Locality Description: Core No. C-35 of U.S. Army Corp of Engineers Fort Scott Reservoir Project. Core taken at 30° off vertical.

Location: Near Center of North line of SE 1/4, Section 36, T. 26S., R. 24E., Bourbon County, Kansas

Measured By: B. LEVIN, 1990

Remarks: SUPPLEMENTED BY S. ROTH, R. WEST, 1991

Depth | Scale (m, ft) | Bed No. | Interval No.

Description

Bed No.

Core from: (depth 124.8 ft) Blackjack Creek limestone to (depth 3.0 ft) Laberdie limestone.

- 124.8 ft to 118.0 ft Blackjack Creek Limestone — Fort Scott Formation
- 118.0 ft to 116.8 ft Summit Coal + underclay — Fort Scott Formation
- 116.8 ft to 110.6 ft Little Osage Shale — Fort Scott Formation
- 110.6 ft to 92.0 ft Houx-Higginsville Limestone — Fort Scott Formation
- 92.0 ft to 37.8 ft Labette Shale
- 37.8 ft to 35.2 ft Anna Shale — Pawnee Formation
- 35.2 ft to 3.0 ft (Surface) Myrick Station Limestone (?) — Pawnee Formation

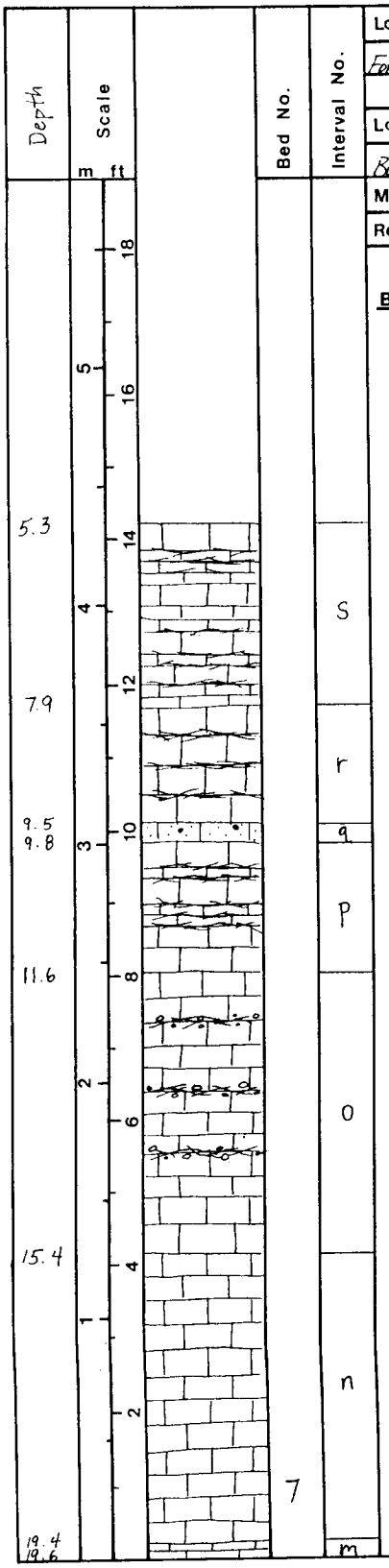
3.0

4.3

5.3

u (4.3 to 3.0) Foraminiferid, brachiopod, algal wackestone (1.3 feet); medium dark brown; phylloid, "dasyclad" algae with phylloids increasing upward; at top, intraclasts 60%, allochems 15%, light milky brown; shrinkage cracks, skeletal fragments increase upward; gradational lower contact.

7 t (5.3 to 4.3) Interbedded intraclastic, brachiopod, algal wackestone/packstone and foraminiferid mudstone (1 ft); (light milky brown); allochems (in wackestone/packstone) 70% - fragmented into medium to coarse grains; incipient intraclasts very common; shrinkage cracks very common; porosity; blue-green(?) algae in argillaceous, foraminiferid mudstone; red-brown alterations; gradational contacts.



Locality Description: Core No. C-35 of U.S. Army Corp of Engineers Fort Scott Reservoir Project. Core taken at 30° off vertical.

Location: Near C. of N. line of SE¼, Sec. 5, T. 26S., R. 24E., Bourbon Co., Kansas

Measured By: B. LEVIN, 1990

Remarks: SUPPLEMENTED BY S. ROTH, R.R. WEST, 1991

Description

Bed No.

S (7.9 to 5.3) Interbedded foraminiferid, brachiopod wackestone/mudstone, light milky brown argillaceous foraminiferid mudstone, and intraclastic brachiopod, algal wackestone (2.6 ft); intraclasts, porosity, vertical desiccation cracks; heavy red-brown stain, porosity development 2 feet from bottom of unit; shrinkage cracks, weathering 2.6 feet from bottom; gradational contacts.

r (9.5 to 7.9) Interbedded brachiopod, algal wackestone and foraminiferid, brachiopod wackestone (1.6 ft); diagenetically altered zones (exposure surfaces?); argillaceous zones may have detrital carbonate and silica grains; Komia[?] present at very top adjacent to argillaceous interbeds; wispy, nonbioturbated, micro-porosity; shrinkage (desiccation?) cracks; incipient intraclasts; gradational to sharp lower contact, gradational upper contact.

