

TABLE OF GEOLOGICAL FORMATIONS

SYMBOL      UNIT                      LITHOLOGY

GUNSTEEL FORMATION (D66S)

## UPPER DEVONIAN TO MISSISSIPPIAN

DGGS	Undivided Gunsteel	- Shale: dark grey to black, silvery-grey (Gunsteel) weathering, laminated.
DGCH	Hanging wall Ribbon Chert	- Porcellanite: dark grey to black, silvery-grey weathering ribbon bedded (<cm), with graphitic shale partings and interbedded = DGCF.
DBBH	Hanging wall Barren Barite	- Barite: unmineralized, laminated, white to grey; grading to blebby, calcareous, in black Porcellanite; within DGCH. Contains large limestone concretions; may be distinguished from D68F by distinct striped-weathering laminae.
DGTH	Hanging wall Poker Chip Shale	- Shale to Porcellanite: dark grey, silvery-grey weathering, distinct graphitic partings >3 cm apart, commonly <1 cm; laminated, commonly with siltstone laminae.
DGPR	Pregnant Shale	- Shale to Porcellanite: dark grey to black silvery-grey to rusty weathering, silty; bedding thicker than 3 cm, massive to laminated; good slaty cleavage in outcrop; nodules and laminae of barite, pyrite and calcite.
DGDL	Distinctly Laminated Unit	- Rhythmically interlaminated on a scale of about 1 cm: siliceous siltstone, fine-grained laminated pyrite, black siliceous shale ± blebby barite.
DBMS	Massive Sulphide	- Pyrite, sphalerite ± galena: massive medium to coarsely crystalline, minor barite.
DBSB	Sulphides- Barite	- High grade sphalerite, galena and pyrite with <20% barite <60%; crudely laminated, crystalline.
DBBX	Barite Breccia	- Intraformational breccia of barite, often with siltstone fragments, locally coarse crystalline, with <40% irregular laminae and matrix of pyrite + barite.
DBBS	Barite- Sulphides	- Barite with <40% pyrite, >10% Pb + Zn: finely crystalline, irregularly to discontinuously interlaminated; minor barite nodules >1cm. diameter.
DGBP	Barren Pregnant Shale	- Shale to Porcellanite: black, moderately to very siliceous silty, graphitic So partings 3-10 cm; diffuse pyrite laminae, poorly to well cleaved, barren of Pb-Zn mineralization, grades into DGTF and DGCF.
DGTF	Footwall Poker Chip Shale	- Shale: dark grey to black, silvery weathering, distinct graphitic partings <3 cm apart commonly internally finely laminated, common siltstone laminae, same as DGTH.
DBBF	Footwall Barren Barite	- Barite: unmineralized, laminated, light grey rusty weathering grading to blebby, calcareous in Porcellanite, within DGCF.
DGCF	Footwall Ribbon Chert	- Porcellanite: dark grey to black, silvery-grey weathering, ribbon bedded (<5cm), with graphitic shale interlaminae and partings = DGCH.
DGGF	Graphitic Shale	- Shale: dark grey to black, rusty grey weathering graphitic, competent, moderately hard, laminated with discontinuous pyrite laminae, irregular planar cleavage.
DGSL	Silty Shale	- Silty shale: dark brown-grey, rusty brown weathering, medium hard to soft, massive to indistinctly laminated.

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**SILURIAN SILTSTONE**      (SS)

MIDDLE TO LATE SILURIAN

- SSSX                      - Siltstone: medium grey, dolomitic, laminated, includes intraformational breccia; commonly at gradational to sharp contact between Devonian shale and SS - paleo soil?
- SSH                      - Siltstone; shaly, recessive, laminated, variably calcareous.
- SSS                      - Siltstone: light orange-weathering, dolomitic, with common burrows, feeding fans and burrow mottling.
- SSQ                      - Sandstone: quartzose, with coral and sponge fragments; rhythmic, massive graded beds; interbedded with black siltstone and shale.
- SSL                      - Limestone: grey weathering, laminated or burrow mottled, silty - calcareous.

**SILURIAN CHERT**      (SRC)

EARLY TO MIDDLE SILURIAN

- SRC      Silurian      - Porcellanite: streaky white-striped, ribbon bedded, with black calcareous graptolitic shale  
Chert                      partings, some dolomitic siltstone and large limestone concretions.

**SILURIAN LIMESTONE**      (SRL)

EARLY SILURIAN

- SRL      Silurian      - Limestone, grey, rhythmic flaggy to blocky bedded, calcisiltite and fine calcarenite turbidites  
Limestone                      with graptolitic shale interbeds.

**SHALE FACIES OF ROAD RIVER GROUP**

EARLY TO LATE ORDOVICIAN

- ORQ      Quartzite      - Quartzose sandstone turbidites with minor turbidites with minor dolomite, carbonate fossil fragments and graptolitic shale interbeds.
- ORP      Rusty Shale      - Shale: black, rusty and buff to light grey weathering, graptolitic, commonly calcareous.
- ORD      Dolostone      - Dolostone: orange weathering, silty, = SSS; restricted to Gataga Trough.
- ORS      Silty Shale      - Silty shale to Siltstone: dark grey, tan to pink weathering, laminated, graptolitic, variably calcareous.