

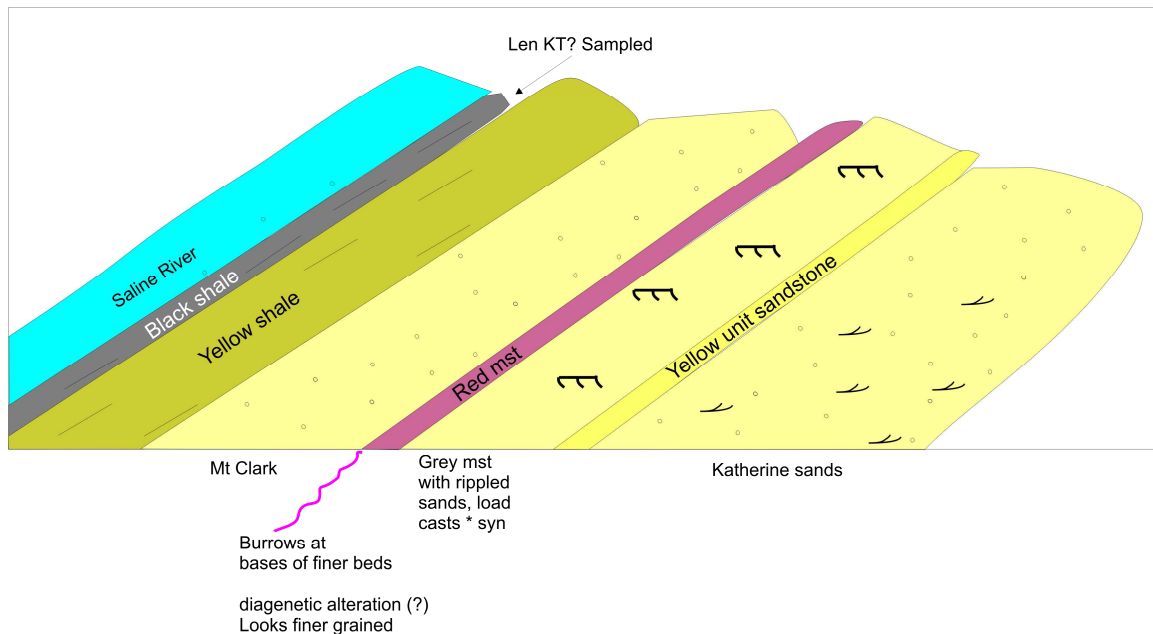
JULY 24th, 06 (Fan Creek)

STOP 1a, July 24th – Fan Creek (Proterozoic)

Section is located in Sans Sault Rapids map area (106H/01). Underlying Proterozoic Katherine and H5 formations, including red purple shale marker in Lower Katherine, [CRW_2428](#), [CRW_2427](#), [IMG_5575](#), stromatilitic massive dolomites i.e. H5 in Jennifer Canyon and cross-bedded quartzites and siltstones of Lower Katherine, [CRW_2428](#), [CRW_2429](#), [CRW_2473](#), [CRW_2474](#), [CRW_2475](#), [CRW_2480](#), [CRW_2481](#), [P7241027](#), [IMG_5581](#), [IMG_5580](#), [DSCN_12050002](#), [DSCN_12060003](#), [P7241010](#), [P7241011](#), [P7241012](#), [P7241013](#), [P7241014](#), and overlying Franklin Mountain dolomites, [CRW_2477](#), [IMG_5567](#), [IMG_5568](#), and [IMG_5569](#). Franklin Mtn overlain in outer canyon by Mt Kindle and Bear Rock, [IMG_5565](#) and [IMG_5566](#). Bedding orientation strike 258d, dip 45° measured by Len Gal on upper Katherine beds.

Overview of the complete section, [CRW_2423](#), [IMG_5573](#), [LPyle_068](#), [LPyle_069](#), with Proterozoic to left, Cambrian in center and Devonian to right. Overview of Cambrian and Devonian section, [CRW_2431](#), [LPyle_054](#), [P7241020](#), [P7241021](#). Measured section starts at base reddish-colored section in lower right of photo, [CRW_2433](#), [IMG_5587](#), [DSCN_12080005](#).