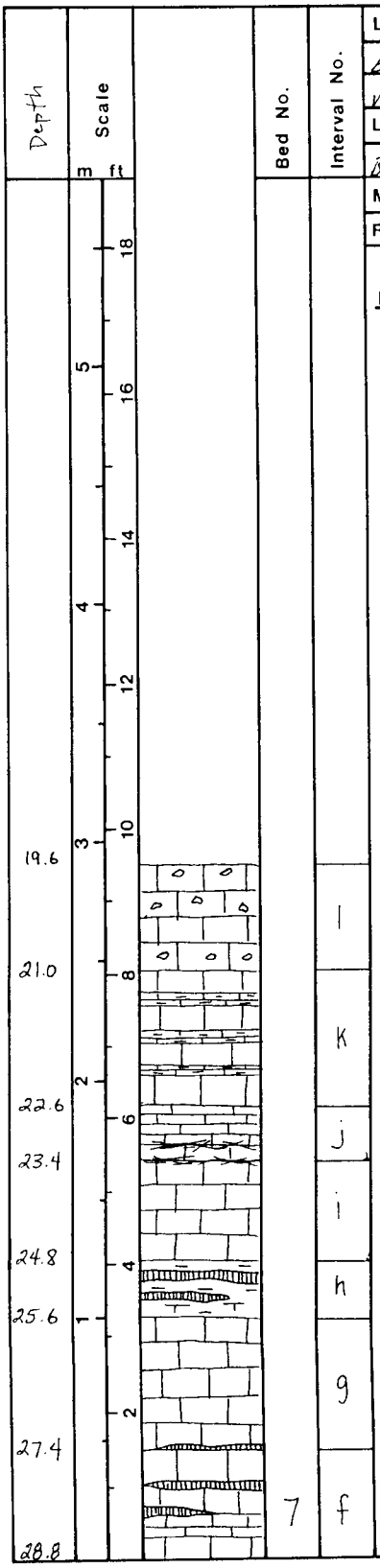
q (9.8 to 9.5) Foraminiferid, skeletal fragment packstone (.3 ft); rust brown, weathered (exposure surface?); massive; medium small, sand-size grains; moderate sorting; intraclasts; karsted appearance; gradational to sharp contacts.

P (11.6 to 9.8) Interbedded foraminiferid mudstone and brachiopod, algal wackestone (1.8 ft); mudstone weakly laminated, wispy; wackestone allochems very fragmented; 20-35% allochems; mudstone partially dolomitized(?); gradational lower contact, gradational to sharp upper contact.

o (15.4 to 11.6) Intraclastic, brachiopod, algal wackestone and interbeds of milky brown, argillaceous mudstone (3.8 ft); intraclasts concentrated at three intervals (at 1.4 ft, 2.4 ft, 3.4 ft from bottom); phylloid algal blades more fragmented upward; intraclastic texture more prevalent upward; at 3.4 ft from bottom, light milky brown, unfossiliferous intraclasts cap brachiopod, algal intraclasts; gradational contacts.

n (19.4 to 15.4) Intraclastic, algal, brachiopod wackestone (4 ft); carbonate colors become progressively lighter; allochems increase in abundance from bottom to middle, then slightly decrease again; algal blades dominant (and dasyclads), fragmented, unfragmented; allochems randomly oriented; in places, unit approaches packstone; in places, intraclasts brecciated, particularly near top; gradational contacts.

7m (19.6 to 19.4) Massive brachiopod mudstone (.2 ft); milky brown; carbonate colors become progressively lighter; horn coral sets on top of unit; gradational contacts.



Locality Description: Core No. C-35 of U.S. Army Corp of Engineers Fort Scott Reservoir Project. Core taken at 38° off vertical.

Location: Near C. of N. line of SE¼, Sec 36, T. 26S., R24E., Bourbon Co., Kansas

Measured By: B. LEVIN, 1990

Remarks: SUPPLEMENTED BY S. ROTH, R.R. WEST, 1991

Description

Bed No.

l — (21.0 to 19.6) Intraclastic, algal, brachiopod wackestone (1.4 ft); 20% allochems, 40% intraclasts (base); 20% allochems, 20% intraclasts (top); intraclasts appear angular, brecciated; shelter porosity; argillaceous content decreases; milky brown color at top; occasional algal laminae; gradational contacts.

K — (22.6 to 21.0) Interbedded mudstone/wackestone/packstone, argillaceous mudstone (1.6 ft); carbonate appears to have variable amounts of algae, brachiopods; equant skeletal fragments or ooids(?); argillaceous mudstone may have algal laminae on build-ups with carbonate beds; carbonaceous, black plates/grains; argillaceous interbeds, content in carbonate decrease upward; gradational contacts.

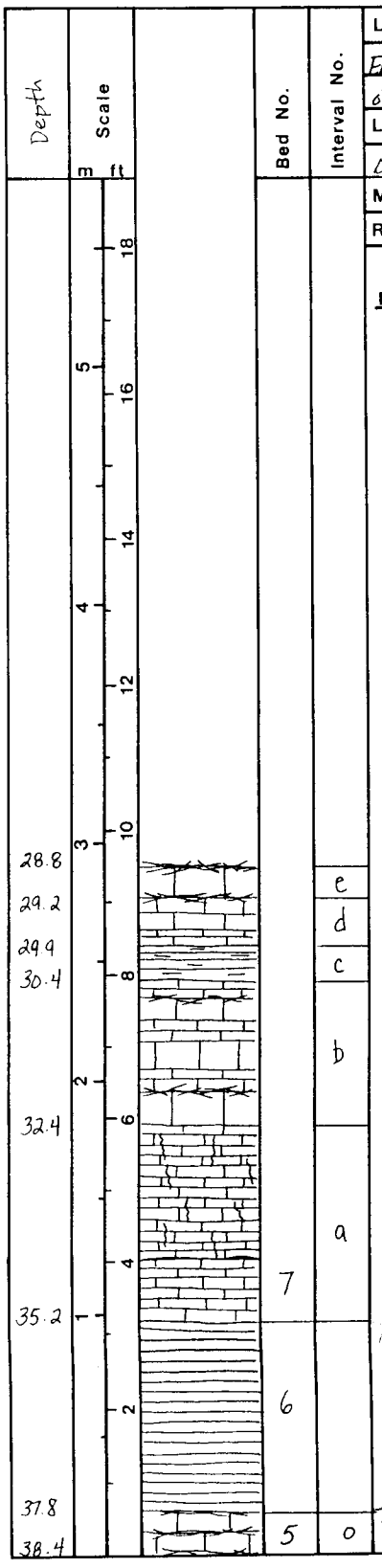
j — (23.4 to 22.6) Sparse brachiopod, algal mudstone (.8 ft); dark gray; argillaceous; algal fragments; laminated; progressively more massive, bioturbated upward; argillaceous interbeds, content in carbonate decrease upward; gradational contacts.

