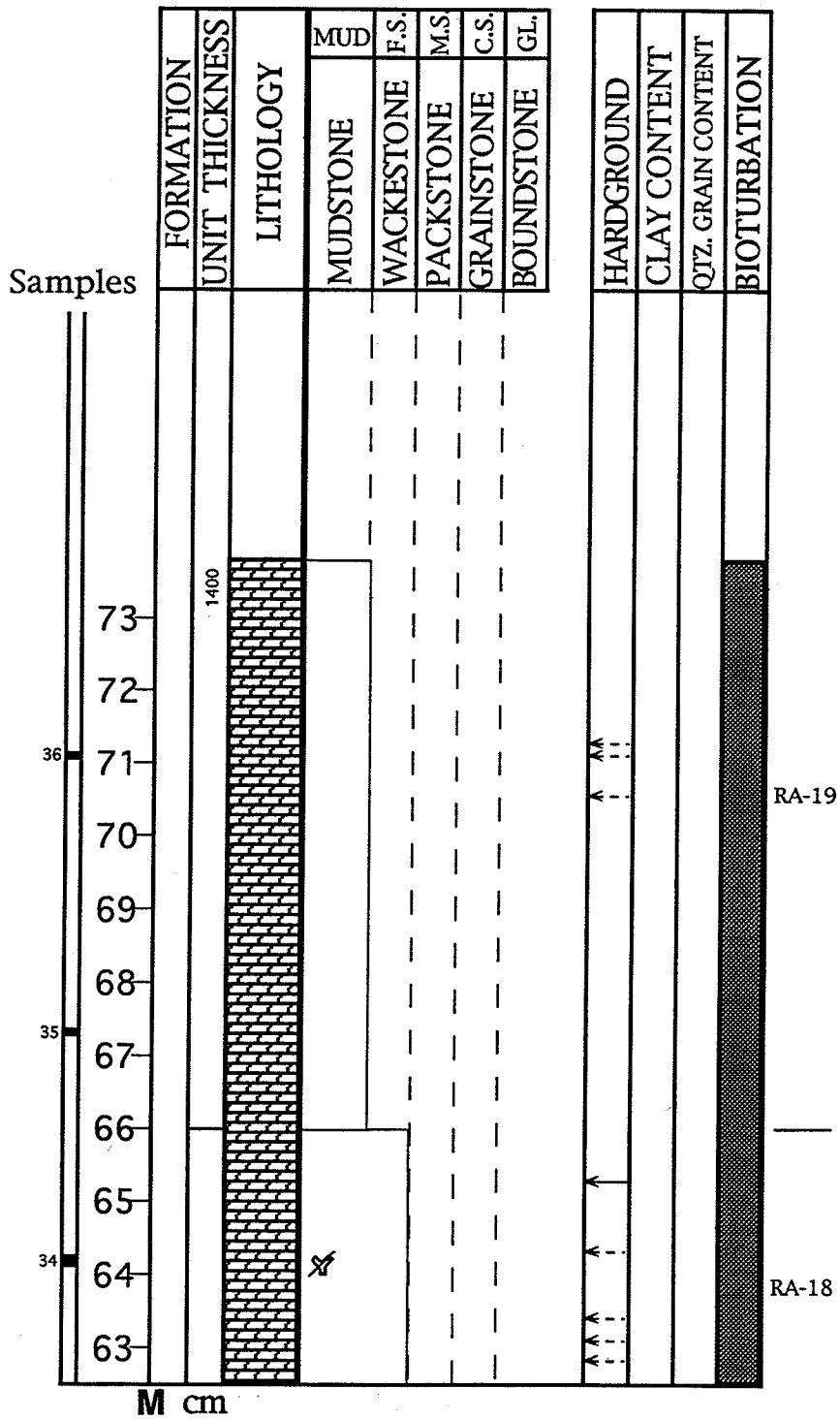


Fig. B-24. Continued.

