Map Unit Descriptions

Mbf *Bluefield Formation* (Campbell, 1896). Shale, siltstone, and limestone, with minor sandstone, coal, and underclay. Shale and siltstone, calcareous in part, medium- to medium dark-gray, light-greenish- to greenish-gray, grayish-red; interbedded with limestone, thin sandstone and a few thin beds of black carbonaceous shale. Limestone, argillaceous, lower part dolomitic, light olive gray to medium-gray, light-bluish gray and brownish-gray, micrograined to medium-grained, thin-bedded, very fossiliferous; black chert nodules in lower part; interbedded with fossiliferous light-greenish-gray shale. Sandstone, quartzose to feldspathic, light-gray to greenish gray, very-fine- to medium-grained, thin- to thick-bedded, ripple-bedded, contains root casts in upper part, pyrite nodules, and shale and siltstone interbeds. Coal, locally impure in upper half of formation (Englund, 1968; Windolph, 1987). Underclay, medium-gray, clayey to silty, contains root casts. The Bluefield probably is equivalent to upper part of the Newman Lime stone (Englund, 1979) and is a transition zone between carbonates of the underlying Greenbrier Limestone and clastics of the overlying Pennington Group. It is conformable and gradational with underlying formation. Formation thins westward; it ranges in thickness from 150 feet near Kentucky-Virginia boundary (Miller, 1974, p. 25) to 1250 feet in Tazewell County (Cooper, 1944, p. 169).

Db *Brallier Formation* (Butts, 1918). Shale, sand stone, and siltstone. Shale, partly silty, micaceous, greenish-gray, grayish-brown and medium- to dark-gray, black, weathers light-olive-gray with light-yellow, brown and purple tints; black shale in thin beds and laminae, sparsely fossiliferous. Sandstone, micaceous, medium-light-gray, very fine to fine-grained, thin- to thick-bedded, and light-brown siltstone interbedded with shale. Locally siltstone is in very-thin, nodular, ferruginous lenses (Bartlett, 1974). Lower contact transitional; base at lowest siltstone bed above relatively nonsilty dark-gray shale. Equivalent to part of the Chattanooga Shale. Formation thins southwestward; it ranges from 940 feet in thickness in southwestern Washington County (Bartlett and Webb, 1971) to more than 2200 feet in Augusta County (Rader, 1967).

MDcw *Chattanooga Shale and Wildcat Valley Sandstone*. Chattanooga Shale (Hayes, 1891). Shale, siltstone, and sandstone. Shale, carbonaceous, grayish-black to black, fissile to platy, thin- to thick-laminated, locally fossiliferous and pyritic, locally contains phosphatic nodules in the upper part, locally has strong petroliferous odor (Henika, 1988); with beds and zones of medium-gray to greenish-gray, locally silty shale. Siltstone, light-gray to grayish-black, laminated to thick-bedded, locally wavy- and ripple-bedded. Sandstone, light-gray, very-fine-grained. Grayish-black to black, carbonaceous shale comprises 100 percent of the formation in western Lee County and is predominant in the formation throughout southwest Virginia. The Chattanooga Shale uncomformably overlies the Silurian Hancock Formation throughout most of Lee County and the lower Devonian Wildcat Valley Sandstone to the northeast. The Chattanooga Shale ranges in thickness from 200 feet in western Lee County (Englund, 1964) to 1870 feet in northwestern Russell County (Meissner and Miller, 1981). Roen and others (1964) and Kepferle and others (1981) discussed divisions of the Chattanooga Shale and correlation with other units.

Wildcat Valley Sandstone (Miller, Harris, and Roen, 1964). Sandstone, limestone, and shale. Sandstone, locally calcareous, locally quartzose, light-gray, grayish-orange, and dark-yellowish-brown, very-fine- to coarse-grained, thin- to massive-bedded, fossiliferous, friable, locally glauconitic; with chert nodules and beds. Locally dark-reddish-brown ironstone replaces sandstone. Lime stone, gray, pinkish-gray, and light-brownish-gray, coarse-grained, thick- to massive bedded, sandy, locally present. Shale, yellowish-green to gray, locally present. Where the Wildcat Valley Sand stone is present it uncomformably overlies the Silurian Hancock Formation. The Wildcat Valley Sandstone is absent through out most of Lee County (Englund, 1964; Harris, 1965; Miller and Roen, 1973) but reaches a maximum of 60 feet in thickness to the northeast (Lower Devonian sandstone of Harris and Miller,1963).

