

Watercourse Crossing	Km Marker <sup>1</sup>	UTM North Zone 8 NAD 83 <sup>2</sup>	UTM East Zone 8 NAD 83 <sup>2</sup>	Watercourse Name	Minor (<2.5m) / Medium (2.5 – 5m) / Major (>5m) Crossing <sup>3</sup>	Bankfull Width (m) <sup>4</sup>	Notes From June 2012 Field Trip
1	1.3	7591582.5	550662.7		Medium	Undefined	Move crossing 0.125km north.
2	1.7	7591883	550673.7		Minor	5.2 <sup>AW</sup>	
3	2.4	7592398.8	550673		Major	3.4 <sup>AW</sup> - 18.2 <sup>BB</sup>	Move crossing 25m west.
4	3.2	7593261	550725		Major	3.6 <sup>AW</sup> - 6.2 <sup>BB</sup>	Move crossing 20m west
5	3.9	7594080.6	550769.3		Minor	2.2 <sup>AW</sup>	
5a	4.1	7594216.8	550775.9		Minor		0.125 km north of Crossing 5.
6	6	7595990	550840.3		Minor	0.3 <sup>AW</sup>	No flow visible
7	7.1	7596749.4	550501		Medium	5.2 <sup>AW</sup>	Looks pretty dry, 3m.
8	7.9	7597691.6	550596.4		Medium	7.2 <sup>AW</sup>	0.875km north of original GPS point (previous input error).
9	8.4	7598262.4	550523.7		Medium	Undefined	
10	9.1	7598908	550435.1		Minor	4.3 <sup>AW</sup>	
11	9.4	7599270.4	550486		Minor	8.3 <sup>AW</sup>	
12	11.1	7600896.8	550275.7		Medium	9.6 <sup>BB</sup> - 14.4 <sup>AW</sup>	Move crossing 25m west.
12a	12.2	7601874.3	550435.4		Minor		1.2 km north of KM 12; might need a crossing.
12b	13.2	7602919	550397.6		Minor		
13	13.3	7602970.9	550405.3		Medium		Requires 2 crossings, 2nd added 0.625 south of Crossing 13.
13a	17.1	7606565.1	551286		Major	9.7 <sup>AW</sup>	Place crossing as far west as possible but not in lake. 0.1875 km north of KM 14 to 0.25km north of KM 15: 6m wide - place as far west as possible, 1:1 side slope.
14	19.1	7608105.2	552204.1		Minor	8.1 <sup>AW</sup>	Wet, little flow.
15	22	7610798.2	553224.3		Medium	19.1 <sup>AW</sup> - 32 <sup>HWL</sup>	No channel, but wet. Really wide flood plane, 30m. Move Crossing 5 m west.
16	23	7611749.4	553249.7		Minor	5.3 <sup>AW</sup>	Willow's, low flow.
17	23.4	7612078.4	553393		Minor	11.4 <sup>AW</sup>	
17a	24.4	7612932.5	553996.3		Minor		0.5km north-east of KM 24; might need a crossing, 3m wide.
18	25.9	7613960.5	554812.3		Major	7.0 <sup>AW</sup> - 15 <sup>BB</sup>	Will require a bridge.
18a	26.3	7614163.6	555252.9		Minor		0.5km north-east of Crossing 18; requires a new crossing.
19	26.5	7614242.1	555439.3		Medium	Undefined	
20	27.2	7614505.2	556052.6		Minor	2.5 <sup>BW</sup>	Low flow.
20a	27.4	7614575	556215.7		Minor		0.1875km north-east of Crossing 20; requires a new crossing.
21	27.9	7614794.5	556653.9		Major	4 <sup>BB</sup>	0.0625km south-west of KM 28: significant water

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							course, 3m+ wide; possible bridge, 2nd tier size
21a	29.6	7616111.8	557682.1		Minor	Undefined	Small flow
22a	31.7	7618190	558235		Medium	15.4 <sup>BW</sup>	Move 0.25km east. 3m+ tier zones.
22b	36.5	7622601.4	558808.1		Minor		0.5 km north of KM 36. No flow.
23a	40.2	7626159.1	559205.7	Trail Valley Creek	Major	2.4 <sup>BW</sup> - 31 <sup>HWL</sup>	Possible bridge, 6 m bank to bank 20m+ floodplain
24a	42.3	7628183.6	558909.7		Medium	17.9 <sup>BW</sup>	Move 0.125km north-west. Wide, shallow with flow evident, similar to Crossing 15.
24b	42.6	7628457.7	558985.1		Minor		0.25km North/East of Crossing Number 24a, possible crossing. Wet, no flow
25	43.4	7629151.2	559109.7		Medium	4.2 <sup>BW</sup>	5m wide, small or no flow visible.
26	44.9	7630517	558691.1		Minor	Undefined	No Flow visible
27a	46.5	7632068	559101.2		Medium	2.3 <sup>BW</sup>	Small flow, but wet. Similar to Crossing15.
27b	47.9	7633289.9	558941.7		Minor	Undefined	No flow visible.
27b2	48.9	7634125	558601.2		Minor		1km north-west of Crossing 27b, there is flow.
27c	49.9	7634851.9	558126.7		Minor		0.875km north-west of KM 49: crossing, 2m wide and flowing
28a	53.7	7637976.8	558393.7		Medium	13 <sup>BW</sup>	Small, approximately 3m wide
29	54	7639784.4	558077.1		Minor	Undefined	Might not need crossing.
29a	55.3	7639764.9	558215.6		Medium	10.4 <sup>HWL</sup> - 21 <sup>BW</sup>	Better crossing 0.125km west, but would make worse road.
30a	56.3	7640375	558768.9	Hans Creek	Major	13.7 <sup>BW</sup>	Hans Creek. Many options of where crossing could be 0.375km north of KM 59-but bad ground no crossing possible. 0.125km south of KM 62: there is no water crossing.
31	67.4	7648988.4	563200.3	Zed Creek	Major	11.7 <sup>BW</sup> - 26 <sup>BB</sup>	Zed Creek. Current Location okay, but could use further review of crossing location.
33	75.9	7655704.5	566405		Medium		0.125 south-west of KM 76, there is a water crossing.
33a	77.3	7656658.2	567344.5		Minor	18 <sup>BW</sup>	No flow visible.
33b	77.6	7656751.2	567687.8		Medium	10 <sup>BW</sup>	Wide and wet.
34a	80	7657822.5	569590.1		Minor	Undefined	No flow, but wet. 0.25km north of KM 81: bad ground no crossing.
34a2	83.5	7660514.1	571477.3		Minor		0.5km south-west of KM 84: water crossing.
34b	84.1	7660491.3	572162.8		Minor	4.5 <sup>BW</sup>	No crossing.
34c	85.9	7661852.5	573359		Minor		Possible crossing: 0.031km south-west of KM 86
34e	87.1	7662850.2	573747.3		Minor	1.6 <sup>BW</sup>	
35a	89.8	7664307.7	575405.8		Major	8.5 <sup>BW</sup> - 12.2 <sup>HWL</sup>	5m-7m; needs review.