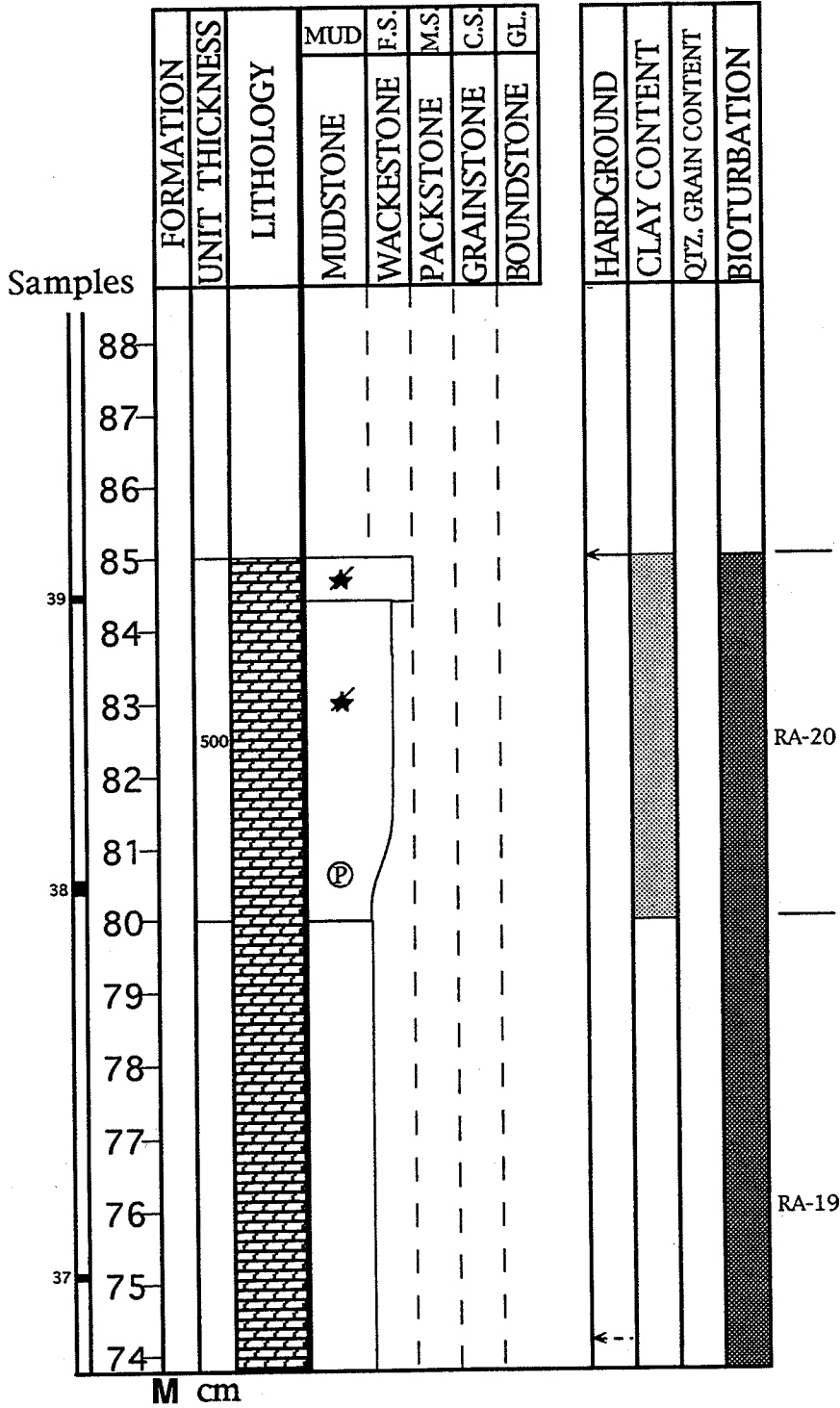


Fig. B-24. Continued.

Description

Rock Unit No.
Top of section

RA-20

Dolostone, fine-crystalline; slightly argillaceous with thin brown shale partings; light brownish gray; crinoidal mudstone to wackestone; weakly bioturbated.
(RA39,38)

RA-19

Dolostone, fine-crystalline, carbonate; light brownish gray; fossiliferous mudstone to wackestone; moderately to strongly bioturbated by large burrows 1-2 cm in diameter; less porous than below.
(RA37,36,35)

RA-18

Dolostone, medium-crystalline, carbonate; light brown; vesicular pores abundant, more porous than below; bioclastic wackestone (?); bryozoan molds common; moderately bioturbated; hardgrounds abundant but not clear in the upper part.
(RA34,33)

RA-17

Dolostone, medium-crystalline, carbonate; light brown; less porous than below; bioclastic wackestone (?); moderately bioturbated with 0.5-2.0 cm wide burrows; contains abundant hardgrounds.
(RA32,31,30,29,28)

RA-16

Dolostone, medium-crystalline, carbonate; light brown; very porous with irregularly distributed vesicular pores and moldic pores; bioclastic wackestone (?); moderately bioturbated with 0.5-2.0 cm-wide burrows; corals present; contains abundant hardgrounds.
(RA27,26,25)

RA-15

Dolostone, medium-crystalline; medium gray to brown; bioclastic wackestone to packstone; weakly to moderately bioturbated; bryozoans common; contains numerous hardgrounds.
(RA24,23,22)

RA-14

Dolostone, medium-crystalline, slightly to moderately argillaceous; medium gray; bioclastic packstone to grainstone with thin green shale partings; weakly bioturbated; bryozoans common; hardgrounds common.
(RA21,20)

RA-13

Dolostone, medium-crystalline, slightly argillaceous to carbonate; medium gray; bioclastic packstone to grainstone with thin dark brown shale partings; weakly bioturbated; hardgrounds common.
(RA19)

RA-12

Dolostone, medium-crystalline, carbonate; brown; cherty; moderately bioturbated mudstone to wackestone (?); very prominent hardground on top.

(RA18)

RA-11

Dolostone, very fine-crystalline, slightly argillaceous to carbonate; contains white chert nodules locally; light brown to gray; weakly bioturbated mudstone with horizontal burrows.

RA-10

Dolostone, medium-crystalline, carbonate; brown; porous with vesicular porosity; weakly bioturbated wackestone (?).

(RA17)

RA-9

Dolostone, very fine-crystalline; slightly argillaceous to carbonate; gray; moderately to strongly bioturbated by 1-3 mm-wide burrows; argillaceous mudstone to wackestone with intercalating thin intraclastic grainstone beds.

(RA16,15)

RA-8

Dolostone, fine-crystalline, carbonate; brown; rarely to weakly bioturbated mudstone; 50 cm-thick porous, cherty interval in the middle.

(RA14,13)

RA-7

Dolostone, fine-crystalline, slightly argillaceous; medium gray; moderately to strongly bioturbated mudstone with 2-4 mm-wide mottled burrows.

(RA12)

RA-6

Dolostone, fine-crystalline; slightly argillaceous; brown; moderately bioturbated mudstone.

RA-5

Dolostone, fine-crystalline, argillaceous; nodular mudstone to wackestone interbedded with intraclastic packstone to grainstone up to 15 cm in thickness; calcareous nodules are 0.5-1 cm in height and elongated laterally with 2-3 cm width; argillaceous seams are green; moderately to strongly bioturbated by 2-3 mm-wide horizontal burrows; contains abundant hardgrounds and dark intraclasts.

(RA11,10,9,8,7,6)

RA-4

Dolostone, very fine-crystalline; medium gray; strongly to pervasively bioturbated mudstone with 3-9 mm-wide dark gray mottled burrows; gradually less argillaceous upward; prominent hardground on top.

(RA5)

RA-3

Dolostone, fine- to medium-crystalline with medium- to coarse-grained floating quartz sand grains; gradually less sandy upward; light to medium gray; strongly bioturbated by 0.5 cm-wide *Chondrites* burrows; hardgrounds common in the lower part.

(RA4,3)

RA-2

Dolomitic sandstone; medium-grained, well rounded quartz grains; moderately sorted but lower part poorly sorted; strongly bioturbated by 0.5 cm-wide *Chondrites* burrows; carbonate content gradually increases upward; bounded above by a ferruginous hardground.

