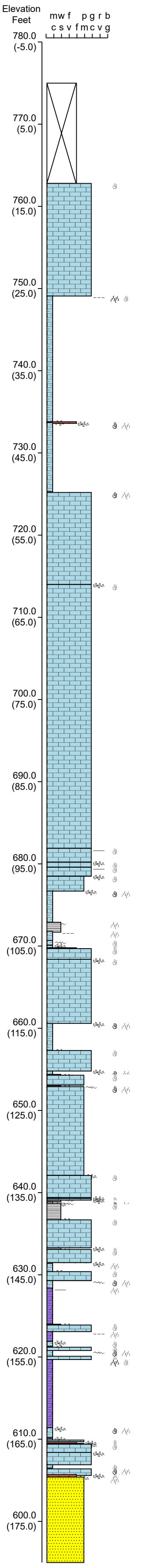
ID Number:	166289	Date:	8/27/2010
Site Name:	SDH441 (Jennifer Cardwell)	By:	Brian D. Keith and Todd A. Thompson
Location:	NE¼NE¼SE¼ sec. 10, T. 3 N., R. 2 E. UTMX: 563175.80, UTMY: 4284779.00, Zone: 16	Notes:	Campbellsburg quadrangle, Washington County
Elevation:	775.0000 Feet		



(0) Unconsolidated not described and not present/recovered; soil

(12.2) SANDERS GROUP, Salem Limestone
Fossiliferous massive and horizontal-bedded grainstone and packstone, gradational basal contact; possible Endothyra in upper part; ground-up skeletal material; weathered extensively; variable oil staining and porosity throughout; medium-brownish-gray

(25.9) Bioturbated and fossiliferous horizontal-bedded argillaceous limestone, stylolitic basal contact; ground-up fine fossil debris; horizontal and vertical bioturbation; medium-brownish-gray

(41.2) Fossiliferous massive chert, stylolitic basal contact; fossil debris; several dark silicified clasts; tannish-gray

(41.35) Fossiliferous and bioturbated horizontal-bedded and rhythmic-bedded argillaceous limestone, gradational basal contact; crinoids, bryozoans, brachiopod debris; possible tidalites in upper part; horizontal and vertical bioturbation; organic and argillaceous wisps throughout the unit; horizontal and vertical bioturbation; oil-stained and porous in places; medium- to dark-gray

(49.8) Fossiliferous and bioturbated massive grainstone, stylolitic basal contact; very fine fossil debris; occasional organic wisps; stacked microstylolites with organics at the base of the unit; medium-brownish-gray

(61) Fossiliferous massive grainstone, sharp basal contact; coarse grained; crinoids, bryozoans, abundant Endothyra, some brachiopods; few stylolites; intergranular and moldic porosity throughout; medium- to dark-gray

(93.15) Fossiliferous massive grainstone, stylolitic basal contact; fine-grained; thin coatings on grains of Endothyra, crinoid and brachiopod debris; light- to medium-tannish-gray

(94.85) Fossiliferous massive grainstone, sharp basal contact; very coarse grained; brachiopods, crinods, and bryozoan debris; light- to medium-gray

(95.4) Fossiliferous massive grainstone, stylolitic basal contact; finer-grained than above with occasional gastropods, thin-walled brachiopods, ground-up bryozoans, crinoids; light-gray

(96.5) Fossiliferous horizontal-bedded packstone, stylolitic basal contact; thin-walled brachiopods, crinoids, some bryozoans; variable mud content; more grain-rich near the top of the unit; medium-gray

(98.35) Fossiliferous and bioturbated horizontal-bedded argillaceous limestone, irregular basal contact; crinoids, some bryozoans, and miscellaneous skeletal material; organic wisps and horizontal bioturbation; light- to medium-greenish-gray

(102.1) Bioturbated horizontal-bedded siltstone, gradational basal contact; increasingly calcareous downward; horizontal bioturbation; medium- to dark-brownish-gray

(103.25) Bioturbated horizontal-bedded argillaceous limestone, irregular basal contact; occasional crinoidal grains; horizontal bioturbation; increasing silt content upward; this unit and one above are a continuum; medium- to dark-brownish-gray

