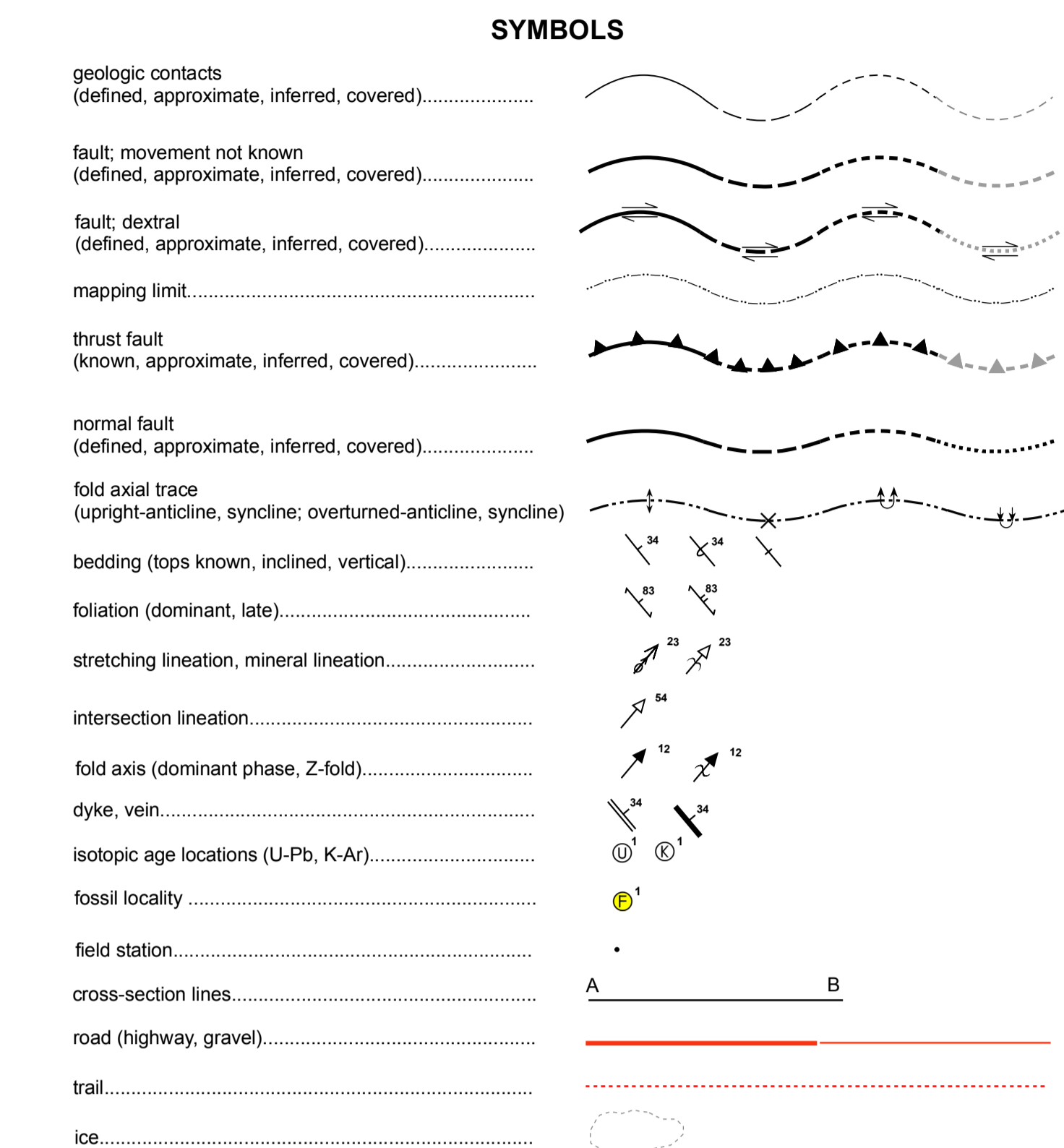


**LEGEND**

- QUATERNARY**
- Q unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluvial silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits
- INTRUSIVE ROCKS**
- EARLY CRETACEOUS**
- Kd **KLUANE RANGES SUITE:** medium- to coarse-grained, unfoliated, hornblende-biotite, quartz diorite to biotite granodiorite; difficult to distinguish from Cretaceous Klauane Ranges suite
- LATE TRIASSIC**
- Tgd medium-grained, salt and pepper hornblende, biotite granodiorite to quartz diorite; massive to slightly foliated at contact with country rock; difficult to distinguish from Cretaceous Klauane Ranges suite
  - Utu **KLUANE MAFIC-ULTRAMAFIC COMPLEX:** fine- to medium-grained, dark grey weathered pyroxene gabbro; dark green/black weathered peridotite, pyroxenite and rare dunites, locally strongly serpentinized and altered
- LAYERED ROCKS**
- WRANGELLIA**
- TRIASSIC**
- Nikolai formation*
- u1nv dark green/maroon weathered and fresh, massive to locally foliated, amygdaloidal and vesicular basalt flows; rare pillows, volcanic breccia and conglomerate locally developed near base of unit; breccia and conglomerate contain clasts of sedimentary and volcanic rocks of underlying Hasen Creek and Station Creek formations as well as rounded volcanic clasts typical of the Nikolai basalts
- PENNSYLVANIAN - PERMIAN**
- Skolai Group*
- Hasen Creek Formation*
- Phc1 light to medium grey, massive to bedded fossiliferous limestone; fossils include corals and crinoids
  - Phc2 interbedded dark grey and brown weathered siltstone, mudstone and medium- to coarse-grained sandstone; lower part contains volcanoclastic sandstones, tuffs and rare basaltic flows; rare dark grey to black chert beds and chert pebble conglomerate
