

Appendix G

COTTER RIVER CROSS-SECTIONAL DATA

Table G-1 Spur Hole Site

Cross-section 1			Cross-section 2			Cross-section 3			Cross-section 4			Cross-section 5		
Ch	H	SC	Ch	H	SC	Ch	H	SC	Ch	H	SC	Ch	H	SC
0.00	99.55	9.0	0.00	98.92	9.0	0.00	99.53	9.0	0.00	99.17	9.0	0.00	99.17	9.0
0.50	99.43	9.0	0.50	98.83	9.0	0.50	98.76	9.0	0.50	99.02	9.0	0.50	99.02	9.0
1.00	99.01	9.0	1.00	98.73	9.0	1.00	98.66	9.0	1.00	98.82	9.0	1.00	98.82	5.0
1.50	98.83	5.3	1.50	98.46	7.0	1.50	98.59	2.0	1.50	98.74	7.0	1.50	98.88	5.0
2.00	98.80	5.9	2.00	98.52	7.0	2.00	98.40	7.0	2.00	98.98	7.0	2.00	98.97	5.0
2.50	98.64	5.8	2.50	98.41	7.0	2.50	98.14	7.0	2.50	98.65	7.0	2.50	98.97	5.2
3.00	98.56	5.2	3.00	98.67	7.0	3.00	98.17	7.0	3.00	98.44	3.0	3.00	98.96	5.1
3.50	98.63	5.4	3.50	98.69	7.0	3.50	98.24	6.6	3.50	98.35	5.0	3.50	98.91	5.1
4.00	98.37	5.9	4.00	98.03	6.9	4.00	98.17	6.5	4.00	98.42	5.7	4.00	98.93	6.7
4.50	98.27	6.0	4.50	98.05	6.8	4.50	98.55	7.0	4.50	98.27	5.7	4.50	98.77	6.7
5.00	98.25	5.9	5.00	98.12	5.8	5.00	98.24	6.8	5.00	98.45	5.8	5.00	98.51	6.0
5.50	98.38	5.8	5.50	98.09	5.9	5.50	98.26	6.0	5.50	98.44	5.7	5.50	98.55	5.5
6.00	98.41	5.7	6.00	98.14	5.9	6.00	98.29	5.9	6.00	98.38	5.6	6.00	98.59	5.7
6.50	98.56	8.0	6.50	98.18	6.3	6.50	98.40	5.8	6.50	98.39	5.7	6.50	98.64	5.7
7.00	98.67	8.0	7.00	98.18	5.9	7.00	98.47	6.2	7.00	98.43	6.6	7.00	98.57	5.2
7.50	98.64	8.0	7.50	98.25	5.9	7.50	98.49	5.0	7.50	98.43	6.2	7.50	98.65	5.3
8.00	98.69	8.0	8.00	98.19	6.1	8.00	98.46	5.9	8.00	98.40	5.4	8.00	98.61	5.2
8.50	98.89	8.0	8.50	98.23	5.8	8.50	98.41	5.7	8.50	98.37	6.3	8.50	98.48	5.6
9.00	99.14	9.0	9.00	98.21	5.8	9.00	98.45	5.8	9.00	98.36	6.8	9.00	98.42	5.6
9.50	99.11	9.0	9.50	98.28	6.2	9.50	98.39	5.3	9.50	98.44	6.6	9.50	98.43	5.4
10.00	99.15	9.0	10.00	98.28	6.1	10.00	98.30	5.8	10.00	98.42	5.6	10.00	98.49	5.7
10.50	99.18	9.0	10.50	98.34	5.9	10.50	98.30	5.8	10.50	98.43	5.7	10.50	98.56	5.8
11.00	99.23	9.0	11.00	98.27	6.1	11.00	98.29	5.2	11.00	98.40	5.4	11.00	98.43	5.6
11.50	99.40	9.0	11.50	98.62	7.0	11.50	98.26	5.4	11.50	98.48	5.7	11.50	98.47	5.6
12.00	99.62	9.0	12.00	98.38	5.9	12.00	98.26	5.6	12.00	98.49	6.7	12.00	98.36	5.7
12.08	100.0	9.0	12.50	98.41	5.9	12.50	98.24	5.4	12.50	98.92	7.0	12.50	98.26	5.8
			13.00	98.56	6.8	13.00	98.30	5.5	13.00	99.02	7.0	13.00	98.36	5.7
			13.50	98.45	6.0	13.50	98.27	5.2	13.50	98.84	7.0	13.50	98.27	5.4
			14.00	98.45	8.0	14.00	98.31	6.6	14.00	98.63	6.7	14.00	98.29	5.6
			14.50	98.41	6.8	14.50	98.44	6.6	14.50	98.55	5.2	14.50	98.32	5.6
			15.00	98.76	7.0	15.00	98.48	6.4	15.00	98.60	5.6	15.00	98.41	5.4
			15.50	98.72	5.5	15.50	98.46	5.2	15.50	98.54	5.7	15.50	98.47	5.3
			16.00	98.90	6.1	16.00	98.45	5.8	16.00	98.60	5.5	16.00	98.56	5.0
			16.50	98.90	6.0	16.50	98.41	5.4	16.50	98.62	6.2	16.50	98.62	5.0

Appendix G

Cross-section 1			Cross-section 2			Cross-section 3			Cross-section 4			Cross-section 5		
Ch	H	SC	Ch	H	SC	Ch	H	SC	Ch	H	SC	Ch	H	SC
			17.00	98.98	9.0	17.00	98.52	6.2	17.00	98.98	9.0	17.00	98.66	5.0
			17.50	99.00	9.0	17.50	98.61	2.0	17.50	99.17	9.0	17.50	98.71	9.0
			17.68	99.04	9.0	18.00	98.74	2.0	17.65	99.22	9.0	18.00	99.10	9.0
						18.50	98.93	9.0				18.50	99.53	9.0
						18.80	99.03	9.0				18.83	100.0	9.0

Ch – Distance across from Left Bank

H – Adjusted Bed Height

SC – Substrate Code

Sub Code = Substrate Code

1 = plant detritus

2 = mud / clay

3 = silt

4 = sand

5 = gravel

6 = cobble

7 = boulder

8 = bedrock

9 = terrestrial vegetation

FT = Flow Type

BSW = Broken Standing Wave

USW = Unbroken Standing Wave

RIPP = Rippled

SBT = Smooth Boundary Turbulent

NPF = No Perceptible Flow

BOI – Boil (Upwelling)

Q=Discharge (Ml/d)

WL = Water Level

LB = Left Bank

d/s = downstream

u/s = upstream

Substrate sizes – If x.0, then 100% of size ‘x’ present. Other decimals indicate a mix of neighbouring size classes. No. after decimal is the proportion of next size up that is present. E.g. 5.7 = 30% gravel and 70% cobbles.