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36a	94.1	7665217	578796				
37	95	7665694.6	579578.6			1.6 <sup>AW</sup>	
37a	96.3	7666601.3	580529.3			3.3 <sup>AW</sup>	
38a	102.8	7672454.3	582062			24.9 <sup>AW</sup>	
39	108.7	7676964.7	583809.3			8.7 <sup>AW</sup>	
39a	112.9	7680470.3	583227.8		Medium	4.3 <sup>AW</sup>	Bad ground but no flow visible. EBA EIS states that this crossing was moved.
39b	115.1	7683007.6	582871.8		Minor	6.4 <sup>AW</sup>	Small flow.
39c	115.9	7683632.1	582784.8		Minor		No flow visible.
39d	117	7684749	582483.9		Minor		0.0625km north-east of KM 117: water crossing.
A1	106.2	767885	582840			6.8 <sup>BW</sup>	
A2	103.4	7676323	579011		Minor	2.1 <sup>BW</sup>	No Flow visible
A2a	108.1	7678002	582172		Medium		KM 108 3m+, crossing 0.375km north-west of KM 107: bad ground - no crossing here.
A3	101.1	7674377	577863		Major	9.3 <sup>BB</sup> -13.5 <sup>BW</sup>	4m-5m flowing.
A6	98	7671432	577977		Minor	6.4 <sup>BW</sup>	
A7	98.3	7671724	577770		Minor	Undefined	Input error. Location is not on route. Low flow.
A8	98	7671470	577954		Minor	Undefined	Drainage only, not a crossing.
A9	96.2	7669874	577748		Minor	7.3 <sup>BW</sup>	No Flow visible.
A10	94.3	7668536	576532		Minor	Undefined	No Flow visible.
A11	93.9	7668140	576435		Minor	Undefined	No Flow visible.
A12	93.4	7667618	576315		Medium	22 <sup>BW</sup>	Wide, wet, little flow.
A13	90.2	7664634	575975		Minor	7.2 <sup>BW</sup>	
Tuk 1 <sup>5</sup>	118.4	582491	7687628				
Tuk 2	120.2	581290	7688591				
Tuk 3	120.3	581158	7688888				
Tuk 4	122.5	579313	7690396				
Tuk 5	126.4	577660	7693145				
Tuk 6	127.5	577475	7694082				
Tuk 7	128.0	577385	7694422				
Tuk 7b	129.7	577025	7696021				
Tuk 8	133.9	577431	7699375				

<sup>1</sup> Measured from Inuvik towards Tuk. Measured based on coordinates.

<sup>2</sup> Coordinates taken on ground. Crossings visited in different years by different crews. Slight deviations possible.

<sup>3</sup> Assessed by Stantec as follows:

*These designations are intended to aid in the categorization of the crossings for ease of understanding and categorization. The initial categorization was carried out in September of 2009, at low flow conditions. The table was re-evaluated in June 2012 at near freshette conditions. Finalization of the categories will be carried out following completion of the August 2012 Hydrotechnical Survey.*

*Minor crossings were designated in that manner originally due to the fact that they clearly had flow at least some times of the year, but the visual width and depth of the water flow made it clear that the amount of flow was minimal.*

*The Major crossings were similarly clearly identifiable visually by the visual width and apparent water volume flow in it that they would need to be crossed with a bridge founded on a permanent foundation, either single span or possibly multi span bridge.*

*The Medium or intermediate crossings fall in between those two categories. It was not possible to confirm whether the apparent width and flow was sufficient to require a bridge or a single culvert, or whether a possible intermediate approach such as a multiplate culvert or a short span bridge would be required.*

<sup>4</sup> Bankfull Width (m)<sup>BW</sup> or Average Channel Width (m)<sup>AW</sup> or Bank to bank Width (m)<sup>BB</sup> / BB at some instances measured at visible High Water Level<sup>HWL</sup>. Measurements were taken in different years: AW in 2010, BW in 2011 and BB (HWL) in 2012.

<sup>5</sup> On existing Tuk to Source 177 Road.