i — (24.6 to 23.4) Brachiopod, algal(?), skeletal wackestone (1.4 ft); middle is severely altered; top, carbonate mud has milky brown color; shelter effects (under brachiopods), intraclasts; allochems increase upward from bottom; argillaceous interbeds, content in carbonate decreases upward; sharp lower contact, gradational upper contact.

h — (25.6 to 24.8) Fusulinid, chaetetid-bearing mudrock (.8 ft); dark gray; articulated, disarticulated thin-walled brachiopods, echinoderms, algae, chaetetids, isolated horn coral, unrecognizable carbonitized skeletal material; rust brown diagenetic overprints; chaetetids, 1 1/2 inches thick; laminated, variably swirled, discontinuous light gray carbonate with chaetetids (in places), algal grains; sharp contacts.

g — (27.4 to 25.6) Echinoderm, brachiopod, algal wackestone/packstone (1.8 feet); light brown mud; 50 to 70% allochems (increase upward from bottom to middle, then decrease at top; at bottom and top, allochems randomly oriented - baffle geometries; in middle, allochems predominately parallel to bedding; sheltering effects, preferential spar filled pores, fragments; intraclasts first occur [**chaetetids]; sharp contacts.

7f — (28.8 to 27.4) Interlaminated laminar chaetetid boundstone, algal wackestone, and dark gray mudstone (1.4 ft); chaetetid "laths" 2 inches thick at bottom, 1/2 inch to 3/4 inch at top (fractured); chaetetids probably not in place; "karsted" at top(?); brown rust diagenetic zone in upper .4 feet, oxidized, exposed(?); sharp contacts.



Locality Description: Core No. C-35 of U.S. Army Corp of Engineers Fort Scott Reservoir Project. Core taken at 30° off vertical.

Location: Near C. of N. line of SE¼, Sec 36, T. 26S., R. 24E., Bourbon Co., Kansas.

Measured By: B. LEVIN, 1990

Remarks: SUPPLEMENTED BY S. ROTH, R.R. WEST, 1991

Description

Bed No.

e (29.2 to 28.8) Echinoderm, brachiopod, algal wackestone/packstone (.4 ft); allochems fragmented, horizontal at base (60%), randomly oriented at top (50%); geopetal, shelter effects at base; sharp contacts.

d (29.9 to 29.2) Fragmented algal mudstone (base) to a fragmented algal, brachiopod, echinoderm, gastropod wackestone to packstone (.7 ft); allochem abundance, size increase upward (3% at bottom, 45% at top); weak hydraulic effects - sheltering, shell lag, incipient intraclasts; sharp contacts (** clay/shale partings).

c (30.4 to 29.9) Fossiliferous clay-shale (.5 ft); dark gray; sparsely fossiliferous (ostracodes, pelecypods?); silty; noncalcareous, pyritic; very saline taste; fissile; primary structure or bioturbation not visible; mud content increases upward; thickening of argillaceous wisps; sharp contacts.

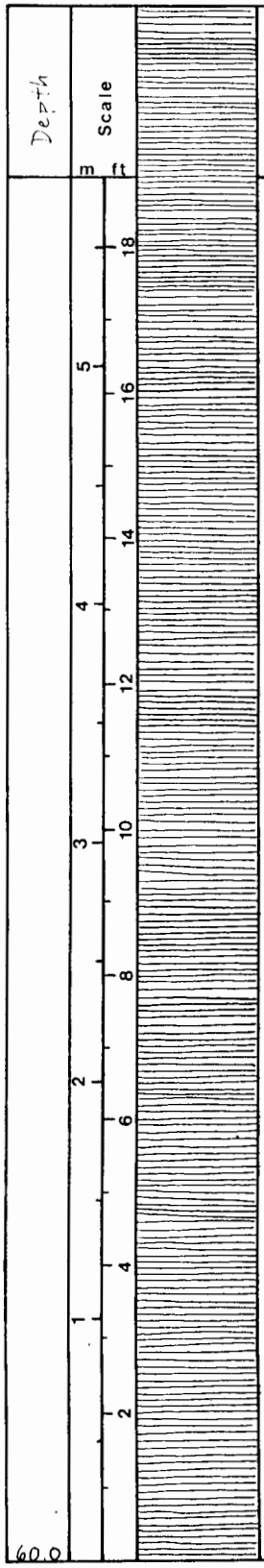
b (32.4 to 30.4) Interbedded light gray foraminiferid, brachiopod mudstone, dark black, argillaceous, foraminiferid mudstone, and light gray, algal, echinoderm, brachiopod wackestone (2 ft); ** clay/shale partings occur at 0.5, 1.8 ft above base; allochems fragmented, randomly to vertically oriented; bioturbated/churned.

7 a (35.2 to 32.4) Foraminiferid mudstone (2.8 ft); light gray; 8-10% allochems, [mostly crinoids], horn corals; bioturbated, churned; upper 1.8 feet, rust colored diagenetic zone which cross-cuts primary depositional fabric; very weathered, possibly exposure surface; sharp lower contact, gradational upper contact.

6 (37.8 to 35.2) Black mud-shale (2.6 ft); rare light calcareous laminae; dark mud-shale slightly to noncalcareous; 1 foot from the bottom is a .1 foot thick occurrence of pyritized thin-walled valves (ostracodes, pelecypods) horizontally oriented, articulated, disarticulated - "in situ"; black, organic content increases upward; near top, rare pyritized pelecypod (brachiopod?) and calcareous mollusk valves (all < 5 mm long); upper part is coaly (less massive); gradational to sharp lower contact, sharp upper contact.