Ce *Elbrook Formation* (Stose, 1906). Dolostone and limestone with lesser shale and siltstone. Dolostone, medium-to dark-gray, fine- to medium-grained, laminated to thick-bedded. Limestone, dark-gray, fine-grained, thin- to medium-bedded, with algal structures and sharpstone conglomerate. Shale and siltstone, light- to dark-gray, dolomitic, platy weathering, with minor grayish-red or olive-green shales. Interbedded limestone and dolostone dominate the upper part of the formation; dolomitic siltstone and shale and thin- bedded argillaceous limestone dominate the lower part. The formation ranges between 1500 and 2900 feet in thickness in the southeastern-most exposures but is incomplete elsewhere due to faulting. The Elbrook of northern Virginia is transitional with the Nolichucky and Honaker Formations (locally the limestone facies of the Nolichucky has been differentiated from the Elbrook by Bartlett and Biggs (1980). It is also approximately equivalent to the rock sequence comprised of the Nolichucky and Maryville Formations, the Rogersville Shale, and the Rutledge Formation. Farther southwest the Conasauga Shale is the Elbrook equivalent. The Elbrook appears to be conformable and gradational with the underlying Waynesboro or Rome Formations. From Washington County to Augusta County much of the Elbrook Formation adjacent to the Pulaski and Staunton faults is a breccia of the "Max Meadows tectonic breccia type" (Cooper and Haff, 1940). These breccias are composed of crushed rock clasts that range from sand size to blocks many feet long, derived almost entirely from the lower part of the Elbrook Formation. The breccia commonly forms low lands characterized by karst features.

Mg *Greenbrier Limestone* (Rogers, in Macfarlane, 1879). Limestone, dolomite, and minor shale. Limestone, very-light olive- to olive-gray and brownish-gray, and medium- to dark gray, micrograined to coarse-grained, thin- to thick-bedded, thinner bedded in upper part, even- to cross-bedded; few shaly beds in upper part; oolitic in upper part and in cross-laminated beds near base; black chert near middle of formation, gray to pale-red near base; very fossiliferous. Pale-brown dolomite near upper chert zone, minor dolomite locally in lower part. Few interbeds of greenish-gray and grayish-red, calcareous, silty shale. Limestone is petroliferous locally in upper part (Henika, 1988). Base locally unconformable with underlying Maccrady Shale. Formation thickens to east, ranging from 200 feet in western Wise County to 3500 feet in Washington and Scott counties. The Greenbrier is equivalent to (descending): Gasper Limestone, Ste. Genevieve

Limestone, St. Louis Limestone (Hillsdale Limestone), and Little Valley Limestone (Warsaw equivalent), and to lower part of the Newman Limestone (Butts, 1940; LeVan and Rader, 1983).

Ous *Juniata Formation, Reedsville Shale, Trenton Lim stone, and Eggleston Formation*. Juniata Formation (Darton and Taff, 1896). Siltstone, shale, sandstone, and limestone. Siltstone, shale, and sandstone, locally calcareous, grayish-red, locally fossiliferous; with some interbeds of greenish-gray shale, quartzarenite, and argillaceous limestone. Cycles consisting of a basal, crossbedded quartzarenite with a channeled lower contact; a middle unit of interbedded mudstone and burrowed sandstone; and an upper bioturbated mudstone are commonly present north of New River (Diecchio, 1985). The Juniata Formation ranges from less than 200 to more than 800 feet in thickness. In southwestern Virginia the red, unfossiliferous, and argillaceous Juniata Formation is present in the southeastern belts. It is equivalent to the gray, fossiliferous, and limy Sequatchie Formation of western belts (Thompson, 1970; Dennison and Boucot, 1974). Even though the beds along Clinch Mountain, in Scott County, contain minor amounts of carbonate rock (Harris and Miller, 1958) the majority is grayish- red siltstone, which is typical of the Juniata Formation.