(RA3,2)

RA-1

Sandstone, slightly argillaceous; poorly sorted, fine- to coarse-grained quartz grains mixed with green clay; strongly bioturbated by 0.5 cm-wide *Chondrites* burrows; grain size gradually decreases upward with increasing dark brown shaly partings and carbonate content in the upper part; bounded upward by a 2 cm-thick dark brown shale laminae.

(RA1)

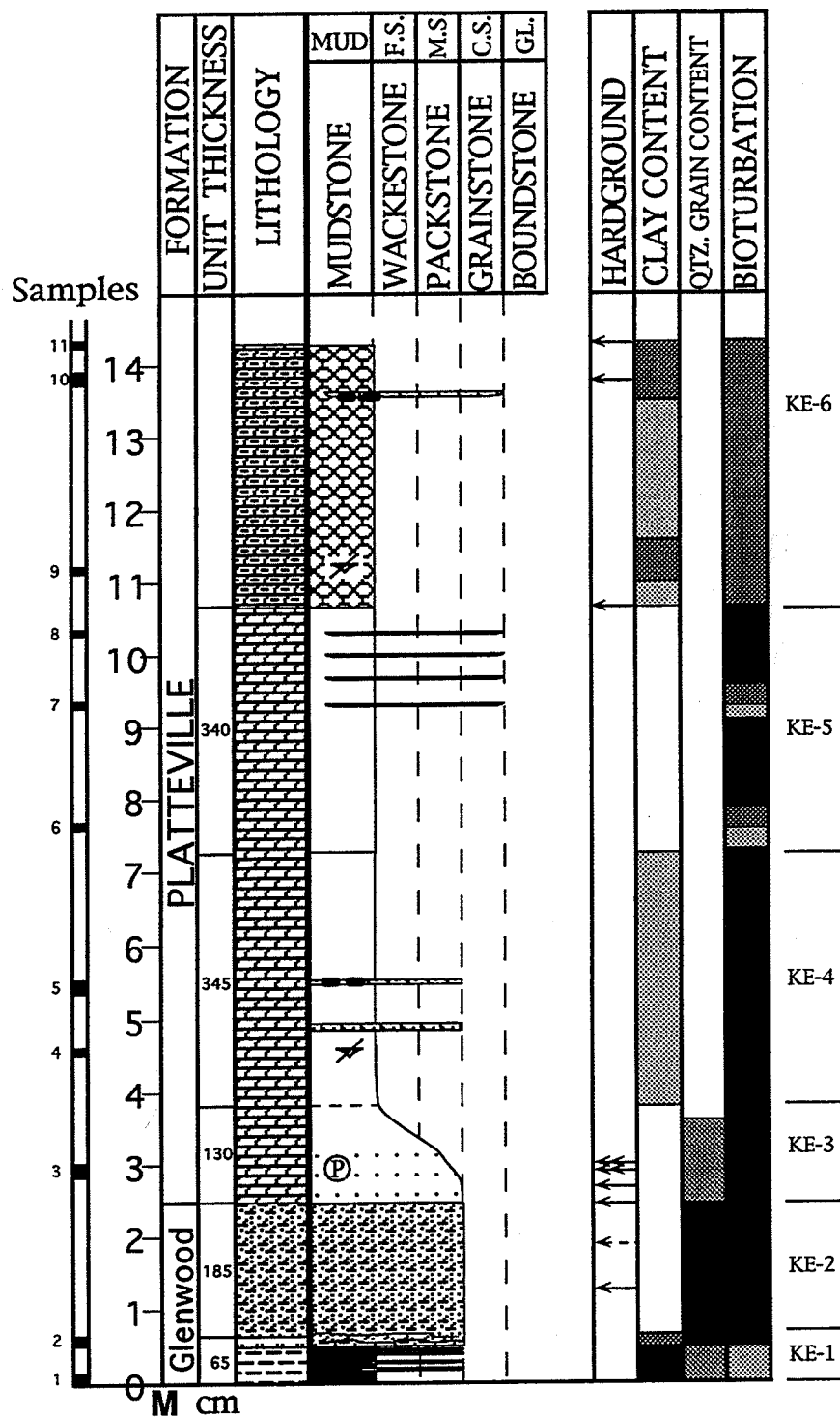


Fig. B-25. Columnar section measured from core, Locality KE. Descriptions of units followed next.