Bed Heights and Water Levels are in metres above an arbitrary datum. Bed Height in **bold** is thalweg.

Appendix G

Spur Hole

Cross-section No. 1 (d/s)

Distance Across from LB (m)	Adjusted Bed Height (m)	Sub Code	Low 24/4/02			Med 20/6/02			High 30/5/02		
			Q=29.6	WL= 98.673	FT	Q=109.6	WL= 98.845	FT	Q=194.4	WL= 98.801	FT
			Depth (m)	Velocity (m/s)		Depth (m)	Velocity (m/s)		Depth (m)	Velocity (m/s)	
0.00	99.546	9.0									
0.50	99.432	9.0									
1.00	99.005	9.0									
1.50	98.829	5.3									
2.00	98.801	5.9				0.05	0.03	SBT			
2.50	98.641	5.8	0.03	0.00	NPF	0.19	0.11	SBT			
3.00	98.565	5.2	0.11	0.18	SBT	0.32	0.76	SBT			
3.50	98.625	5.4	0.12	0.42	RIPP	0.33	0.67	RIPP			
4.00	98.374	5.9	0.31	0.59	RIPP	0.51	0.76	RIPP			
4.50	98.267	6.0	0.45	1.03	BSW	0.66	0.93	USW			
5.00	98.252	5.9	0.40	0.50	USW	0.68	1.08	BSW			
5.50	98.379	5.8	0.30	-0.12	RIPP	0.56	-0.13	BSW			
6.00	98.408	5.7	0.25	-0.01	SBT	0.5	0.1	BSW			
6.50	98.561	8.0	0.12	-0.05	NPF	0.32	0.92	BSW			
7.00	98.672	8.0	0.07	-0.03	NPF	0.21	0.42	RIPP			
7.50	98.635	8.0	0.06	-0.03	NPF	0.33	0.05	SBT			
8.00	98.685	8.0				0.23	-0.03	SBT			
8.50	98.894	8.0									
9.00	99.142	9.0									
9.50	99.111	9.0									
10.00	99.152	9.0									
10.50	99.182	9.0									
11.00	99.227	9.0									
11.50	99.396	9.0									
12.00	99.618	9.0									
12.08	100.000	9.0									

unsafe to measure depth & velocity

Appendix G

Spur Hole

Cross-section No. 2 (d/s)

Distance Across from LB (m)	Adjusted Bed Height (m)	Sub Code	Low 24/4/02			Med 20/6/02			High 30/5/02		
			Q=29.6 Depth (m)	WL= 98.460 Velocity (m/s)	FT	Q=109.6 Depth (m)	WL= 98.634 Velocity (m/s)	FT	Q=194.4 Depth (m)	WL= 98.723 Velocity (m/s)	FT
0.00	98.922	9.0									
0.50	98.833	9.0									
1.00	98.729	9.0									
1.50	98.455	7.0	0.02	0.00	NPF	0.17	0.22	SBT	0.28	0.17	SBT
2.00	98.515	7.0				0.10	0.21	SBT	0.36	0.22	SBT
2.50	98.406	7.0	0.08	0.17	SBT	0.33	0.24	RIPP	0.46	0.48	RIPP
3.00	98.671	7.0							0.06	0.41	RIPP
3.50	98.694	7.0							0.05	0.34	RIPP
4.00	98.026	6.9	0.36	0.00	NPF	0.55	0.00	RIPP	0.65	-0.01	RIPP
4.50	98.047	6.8	0.34	0.11	SBT	0.39	0.42	RIPP	0.69	0.16	SBT
5.00	98.116	5.8	0.37	0.21	SBT	0.54	0.37	SBT	0.66	0.42	SBT
5.50	98.093	5.9	0.34	0.18	SBT	0.48	0.27	SBT	0.60	0.39	SBT
6.00	98.140	5.9	0.30	0.06	SBT	0.46	0.24	SBT	0.56	0.25	SBT
6.50	98.183	6.3	0.30	0.23	SBT	0.38	0.26	SBT	0.55	0.37	SBT
7.00	98.179	5.9	0.25	0.22	SBT	0.41	0.39	SBT	0.56	0.31	SBT
7.50	98.248	5.9	0.22	0.27	SBT	0.41	0.43	SBT	0.55	0.44	SBT
8.00	98.192	6.1	0.25	0.26	SBT	0.43	0.43	SBT	0.53	0.48	SBT
8.50	98.233	5.8	0.24	0.33	SBT	0.41	0.36	SBT	0.52	0.53	SBT
9.00	98.212	5.8	0.23	0.21	SBT	0.42	0.34	RIPP	0.49	0.45	RIPP
9.50	98.277	6.2	0.12	0.24	RIPP	0.36	0.47	SBT	0.48	0.50	RIPP
10.00	98.283	6.1	0.17	0.18	SBT	0.40	0.45	SBT	0.44	0.61	RIPP
10.50	98.336	5.9	0.15	0.34	RIPP	0.34	0.60	RIPP	0.46	0.65	RIPP
11.00	98.273	6.1	0.19	0.24	SBT	0.39	0.46	RIPP	0.43	0.54	RIPP
11.50	98.619	7.0				0.01	-	SBT	0.12	0.61	RIPP
12.00	98.384	5.9	0.09	0.05	SBT	0.25	0.37	RIPP	0.39	0.47	SBT
12.50	98.408	5.9	0.04	0.05	SBT	0.24	0.22	SBT	0.37	0.31	SBT
13.00	98.556	6.8				0.12	0.32	SBT	0.16	0.29	SBT
13.50	98.452	6.0	0.02	0.00	NPF	0.20	0.22	SBT	0.25	0.27	SBT
14.00	98.453	8.0	0.01	0.00	NPF	0.20	0.17	SBT	0.27	0.31	SBT
14.50	98.410	6.8	0.03	0.00	NPF	0.21	0.14	SBT	0.39	0.18	SBT
15.00	98.762	7.0									
15.50	98.721	5.5							0.06	0.00	NPF
16.00	98.899	6.1									
16.50	98.904	6.0									
17.00	98.977	9.0									
17.50	99.001	9.0									
17.68	99.036	9.0									

Appendix G

Spur Hole

Cross-section No. 3 (mid)