5 (38.4 to 37.8) Argillaceous skeletal wackestone to packstone (.6 ft); light gray to dark gray; highly churned; 35% allochems, 50% carbonate laminae; echinoderms, brachiopods, foraminiferids, algal (red?); skeletal grains fragmented, disarticulated; no signs of subaerial exposure; unit capped by a fossiliferous, calcareous silt-shale; gradational lower contact, gradational to sharp upper contact.

** Comments added by Roth & West



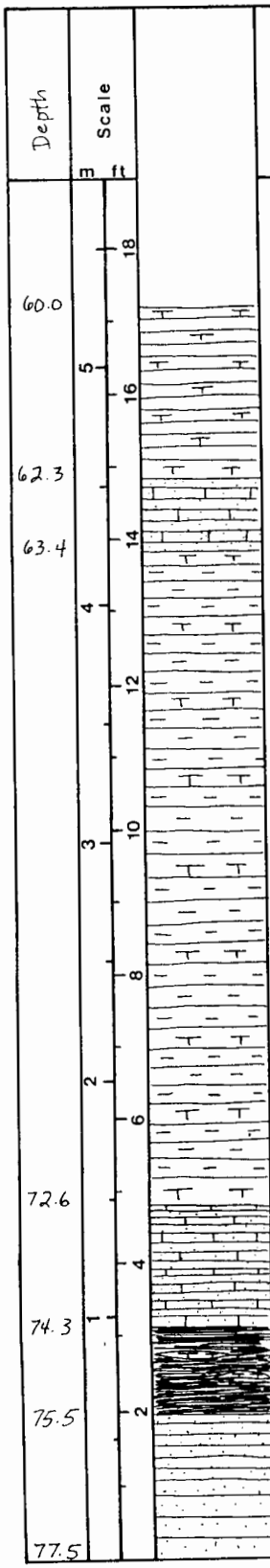
Locality Description: Core No. C-35 of U.S. Army Corp of Engineers Fort Scott Reservoir Project. Core taken at 30° off vertical.

Location: Near C. of N. line of SE¼, Sec. 6, T. 26S., R. 24E., Bourbon Co., Kansas.

Measured By: B. LEVIN, 1990

Remarks: SUPPLEMENTED BY S. ROTH, R.R. WEST, 1991

Bed No.	Description
5n	(60.0 to 38.4) Calcareous silt-shale (21.6 ft); dark gray; dark red siderite laminae disappear upward as calcareous (shell) bands, laminae increase; becomes more calcareous upward, but varies throughout; pyritic laminae increase; very sparse allochems (< 3%); in most cases, laminae are parallel, slightly bioturbated; at 7.2 feet above bottom, dark red, platy, noncalcareous (argillaceous?), pyritic intraclasts, Dunbarella occur; Orbiculoidea within 0.83 ft of upper contact; at 7.3 and 8.3 feet above bottom are mudcracks(?), burrows; mudcracks disrupt laminae (bioturbation?); inclined traces (burrows?) truncated, overlain by horizontal laminae; calcareous/pyritic laminae increase in abundance near mudcracks; either desiccation cracks, algal crusts, or ripple laminae occur 8.3 feet above bottom; where calcareous mud content increases, so does fissility; near top, dark gray calcareous mud, carbonaceous lenses, granule size grains become common with random orientations; gradational contacts.



Locality Description: Core No. C-35 of U.S. Army Corp of Engineers Fort Scott Reservoir Project. Core taken at 30° off vertical.

Location: Near C. of N. line of SE¼, sec. 5, T. 26 S., R. 24 E., Bourbon County, Kansas.

Measured By: B. LEVIN, 1990

Remarks: SUPPLEMENTED BY S. ROTH, RR. WEST, 1991

Description

Bed No.

m (62.3 to 60.0) Calcareous mud shale (2.3 ft); dark gray; laminae are very slightly wavy; pyritic/calcareous laminae, more pronounced near top (5% upper part, < 2% lower part); gradational contacts.

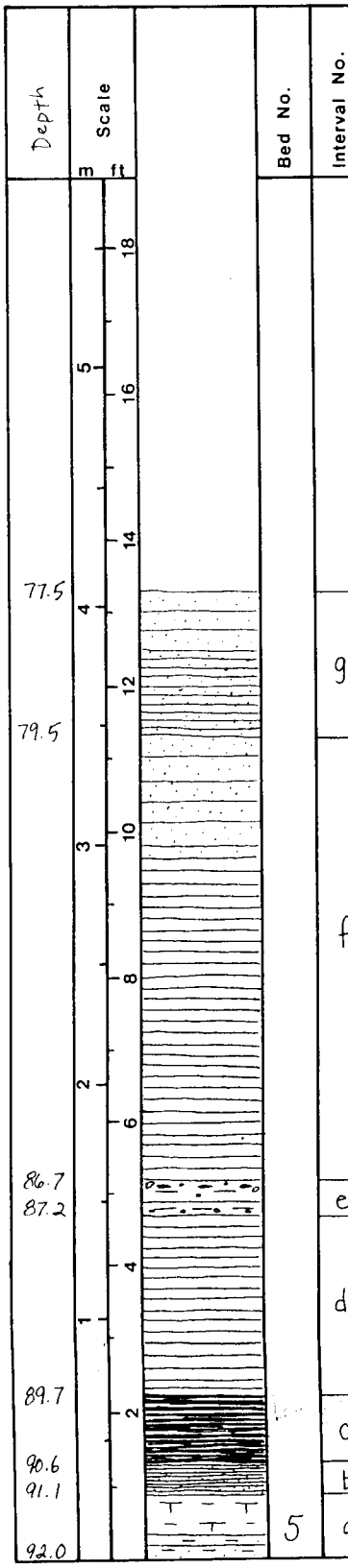
l (63.4 to 62.3) Calcareous silt-shale (1.1 ft); dark gray; very fissile; 5% allochems (large, 1 inch diameter brachiopod); moderately bioturbated; dark red siderite laminae along top; gradational contacts.

