

Depth	Stratigraphic Units					Rock Color	Lithology		Remarks
	Members	Formations	Subgroup	Stage	System		Rock Column	Secondary Structures	
847	Bhujadot Sandstone	Krebs						<p>1.1   black coal carbonaceous</p> <p>3.4   light greenish gray to medium greenish gray siltstone to sandstone (vFL-EU) heterolithic (Flaser and wavy)</p> <p>2.8   dark gray silty shale to siltstone very finely laminated to lenticular laminated</p> <p>0.8   black shale (local seam)</p> <p>0.5   black coal slickensided</p> <p>19.5   black silty sand (vFL) to silty shale structureless anastomosing to heterolithic and very thinly laminated cutaneous gradational upper contact sharp lenticular identifiable cyclic bundles (Flaser wavy and wavy) carbonaceous and siderite lined root traces numerous siderite nodules cement and lower in top half calcareous lenses and slightly pyritic in bottom half.</p>	
857								<p>11.0   light gray to medium gray to dark gray sandstone (vFL-EU) to silty sand structureless to heterolithic bedded (Flaser wavy and lenticular identifiable cyclic bundles) (Flaser wavy and wavy) common gradational upper contact sharp lower contact siderite lined and carbonaceous root traces bioturbated lower plant fragments near cola siderite</p> <p>0.4   black coal thickly</p>	
867								<p>3.0   dark gray to light gray carbonaceous at top structureless to platy to</p> <p>7.0   light gray silty sand to sandstone (vFL) structureless to heterolithic (wavy and Flaser) to thinly laminated cutaneous gradational upper contact sharp lower contact siderite lined and carbonaceous root traces bioturbated lower plant fragments near cola siderite</p>	
877								<p>1.2   medium gray green silty siltstone to silty sand to sandstone (vFL-vFU) structureless to heterolithic (Flaser wavy and wavy) with possible cyclic bundles) bedded ripple laminations common gradational upper contact sharp lower contact siderite lined root traces plant fragments bioturbated</p> <p>1.0   black coal thinly</p> <p>4.5   light gray to medium gray siltstone to silty siltstone (vFL) structureless to thinly to lenticular laminated (with &lt;5 deg inclination) cutaneous sharp</p>	
887								<p>10.5   black silty shale to siltstone well sorted thinly to very finely to lenticular laminated minor ripple laminae minor slickensides and slightly cutaneous at top sharp upper and lower contact carbonaceous and drab haloid root trace at top siderite nodules and cement</p>	
897	Dry Wood coal							<p>0.8   black coal dull to</p> <p>11.0   light gray to medium gray to dark gray silty sand to sandstone (vFL-vFU) moderate sorted micaceous structureless to convolute to thinly laminated (inclined 5-10 deg) to heterolithic bedded (wavy Flaser w. mud drapes w. ripple lams common sharp upper and lower contacts carbonaceous roots more laterally spreading near top normally vertical plant fragments burrowed (horizontal and vertical) and bioturbated</p>	
907								<p>13.0   dark gray to black silty shale to siltstone to silty sand (vFL) well sorted micaceous thinly to very finely laminated ripple cross laminated to wavy bedded sharp upper contact gradational lower contact very abundant plant fragments very carbonaceous (mm-scale coal seams) between 948 and 958 siderite bands and cement slightly calcareous</p>	
917	Roue coal							<p>3.5   medium gray green to dark gray green (w. major mottling) siltstone to silty sandstone (vFL) moderate</p> <p>7.5   medium gray to dark gray silty sandstone to silty shale heterolithic bedded (wavy to thinly (sometimes cyclic or varved) and very thinly laminated sharp upper contact gradational lower contact carbonaceous root traces and vertical burrows at top debris throughout siderite</p> <p>20.5   dark gray to black siltstone silty sand to sandstone (vFL) lenticular to thinly (sometimes varved) to very thinly laminated (inclined 5-10 deg) gradational upper and lower contacts abundant plant debris throughout (some coal laminations) siderite nodules bands and cement throughout</p>	
927								<p>10.0   light gray to medium gray to dark gray siltstone to silty sand to sandstone (vFL-vFU) thinly laminated to heterolithic (Flaser wavy and wavy) bedded (evident bundles and wavy nature) convolute bedding and microfRACTURES reactivation surfaces common gradational upper contact sharp lower contact bioturbated horizontally burrowed abundant plant and wood debris siderite</p> <p>8.3   light gray to medium gray to dark gray silty sand to sandstone (vFL-FL) mudstone clasts at top alternating bimodal light and dark silt-sandstone thin thick laminations at bottom structureless to thinly and very thinbedded laminations with 5-20 deg inclination) to heterolithic (Flaser wavy and</p>	
937	Neutral coal							<p>17.2   medium gray to dark siltstone to silty sandstone to sandstone (vFL) thinly to very finely laminated (5-20 deg inclination) to locally heterolithic bedded (wavy and lenticular) convolute bedding reactivation surfaces sharp upper and lower contacts very abundant plant fragments (wood and leaves) vertically burrowed locally siderite nodules cement and slightly calcareous in areas McClouth Sandstone</p>	
947								<p>4.5   light brownish gray medium brown light gray to black silty sand to sandstone (EU-CL avg med grained) with siltstone intraclasts moderate to very well sorted</p> <p>1.5   light rusty brown white and light gray to medium gray</p> <p>3.8   medium gray limestone (mudstone) structureless to weathered and fractured heavily at bottom and slightly at top (possible overturned) sharp</p> <p>6.7   medium gray to dark gray silty sand to sandstone (vFL-EU) w. limestone intraclasts mod. sorted grain-supported structureless very convolute bedding thin silty sand laminations at base plant fragments in silty sand portion slightly pyritic</p>	
957									
967									
977									
987									
997									
1007									
1017	Warner Sandstone								
1027									
1037									
1047	McClouth Sandstone								

**Primary Rock Lithology**

- Shale
- Silt, Siltstone
- Sand, Sandstone
- Anthracite Coal
- Limestone

**Secondary Rock Lithology**

- Clayey, Argillaceous, clay
- Shaly, shale
- Silty, Silt
- Sandy, sand
- Cherty, chert
- Carbonaceous, Carbonized
- Anthractic
- Pyritic, pyrite
- Sideritic, siderite
- Calcareous

**Fossils**

- Fresh Water (F)
- Brackish Water (B)
- Marine (M)
- Plants (P)
- Leaves (L)
- Roots (R)
- Wood (W)
- Burrows (B)
- Larger Foraminifera, or fusulin (F)
- Few (F)
- Many (M)
- Broken (B)

**Sedimentary Structure Symbols**

**Depositional Structures**

- Cross Bedding
- Trough cross-bedding
- Ripples
- Planar, Horizontal ripples
- Lamination
- Parallel Laminations
- Stratification
- Horizontal bedding
- Parallel wavy bedding
- Flaser bedding
- Lenticular, linsen bedding

**Deformational Structures**

- Flame structure
- Nodules

**Erosional Structures**

- Stylolites