Reedsville Shale (Ulrich, 1911). Shale, siltstone, and minor limestone. Shale, locally silty, calcareous, yellowish-gray, grayish-olive, greenish-gray, and medium-gray. Siltstone, calcareous, greenish-gray to olive-gray, in 1- to 2-inch thick planar beds. Limestone, medium- to dark-gray, fine- to coarse-grained, fossiliferous, in 6-inch thick beds; and silty to argillaceous, medium-light-gray to medium-dark-gray and olive-gray, micrograined to medium-grained limestone, generally in 1- to 2-inch thick planar beds. A few very-finegrained sandstone beds are present within the unit. The shales are predominant throughout most of southwestern Virginia (Miller and Brosgé, 1954; Miller and Fuller, 1954). Siltstones and limestones are subordinate to and interbedded with the shales. The Reedsville Shale ranges from 275 feet in Lee County to approximately 1000 feet in Frederick County. It is equivalent to the upper Martinsburg of previous reports in western Virginia and is conformable with the underlying Trenton Limestone and Dolly Ridge Formation.

Trenton Limestone (Vanuxem, 1838). Limestone, medium-light-gray to dark-gray and brownish-gray, micrograined to medium-grained, fossiliferous, thin- to medium-bedded, wavy- to platy-bedded with grayish-yellow and dark-gray shale partings, minor olive-black chert nodules; and one bentonite bed noted in western Scott County (Harris and Miller, 1958). (See Eggleston Formation description for additional discussion of the bentonite beds). Locally some of the dark-colored beds emit a petroliferous odor when broken. The Trenton Limestone ranges from 300 to 600 feet in thickness.

Eggleston Formation (Matthews, 1934). Mudstone, siltstone, limestone, and bentonite. Mudstone and siltstone, light-gray, greenish-gray and yellowish-gray, locally contains gray and white mottled calcite patches and stringers. Limestone, light-olive-gray to olive-gray and light-brown, aphanic to medium-grained, thin-bedded; with argillaceous, yellowish-gray, micrograined to medium-grained limestone. Two thick (1-3 feet),

greenish-gray, bentonite beds in upper part of unit. Olive-black chert nodules are locally present. Mudstone is dominant in lower and locally in upper part; light-olive-gray to olive-gray limestone is dominant in middle part of unit. The Eggleston Formation ranges from 125 to 180 feet in thickness.

OCk *Knox Group* (Safford, 1869). Dolostone, limestone, and sandstone. Dolostone, light- to medium-gray, very-fine- to fine-grained, locally with pink streaks in the upper part; and very-light-gray to dark-gray and brownish-gray, medium- to coarse-grained, locally argillaceous dolostone near the base of the unit; greenish-gray shale partings locally present; chert is abundant in some parts of the unit. Limestone, blue-gray to dark-blue-gray, very-fine- to coarse-grained, locally sandy. Sandstone, gray to brown, fine- to medium-grained. Limestone is dominant in the eastern thrust belts. The Knox Group ranges from 2000 feet in Southwest Virginia to 3560 feet in thickness to the east in Washington County (Bartlett and Webb, 1971). The Knox includes the Mascot, Kingsport, Chepultepec, and Copper Ridge Dolomites and the Maynardville Formation.

Dmn *Millboro Shale and Needmore Formation*. Millboro Shale (Cooper, 1939; Butts, 1940). Shale, black, fissile, pyritic, with septarian concretions locally, gradational with underlying Needmore Shale; present southwest of Shenandoah County except in southwestern most Virginia; thickness is as much as 1000 feet in north-central western Virginia. Laterally equivalent to the Marcellus Shale and Mahantango Formation to the northeast and the lower part of the Chattanooga Shale to the southwest. It is gradational with the underlying Needmore Formation.

Needmore Formation (Willard, 1939). Shale, dark or greenish gray, with thin beds or nodules of black, argillaceous limestone and the Tioga metabentonite beds (Dennison and Textoris, 1970), generally present with the Millboro or Marcellus Shale and is disconformable with the underlying Ridgeley Sand stone. Thickness ranges from 0 to 160 feet and is replaced to the southwest by the Huntersville Chert.

Dx *Millboro Shale, Huntersville Chert, and Rocky Gap Sandstone.* Millboro Shale (Cooper, 1939; Butts, 1940). Shale, black, fissile, pyritic, with septarian concretions locally, gradational with underlying Needmore Shale; present southwest of Shenandoah County except in southwesternmost Virginia; thickness is as much as 1000 feet in north-central western Virginia. Laterally equivalent to the Marcellus Shale and Mahantango Formation to the northeast and the lower part of the Chattanooga Shale to the southwest. It is gradational with the underlying Needmore Formation.