Distance Across from LB (m)	Adjusted Bed Height (m)	Sub Code	Low 23/4/02			Med 20/6/02			High 30/5/02		
			Q=29.6	WL= 98.499	FT	Q=109.6	WL= 98.658	FT	Q=194.4	WL= 98.755	FT
			Depth (m)	Velocity (m/s)		Depth (m)	Velocity (m/s)		Depth (m)	Velocity (m/s)	
0.00	99.529	9.0									
0.50	98.757	9.0									
1.00	98.655	9.0				0.01	0.00	NPF	0.11	0.00	NPF
1.50	98.587	2.0				0.16	0.00	NPF	0.27	0.01	NPF
2.00	98.397	7.0	0.24	0.00	NPF	0.46	0.00	NPF	0.53	0.04	NPF
2.50	98.143	7.0	0.39	0.00	NPF	0.51	0.02	NPF	0.68	0.06	SBT
3.00	98.170	7.0	0.30	0.00	NPF	0.51	0.05	SBT	0.56	0.08	SBT
3.50	98.236	6.6	0.26	0.00	SBT	0.45	0.02	SBT	0.55	0.05	SBT
4.00	98.173	6.5	0.31	0.17	SBT	0.44	0.26	SBT	0.57	0.22	SBT
4.50	98.547	7.0				0.08	0.20	SBT	0.18	0.25	SBT
5.00	98.240	6.8	0.15	0.05	SBT	0.41	0.21	SBT	0.41	0.25	SBT
5.50	98.261	6.0	0.22	0.13	SBT	0.49	0.36	SBT	0.56	0.44	SBT
6.00	98.286	5.9	0.04	0.26	SBT	0.22	0.16	SBT	0.34	0.12	SBT
6.50	98.402	5.8	0.06	0.00	NPF	0.29	0.08	SBT	0.40	0.07	SBT
7.00	98.468	6.2	0.02	0.02	SBT	0.22	0.43	SBT	0.31	0.46	RIPP
7.50	98.489	5.0	0.06	0.00	NPF	0.24	0.20	SBT	0.36	0.17	SBT
8.00	98.462	5.9	0.04	0.18	SBT	0.16	0.04	SBT	0.30	0.01	SBT
8.50	98.413	5.7	0.09	0.22	RIPP	0.24	0.37	SBT	0.32	0.64	RIPP
9.00	98.445	5.8	0.10	-0.04	RIPP	0.21	0.08	SBT	0.36	0.24	BOI
9.50	98.387	5.3	0.13	0.24	RIPP	0.34	0.48	SBT	0.44	0.46	SBT
10.00	98.304	5.8	0.21	0.25	RIPP	0.34	0.46	SBT	0.44	0.52	SBT
10.50	98.295	5.8	0.20	-0.01	NPF	0.34	0.07	SBT	0.49	0.11	SBT
11.00	98.287	5.2	0.20	-0.02	NPF	0.35	0.24	SBT	0.49	0.45	SBT
11.50	98.255	5.4	0.25	0.28	SBT	0.43	0.61	RIPP	0.50	0.73	RIPP
12.00	98.255	5.6	0.23	0.48	RIPP	0.46	0.55	RIPP	0.56	0.58	RIPP
12.50	98.239	5.4	0.25	0.52	RIPP	0.43	0.57	RIPP	0.55	0.62	SBT
13.00	98.297	5.5	0.21	0.15	SBT	0.36	0.45	RIPP	0.53	0.67	SBT
13.50	98.268	5.2	0.20	0.24	RIPP	0.36	0.46	SBT	0.49	0.53	SBT
14.00	98.308	6.6	0.03	0.22	RIPP	0.38	0.51	SBT	0.44	0.59	SBT
14.50	98.442	6.6	0.09	0.19	RIPP	0.28	0.26	SBT	0.42	0.34	SBT
15.00	98.475	6.4	0.05	-0.07	SBT	0.16	0.25	SBT	0.36	0.30	RIPP
15.50	98.462	5.2	0.06	0.01	NPF	0.18	0.40	SBT	0.34	0.47	RIPP
16.00	98.452	5.8	0.01	0.00	NPF	0.24	0.16	SBT	0.33	0.25	SBT
16.50	98.413	5.4	0.09	0.04	NPF	0.27	0.13	SBT	0.34	0.35	SBT
17.00	98.519	6.2				0.11	0.08	SBT	0.10	0.20	SBT
17.50	98.605	2.0				0.06	0.00	NPF	0.16	0.01	SBT
18.00	98.741	2.0							0.06	0.00	NPF
18.50	98.929	9.0									
18.80	99.029	9.0									

Appendix G

Spur Hole

Cross-section No. 4 (u/s)

Distance Across from LB (m)	Adjusted Bed Height (m)	Sub Code	Low 23/4/02			Med 20/6/02			High 30/5/02		
			Q=29.6	WL= 98.641	FT	Q=109.6	WL= 98.766	FT	Q=194.4	WL= 98.842	FT
			Depth (m)	Velocity (m/s)		Depth (m)	Velocity (m/s)		Depth (m)	Velocity (m/s)	
0.00	99.171	9.0									
0.50	99.016	9.0									
1.00	98.821	9.0							0.02	0.00	NPF
1.50	98.744	7.0				0.05	0.00	NPF	0.11	0.00	NPF
2.00	98.983	7.0									
2.50	98.648	7.0							0.05	0.00	NPF
3.00	98.437	3.0	0.28	-0.01	NPF	0.32	0.02	SBT	0.44	0.04	SBT
3.50	98.345	5.0	0.29	0.07	SBT	0.41	0.24	SBT	0.50	0.19	SBT
4.00	98.423	5.7	0.22	0.20	SBT	0.28	0.14	SBT	0.44	0.41	SBT
4.50	98.269	5.7	0.36	0.07	SBT	0.50	0.12	SBT	0.59	0.29	SBT
5.00	98.454	5.8	0.27	0.02	SBT	0.36	0.39	SBT	0.41	0.56	SBT
5.50	98.444	5.7	0.13	0.30	SBT	0.42	0.44	SBT	0.48	0.62	RIPP
6.00	98.383	5.6	0.26	0.26	SBT	0.41	0.42	SBT	0.51	0.44	RIPP
6.50	98.391	5.7	0.25	0.32	RIPP	0.41	0.33	SBT	0.50	0.46	RIPP
7.00	98.434	6.6	0.21	0.23	SBT	0.38	0.54	SBT	0.45	0.63	RIPP
7.50	98.429	6.2	0.24	0.11	RIPP	0.28	0.51	SBT	0.49	0.64	RIPP
8.00	98.399	5.4	0.24	0.20	SBT	0.36	0.31	SBT	0.51	0.49	RIPP
8.50	98.368	6.3	0.27	0.14	SBT	0.39	0.02	RIPP	0.51	0.46	RIPP
9.00	98.365	6.8	0.27	0.16	RIPP	0.41	0.38	RIPP	0.55	0.53	RIPP
9.50	98.439	6.6	0.18	0.13	SBT	0.33	0.38	RIPP	0.37	0.64	RIPP
10.00	98.420	5.6	0.23	0.23	RIPP	0.36	0.44	RIPP	0.49	0.59	RIPP
10.50	98.433	5.7	0.20	0.20	RIPP	0.36	0.40	SBT	0.45	0.56	RIPP
11.00	98.403	5.4	0.23	0.05	SBT	0.38	0.31	SBT	0.46	0.58	RIPP
11.50	98.475	5.7	0.24	0.01	NPF	0.29	0.02	SBT	0.36	0.10	RIPP
12.00	98.491	6.7	0.18	0.23	RIPP	0.06	0.32	RIPP	0.31	0.76	USW
12.50	98.922	7.0									
13.00	99.021	7.0									
13.50	98.844	7.0									
14.00	98.629	6.7	0.06	0.30	SBT	0.21	0.69	RIPP	0.32	0.82	RIPP
14.50	98.549	5.2	0.09	0.07	SBT	0.19	0.49	RIPP	0.34	0.41	RIPP
15.00	98.595	5.6	0.05	0.00	SBT	0.16	0.30	RIPP	0.29	0.50	SBT
15.50	98.535	5.7	0.12	0.17	SBT	0.25	0.14	SBT	0.34	0.21	SBT
16.00	98.604	5.5	0.07	0.00	SBT	0.08	0.00	NPF	0.02	0.00	NPF
16.50	98.621	6.2	0.02	0.00	NPF	0.04	0.00	NPF	0.12	0.00	NPF
17.00	98.984	9.0									
17.50	99.172	9.0									
17.65	99.218	9.0									