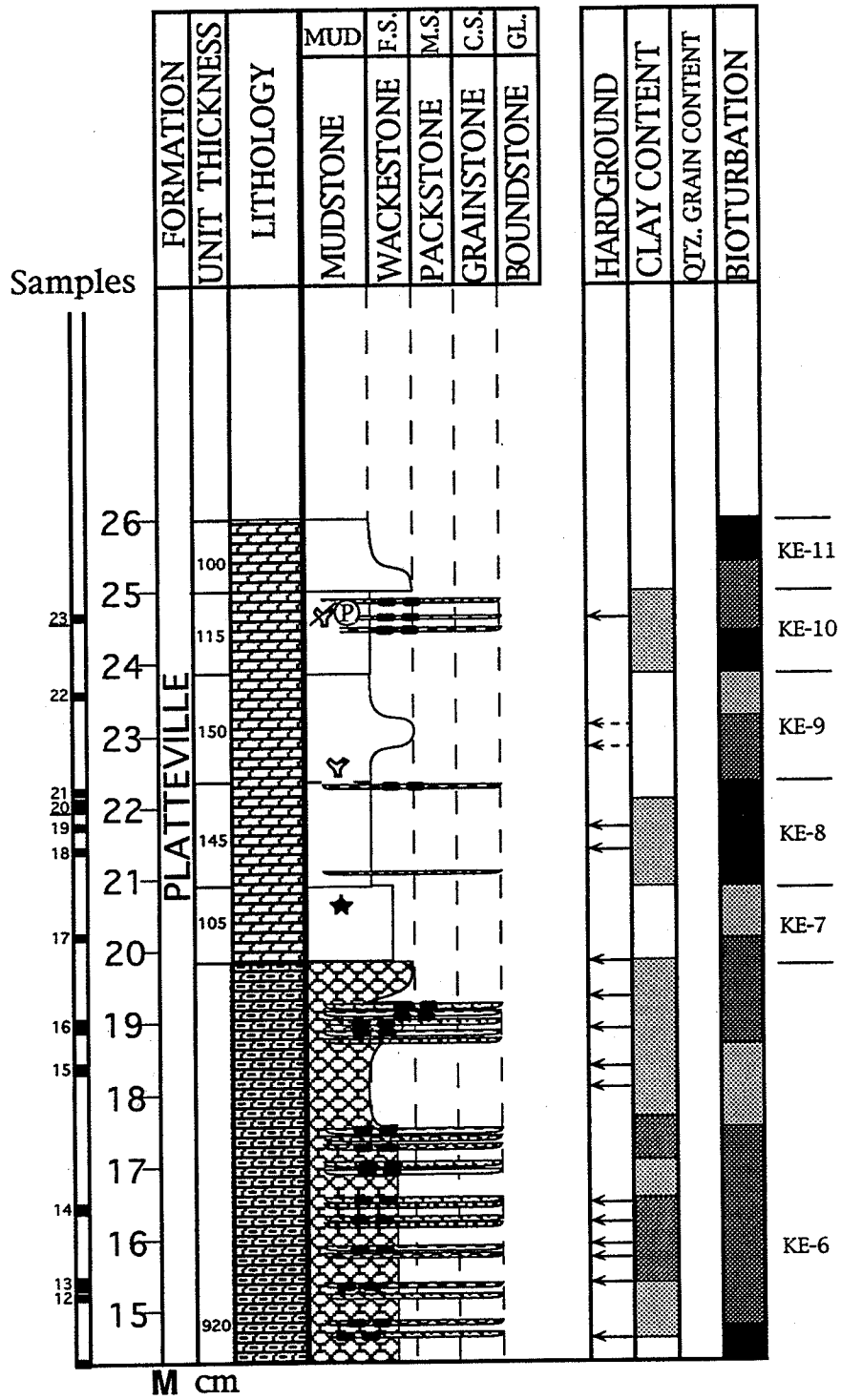


Fig. B-25. Continued.

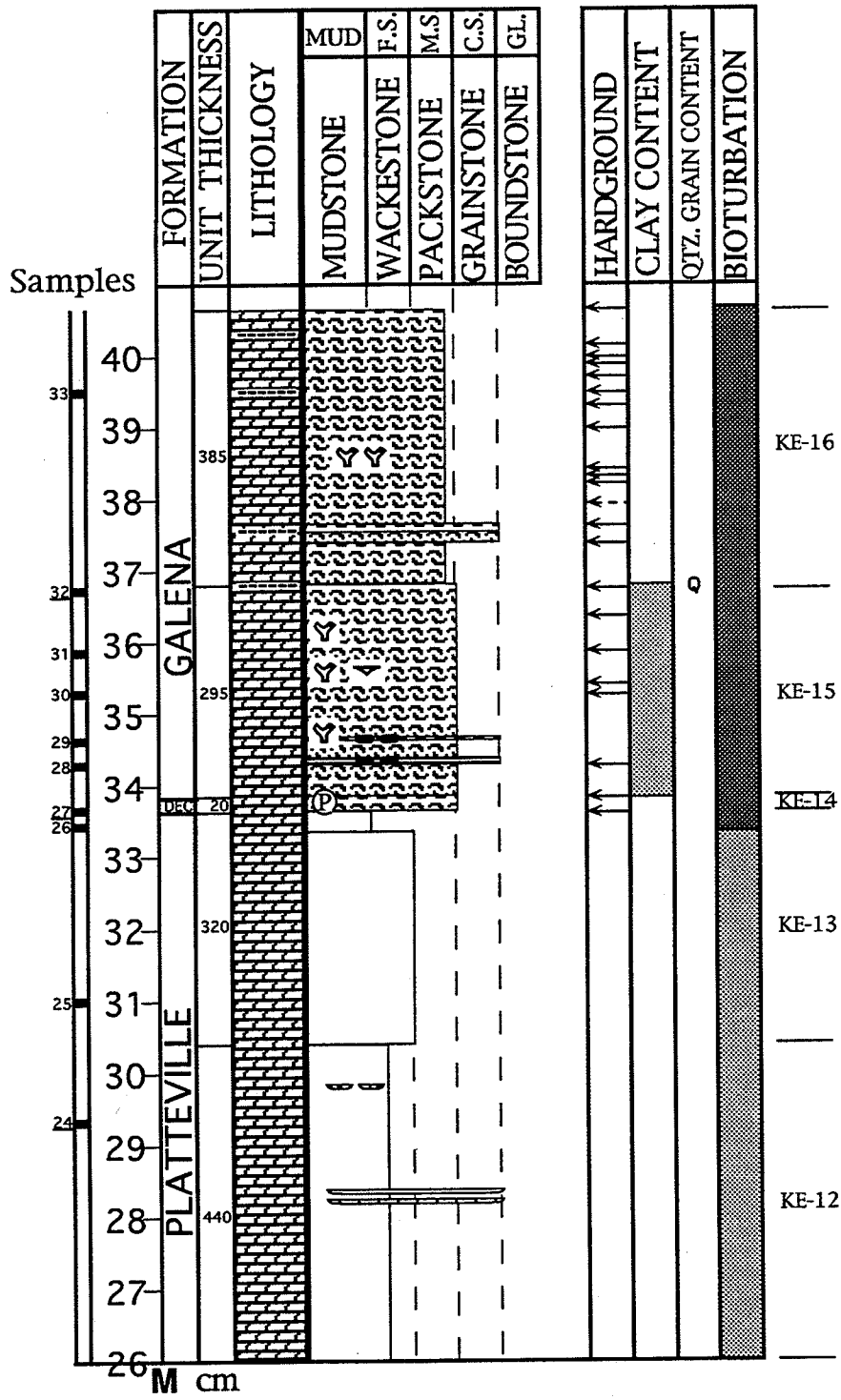


Fig. B-25. Continued.