Huntersville Chert (Price, 1929). Chert, white, thin-bedded, iron-stained, blocky, fossiliferous with cherty, glauconitic sandstone and greenish-gray shale. The Huntersville Chert ranges from 10 to 60 feet in thickness (Bartlett and Webb, 1971). Butts (1940, p. 303) states, “The Onondaga [Huntersville Chert] persists to Mendota, Washington County, but 10 miles farther southwest.... it is absent in a fully exposed section”. The Huntersville correlates with the Needmore Formation to the northeast and the upper part of the Wildcat Valley Sandstone in Lee County.

Rocky Gap Sandstone (Swartz, 1929). Sandstone, medium- to light-gray, weathers dark-yellowish-orange, coarse-grained, scattered, thin, quartz-pebble conglomerate beds, arenaceous chert in upper ten feet, calcite cement, friable when weathered. Thickness ranges from 0 near McCall Gap, Washington County to about 85 feet in Bland and Giles counties. Equivalent in part to the Wildcat Valley Sandstone of Lee County and the Ridgeley (Oriskany) Sandstone and Helderberg Group north of Craig County. The lower contact is disconformable. The upper contact with the Huntersville Chert appears to be conformable.

Ols *Moccasin Formation, Bays Formation, Unit C, Unit B, and Unit A.* Moccasin Formation (Campbell, 1894). Mudstone, shale, limestone, and sandstone. Mudstone and shale, dusky-red to dark-reddish-brown, calcareous, ripple-marks, and mud cracks common. Limestone, light-olive-gray, weathers very-light gray, aphanic with "birds-eyes", locally fossiliferous. The limestone generally is the middle member of the Moccasin southwest of Giles County. In eastern Giles County and northeastward a thin medium-grained, gray sandstone occurs near the base of the Moccasin. The thick ness ranges from 0 in northern Alleghany County to about 600 feet in Scott County. Bays Formation (Keith, 1895). Siltstone, sandstone, mudstone, and limestone. Siltstone, grayish-red, olive- to light-olive-gray, locally calcareous, sandy in part. Sandstone, light-gray to yellowish-gray, fine- to very-coarse-grained, locally conglomeratic, calcareous. Mudstone, grayish-red, olive- to light-olive-gray, mudcracks common. Limestone, grayish-red to light-olive-gray, aphanic. Five distinct K-bentonites reported by Hergenroder (1966). Contacts are conformable except perhaps in Botetourt, Roanoke, and Montgomery counties. Thickness ranges from 105 feet north of Wytheville to 890 feet near Daleville in Botetourt County. From Scott and Washington counties to Highland County and northwest of the Pulaski and North Mountain faults a multitude of stratigraphic names have been applied to the rocks between the Bays or Moccasin (above) and the Beekmantown or Knox (below). The lack of detailed geologic mapping, except in Scott and Giles counties, the restricted area of the two major stratigraphic studies (Cooper and Prouty, 1943; Kay, 1956), and the general disagreement as to mappability and correlation of units makes it impossible to apply specific stratigraphic nomenclature at this time. There fore, the rocks are described as three packages of lithologies (from youngest to oldest): Unit C, Unit B, and Unit A.

Unit C. Limestone, medium- to dark-gray, aphanic to fine-grained with thin, medium- to coarse-grained beds, argillaceous, nodular to planar-bedded, locally very fossiliferous. The following names have been applied to Unit C: Witten, Bowen, Wardell, Gratton, Benbolt, Chatham Hill, Wassum, Rich Valley, Athens, Ottesee, Liberty Hall, Fetzer, and Giesler.

Unit B. Limestone, light- to dark-gray, aphanic to coarse grained, black and gray chert nodules, carbonate mound buildups. This unit is characterized by grainstone with interbedded micrite and chert. The overlying Unit C is very argillaceous and lacks chert. The following names have been applied to Unit B: Wardell, Gratton, Benbolt, Lincolnshire, Big Valley, McGlone, McGraw, Five Oaks, Peery, Ward Cove, Rockdell, Rye Cove, Effna, Whitesburg, Holston, Pearisburg, and Tumbez.

Unit A. Dolostone, light- to medium-gray, fine-grained, locally conglomeratic, cherty. Limestone, medium- to dark gray, fine-grained, locally cherty. Shale, light-gray to dusky red. A basal chert-dolomite conglomerate with clasts as much as cobble size is locally present on the unconformity surface. The following names have been applied to Unit A: Blackford, Elway, Tumbez, Lurich (lower part), and "basal clastics".