(104.35) Fossiliferous horizontal-bedded argillaceous limestone, stylolitic basal contact; abundant crinoid and occasional brachiopod debris; chert nodule in the middle of the unit; dark-gray

(104.9) Fossiliferous horizontal-bedded argillaceous limestone, stylolitic basal contact; thinly laminated; occasional crinoid; medium- to dark-gray

(105.2) Fossiliferous massive chert, irregular basal contact; fossils not identifiable; light-gray

(105.35) Fossiliferous massive grainstone, stylolitic basal contact; fine crinoids with bryozoan debris, bryozoan fronds increase toward the base of the unit; medium-gray

(106.65) Harrodsburg Limestone
Fossiliferous massive grainstone and packstone, stylolitic basal contact; abundant bryozoan fronds throughout, crinoids, and variable mud content; probable bryozoan holdfast at 107.8-107.9 ft; light- to medium-gray

(114.4) Fossiliferous and bioturbated horizontal-bedded argillaceous limestone, stylolitic basal contact; crinoids and miscellaneous skeletal debris; greenish argillaceous wisps; two large geodes with pink calcite in the upper 1 ft of the unit; stacked microstylolites and organic residue at the base of the unit; light - to medium-greenish-gray

(117.7) Fossiliferous massive grainstone, stylolitic basal contact; crinoids and bryozoan fronds throughout; some carbonate mud near the top of the unit; multiple stylolites near the base; light-gray

(120.2) Fossiliferous and bioturbated horizontal-bedded argillaceous limestone, irregular basal contact; crinoids and Syringopora coral fragments; argillaceous partings concentrated in the upper part; light- to medium-gray

(120.6) Fossiliferous horizontal-bedded siltstone, stylolitic basal contact; calcareous; occasional crinoid and Syringopora coral fragments; medium- to dark-gray

(120.75) Fossiliferous massive packstone, irregular basal contact; abundant crinoids and miscellaneous skeletal debris; light- to medium-gray

(122) Fossiliferous horizontal-bedded siltstone, stylolitic basal contact; calcareous; bryozoan fragments; medium- to dark-gray

(122.15) Fossiliferous and bioturbated massive packstone and grainstone, stylolitic basal contact; variable mud content; abundant bryozoan fronds, crinoids, and other ground-up bryozoan debris; several thin siltstone beds and stylolites from 131.1-131.25 ft; light- to medium-gray

(132.9) Fossiliferous horizontal-bedded grainstone to argillaceous limestone, stylolitic basal contact; medium to fine crinoids in the lower part with increasing bryozoan fronds in the upper part with more argillaceous content; graded bed; medium-gray

(135.6) Ramp Creek Formation
Fossiliferous horizontal-bedded siltstone, irregular basal contact; fine crinoids in the lower part; dark-greenish-gray

(135.7) Fossiliferous massive grainstone, stylolitic basal contact; medium to fine crinoids; bryozoan fronds, pyrite; medium-greenish-gray

(135.9) Horizontal-bedded siltstone, irregular basal contact; irregular-shaped carbonate nodule in the middle of unit; dark-greenish-gray

(136.15) Fossiliferous and bioturbated horizontal-bedded argillaceous limestone, stylolitic basal contact; medium to fine crinoids, increasingly more argillaceous upwards; some pyrite in the lower part; medium-gray to medium-greenish-gray

(136.35) Fossiliferous horizontal-bedded siltstone, stylolitic basal contact; fine crinoids and scattered bryozoan fronds; small geode in the middle; dark-gray to medium-greenish-gray

(138.3) Fossiliferous massive grainstone, stylolitic basal contact; fine crinoids, some bryozoans, and miscellaneous fossil debris, glauconite; medium-gray

(141.75) Fossiliferous horizontal-bedded siltstone, stylolitic basal contact; fine crinoids; calcareous; medium- to dark-greenish-gray

(141.95) Fossiliferous horizontal-bedded grainstone, stylolitic basal contact; medium to fine crinoids, brachiopod debris, one horn coral, bryozoan debris at base, glauconite; medium-gray