- Station Creek Formation*
- PPSC interbedded volcanic breccia, agglomerate and volcanoclastic sandstone; light grey weathered, dark green to black fresh, pyroxene-phyric basalt flows, dark grey to black siltstone and light to dark grey limestone found near contact with Hasen Creek Formation
- Undifferentiated Skolai Group*
- PPS strongly metamorphosed and deformed mafic volcanic rocks, volcanoclastic sandstone, siltstone and mudstone; rare marie interbeds; ubiquitous quartz and calcite (± epidote) veins



**Isotopic Age Determinations**

Type	Station #	Age	Mineral	Interpretation	Reference
1	K-Ar WN-135-74	108±5	biotite	cooling	Stevens et al., 1982
2	U-Pb 06-SI-040	211.7±2.5	zircon	crystallization	R. Friedman, pers. comm., 2007
3	K-Ar W197	143.7±2.5	biotite	cooling	Farrar et al., 1988
4	K-Ar W154-102	114±4	biotite	cooling	Stevens et al., 1982
5	K-Ar WN-135-74	112±4	biotite	cooling	Stevens et al., 1982
6	K-Ar WN-135-74	115±5	hornblende	cooling	Stevens et al., 1982
7	K-Ar W17	55.0±1.6	biotite	cooling	Farrar et al., 1988
8	K-Ar W1	101.6±3.0	biotite	cooling	Farrar et al., 1988

**NOTE:** Geology for the area west of Edith Creek and south of Koidern River modified from Gordy and Makepeace (2001).

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**RECOMMENDED CITATION**

ISRAEL, S., COBBETT, R., and FOZARD, C., 2007. Bedrock geology of the Koidern River area, Yukon (parts of NTS 115F/9, 15, 16 and 115G/12) (1:50 000 scale). Yukon Geological Survey, Open File 2007-8. Digital cartography and drafting by Steve Israel, Yukon Geological Survey.

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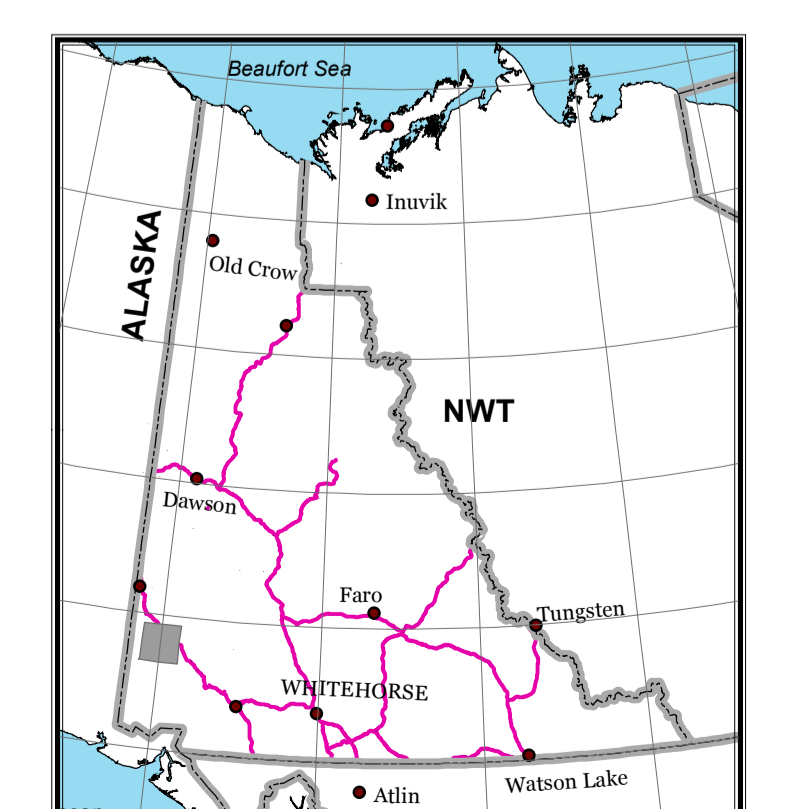
**Mineral Occurrences**