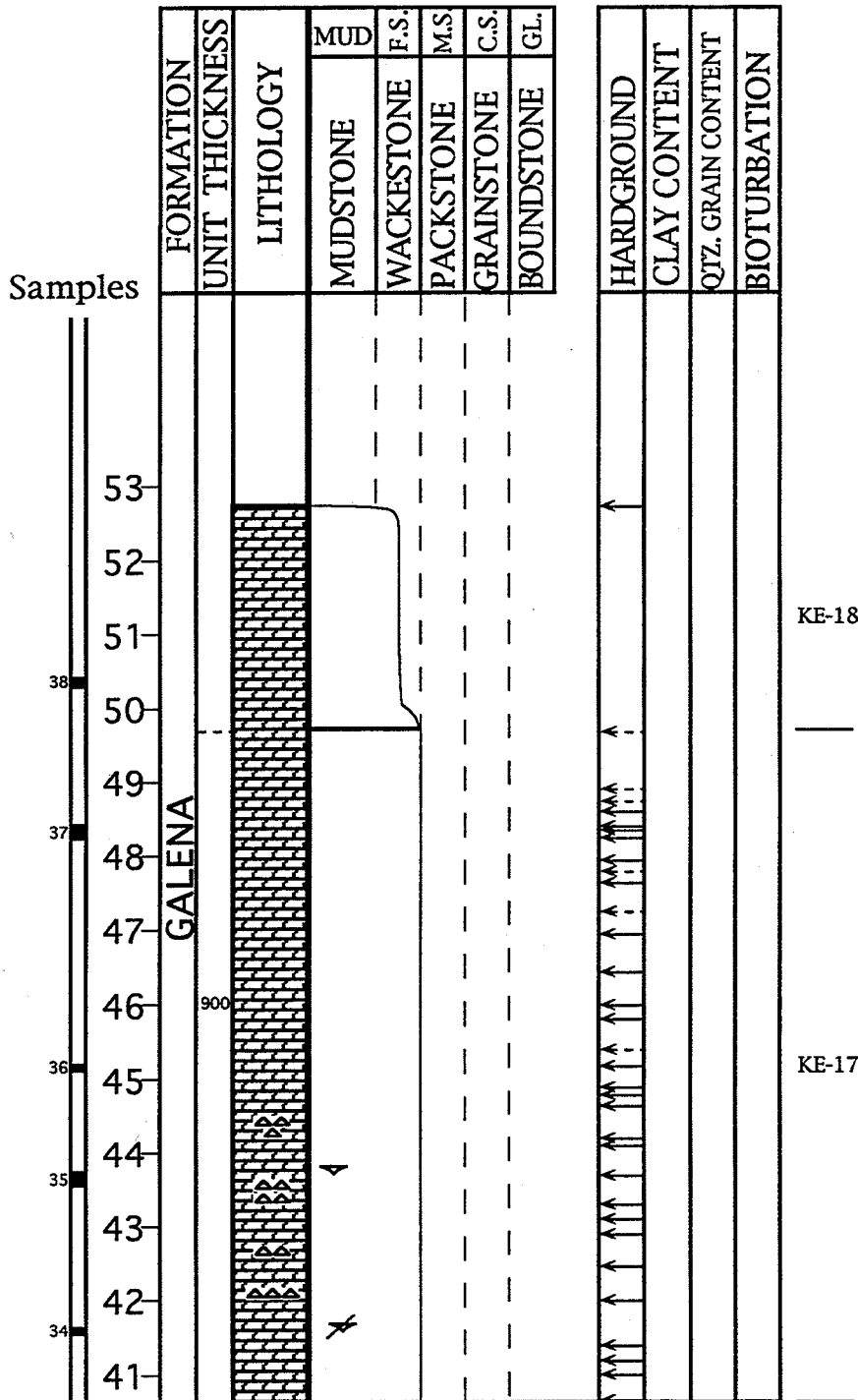


Fig. B-25. Continued.

