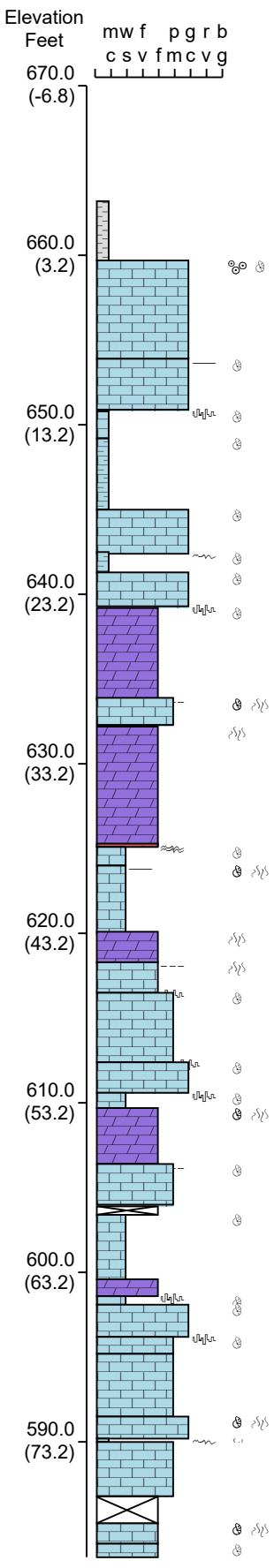
ID Number:	166603	Date:	1/30/2013
Site Name:	SDH471 (Armstrong Quarry Floor)	By:	Brian D. Keith and Todd A. Thompson
Location:	SE¼ NE¼ SW¼ sec. 4, T. 6 N., R. 2 W. UTMX: 531218.70, UTMY: 4314723.00, Zone: 16	Notes:	Owensburg quadrangle, Lawrence County
Elevation:	663.2000 Feet		



(0) Mud (driller's description); brown

(3.5) BLUE RIVER GROUP, Ste. Genevieve Limestone
Oolitic and fossiliferous cross-bedded and massive grainstone, sharp basal contact; thin-walled brachiopods in layers, miscellaneous fossil debris, possible foraminifera, fine ooids, and quartz sand; light-gray

(9.35) Fossiliferous massive grainstone to packstone, stylolitic basal contact; increasing micrite upwards; brachiopods and miscellaneous fossil debris; light-tannish-gray to light-gray

(12.4) Fossiliferous massive lime mudstone; occassional brachiopod fragments; recrystallized; medium-gray to medium-tannish-gray at the top of the unit

(14) Fossiliferous horizontal-bedded and massive argillaceous limestone, gradational basal contact; increasing partings upwards; brachiopods, fenestrate bryozoans, and miscellaneous fossil debris; medium-gray

(18.2) Fossiliferous massive grainstone, irregular basal contact; thin-walled brahiopods and miscellaneous fossil debris; medium- to light-gray and greenish-gray in the lower part

(20.75) Fossiliferous horizontal-bedded argillaceous limestone, gradational basal contact; fine crinoids and miscellaneous fossil debris; medium- to dark-greenish-gray

(21.95) Fossiliferous massive grainstone, stylolitic basal contact; coarse brachiopod debris, crinoids, small gastropods, fines upward into miscellaneous fossil debris; light-tannish-gray at base becoming yellowish- to greenish-gray at the top

(24) Fossiliferous massive crystalline dolostone, gradational basal contact; ghosts of miscellaneous fossil debris; nonporous; light- to dark-tannish-gray

(29.35) Fossiliferous and bioturbated massive packstone; crinoids, brachiopods and miscellaneous fossil debris; more recrystallized upwards; light- to medium-tannish-gray

(31) Bioturbated massive crystalline dolostone, irregular basal contact; horizontal bioturbation; porous; light- to dark-tannish-gray

(37.95) Horizontal-bedded chert, irregular basal contact; light-gray to brownish-black

(38.1) Fossiliferous horizontal-bedded wackestone, sharp basal contact; two muddying-upward sequences with a coarse lag at the base of each interval of crinoids and brachiopods and quartz grains; diffuse galuconite in grainy intervals; light-tannish-gray

(39.2) Fossiliferous and bioturbated horizontal-bedded wackestone, gradational basal contact; irregular chert masses at 40 ft; organic partings in upper part; crinoids, brachiopods, and miscellaneous fossil debris; horizontal bioturbation; light- to medium-tannish-gray

(43.15) St. Louis Limestone (?)
Bioturbated massive crystalline dolostone, gradational basal contact; horizontal and vertical bioturbation, wormy bioturbation centered at 44.5 ft; light- to medium-brownish-gray

(44.9) Bioturbated horizontal-bedded limestone, stylolitic basal contact; fine-grained, recrystallized; medium-brownish-gray

(46.7) Fossiliferous horizontal-bedded packstone, stylolitic basal contact; abundant fenestrate bryozoans, medium to fine crinoids, brachiopods, and miscellaneous fossil debris; light- to medium-tannish-gray

(50.8) Fossiliferous massive grainstone, stylolitic basal contact; fine brachiopods and miscellaneous fossil debris; medium-gray

(52.65) Fossiliferous horizontal-bedded wackestone; fenestrate bryozoans, fine crinoids, brachiopods and miscellaneous fossil debris; medium-tannish- to orangish-gray where weathered

(53.55) Fossiliferous and bioturbated massive crystalline dolostone, gradational basal contact; fenestrate bryozoans, and miscellaneous fossil debris; light-tannish-gray to light-gray

(56.85) Fossiliferous massive packstone; medium to fine crinoids, and fenestrate bryozoans; medium-gray

(59.3) Void

(59.8) Fossiliferous massive and horizontal-bedded wackestone, gradational basal contact; coarse to medium crinoids, occassional bryozoans; argillaceous partings near the top; small irregular chert masses; light- to medium-greenish-gray with small irregularly shaped green to black specks

(63.65) Horizontal-bedded crystalline dolostone, stylolitic basal contact; weathered, and friable; tan to medium-gray

(64.6) Fossiliferous massive wackestone, irregular basal contact; fenestrate and other bryozoans, fine crinoids, and miscellaneous fossil debris; medium-tannish-gray

(65.1) Acrocyathus proliferus corals
Fossiliferous massive grainstone, stylolitic basal contact; silicified Acrocyathus proliferus corals (66.1-66.8 ft), fine crinoids, and brachiopod debris; medium-gray

(67) Fossiliferous massive packstone; thin-walled brachiopods, fenestrate bryozoans, medium to fine crinoids, and miscellaneous fossil debris; medium-gray to medium-tannish-gray

(68) Packstone and grainstone; rubble; medium-gray

(71.7) Fossiliferous and bioturbated massive grainstone, irregular basal contact; thin-walled brachiopods and miscellaneous fossil debris; small greenish black specks; churned by bioturbation; medium-gray

(73) Bioturbated horizontal-bedded argillaceous limestone; prominent vertical bioturbation; medium-gray

(73.2) Packstone; rubble and weathered; light-gray to yellowish-gray

(76.45) Void

(78) Fossiliferous and bioturbated horizontal-bedded limestone; variable texture and mud content; possible quartz sand and miscellaneous fossil debris; medium-greenish-gray

(79.25) Fossiliferous massive limestone; light above but porous and friable; two possible finger corals in the middle of the unit; medium-greenish-gray