Appendix G

Spur Hole

Cross-section No. 5 (u/s)

Distance Across from LB (m)	Adjusted Bed Height (m)	Sub Code	Low 23/4/02			Med 20/6/02			High 30/5/02		
			Q=29.6 Depth (m)	WL= 98.671 Velocity (m/s)	FT	Q=109.6 Depth (m)	WL= 98.800 Velocity (m/s)	FT	Q=194.4 Depth (m)	WL= 98.893 Velocity (m/s)	FT
0.00	99.172	9.0									
0.50	99.016	9.0									
1.00	98.822	5.0							0.08	0.00	NPF
1.50	98.884	5.0							0.04	0.00	NPF
2.00	98.969	5.0									
2.50	98.967	5.2									
3.00	98.959	5.1									
3.50	98.912	5.1									
4.00	98.930	6.7									
4.50	98.773	6.7				0.02	0.00	NPF	0.09	0.00	NPF
5.00	98.506	6.0	0.07	0.00	NPF	0.28	0.02	NPF	0.36	-0.01	NPF
5.50	98.553	5.5	0.08	0.03	NPF	0.23	0.07	SBT	0.31	0.03	SBT
6.00	98.593	5.7	0.09	-0.03	SBT	0.24	0.11	SBT	0.35	0.12	SBT
6.50	98.639	5.7	0.04	0.07	SBT	0.27	0.26	RIPP	0.35	0.27	SBT
7.00	98.568	5.2	0.09	0.08	SBT	0.23	0.43	RIPP	0.34	0.68	RIPP
7.50	98.652	5.3	0.04	0.01	SBT	0.22	0.12	SBT	0.31	0.40	RIPP
8.00	98.607	5.2	0.06	0.10	SBT	0.31	0.49	RIPP	0.39	0.44	RIPP
8.50	98.476	5.6	0.16	-0.03	NPF	0.36	0.43	RIPP	0.45	0.55	RIPP
9.00	98.416	5.6	0.22	-0.01	SBT	0.39	0.09	SBT	0.46	0.63	RIPP
9.50	98.427	5.4	0.22	0.03	SBT	0.39	-0.07	SBT	0.49	0.09	SBT
10.00	98.488	5.7	0.20	0.17	SBT	0.36	0.13	SBT	0.50	0.32	RIPP
10.50	98.559	5.8	0.19	0.24	SBT	0.35	0.54	RIPP	0.46	0.87	RIPP
11.00	98.432	5.6	0.25	0.22	SBT	0.42	0.49	RIPP	0.51	0.51	SBT
11.50	98.474	5.6	0.26	0.18	SBT	0.43	0.22	SBT	0.55	0.56	SBT
12.00	98.363	5.7	0.27	0.19	SBT	0.48	0.34	SBT	0.60	0.47	SBT
12.50	98.263	5.8	0.37	0.22	SBT	0.54	0.28	SBT	0.61	0.38	SBT
13.00	98.357	5.7	0.38	0.14	SBT	0.56	0.25	SBT	0.64	0.37	SBT
13.50	98.267	5.4	0.37	0.10	SBT	0.55	0.23	SBT	0.64	0.31	SBT
14.00	98.291	5.6	0.37	0.19	SBT	0.53	0.23	SBT	0.56	0.39	SBT
14.50	98.317	5.6	0.35	0.30	RIPP	0.51	0.26	SBT	0.63	0.44	SBT
15.00	98.408	5.4	0.26	0.29	RIPP	0.40	0.43	SBT	0.52	0.65	RIPP
15.50	98.466	5.3	0.17	0.08	SBT	0.35	0.39	RIPP	0.46	0.60	SBT
16.00	98.562	5.0	0.11	-0.01	NPF	0.26	0.31	RIPP	0.39	0.24	SBT
16.50	98.625	5.0	0.05	0.00	NPF	0.21	0.11	SBT	0.31	0.34	SBT
17.00	98.663	5.0	0.01	0.00	NPF	0.16	0.00	NPF	0.26	0.01	SBT
17.50	98.708	9.0				0.11	0.00	NPF	0.20	0.00	NPF
18.00	99.098	9.0									
18.50	99.526	9.0									
18.83	100.000	9.0									

