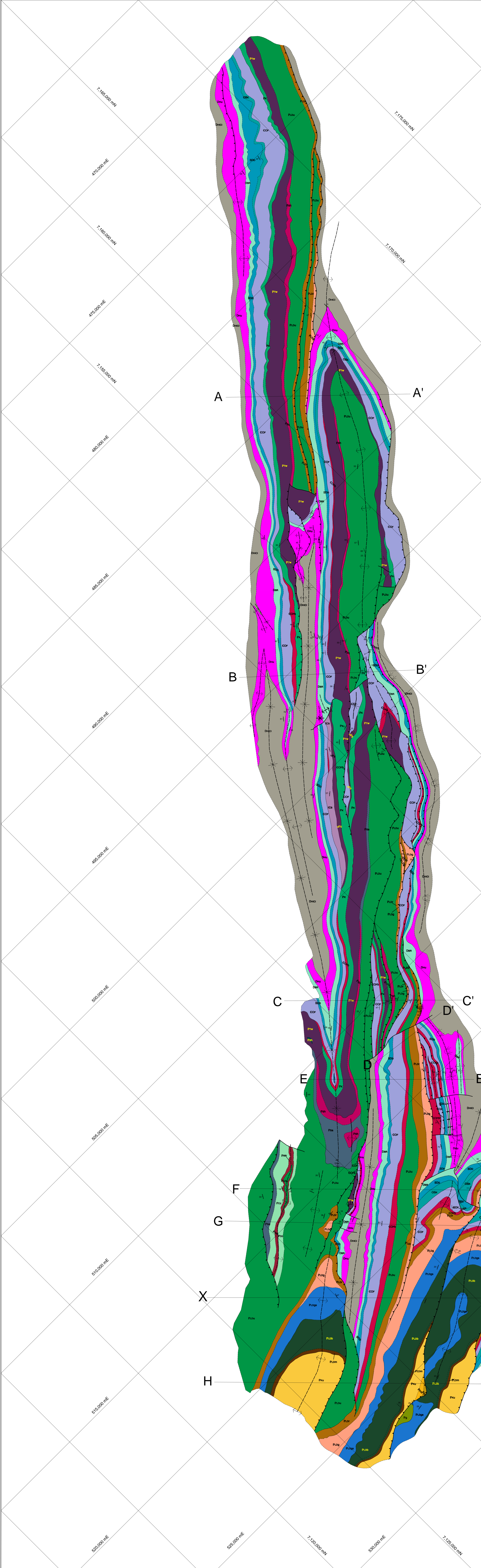
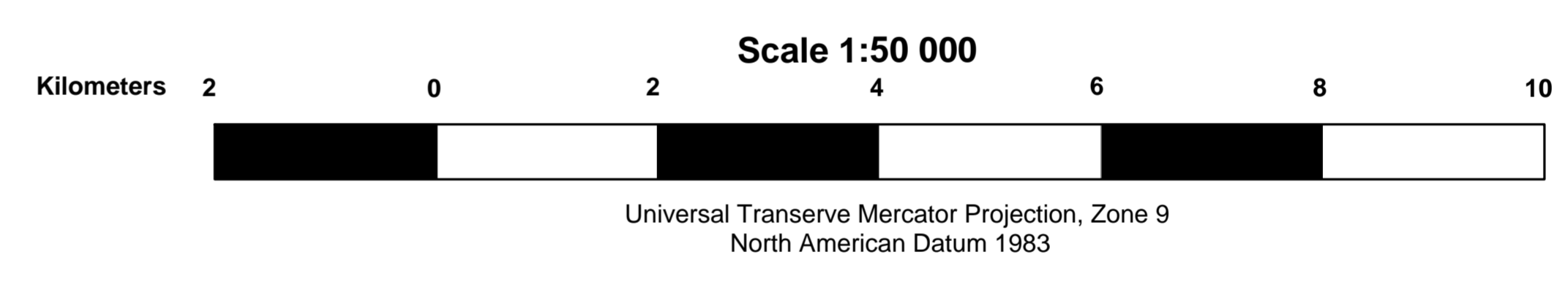
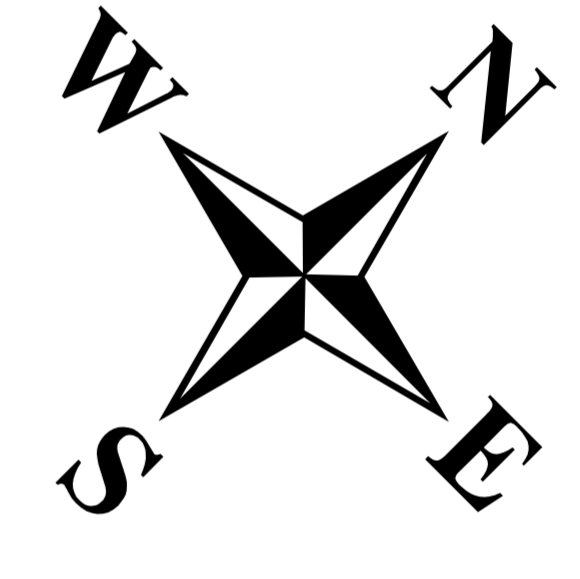


# LEGEND

- DEVONIAN**
- MIDDLE AND UPPER DEVONIAN**
- Dmci** HARE INDIAN, CANOL AND BASAL IMPERIAL FORMATIONS  
UNDIFFERENTIATED: Shale, partly black, siliceous, bituminous; minor limestone and siltstone
- MIDDLE DEVONIAN**
- Dm** HUME FORMATION: limestone, fossiliferous; minor shale; weathers dark grey to brown-grey
- LOWER AND MIDDLE DEVONIAN**
- Dm** BEAR ROCK FORMATION: limestone; limestone solution-breccia
- SILURIAN AND DEVONIAN**
- UPPER SILURIAN AND LOWER DEVONIAN**
- Sdb** DELORME FORMATION: dolostone, light and dark grey or brownish, weathers buff to orange, very fine-grained, well-bedded
- ORDOVICIAN AND SILURIAN**
- UPPER ORDOVICIAN AND LOWER SILURIAN**
- CSk** MOUNT KINDLE FORMATION: dolostone, grey to brownish grey, weathers medium grey to light grey, finely crystalline, thick to massive bedded, vuggy; distinctive grey and white chert nodules throughout; distinctive fauna includes orthocone cephalopods, stromatopora and corals (Halysites, Catenipora)
- CAMBRIAN AND ORDOVICIAN**
- UPPER CAMBRIAN AND LOWER ORDOVICIAN**
- COF** FRANKLIN MOUNTAIN FORMATION: dolostone, partly sandy, silty, argillaceous, predominantly pale grey, weathers light grey and buff to orange
  - COB** FRANKLIN MOUNTAIN FORMATION: 'basal red beds': sandstone, red shales, conglomerate, dolostone, chert
- EDIACARAN AND CAMBRIAN**
- UPPER EDIACARAN AND LOWER CAMBRIAN**
- ICB** BACKBONE RANGES FORMATION: quartz sandstone and siltstone, thin to thick-bedded, weathers yellowish grey
- EDIACARAN**
- MIDDLE EDIACARAN**
- ESB** SHEEPBED FORMATION: shale, weathers dark brown and brown-grey; minor siltstone, brown, laminated; typically coarsens upward; lower part contains thin beds of sandstone and pebble conglomerate
- CRYOGENIAN AND EDIACARAN**
- UPPER CRYOGENIAN AND LOWER EDIACARAN**
- ESK** KEELE FORMATION: dolostone, limestone, quartz sandstone, shale, conglomerate, weathers light grey to buff; varies compositionally from carbonate-rich to sandstone-rich