Cnhk *Nolichucky and Honaker Formations*. Nolichucky Formation (Campbell, 1894). Shale, siltstone, and limestone. Shale, locally calcareous, light-olive-gray and bluish-gray, fissile, with minor sandstone and dolomite. Siltstone, locally calcareous, yellowish-brown and grayish-orange, thin-bedded. Limestone, argillaceous to glauconitic, medium light-gray to dark-gray and bluish-gray, fine- to coarse-grained; contains oolitic- and flat-pebble conglomerate beds, locally stromatolitic. Shale and siltstone make up 20 to 50 percent of the formation (Derby, 1965). A limestone unit up to 165 feet in thickness is present approximately 100 feet above the base of the Nolichucky in northern Russell County (Miller and Meissner, 1977). The Nolichucky Shale ranges from 440 to 690 feet in thickness in Southwest Virginia but pinches out to the northeast in Giles County.

Honaker Formation (Campbell, 1897). Dolostone, limestone, and shale. Dolostone, light- to dark-gray to dark-bluish- gray, aphanic to coarse-grained, thin- to massive-bedded, “butcher-block” weathering; with sparse interbeds of argillaceous limestone, and minor dark-gray chert. Limestone, argillaceous, ribbon-banded in part, light- to medium-gray, very-fine-grained, thick-bedded. Shale, greenish-gray, laminated to thin-bedded. The Honaker Formation is predominantly dolostone with subordinate limestone. The dolostone becomes more dominant in the northeastern part of outcrop belt (Evans and Troensegaard, 1991). Shale is locally present as a 20- to 60-feet-thick unit in the middle of the formation and as thin interbeds with the dolostone and limestone throughout the area. The Honaker Formation ranges from about 1000 to 1100 feet in thickness. It is laterally equivalent to the lower Elbrook to the east.

Mp *Pennington Group* (Campbell, 1893). Bluestone Formation, Princeton Sandstone, and Hinton Formation. Raised to Group rank by Harris and Miller (1958). The group consists of shale, sandstone, mudstone, conglomerate, siltstone, minor limestone, and coal locally. The shale, siltstone, and mudstone are gray to black and shades of red, and mottled red and gray. The sandstone is locally quartzose and conglomeratic, and ranges from shades of gray to brown, and only locally mottled within red shales; many sandstones pinch out southwestward in the Tazewell County area, but two persist farther west and southwest. The limestone is gray to brown, generally near the middle of the group, and is the most widespread marine unit. The Bluestone and Hinton Formations thin to the west-southwest in southwestern Virginia; the widespread sand stone and limestone members nearly converge southwestward to with in 80 feet of each other from about 600 feet of separation in northern Tazewell County. The Princeton Sandstone wedges out in Tazewell County. The top of the Pennington Group is intertonguing to unconformable with the overlying Lee Formation in the western part of the Southwest Virginia coalfield; basal contact is conformable. The Group thins westward; variation in thickness partly due to intertonguing and the unconformity. The Pennington Group ranges from 235 feet in thickness without the Pinnacle Overlook Member of the Lee (as

