

## Supplementary File S1 - Sample and measured section location information

Sample ID	Member	Geographic Location	Latitude	Longitude
PC1L-3.5m	Polychrome Member	Polychrome Mountain	63.52468° N	-149.9849° W
CANT-BASE-PC	Polychrome Member	Polychrome Mountain	63.5362° N	-149.8858° W
CANT-TOP-PC	Polychrome Member	Polychrome Mountain	63.5433° N	-149.8905° W
CANT-PC1-COMP	Polychrome Member	Polychrome Mountain (South side)	N/A (composite)*	N/A (composite)*
070618BK-01	Polychrome Member	Polychrome Mountain	63.54979° N	-149.90892° W
0716MR-02	Polychrome Member	Tattler Creek	63.5773° N	-149.6806° W
0816MR-01	Polychrome Member	Big Creek	63.6384° N	-149.6190° W
071920BK-01	Polychrome Member	Mt. Sheldon	63.58494° N	-150.11650° W
070418BK-01	Cabin Creek Member	Cabin Divide	63.5915° N	-149.9277° W
070819BK-02	Cabin Creek Member	Cabin Divide	63.57495° N	-149.91653° W
081019BK-01	Cabin Creek Member	Igloo Creek	63.62935° N	-149.57198° W
CANT-DM1-COMP	Cabin Creek Member	Double Mountain (North side)	N/A (composite)*	N/A (composite)*
CANT-PA1-COMP	Cabin Creek Member	Panorama Mountain (South side)	N/A (composite)*	N/A (composite)*

\*Composite samples are comprised of sandstone samples from throughout a given measured section. Therefore, they represent the entire section rather than a single sandstone bed/stratigraphic location. See text for details.

Note: the datum used for recording latitude/longitude of all samples is NAD83 Alaska Albers.

Measured section	Base Lat/Long	Top Lat/Long
PC1L	63.52468° N/ -149.9849° W	53.5258° N/-149.98435°W
PC1**	63.5362° N/-149.8858° W	63.5433° N/-149.8905° W
RC1	63.54597° N/-149.90922° W	63.55201° N/-149.90872° W
EF2	63.57751° N/-149.85367° W	63.57753° N/-149.85367° W
CAB01	63.59163° N/-149.92357° W	63.59280° N/-149.92479° W

\*\* Data from Trop (1996) and Ridgway et al. (1997)

Note: Location data are only recorded for measured sections that comprise the composite type section.

The locations of other measured sections referenced in this manuscript are shown in maps by Trop (1996) and Ridgway et al. (1997).