- CRYOGENIAN**
- ESW** TWITYA FORMATION: shale, grey-green to dark grey, weathers dark green to brownish grey; pyritic; minor siltstone, light grey; minor arenite, light green-grey to brown, parallel laminations; limestone (as laminations and bands within upper part of formation), weathers buff-orange to brown, contains oololiths of pale orange, oolitic dolostone, may include Rapitan Group
- RAPITAN GROUP Psh, Psa**
- ESZ** SHEZAL FORMATION: diamictite (tillite), weathers to orange-brown; diamictite, light green-grey to dark grey; stratified with mudstone, silty to sandy; unit contains pebbles, cobbles, and boulders or carbonate, altered basic volcanic rock, sandstone, chert, and mudstone, as well as rare metamorphic clasts transported from the Canadian shield
  - ESL** SAYUNEI FORMATION: siltstone, weathers dark purple to brown, thin laminated; sandstone; argillite, maroon to grey-green; contains wedge-shaped conglomerate and tillite members; near the top is hematite-jaspilite iron formation with dropstones
- COATES LAKE GROUP Pcc, Pnr, Pg**
- ECC** COPPER CAP FORMATION: limestone, light grey to buff, clastic, laminated to massive, graded bedding; dolostone, weathers orange to dark grey; interbeds of fetid shaly limestone, calcareous shale, and sandstone; in the upper portion, the dolostone contains layers of breccia, anhydrite, marl and conglomerate
  - ESR** REDSTONE RIVER FORMATION: siltstone, weathers pink, slaty, recessive; minor shale, gypsum, and gyproiferous siltstone; at top is a tan weathering sequence of interbedded mudstone, evaporates, and carbonates (the Transition Zone) which hosts copper showings
  - ESG** Gabbro, greenish black, medium-grained; occurs as dykes cutting the Katherine and Little Dal groups
- TONIAN**
- PLDu, PLDr, PLDg, PLDs, PLDb, PLDm** LITTLE DAL GROUP
  - PLDu** LITTLE DAL UPPER CARBONATE FORMATION: dolostone, orange brown and grey, thick-bedded, local domal stromatolites; oolitic limestone
  - PLDr** LITTLE DAL RUSTY SHALE FORMATION: siltstone and shale, red-brown, locally grey and green, pyritic and hematitic; sandstone at base