interpreted from Vanover and others, 1989) in the southwest to 2355 feet (Trent and Spencer, 1990) in Tazewell County and 1335 feet in a partial section in Washington County (Bartlett and Webb, 1971), where it is mapped as the Pennington Formation. Bluestone Formation (Campbell, 1896). Sandstone, siltstone, shale, mudstone, minor limestone, coal, and underclay. Sandstone, argillaceous, micaceous, locally quartzose, very light to dark-gray, light-olive- to greenish-gray, yellowish orange to dark-yellowish-brown, moderate-red, very-fine- to medium-grained, thin- to very-thick-bedded, cross-bedded, locally ripple-bedded, interbedded with shale and siltstone; forms ledges and cliffs. Sandstone in middle of formation in Scott and Russell counties is conglomeratic with quartzite pebbles and other rock clasts (Evans and Troensegarrd, 1991; Nolde and Diffenbach, 1988). Upper part intertongued with Lee in northern Lee County (Miller and Roen, 1973). Silt stone, shale, and mudstone, partly calcareous, greenish-gray, dark gray to grayish-black, pale- to moderate-red and mottled red and greenish-gray; siderite nodules in variegated shales and siltstones; fossils in dark-gray shale (Englund, 1968). Limestone, argillaceous, medium-gray, thin, lenticular, fossiliferous, in middle of formation, and in thin discontinuous beds at the base of the formation in the subsurface in western Tazewell and eastern Buchanan Counties (Englund, 1981). Thin coal bed in upper part of formation in northern Lee County (Miller and Roen, 1973); coal and impure coal in thin discontinuous beds in middle of formation in northern Tazewell County; underlain by underclay, locally as much as three feet thick, with root casts (Englund, 1968). Top unconformable with the overlying Lee Formation in northwestern Wise and Dickenson counties and extreme northwestern Buchanan County but is intertonguing to the southeast (Miller, 1974) and southwest in northern Lee County (Miller and Roen, 1973). Base conformable with the underlying Princeton Sandstone in northern Tazewell County, but is disconformable to the south west because the Princeton wedges out southwestward in Tazewell County and the Bluestone lies on the Hinton Formation (Englund and Thomas, 1990). Bluestone thins northwestward and ranges in thickness from 40 feet in southwestern Lee County (Englund, Landis, and Smith, 1963) to as much as 850 feet to the northeast in Tazewell County (Englund and Thomas, 1990). Princeton Sandstone (Campbell and Mendenhall, 1896). Sandstone, light-gray to light-greenish-gray, weathered locally to pale-reddish-brown, fine- to coarse-grained, thin- to very thick-bedded, locally cross-bedded, calcite cemented, becomes friable upon weathering, contains conglomerate lenses as much as two feet thick with well-rounded to angular pebbles of quartz, shale, siltstone, limestone, chert, and ironstone; fossils in limestone clasts (Englund, 1968, 1979; Trent and Spencer, 1990). Wedges out southwestward in west-central Tazewell County (Englund, 1979). The Princeton as mapped in Lee County and southwestern Scott County (Harris and Miller, 1958; Miller and Roen, 1973) is a different sandstone. The Princeton ranges from 0 to 60 feet in thickness. Hinton Formation (Campbell and Mendenhall, 1896). Shale, siltstone, mudstone, sandstone, limestone, minor coal, underclay. Shale, siltstone, and mudstone, partly calcareous, grayish-red, medium-gray, and greenish-gray, fossiliferous. Sandstone, quartzose, feldspathic, very-light- to medium-light gray, greenish-gray, yellowish-brown, pale- to moderate-red, locally mottled, very-fine- to medium-grained, thin- to very thick-bedded, contains quartz-pebble conglomerate, tree trunk impressions, and coal fragments; cobbles in lowest member locally; interbedded with dark-gray to grayish-black shale. A widespread conglomeratic sandstone in the upper part of the formation has been

misidentified as the stratigraphically higher Princeton Sandstone (Englund, 1979). Limestone, argillaceous, light-grayish-brown, medium-gray, thin-bedded, nodular, very fossiliferous, contains marine fossils of Chesterian age and is most widespread marine unit (Little Stone Gap Member) in the Hinton (Englund, 1979). Base conformable. The formation ranges from 164 feet in thickness in southwestern Lee County to 1320 feet in northern Tazewell County (Englund, 1968, 1979).

Cr *Pumpkin Valley Shale and Rome Formation*. Pumpkin Valley Shale (Bridge, 1945). Shale, light-greenish-gray to dark-greenish-gray, grayish-brown, and maroon; a few beds of similar colored siltstone; sparse beds of limestone and dolostone. The Pumpkin Valley Shale conformably overlies the Rome Formation. The formation is approximately 350 feet thick. Harris (1964) identified the Pumpkin Valley Shale of Southwest Virginia as a formation within the Conasauga Group; however, because of similar lithologies it is often indistinguishable from the Rome Formation and the two formations commonly are mapped together. Rome Formation (Hayes, 1891). Siltstone, shale, sandstone, dolostone, and limestone. Siltstone and shale, greenish-gray and grayish-red, laminated to thin-bedded. Sand stone, micaceous, locally glauconitic, greenish-gray and reddish-gray, very-fine- to medium-grained, thin-bedded. Dolostone, light- to dark-gray, aphanic to medium-grained, thin-to massive-bedded, with ripple marks and mudcracks. Limestone, argillaceous, very-light-gray to dark-gray, thin- to medium- bedded. Carbonate rocks range from sparse 1- to 2- feet-thick beds in western Scott County to discontinuous units as much as 50 feet thick which comprise 30 to 40 percent of the formation in western Russell and Washington counties (Evans and Troensegaard, 1991; Bartlett and Webb, 1971). Maximum recorded thickness is 1500 feet in the Clinchport area (Brent, 1963); although this may have included the Pumpkin Valley Shale. A complete thickness has not been determined be cause the lowermost part of the Rome Formation is normally absent due to faulting.