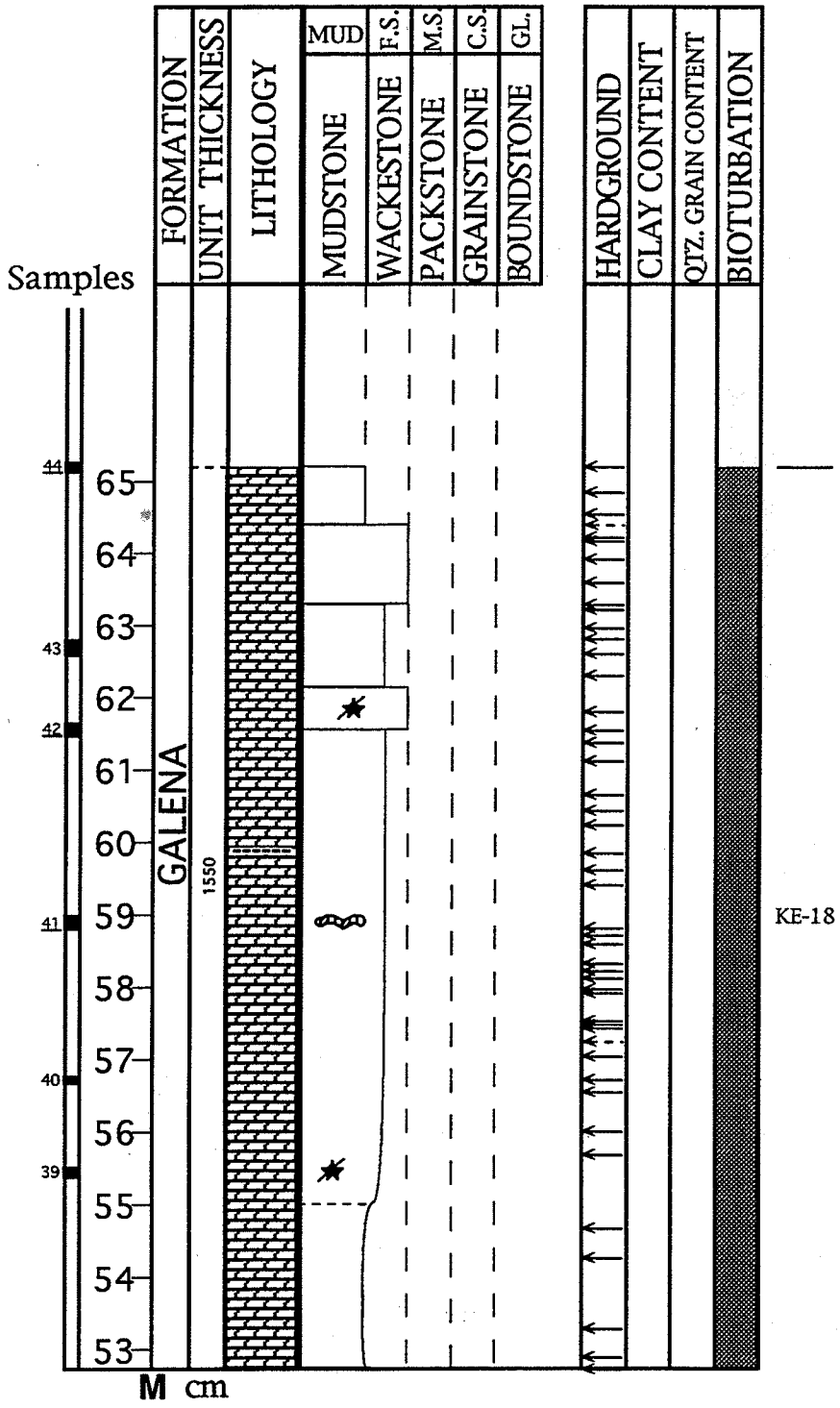


Fig. B-25. Continued.

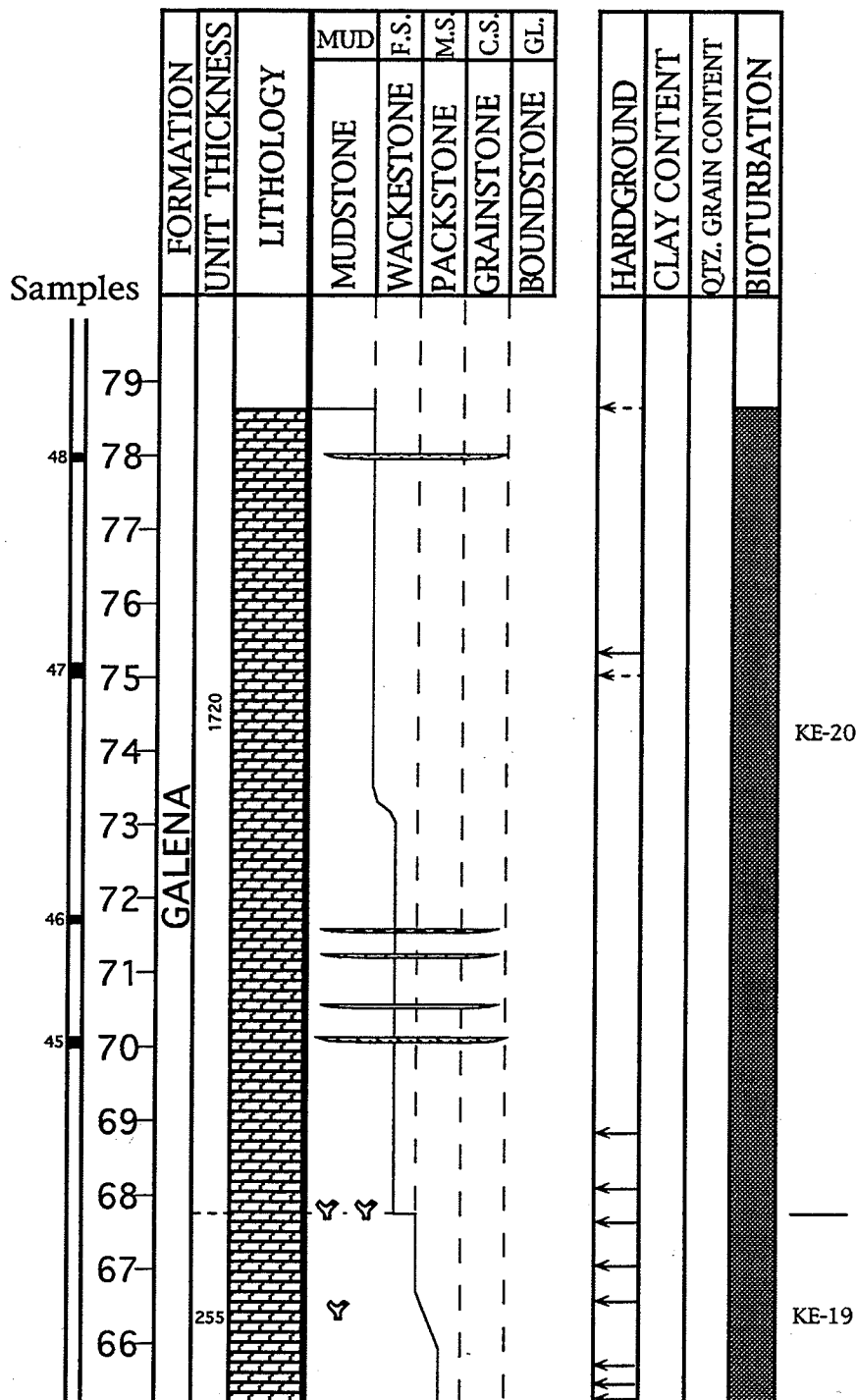


Fig. B-25. Continued.