Appendix G

Table G-2 Vanity's Crossing Site

Cross-section 1			Cross-section 2			Cross-section 3			Cross-section 4			Cross-section 5		
Ch	H	SC	Ch	H	SC	Ch	H	SC	Ch	H	SC	Ch	H	SC
0.00	98.409	9.0	0.00	98.811	8.0	0.00	98.889	9.0	0.00	99.424	8.0	0.00	100.000	8.0
0.50	98.285	9.0	0.50	98.517	8.0	0.50	98.733	9.0	0.50	99.253	8.0	0.50	99.668	8.0
1.00	98.280	8.0	1.00	98.618	8.0	1.00	98.582	9.0	1.00	98.969	8.0	1.00	99.487	8.0
1.50	98.189	8.2	1.50	98.421	8.0	1.50	98.440	8.0	1.50	98.767	8.0	1.50	99.361	8.0
2.00	98.056	8.0	2.00	98.209	8.0	2.00	98.389	8.0	2.00	98.798	8.0	2.00	99.180	8.0
2.50	97.847	8.0	2.50	98.098	8.0	2.50	98.203	8.0	2.50	98.804	8.0	2.50	99.199	8.0
3.00	98.185	8.0	3.00	98.310	8.0	3.00	98.271	8.0	3.00	98.761	8.0	3.00	99.328	8.0
3.50	98.394	8.0	3.50	98.319	8.0	3.50	98.428	8.0	3.50	98.721	8.0	3.50	98.892	8.0
4.00	98.389	8.0	4.00	98.325	8.0	4.00	97.965	6.3	4.00	98.779	8.0	4.00	98.642	8.0
4.50	98.196	8.0	4.50	98.310	8.0	4.50	98.064	6.8	4.50	98.781	8.0	4.50	98.285	8.0
5.00	97.981	8.0	5.00	98.214	8.0	5.00	98.285	6.7	5.00	98.670	7.3	5.00	98.294	6.2
5.50	98.191	7.2	5.50	98.019	8.0	5.50	98.049	6.8	5.50	98.598	6.6	5.50	98.139	6.2
6.00	97.928	8.0	6.00	97.930	8.0	6.00	97.875	6.8	6.00	98.360	6.6	6.00	98.020	6.2
6.50	97.945	6.0	6.50	97.898	8.0	6.50	98.108	7.2	6.50	98.254	6.7	6.50	98.125	6.2
7.00	97.860	6.1	7.00	97.693	6.6	7.00	98.881	8.0	7.00	98.233	6.8	7.00	98.258	5.7
7.50	97.865	6.2	7.50	97.838	6.6	7.50	98.736	8.0	7.50	98.468	8.0	7.50	98.344	6.0
8.00	97.882	5.9	8.00	98.080	5.8	8.00	98.262	5.7	8.00	98.288	7.8	8.00	98.888	8.0
8.50	97.847	5.7	8.50	98.098	5.8	8.50	98.277	6.8	8.50	98.461	7.6	8.50	98.885	8.0
9.00	97.821	5.9	9.00	98.181	5.8	9.00	98.189	7.0	9.00	98.561	6.7	9.00	98.963	8.0
9.50	97.819	5.8	9.50	98.236	5.8	9.50	98.489	6.9	9.50	98.425	6.0	9.50	98.958	8.0
10.00	97.901	6.0	10.00	98.205	5.7	10.00	98.082	6.6	10.00	98.492	5.9	10.00	98.881	8.0
10.50	98.182	7.0	10.50	98.421	5.7	10.50	98.418	7.3	10.50	99.008	6.4	10.50	99.309	8.0
11.00	97.780	6.1	11.00	98.326	5.7	11.00	98.433	6.6	10.60	99.079	6.4	11.00	99.420	5.0
11.50	97.917	6.1	11.50	98.456	5.6	11.50	98.343	6.7				11.50	99.167	5.2
12.00	97.861	6.2	12.00	98.680	9.0	12.00	98.328	6.8				12.00	99.347	5.7
12.50	97.952	5.7	12.50	98.722	5.0	12.50	98.529	6.0				12.50	99.586	5.1
13.00	98.254	5.0	13.00	98.743	4.8	13.00	98.780	4.8				12.70	99.687	5.1
13.50	98.546	5.3	13.25	98.690	4.3	13.50	99.019	9.0						
14.00	98.646	5.3				13.60	99.225	9.0						
14.50	98.653	5.0												
14.85	99.114	5.2												

Ch – Distance across from Left Bank

H – Adjusted Bed Height

SC – Substrate Code

Appendix G

Vanity's Crossing

Cross-section No. 1 (d/s)

Distance Across from LB (m)	Adjusted Bed Height (m)	Sub Code	Low 23/4/02			Med 20/6/02			High 30/5/02		
			Q=28.6 Depth (m)	WL= 98.073 Velocity (m/s)	FT	Q=113.1 Depth (m)	WL= 98.195 Velocity (m/s)	FT	Q=182.5 Depth (m)	WL= 98.260 Velocity (m/s)	FT
0.00	98.409	9.0									
0.50	98.285	9.0									
1.00	98.280	8.0									
1.50	98.189	8.2									
2.00	98.056	8.0	0.03	0.00	NPF	0.03	0.00	NPF	0.10	0.04	NPF
2.50	97.847	8.0	0.25	0.00	NPF	0.12	0.00	NPF	0.16	0.05	NPF
3.00	98.185	8.0				0.37	0.01	NPF	0.40	0.07	NPF
3.50	98.394	8.0				0.01	0.00	NPF	0.07	0.05	NPF
4.00	98.389	8.0									
4.50	98.196	8.0									
5.00	97.981	8.0	0.02	0.00	NPF				0.08	0.12	SBT
5.50	98.191	7.2				0.21	0.03	SBT	0.24	0.14	RIPP
6.00	97.928	8.0				0.19	0.09	RIPP	0.27	0.37	RIPP
6.50	97.945	6.0	0.19	-0.03	SBT	0.31	0.06	SBT	0.41	0.37	RIPP
7.00	97.860	6.1	0.12	0.35	RIPP	0.33	0.69	RIPP	0.36	0.82	RIPP
7.50	97.865	6.2	0.23	0.14	RIPP	0.37	0.41	RIPP	0.37	0.84	RIPP
8.00	97.882	5.9	0.21	0.10	SBT	0.39	0.46	RIPP	0.36	0.49	RIPP
8.50	97.847	5.7	0.20	0.33	SBT	0.38	0.46	RIPP	0.42	0.66	RIPP
9.00	97.821	5.9	0.22	0.39	SBT	0.38	0.43	RIPP	0.32	0.72	RIPP
9.50	97.819	5.8	0.15	0.20	SBT	0.31	0.73	RIPP	0.38	0.62	USW
10.00	97.901	6.0	0.15	0.12	SBT	0.37	0.78	RIPP	0.38	1.27	USW
10.50	98.182	7.0	0.22	0.62	RIPP	0.33	1.03	RIPP	0.39	1.23	USW
11.00	98.182	7.0				0.37	0.52	BSW	0.41	0.70	RIPP
11.50	97.780	6.1	0.18	0.58	USW	0.38	0.82	RIPP	0.44	0.81	RIPP
12.00	97.917	6.1	0.23	0.19	RIPP	0.35	0.59	RIPP	0.40	1.09	RIPP
12.50	97.861	6.2	0.23	0.48	RIPP	0.36	0.53	RIPP	0.36	0.57	RIPP
13.00	97.952	5.7	0.08	0.18	SBT	0.28	0.09	SBT	0.31	0.41	SBT
13.50	98.254	5.0							0.10	-0.06	SBT
14.00	98.546	5.3									
14.50	98.646	5.3									
14.85	98.653	5.0									
	99.114	5.2									