Yukon MINFILE (Deklerk and Traynor, 2005)

115F 034	Garlic prospect	Au	porphyry
115F 035	Nox	unknown	
115F 036	Hankins	unknown	
115F 038	Liberty	showing	
115F 039	Quebec	unknown	Au, Cu anomaly
115F 040	Duensing	unknown	
115F 041	Cats and dogs	showing	Cu ultramafic skarn
115F 042	Mexico	showing	
115F 057	Lep	drilled prospect	Zn, Cu skarn
115F 058	Down	unknown	
115F 103	Hajjey	unknown	anomaly

**Fossil Data**

Locality	GSC-ID	Material	Unit	Age Range	Reference
1	O-31402	bryozoan fragments	PhC	Permian or Pennsylvanian	Muller, 1967
2	O-31411	pelecypods, indent.	PPSC	Permian or Pennsylvanian	Muller, 1967
3	O-31391	corals, probably large corals	PPSC	Permian or Pennsylvanian	Muller, 1967
4	O-91694	algal structures	u1nv	Triassic	Dodds et al (1993)

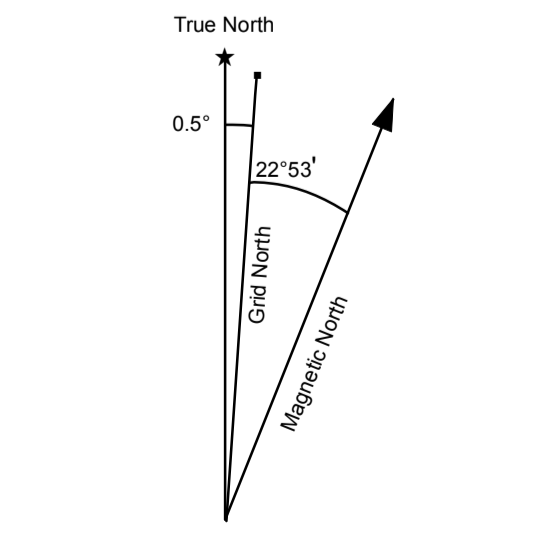
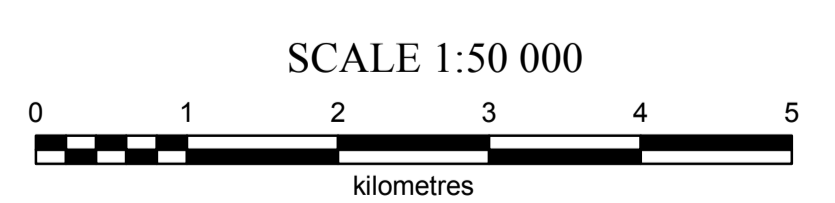


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ONE THOUSAND METRE GRID Universal Transverse Mercator Projection North American Datum 1983 Zone 7

CONTOUR INTERVAL 100 Feet Elevations in feet above Mean Sea Level

**BEDROCK GEOLOGY**  
**KOIDERN RIVER AREA**  
**YUKON**



115K/2	115K/1	115J/4
115F/15	115F/16	115G/13
115F/10	115F/9	115G/12

**Open File 2007-8**  
**Bedrock geology of the Koidern River area, Yukon (parts of NTS 115F/9, 15, 16 and 115G/12) (1:50 000 scale)**