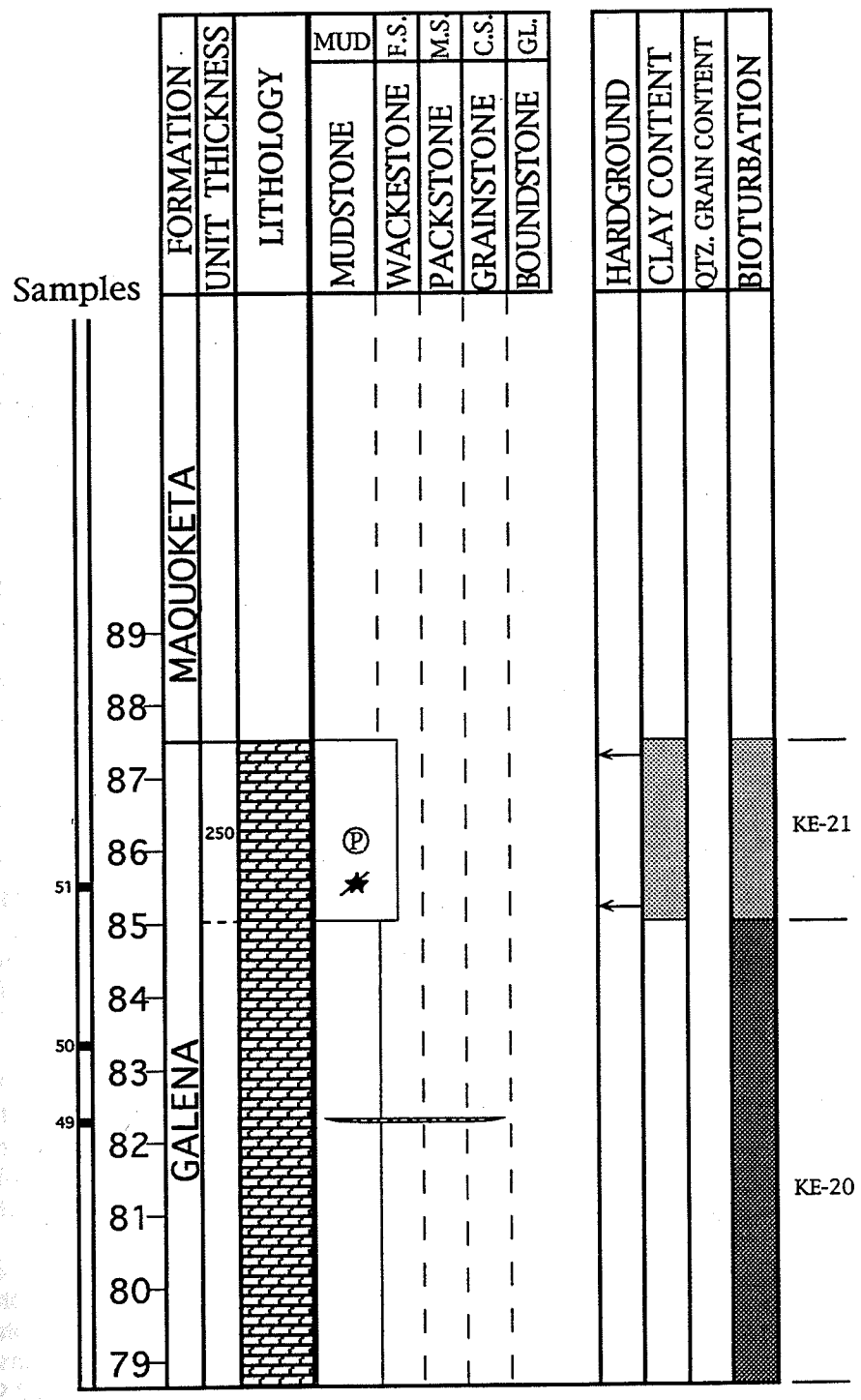


Fig. B-25. Continued.

Description

Rock Unit No.
Top of section

KE-21

Dolostone, fine-crystalline; slightly argillaceous with thin brown shale partings; light brownish gray; crinoidal mudstone to wackestone; weakly bioturbated; phosphate grains abundant.

(KE51)

KE-20

Dolostone, fine-crystalline, carbonate; light brownish gray; fossiliferous mudstone to wackestone with occasionally intercalating cm-thick grainstone beds; moderately bioturbated; less porous than below.

(KE50,49,48,47,46,45)

KE-19

Dolostone, medium-crystalline, carbonate; light brown; vesicular pores abundant, more porous than below; bioclastic wackestone (?); bryozoan molds common; moderately bioturbated; hardgrounds abundant but not clear in the upper part.

KE-18

Dolostone, medium-crystalline, carbonate; light brown; less porous than below; fossiliferous mudstone to wackestone (?); moderately bioturbated with 0.5-2.0 cm wide burrows; corals and receptaculites present; contains abundant hardgrounds except lower part.

(KE44,43,42,41,40,39,38)

KE-17

Dolostone, medium-crystalline, carbonate; light brown; very porous with irregularly distributed vesicular pores and moldic pores; bioclastic wackestone (?) with abundant chert nodules in the lower part; moderately bioturbated with 0.5-2.0 cm-wide burrows; brachiopods common; contains abundant hardgrounds.

(KE37,36,35,34)

KE-16

Dolostone, medium-crystalline; light yellowish brown; bioclastic wackestone to packstone with intercalating grainstone beds; weakly to moderately bioturbated; bryozoans common; contains numerous hardgrounds.

(KE33)

KE-15

Dolostone, medium-crystalline, slightly argillaceous; medium gray; bioclastic packstone to grainstone with thin green shale partings; some grainstone beds are laminated; weakly to moderately bioturbated; bryozoans abundant, brachiopods common; hardgrounds abundant.

(KE32,31,30,29,28)

KE-14

Dolostone, medium-crystalline, carbonate; reddish brown; bioclastic packstone to grainstone; weakly bioturbated; hardground on top.

(KE27)

KE-13

Dolostone, fine- to medium-crystalline, carbonate; brown; moderately bioturbated mudstone to wackestone (?); very prominent hardground on top.
(KE26,25)

KE-12

Dolostone, fine-crystalline, carbonate; contains gutter cast rich in moldic porosity ; light brown; weakly bioturbated mudstone.
(KE24)

KE-11

Dolostone, fine- to medium-crystalline, carbonate; brown to gray; lower part is porous with vesicular porosity; strongly bioturbated in the upper part.