(143.6) Bioturbated horizontal-bedded argillaceous limestone, stylolitic basal contact; miscellaneous fossil debris, fine crinoids; one geode; medium-greenish-gray

(144.6) Fossiliferous horizontal-bedded grainstone, irregular basal contact; medium to fine crinoids, brachiopods, miscellaneous fossil debris; large geode near the base; medium-gray

(145.7) Fossiliferous and bioturbated horizontal-bedded argillaceous limestone, sharp basal contact; medium to fine crinoids in upper ⅔; some horizontal bioturbation in upper part; medium- to dark-gray

(146.6) Bioturbated horizontal-bedded argillaceous dolostone, gradational basal contact; horizontal bioturbation; large geode in the middle of unit; light-greenish-gray

(151) Fossiliferous horizontal-bedded siltstone, stylolitic basal contact; medium crinoids at the base; slightly calcareous; greenish-gray to dark-brownish-gray

(151.1) Fossiliferous massive grainstone, gradational basal contact; very fine grained with medium crinoids and brachiopod debris at the base; light-greenish-gray

(151.95) Bioturbated horizontal-bedded argillaceous dolostone, stylolitic basal contact; horizontal bioturbation, a few crinoids at the base; light-greenish-gray

(153.15) Fossiliferous horizontal-bedded argillaceous limestone, stylolitic basal contact; medium to fine crinoids, some brachiopod debris; medium-gray

(153.8) Fossiliferous massive grainstone, irregular basal contact; coarse to medium crinoids with large horn coral at the base grading to fine-grained at the top of the unit; medium-gray

(154.25) Fossiliferous and bioturbated horizontal-bedded argillaceous limestone, gradational basal contact; few coarse crinoids in the middle with fine crinoids throughout; medium-gray

(154.95) Fossiliferous massive grainstone; medium to fine crinoids; multiple stylolites in the lower part; medium-gray

(155.3) Bioturbated and fossiliferous horizontal-bedded argillaceous dolostone, stylolitic basal contact; siliceous patches with medium to fine crinoids in the patches; horizontal bioturbation; scattered small geodes in the middle; light- to medium-greenish-gray

(163.65) Fossiliferous and bioturbated horizontal-bedded argillaceous limestone, stylolitic basal contact; few coarse crinoids but mostly medium to fine crinoids, some crinoids silicified in the lower part; light- to medium-greenish-gray

(164.9) Flaser-bedded lime mudstone; medium to fine crinoids; dark-gray

(165.1) Fossiliferous massive packstone, stylolitic basal contact; medium to fine crinoids; thin argillaceous layer at the base between stylolites; medium-gray

(165.35) Fossiliferous massive chert, sharp basal contact; medium to fine crinoids; light- to medium-gray

(165.5) Fossiliferous massive packstone, stylolitic basal contact; fine crinoids, partially silicified; thin argillaceous layer between stylolites at the base; light- to medium-gray

(165.6) Fossiliferous massive grainstone, stylolitic basal contact; medium to fine crinoids, and miscellaneous fossil debris; thin argillaceous layer in middle and at the base; medium-gray

(166.65) Horizontal-bedded grainstone to argillaceous limestone; coarse to fine crinoids at the base with thin-walled brachiopods, fossils fine upwards; argillaceous in the upper part with large horizontal and vertical burrows with crinoid debris; medium-gray

(168.15) Fossiliferous horizontal-bedded argillaceous limestone, irregular basal contact; coarse to fine crinoids, some brachiopod debris; medium-gray

(168.6) Fossiliferous and bioturbated massive grainstone, stylolitic basal contact; fine crinoids at the base with medium to fine crinoids in the upper part; thin siltstone between stylolites at the base; medium- to light-gray

(169.35) Fossiliferous massive chert, stylolitic basal contactcoarse to fine crinoids and miscellaneous fossil debris, glauconite and pyrite; light- to medium-gray

(169.65) BORDEN GROUP, Edwardsville Formation
Bioturbated massive sandstone; horizontal-bedded from 170.65-171.1 ft; large vertical burrow from 174-175 ft otherwise horizontal bioturbation; lower very fine grained sand; flattened burrows or mud chips; light-greenish-gray