K (72.6 to 63.4) Calcareous clay-shale (9.2 ft); dark gray; moderately fossiliferous (75% Dunbarella fragments, hash); fossils parallel to laminated surfaces; Dunbarella very common, present on all laminae surfaces; weakly to moderately calcareous; dark red siderite(?) bands (.7 mm), parallel to bedding, occur every .5 to .7 ft (varies), alternate with < 1mm shell bands; allochems decrease upward; weak parallel laminae; weak bioturbation of shell bands (burrowing?); moderate to weak fissility; some laminae are calcareous/pyritized; gradational contacts.

j (74.3 to 72.6) Fossiliferous, calcareous silt-shale (1.7 ft); dark gray to black with light gray (skeletal, carbonate mud) laminae; 30% shell fragments: 80% are unidentifiable, abraded fragments, foraminiferids; 20% are (< 1/2 inch) echinoderms, disarticulated brachiopod fragments (parallel to laminae), horn coral, articulated pelecypods; allochems gradually decrease upward; in middle of unit is a sparsely fossiliferous silt-shale zone (< 5%); gradational to sharp lower contact, gradational upper contact.

i (75.5 to 74.3) Interlaminated coal (85%) and fossiliferous calcareous silt-shale (1.2 ft); black; dull to moderate luster; fibrous calcite cement fills vertical fractures (could be evaporite minerals?); fractures intersect horizontal plane forming rhombic polygons; gradational to sharp contacts.

5 h (77.5 to 75.5) Siltstone to silt-shale (2 ft); olive gray; moderately indurated, weakly calcareous (7%), dolomitic(?); subrounded, noncalcareous, mud intraclasts; carbonitized plant fragments/fragments very abundant near top; swirled/mottled texture (bioturbated?); coaly, maceral-like laminae, partings; silt-shale above contains rare calcareous mud and intraclasts/burrows(?); gradational lower contact, gradational to sharp upper contact.



Locality Description: Core No. C-35 of U.S. Army Corp of Engineers Fort Scott Reservoir Project. Core taken at 30° off vertical.

Location: Near C. of N. line of SE¼, Sec 36, T. 26 S., R. 24 E., Bourbon Co., Kansas

Measured By: B. LEVIN, 1990

Remarks: SUPPLEMENTED BY S. ROTH, R.R. WEST, 1991

Description

Bed No.

g (79.5 to 77.5) Silt-shale to siltstone (2 ft); gray with light brown to black intraclasts; first sign of intraclasts occurs along the bottom; intraclasts are tabular, platy, noncalcareous, interlaminated with rare unidentifiable skeletal fragments; silt dominates upward and becomes more calcareous; gradational contacts.

f (86.7 to 79.5) Mud-shale to siltstone (7.2 ft); dark gray (base) to olive gray (top); carbonitized, iron-rich (Fe/CaCO3); skeletal(?) plates along laminae; noncalcareous, becomes moderately calcareous near top; red stains react with HCl; skeletal fragments (black, red) are thin-walled valves, and other unidentifiable fragments; parallel laminae, possible wavy, hummocky geometries; no obvious bioturbation; red stain concentrated at 4.8 feet from base; becomes more massive near top; more silt with 10% skeletal grains (in siltstone); gradational contacts.

e (87.2 to 86.7) Varicolored mudrock (.5 ft); light gray in middle, grading to brown in upper part; organic-rich band (5 mm thick) .2 feet from bottom; band is carbonaceous, yellow brown to rust mudrock; silty, calcareous; roots(?), cinnabar-red wisps (redox surface?), plant debris; fissile; in upper .3 feet tabular, very coarse grain (granule) size chert grains present; gradational contacts.

d (89.7 to 87.2) Mud-shale (2.5 ft); dark gray to black; noncalcareous matrix with calcareous fragments; olive yellow laminae (noncalcareous); laminae parallel, very silty; laminae, fragments pyritized; carbonaceous (plant) debris; sharp lower contact, gradational upper contact.

c (90.6 to 89.7) Coal (.9 ft); gradational lower contact (not positively present), sharp upper contact.

b (91.1 to 90.6) Silty shale (.5 ft); olive gray; upper surface possibly scoured; 5% allochems; iron-rich/organic-rich band near top; overlain by olive gray granule size, equant intraclasts in a Chondrites mud-shale; Chondrites mud-shale is noncalcareous with foraminiferids, unidentifiable skeletal fragments; gradational contacts.

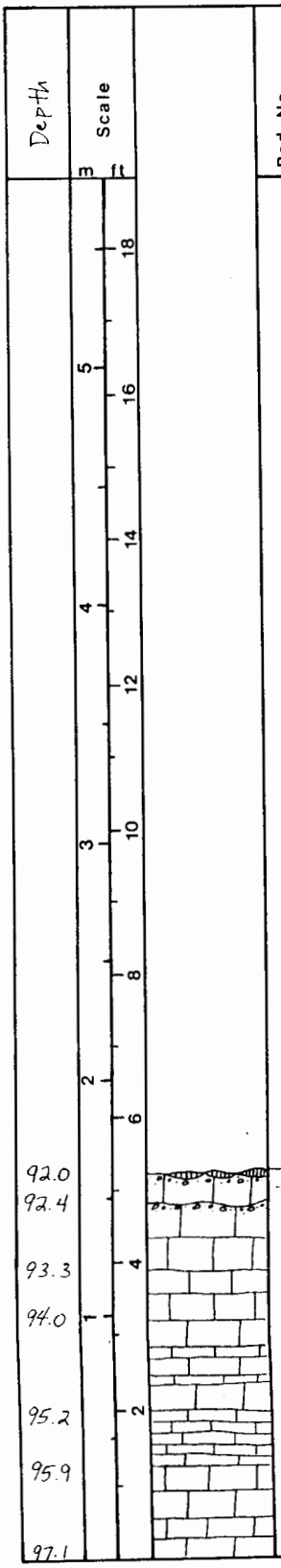
5a (92.0 to 91.1) Chondrites mud-shale (base) to calcareous, dark gray mudstone (.9 ft); 20% allochems (base); horizontal Chondrites parallel to laminae; becomes massive upward; gradational contacts.