Appendix G

Vanity's Crossing

Cross-section No. 2 (d/s)

Distance Across from LB (m)	Adjusted Bed Height (m)	Sub Code	Low 23/4/02			Med 20/6/02			High 30/5/02		
			Q=28.6 Depth (m)	WL= 98.198 Velocity (m/s)	FT	Q=113.1 Depth (m)	WL= 98.319 Velocity (m/s)	FT	Q=182.5 Depth (m)	WL= 98.456 Velocity (m/s)	FT
0.00	98.811	8.0									
0.50	98.517	8.0									
1.00	98.618	8.0									
1.50	98.421	8.0									
2.00	98.209	8.0				0.03	0.00	NPF			
2.50	98.098	8.0	0.09	0.00	NPF	0.29	0.15	RIPP			
3.00	98.310	8.0				0.08	0.11	RIPP			
3.50	98.319	8.0									
4.00	98.325	8.0									
4.50	98.310	8.0				0.02	-	RIPP			
5.00	98.214	8.0	0.08	0.03	NPF	0.36	0.73	RIPP			
5.50	98.019	8.0	0.12	0.29	RIPP	0.34	1.21	USW			
6.00	97.930	8.0	0.05	0.55	RIPP	0.32	1.03	BSW			
6.50	97.898	8.0	0.20	0.27	RIPP	0.58	0.63	BSW			
7.00	97.693	6.6	0.50	1.01	BSW	0.56	0.92	BSW			
7.50	97.838	6.6	0.32	0.33	RIPP	0.39	0.73	RIPP			
8.00	98.080	5.8	0.20	0.01	RIPP	0.26	0.54	RIPP			
8.50	98.098	5.8	0.10	0.10	RIPP	0.22	0.21	SBT			
9.00	98.181	5.8	0.03	0.00	NPF	0.10	0.49	RIPP			
9.50	98.236	5.8				0.16	0.21	RIPP			
10.00	98.205	5.7				0.12	0.37	RIPP			
10.50	98.421	5.7									
11.00	98.326	5.7									
11.50	98.456	5.6									
12.00	98.680	9.0									
12.50	98.722	5.0									
13.00	98.743	4.8									
13.25	98.690	4.3									

unsafe to measure depth & velocity

Appendix G

Vanity's Crossing

Cross-section No. 3 (mid)

Distance Across from LB (m)	Adjusted Bed Height (m)	Sub Code	Low 23/4/02			Med 20/6/02			High 30/5/02		
			Q=28.6 Depth (m)	WL= 98.472 Velocity (m/s)	FT	Q=113.1 Depth (m)	WL= 98.494 Velocity (m/s)	FT	Q=182.5 Depth (m)	WL= 98.579 Velocity (m/s)	FT
0.00	98.889	9.0									
0.50	98.733	9.0									
1.00	98.582	9.0				0.09	0.00	NPF			
1.50	98.440	8.0	0.04	0.00	NPF	0.23	0.01	SBT			
2.00	98.389	8.0	0.04	0.00	NPF	0.34	0.03	SBT			
2.50	98.203	8.0	0.20	0.00	NPF	0.46	0.06	SBT			
3.00	98.271	8.0	0.15	-0.01	SBT	0.41	0.05	RIPP			
3.50	98.428	8.0	0.06	-0.21	SBT	0.25	-0.03	RIPP			
4.00	97.965	6.3	0.53	-0.09	RIPP	0.72	0.65	RIPP			
4.50	98.064	6.8	0.35	0.30	RIPP	0.66	0.72	RIPP			
5.00	98.285	6.7	0.28	0.45	RIPP	0.53	0.59	USW			
5.50	98.049	6.8	0.28	0.82	USW	0.56	0.75	USW			
6.00	97.875	6.8	0.45	0.70	USW	-	1.38	USW			
6.50	98.108	7.2	0.23	0.28	RIPP	0.51	0.47	USW			
7.00	98.881	8.0									
7.50	98.736	8.0									
8.00	98.262	5.7	0.08	0.00	NPF	0.10	0.00	NPF			
8.50	98.277	6.8	0.15	0.00	SBT	0.26	-0.06	RIPP			
9.00	98.189	7.0	0.12	0.27	SBT	0.31	0.47	RIPP			
9.50	98.489	6.9				0.06	0.39	RIPP			
10.00	98.082	6.6	0.30	0.01	SBT	0.42	0.39	RIPP			
10.50	98.418	7.3				0.33	0.57	RIPP			
11.00	98.433	6.6				0.28	0.82	RIPP			
11.50	98.343	6.7				0.13	0.09	RIPP			
12.00	98.328	6.8				0.13	0.72	RIPP			
12.50	98.529	6.0									
13.00	98.780	4.8									
13.50	99.019	9.0									
13.60	99.225	9.0									

unsafe to measure depth & velocity

Appendix G

Vanity's Crossing

Cross-section No. 4 (u/s)

Distance Across from LB (m)	Adjusted Bed Height (m)	Sub Code	Low 23/4/02			Med 20/6/02			High 30/5/02		
			Q=28.6 Depth (m)	WL= 98.809 Velocity (m/s)	FT	Q=113.1 Depth (m)	WL= 98.940 Velocity (m/s)	FT	Q=182.5 Depth (m)	WL= 99.032 Velocity (m/s)	FT
0.00	99.424	8.0									
0.50	99.253	8.0									
1.00	98.969	8.0									
1.50	98.767	8.0	0.07	0.00	NPF	0.12	0.01	NPF			
2.00	98.798	8.0	0.23	0.00	NPF	0.46	0.05	SBT			
2.50	98.804	8.0	0.05	0.00	NPF	0.25	0.04	SBT			
3.00	98.761	8.0	0.07	0.00	NPF	0.23	0.09	SBT			
3.50	98.721	8.0	0.10	0.00	NPF	0.26	0.14	SBT			
4.00	98.779	8.0	0.10	0.00	NPF	0.11	0.55	RIPP			
4.50	98.781	8.0	0.03	0.00	NPF	0.21	1.17	RIPP			
5.00	98.670	7.3	0.15	0.00	NPF	0.22	0.69	RIPP			
5.50	98.598	6.6	0.32	-0.03	NPF	0.54	0.06	RIPP			
6.00	98.360	6.6	0.35	-0.01	SBT	0.42	0.13	RIPP			
6.50	98.254	6.7	0.49	0.08	SBT	0.69	0.25	RIPP			
7.00	98.233	6.8	0.43	0.03	SBT	0.72	0.51	RIPP			
7.50	98.468	8.0	0.41	0.27	SBT	0.56	1.05	RIPP			
8.00	98.288	7.8	0.64	0.25	SBT	0.74	0.66	RIPP			
8.50	98.461	7.6	0.46	0.21	SBT	0.65	0.92	RIPP			
9.00	98.561	6.7	0.40	-0.06	SBT	0.61	0.43	SBT			
9.50	98.425	6.0	0.28	0.20	SBT	0.56	0.52	SBT			
10.00	98.492	5.9	0.22	-0.04	SBT	0.55	0.23	SBT			
10.50	99.008	6.4									
10.60	99.079	6.4									