STOP 1b, July 24th – Fan Creek (Cambrian)



0.0m-4.0m 4.0m [IMG_5587](#) (lower, partially covered),
interlaminated, interbedded black fissile shale and greenish grey-colored flaggy siltstone,

DSCN_12160011 (lower left), siltstones pinch and swell. Beds dipping 29d East and striking 134d to the NE.

4.0m-9.5m 5.5m Red-colored siltstones, laminated on a mm and cm scale, IMG_5587 (lower), IMG_5589 (lower), IMG_5590 (lower, central left background), IMG_5591, IMG_5607, IMG_5608, IMG_5611, P7241017, occasional extensive mudcracks on snake-eye ripple laminated interval, IMG_5592, IMG_5593, IMG_5594, IMG_5595, IMG_5596, IMG_5597, LPyle_070, LPyle_071, LPyle_072, P7241015, P7241016.

9.5m-9.70m 0.2m Contact zone of grey green-colored shale and thin greenish, cross-bedded sandstone, IMG_5600, IMG_5601, IMG_5602, IMG_5603, IMG_5604, IMG_5606 (left). Possibly this is basal Mount Clark facies abruptly overlying “red beds” and black shale of upper Katherine Group?

9.7m-28.7m 19.0m Blocky fine-grained quartzitic sandstone, grey, Sample: 06-JT-01-01. Becomes medium grey to green-colored upwards, occasional skolithos bioturbation, glauconitic, cross-bedded ~20-30cm thick beds with interbedded green siltstones, DSCN_12170012, DSCN_12180013, LPyle_077, LPyle_080. Sample: 06-JT-01-02, beds dipping 31d and striking 127degrees. IMG_5589, IMG_5590 (upper), IMG_5591, IMG_5598, IMG_5599, IMG_5606 (upper), IMG_5609, IMG_5610, CRW_2445, DSCN_12090006, DSCN_12100007, DSCN_12110008, DSCN_12120009, DSCN_12190014, LPyle_074. At upper waterfall and near-helicopter small outcrop show medium to coarse-grained sandstone filled with large leached vugs, CRW_2446, Sample: 06-JT-01-06, IMG_5612 (uppermost), IMG_5613, IMG_5615, IMG_5574 (mid right-center), CRW_2423 (lower center-left), at waterfall CRW_2424, CRW_2448, CRW_2447, DSCN_12220017, DSCN_12230018, DSCN_12240019, DSCN_12250020, DSCN_12260021, Sample: 06-JT-01-05, near helicopter CRW_2462, CRW_2463. Heavily bioturbated with horizontal and vertical burrows CRW_2464, P7241018, P7241019, and sampled. Samples: 06-JT-01-07, 06-JT-01-08, 06-JT-01-09 and 06-JT-01-10. Visible porosity and permeability in weathered, pale greenish-colored sandstones. Section coordinates: 530064.59, 7226918.41 @ glauconitic sandstone, DSCN_12040001, DSCN_12320027, DSCN_12330028, DSCN_12340029.

28.7m-48.7m 20.0m Interbedded siltstone, shales and fine-grained sandstones, flaggy in outcrop and ochre-colored, occasionally stromatolitic layers, multi-colored, CRW_2466, CRW_2467, CRW_2468, CRW_2469, CRW_2449, CRW_2450 (lower), CRW_2452 (mid-lower), DSCN_12210016, DSCN_12280023, DSCN_12300025, DSCN_12350030, LPyle_081, LPyle_082, LPyle_084, LPyle_085, LPyle_086, LPyle_087, LPyle_088, LPyle_089.

48.7m-51.7m 3.0m Recessive, bedded shale and? black-weathering medium-grained sandstone, overlying ochre-colored beds, appears to have an unconformable lower surface, CRW_2452, CRW_2456, CRW_2458, CRW_2455, CRW_2454, LPyle_090. Section coordinates: 529948.97, 7226910.40 @ dark grey shale at top of Mount Cap.