Locality Description: Core No. C-35 of U.S. Army Corp of Engineers Fort Scott Reservoir Project. Core taken at 30° off vertical.

Location: Near C. of N. line of SE¼, Sec. 16, T. 26S, R. 24E., Bourbon County, Kansas

Measured By: B. LEVIN, 1990

Remarks: SUPPLEMENTED BY S. ROTH, R.R. WEST, 1991



Description

Bed No.

o (92.4 to 92.0) Intraclastic, skeletal wackestone/packstone (.4 ft); varicolored (yellow, brown, grays, blacks, olive); weathered (possible exposure surface); moderately indurated; skeletal fragments; calcareous; capped by laminar chaetetids with anhydrite filling primary porosity; skeletal and intraclastic material horizontally oriented; Chondrites(?) at bottom, swirled, disrupted; gradational contacts.

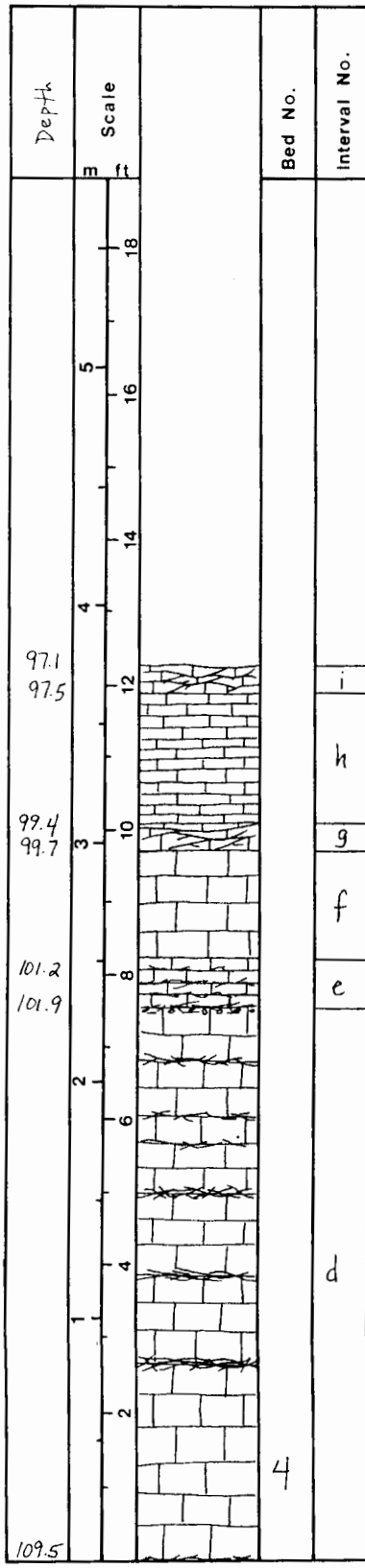
n (93.3 to 92.4) Intraclastic, skeletal wackestone/packstone (.9 ft); grades upward to algal wackestone; pisolites concentrated along upper surface; skeletal lag (15-20%), pisolites (45%), anhydrite, chaetetid (encrusting a brachiopod); gradational contacts.

m (94.0 to 93.3) Foraminiferid, brachiopod wackestone (.7 ft); pale yellowish brown; brachiopods in growth position; 10 to 20% allochems, algal encrusted; primary porosity filled with anhydrite; gradational contacts.

l (95.2 to 94.0) Algal mudstone/wackestone and sparse foraminiferid, brachiopod mudstone (1.2 ft); medium light gray; weakly laminated; moderately bioturbated; incipient intraclasts; co-appearance of 3 cm zones; zones alternate in fossil abundance (20%, 10%, 20%); brachiopods, foraminiferids, gastropods (mostly fragments, encrusted grains); sheltered hash; contorted, horizontal laminae; geopetal - filled with anhydrite, encrusted on 'up side' with tabulate or stromatoporid coral or foraminiferid; fragmented allochems increase upward; gradational contacts; gradational contacts.

K (95.9 to 95.2) Sparse mudstone (.7 ft); pale yellowish brown; anastomosing argillaceous zones; allochems 15% at bottom, <10% upward; light colored facies ductily deformed; pellets; horizontally oriented skeletal debris; allochems decrease upward, more fragmented, parallel to bedding; gradational contacts.

4j (97.1 to 95.9) Dark argillaceous wackestone (1.2 ft); pale yellowish brown tint; two shell assemblages (fragmented, nonfragmented); articulated, thin brachiopods, gastropods, fragmented algae, foraminiferids; weak horizontal laminae (.5 to 1.5 cm thick), broken, swirled by bioturbation, pellets; allochems decrease upward, more fragmented, parallel to bedding; gradational contacts.



Locality Description: Core No. C-35 of U.S. Army Corp of Engineers Fort Scott Reservoir Project. Core taken at 30° off vertical.

Location: Near C. of N. line of SE¼, Sec. 36, T. 26 S., R. 24E., Bourbon County, Kansas.