unsafe to measure depth & velocity

Appendix G

Vanity's Crossing

Cross-section No. 5 (u/s)

Distance Across from LB (m)	Adjusted Bed Height (m)	Sub Code	Low 23/4/02			Med 20/6/02			High 30/5/02		
			Q=28.6 Depth (m)	WL= 98.874 Velocity (m/s)	FT	Q=113.1 Depth (m)	WL= 98.983 Velocity (m/s)	FT	Q=182.5 Depth (m)	WL= 99.101 Velocity (m/s)	FT
0.00	100.000	8.0									
0.50	99.668	8.0									
1.00	99.487	8.0									
1.50	99.361	8.0									
2.00	99.180	8.0									
2.50	99.199	8.0									
3.00	99.328	8.0									
3.50	98.892	8.0				0.12	-0.22	RIPP			
4.00	98.642	8.0	0.36	0.09	RIPP	0.34	0.16	RIPP			
4.50	98.285	8.0	0.56	0.28	RIPP	0.32	0.79	RIPP			
5.00	98.294	6.2	0.61	0.24	RIPP	0.72	0.75	RIPP			
5.50	98.139	6.2	0.70	0.25	RIPP	0.93	0.73	RIPP			
6.00	98.020	6.2	0.65	0.05	RIPP	0.84	0.36	RIPP			
6.50	98.125	6.2	0.56	-0.01	RIPP	0.76	0.49	RIPP			
7.00	98.258	5.7	0.46	0.12	RIPP	0.66	0.45	RIPP			
7.50	98.344	6.0	0.44	-0.01	RIPP	0.62	0.09	RIPP			
8.00	98.888	8.0				0.10	-0.12	RIPP			
8.50	98.885	8.0				0.01	-	SBT			
9.00	98.963	8.0				0.04	-	USW			
9.50	98.958	8.0				0.26	0.25	USW			
10.00	98.881	8.0									
10.50	99.309	8.0									
11.00	99.420	5.0									
11.50	99.167	5.2									
12.00	99.347	5.7									
12.50	99.586	5.1									
12.70	99.687	5.1									

unsafe to measure depth & velocity

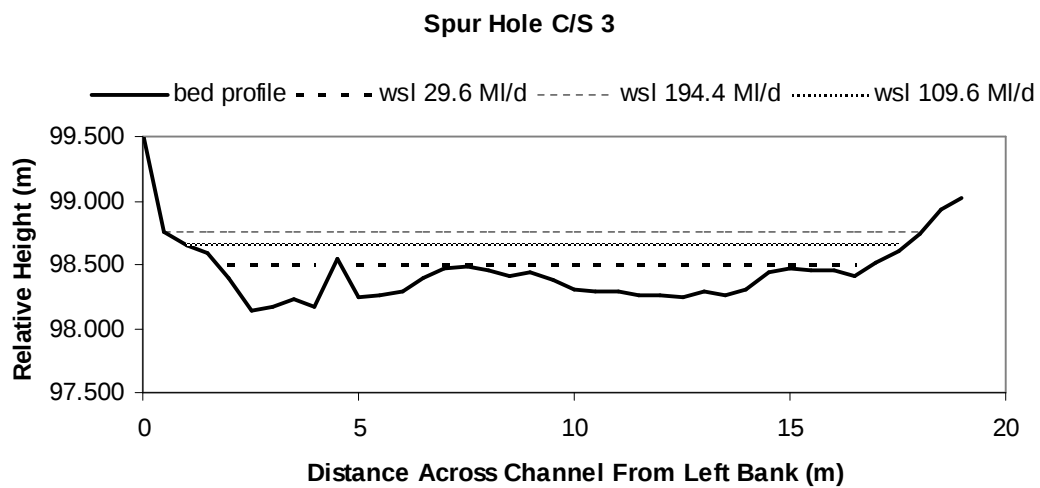
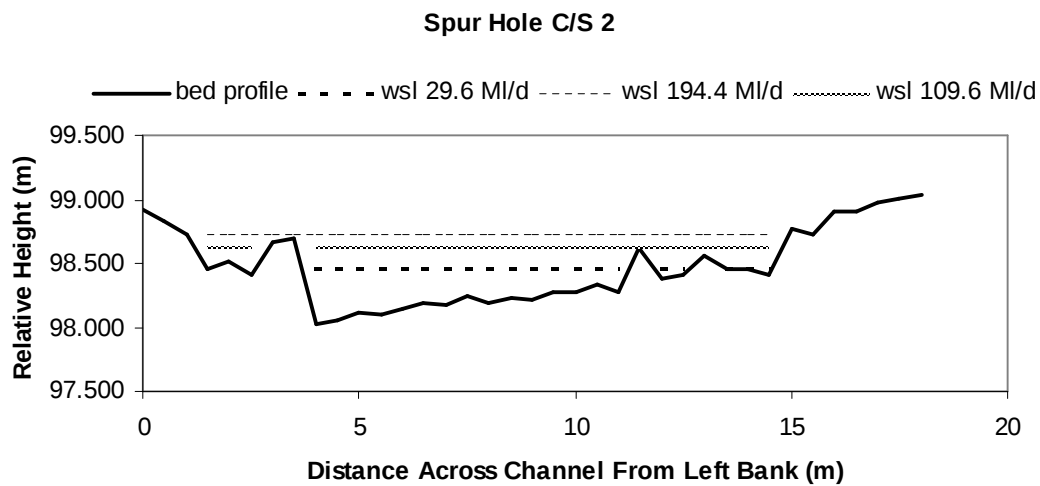
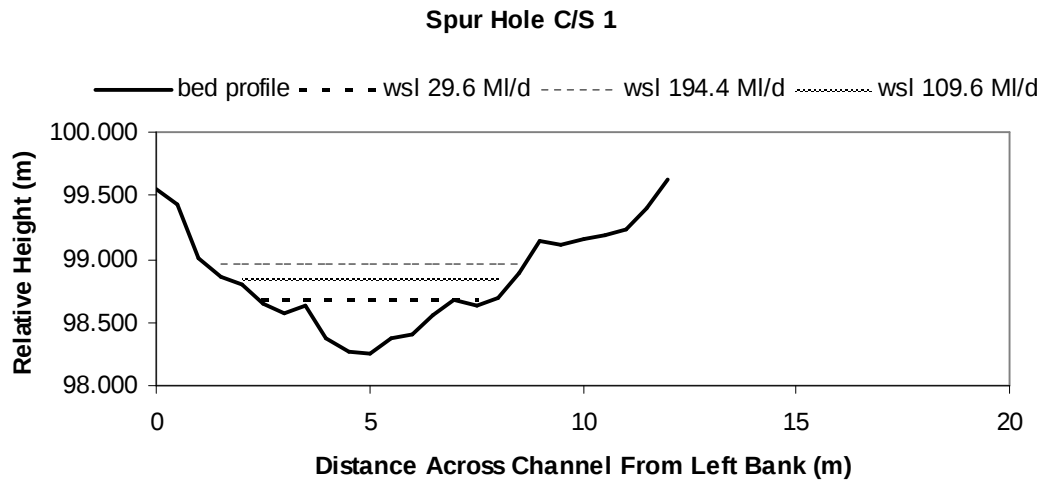