  - PLDg** LITTLE DAL GYPSUM FORMATION: gypsum and anhydrite, white; interbedded with shale, red; thin limestone marker bed in upper part
  - PLDs** LITTLE DAL GRAINSTONE FORMATION: dolostone, light grey, thick-bedded, oolitic and pelloidal; local columnar stromatolites
  - PLDb** LITTLE DAL BASINAL ASSEMBLAGE: (From base upward), dolostone, pale grey, oncoidal; limestone and shale, red-brown, mudcracked; dolostone containing small stromatolites and shale, red-beige, concretionary; prominent carbonate members; shale members
  - PLDm** LITTLE DAL MUDCRACKED FORMATION: mudstone, dark grey, brown or red; rare interbeds of sandstone, fine-grained; mudcracks and evaporate casts on bedding surfaces; near top is regional member of mudstone, orange brown, contains oolites and intraclasts
- KATHERINE GROUP Pku, Pkm, Pkl**
- Pku** KATHERINE UPPER DIVISION: quartz sandstone, light reddish, cross-bedded, mudcracked
  - Pkm** KATHERINE MIDDLE DIVISION: shale, siltstone and stromatolitic carbonate, weathers dark grey to yellow; capped by fine-grained sandstone, weathers maroon
  - Pkl** KATHERINE LOWER DIVISION: quartz sandstone, weathers pink, purple, and white, thin-bedded and flaggy; minor dolostone, light grey to white, weathers orange, fine-grained, laminated and massive

- Structural Symbols**
- Bedding: Younging direction unknown; known, overturned
  - Striation, slickenside
  - Foliation
  - Fold axis
- Faults**
- Tear fault: Defined, approximate
  - Thrust: Defined, approximate
- Folds**
- Axial trace: Approximate
  - Anticline: Defined, approximate
  - Syncline: Defined, approximate
  - Overturned syncline: Defined
- Geological Contacts**
- Defined, approximate, assumed
- References**
- Gordey, S.P., Roots, C.F., Martel, E., MacDonald, J., Fallas, K., MacNaughton, R., Leslie, C. and Fischer, B. 2008: Bedrock geology, Mount Edui (106A), Northwest Territories, Canada (1:125,000 scale) in progress.



**The Ten Stone Ranges Structural Complex**  
 NTS Sheet 106 A  
 Geology by: Justin D. MacDonald, 2009