Measured By: B. LEVIN, 1990

Remarks: SUPPLEMENTED BY S. ROTH, R.R. WEST, 1991

Description

Bed No.

i (97.5 to 97.1) Anastomosing dark argillaceous carbonate (25%) and light brown mudrock (10%) (.4 ft); 10% allochems; pale yellowish brown mottling - incipient anhydrite controlled by allochems and bioturbation(?); gradational contacts.

h (99.4 to 97.5) Interbedded sparsely algal mudstone (1.9 ft); light gray; algae, brachiopods, gastropods, pelecypods, foraminiferids; 20% allochems; fragmented allochems up to 15% in thin bands [** clay/shale partings]; incipient patterned texture(?); vertical fractures or valves(?) filled with calcite, equant blocky intraclasts or pellets; shelter effects - subparallel orientations; gradational contacts.

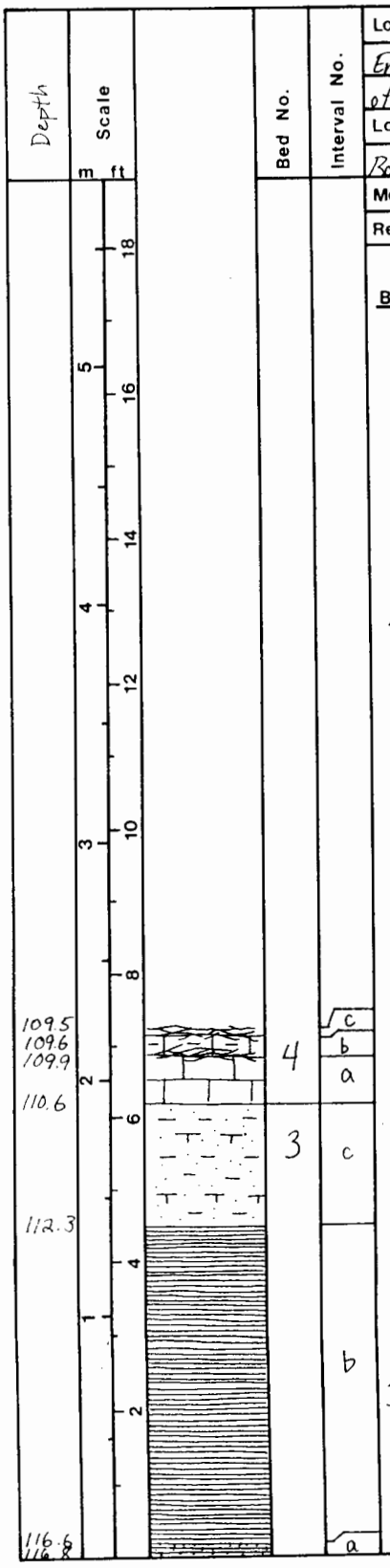
g (99.7 to 99.4) Anastomosing dark argillaceous wackestone, sparsely algal-rich mudstone, pale yellowish brown mudstone (.3 ft); allochem fragments; sharp lower contact, gradational upper contact. ** Clay/shale partings?

f (101.2 to 99.7) Sparsely abundant algal wackestone (1.5 ft); light gray to medium gray; 20% allochems, fragmented, subparallel to bedding; significant sheltering effects, algal coatings on allochems, pellets, intraclasts; allochems become fragmented, randomly oriented; capped by anhydrite infilling geopetal features; sharp contacts.

e (101.9 to 101.2) Mudstone (.7 ft); pale yellowish brown; sparse allochems; sharp contacts.

4d (109.5 to 101.9) Algal wackestone (7.6 ft); medium light brownish gray; ** fossiliferous clay/shale partings occur at specific intervals above base of unit: in feet, at 0.6, 1.3, 1.6, 1.9, 2.0, 2.1, 2.3, 2.4, 2.5, 3.0, 3.3, 3.8, 4.2, 4.5, 4.6, 5.1, 5.8, 6.2, 6.4, 6.8, 7.0, 7.1, 7.4, and 7.7; zones of fragmented allochems, intraclasts throughout; fossil abundance decreases upward; geopetals (brachiopod?) produces shelter porosity; gastropods pelecypods, echinoderms, brachiopods, algae (phylloid, dasyclads); algal-rich zones thin, disappear upward; fossils oriented subparallel to bedding (fragmented), or randomly (unfragmented); mud content increases upward; unit capped by a very fine grain, skeletal (foraminiferid), pelleted, argillaceous wackestone/packstone; gradational lower contact, sharp upper contact.

** Comments added by Roth & West



Locality Description: Core No. C-35 of U.S. Army of Engineers Fort Scott Reservoir Project. Core taken at 30° off vertical.

Location: Near C. of N. line of SE¼, Sec. 36, T. 26S., R. 24E., Bourbon Co., Kansas

Measured By: B. LEVIN, 1990

Remarks: SUPPLEMENTED BY S. ROTH, R.R. WEST, 1991

Description

Bed No.

c — (109.6 to 109.5) Dark gray, laminated, argillaceous(?) bands (.1 ft); medium light gray; sparsely fossiliferous; carbonate-rich; gradational contacts. [** Clay/shale partings]

b — (109.9 to 109.6) Dark foraminiferid, argillaceous wackestone (.3 ft); dark gray to black; allochems fragmented, parallel to bedding; bivalves, echinoderms, pelecypods, foraminiferids; some areas have less black (carbonaceous?) material with less fossils, pellets; gradational contacts.