51.7m-91.7m 40.0m Overlain by medium grey-pink-yellow recessive interval, likely Saline River formation, **CRW_2452**. Interbedded on a cm scale and apparently transitional to overlying Franklin Mountain formation, **CRW_2453**, **DSCN_12290024**, **P7241025**.

40.0m-124.0m 84.0m Saline River Formation is 84 m thick.

End-of-section.

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Fan Creek Section

Section Description: Section includes upper Katherine Group unconformably overlain by ?Mount Clark, Mount Cap, Saline River, and Franklin Mountain formations (Mtn. River folder, photo 0899). Section is located in Sans Sault Rapids map area (106H/01). Measurement began at the base of the ?Mount Clark/Mount Cap Formation within a gully west of the main canyon. Orientation 258/45° measured by Len Gal on upper Katherine beds. Upper Mount Cap exposed in main canyon, but lower part is best seen in west gully.

Section coordinates: 530064.59, 7226918.41 (coordinates of glauconitic sandstone) and 529948.97, 7226910.40 (dark grey shale at top of Mount Cap); coordinates taken by Len Gal

Unit	Description	Unit thickness (m)	Cumulative thickness (m)
12	Dolostone: light grey, weathers yellowish grey; thin to medium bedded; finely crystalline; planar and wavy (algal or microbial) laminae; some ripple cross-laminae; laminites interbedded with beds containing laterally linked hemispherical stromatolites and rip-up clasts (photos 0123, 0128, 0132) 06LP-24-04 cono (15 m above formation base; NTGO sample): dolostone: medium grey dolomudstone; overlies stromatolitic bed	15.0	
11	Conglomerate: LG to describe and confirm thickness; quartz sandstone to conglomerate	?1 m	

Incomplete thickness of Franklin Mountain Formation is 20 m.

10	As Unit -8	8.0	124.9
9	Covered interval	9.0	116.9
8	Siltstone, shale: light greenish grey, weathers grayish yellow green; thin bedded; gypsum layers, salt casts, solution breccia beds (photo 0120, 0121)	13.5	107.9
7	Covered interval: covered by light red and pale	53.5	94.4

Total thickness of Saline River Formation is 84 m.

6	Dolostone: appears in place, 40 cm thick, brecciated	0.4	40.9
5	Covered interval	3.5	40.5

4	Sandstone: orange weathering, minor dolostone, green shale and fault breccia (photo 0135) containing green shale chips	12.0	37.0
3	Covered Interval	3.0	25.0
2	Sandstone: weathers moderate red, basal 50 cm similar to Mount Clark facies, well cemented quartz sandstone; vuggy weathering, sideritic-rimmed vugs in quartz sandstone at 15 m (Mtn. River folder, 0896); also beds of olive green weathering, "porous" sandstone with abundant horizontal burrows (photos 0116, 0117, also Mountain River folder, photos 0893, 0894)	21.0	22.0
1	Siltstone: light red, weathers light to moderate red; thin bedded; overlies syneresis-cracked black shale and pale yellowish brown fine-grained sandstone that has ripple marks and abundant load casts (photos 0112-116)	1.0	1.0

Incomplete thickness of upper Katherine Group is 1.0 m.
Total thickness of Fan Creek Section is 124.9 m.

Upper Katherine Group not measured. On the east side of Fan Creek, a slump block provides better exposure of the uppermost Katherine Group. Black shale contains syneresis cracks (sampled for acritarchs-****unlabelled sample should read 06LP-FC-01**). Black shale is overlain by a 20 cm bed of wavy laminated, orange weathering dolostone, in turn overlain by yellowish brown siltstone and shale as Unit -1 in west gully. Upper 1 m of "red beds" or light to reddish brown siltstone unit is sharply overlain by 5 cm bed of sandstone with red shale chips and then the basal Mount Clark 50 cm thick bed of iron-stained, well cemented quartz sandstone containing green shale chips (photo 0136).