KE-10

Dolostone, very fine-crystalline; slightly argillaceous; gray; moderately to strongly bioturbated by 1-3 mm-wide burrows; argillaceous mudstone to wackestone with 1-3 cm-thick intraclastic grainstone beds; bryozoans present.
(KE23)

KE-9

Dolostone, fine-crystalline, carbonate; brown; rarely to weakly bioturbated mudstone; 40 cm-thick porous interval in the middle.
(KE22)

KE-8

Dolostone, fine-crystalline, slightly argillaceous; medium gray; moderately to strongly bioturbated mudstone with 2-4 mm-wide *Chondrites* burrows; contains occasional cm-thick grainstone beds; hardgrounds present.
(KE21,20,19,18)

KE-7

Dolostone, fine-crystalline; carbonate; brown; moderately bioturbated mudstone; contains locally vesicular porosity.
(KE17)

KE-6

Dolostone, fine-crystalline, moderately argillaceous; nodular mudstone to wackestone interbedded with intraclastic packstone to grainstone; calcareous nodules are 0.5-1 cm in height and elongated laterally with 2-3 cm width; argillaceous seams are green; moderately to strongly bioturbated by 2-3 mm-wide *Chondrites* burrows; contains abundant hardgrounds and dark intraclasts.
(KE16,15,14,13,12,11,10,9)

KE-5

Dolostone, very fine-crystalline, carbonate; light brownish gray; weakly to strongly bioturbated mudstone with 3-9 mm-wide dark gray mottled burrows; contains occasional mm-thick grainstone lenses; prominent hardground on top.
(KE8,7,6)

KE-4

Dolostone, very fine-crystalline, slight argillaceous; medium gray; strongly to pervasively bioturbated mudstone with 2-4 mm-wide burrows; gradually less argillaceous upward.
(KE5,4)

KE-3

Dolostone, fine- to medium-crystalline with medium- to coarse-grained floating quartz sand grains; gradually less sandy upward; light brownish gray; bioclastic wackestone; strongly bioturbated by 0.5-0.7 cm-wide burrows; hardgrounds abundant in the lower part.
(KE3)

KE-2

Dolomitic sandstone; medium- to coarse-grained, well rounded quartz grains; moderately sorted; strongly to pervasively bioturbated by 0.5 cm-wide *Chondrites* burrows; carbonate content gradually increases upward; contains and bounded above by ferruginous hardgrounds.
(KE2)

KE-1

Shale; fissile; dark green; intercalated by cm-thick medium-grained quartz sandstone lenses; sandstone beds gradually increase upward.
(KE1)

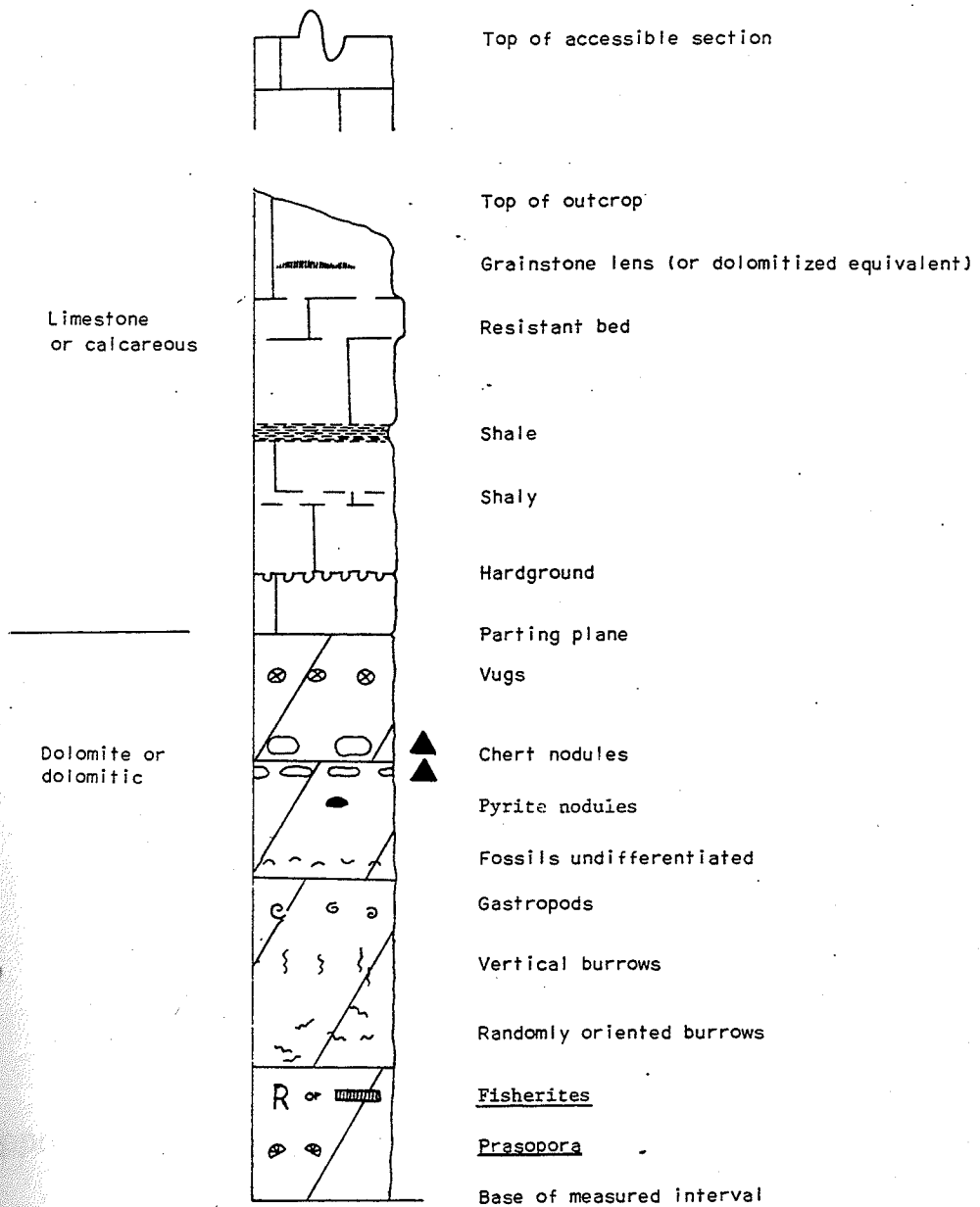


Figure 1.

Appendix D. Key to symbols used in the standard section in Fig. 23.

Approved,

Simo

Dr. Antonio Simo

Dec. 14, 1995

Date