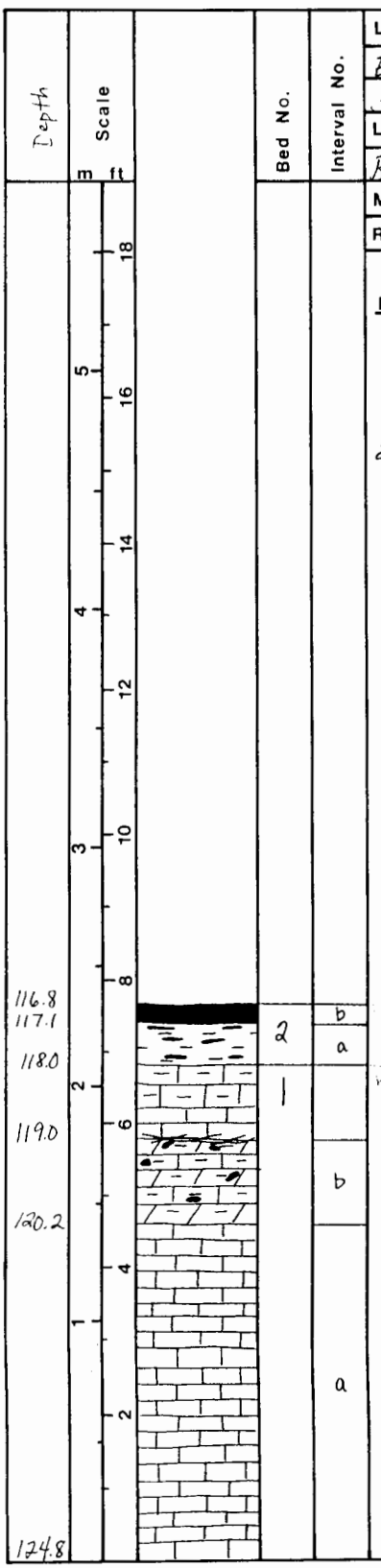
4a — (110.6 to 109.9) Foraminiferid, brachiopod, echinoderm wackestone/packstone (.7 ft); medium gray to brown; allochems randomly oriented, fragmented (60-80%); massive; bioturbated; at top, middle (0.2 ft) of unit fossiliferous clay/shale partings occur; gradational contacts.

c — (112.3 to 110.6) ** Carbonate-rich, silty claystone (1.7 ft); light olive gray to dark gray; carbonate increases upward; flattened Chondrites(?) throughout; in places, organic-rich zones; allochems increase upward; allochems (7%) consist of isolated rugose coral (on side), disarticulated bivalves; laminated along upper boundary; gradational contacts.

b — (116.6 to 112.3) Bituminous shale (4.3 ft); black; thin (< 1mm) laminae of black carbonaceous(?) material; slightly calcareous; phosphate nodules decrease upward; dark olive gray Chondrites concentrated in upper 8.5 inches; occasional light gray nodules or discontinuous laminae (Chondrites?) containing carbonaceous material (platy, rare equant chunks); very fine grain foraminiferids, fossil hash, detrital silica grains(?); carbonate/pyrite diagenetic recrystallization, replacement of organic material(?); most allochems disarticulated, parallel to laminae; rare brachiopod, pelecypod valves (1/2 in, diameter); more calcareous upward; bituminous shale grades into silty clay/shale with dark brown laminae (siderite or fluorapatite along Chondrites); gradational contacts.

3a — (116.8 to 116.6) Silt-shale (0.2 ft); medium light gray to medium dark gray; mottled; medium light gray streaks, slightly calcareous; abraded fossil fragments; bivalves(?), brachiopods, foraminiferids; coal/clay partings; in places, cross-laminated(?); sharp lower contact, gradational upper contact.

** Comments added by Roth & West



Locality Description: Core No. C-35 of U.S. Army Corp of Engineers Fort Scott Reservoir Project. Core taken at 30° off vertical.

Location: Near C. of N. line of SE 1/4, Sec. 5, T. 26 S., R 24 E, Bourbon Co., Kansas.

Measured By: B. LEVIN, 1990

Remarks: Supplemented BY S. ROTH, R.R. WEST, 1991

Description

Bed No.

b (117.1 to 116.8) Coal (0.3 ft); black with moderate yellow, white stains; sharp contacts.

2 a (118.0 to 117.1) Carbonaceous-rich claystone (0.9 ft); medium dark gray to grayish black; intensely mottled; carbonaceous (plant?) debris throughout; coal partings prominent throughout, especially in lower 3 inches, upper 1 inch; black, dark yellowish orange, moderate brown stains; gradational lower contact, sharp upper contact.

c (119.0 to 118.0) Argillaceous, carbonate mudstone (1 ft); medium dark gray, large dark zones, streaks parallel to bedding; bioturbated; carbonaceous (plant?) debris become more distinct, abundant upward; muds become more varicolored (distinct olive crust); less calcareous upward; allochem fragments; contacts gradational; distinct transition to overlying black, noncalcareous, organic shale with coal partings.

b (120.2 to 119.0) Mottled, argillaceous, carbonitic/dolomitic mudstone (1.2 ft); very light gray to light gray matrix with milky brown dolomitic (anhydritic?) mud, olive gray argillaceous carbonate mud; mottled, pelleted, swirled texture; yellowish gray, light olive gray, grayish orange, medium dark gray clasts; medium dark gray stains at lower contact; fossils deformed, cross-sections; foraminiferids, algal fragments, pelecypod fragments, gastropods; intraclasts increase upward; random, brown to black carbonaceous (plant) material, silt throughout; argillaceous wisps [clay/shale partings] concentrated in upper .2 feet; uppermost part of unit contains angular, pisolitic clasts; gradational contacts, distinct upper contact contains 'lag' of intraclasts and pisolites.

1 a. (124.8 ft to 120.2 ft) Sparse fusulinid mudstone (4.6 ft); medium gray with light brown zones, upper 2 feet light gray to light olive gray; at 1.2 feet from the bottom, transition from lower zone to upper zone; lower zone dominated by Chondrites (mottling) with areas filled by anhydrite, carbonaceous material; upper zone bioturbated(?), coarsely mottled texture with clay intraclasts; partings concentrated in upper 3 inches; allochems random, filled with anhydrite; disarticulated (tubular shaped) bryozoans(?), pelecypods, foraminiferids, algae, echinoderms (crinoid fragments in partings), very coarse sand-size (and larger) fusulinids, brachiopods; gradational upper contact.