

## PETE CREEK

September 8, 2006: Pete Creek is a small side creek joining Katherine Creek just below Katherine Creek falls, [CRW\\_2035](#), [CRW\\_2036](#), [DSC00080](#), [IMG\\_3755](#), [IMG\\_3759](#), [IMG\\_5279](#) where the falls fall over the Dolomite debris flow complex at the top of the Upper Katherine, [IMG\\_3756](#), which is overlain by the red-green shale defined in Jennifer & Graffe Canyons. Creek follows a fault trend upstream, where Proterozoic is overlain by a Cambrian Mt Cap proximal turbidite canyon-fill complex ending in a box canyon, [IMG\\_3754](#), [IMG\\_3758](#), [IMG\\_3791](#), [IMG\\_3793](#).

**GPS @ start: 09 567391 7202425**, located within Proterozoic “fluvial sands” at Jennifer Canyon, directly overlying purple-colored “red bed” quartzites of the H5. Section starts at brown shale directly underlying purple quartzites, [DSC00079](#), [IMG\\_3760](#), [IMG\\_3761](#), [IMG\\_3762](#), [IMG\\_3763](#), [IMG\\_3764](#), [IMG\\_3765](#), [IMG\\_3768](#), [IMG\\_3771](#), [IMG\\_3772](#), [IMG\\_3773](#), [IMG\\_3774](#), [IMG\\_3776](#).

00.0m-35.0m	35.0m	Light pink to red-colored fluvial sand, tightly-cemented to quartzite, with ripple laminations and swaley crossbeds, <a href="#">DSC00081</a> , <a href="#">DSC00082</a> , <a href="#">DSC00083</a> , <a href="#">IMG_3770</a> . Red splotchy weathering throughout. <b>Sample: 06-JT-01-01 (Sep 8)</b>
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35.0m-43.0m	8.0m	Well-bedded light brown fluvial sandstone, beds up to 30cm, cross-bedded, cemented quartzite, <a href="#">DSC00085</a> , <a href="#">IMG_3767</a> , <a href="#">IMG_3769</a> . <b>Sample: 06-JT-01-02 @ 35.6m.</b>
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43.0m-43.5m	0.5m	Dune cross-bedded conglomeratic sand with up to cobble-sized rounded clasts in basal lag, <a href="#">IMG_3777</a> , <a href="#">IMG_3778</a> , <a href="#">IMG_3779</a> . Appears to be basal Cambrian transgressive lag, lowest Mt Cap formation, <b>Sample: 06-JT-01-03 (Sep 8)</b> , although there is no apparent bioturbation or fossil presence to confirm Cambrian versus Proterozoic.
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43.5m-49.5m	6.0m	Predominately covered section of recessive dark red and grey-green shale interbedded with 10cm thick coarse-grained porous sand, <b>Sample: 06-JT-01-04 (Sep 8)</b> that is wave-rippled on top. Overlying is a 15cm thick bed of finely-laminated sand, <b>Sample: 06-JT-01-05 (Sep8)</b> and a grayish green mudstone with salt casts, <b>Sample: 06-JT-01-06</b> , <a href="#">IMG_3780</a> , <a href="#">IMG_3781</a> .
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49.5m-60.0m	10.5m	Covered recessive section, <a href="#">IMG_3782</a> .
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60.0m-74.0m	14.0m	Parallel-laminated alternating orange-weathering fine sand to massive silt and shale, beds average 10cm in thickness, <a href="#">IMG_3784</a> , <a href="#">IMG_3785</a> . Thinner cross-bedded sands and becoming shalier upwards. Upper part of section partially covered, <a href="#">DSC00087</a> . No bioturbation seen in any of the beds or horizontal surfaces, <a href="#">IMG_3783</a> , <a href="#">IMG_3786</a> .
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74.0m-76.0m            2.0m            Bedded fine-grained sand to silt. Dark brown in color. No bioturbation seen. Forms base of large cliffs extending vertically into clearly bioturbated Cambrian sands, [DSC00093](#). GPS: 09 567406 7202568, elevation 938m.

76.0m-98.0m            22.0m            Massive, thick-bedded fine to medium-grained sands, occasionally coarse at base, 100% sandstone with no shale interbeds, [IMG\\_3787](#), [IMG\\_3788](#), [IMG\\_3790](#). Sands are thicker-bedded at the base of the cliff section (average 2m) becoming finer-bedded upwards (average 20cm), [DSC00088](#), [DSC00089](#), [IMG\\_3792](#). Cliff-forming with abundant slab overhangs that show abundant horizontal burrowing, [DSC00090](#), [IMG\\_3794](#), [IMG\\_3795](#), [IMG\\_3796](#), [IMG\\_3806](#), as do slabs fallen to the valley floor, [IMG\\_3807](#), [IMG\\_3808](#), [IMG\\_3809](#), [IMG\\_3815](#). Occasionally 1-3cm at base of beds is glauconitic, [IMG\\_3801](#). Bioturbation concentrated in upper third of beds. Trough cross-bedding sands cutting off vertical skolithos burrows, [DSC00091](#), [DSC00092](#), [IMG\\_3797](#), [IMG\\_3798](#), [IMG\\_3799](#), [IMG\\_3800](#), [IMG\\_3802](#), [IMG\\_3803](#), [IMG\\_3804](#), [IMG\\_3805](#). Sands white to tan. Fallen blocks showing clear vertical sorting with coarse pebble lag at base and fining upwards, [DSC00094](#), [IMG\\_3810](#), [IMG\\_3811](#), [IMG\\_3812](#). Micropaleo Sample: 06-JT-01-07 (Sep8) and burrowed sands in Sample 06-JT-01-08 (Sep8). GPS at end of section: 09 0603473N 7240861W.

Returning ~1km south to Katherine Creek the visible Mt Cap section is thinner sands, with green shales predominating, i.e. a “typical” Mt Cap section we see along cliff-tops in Katherine and Dodo Canyons. Believe this may be a proximal extension of the interpreted turbidite canyon fill section seen at Graffe Creek.