Figure G-1 Bed profiles for cross-sections 1, 2 and 3 at Spur Hole

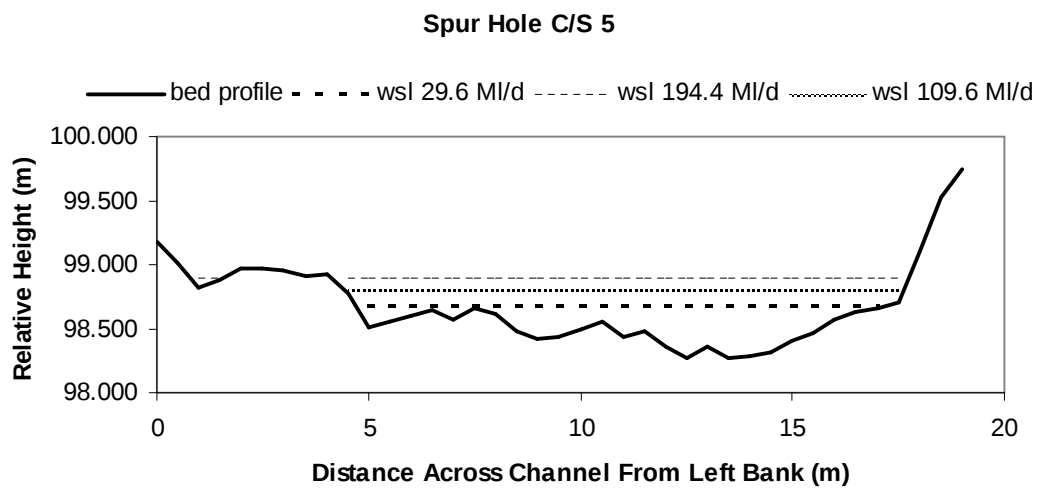
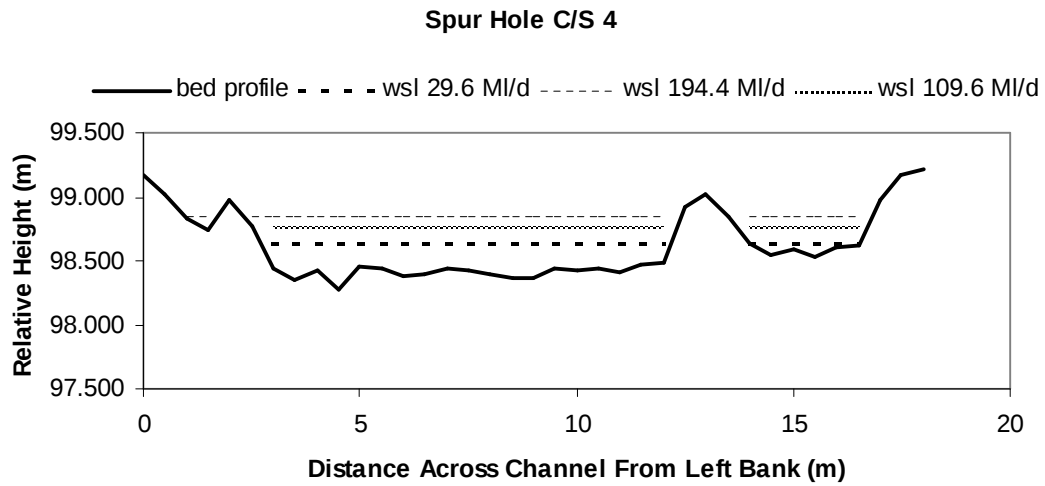


Figure G-2 Bed profiles for cross-sections 4 and 5 at Spur Hole

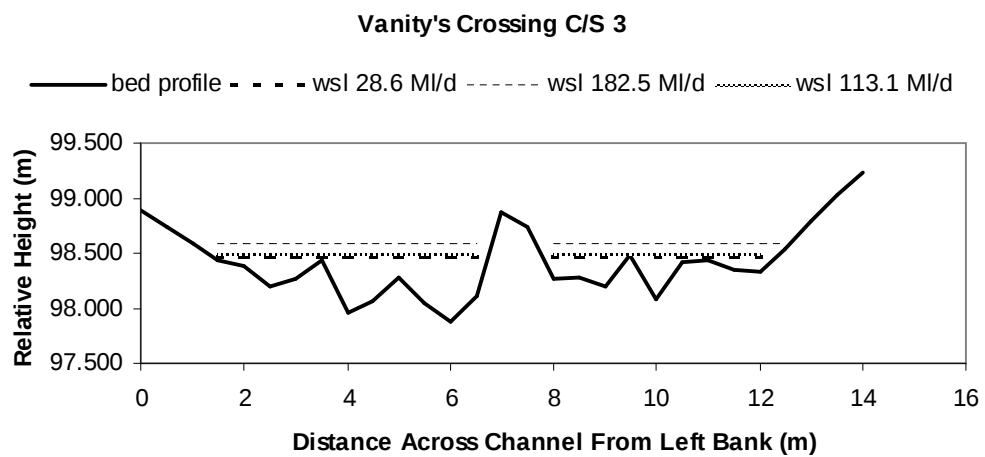
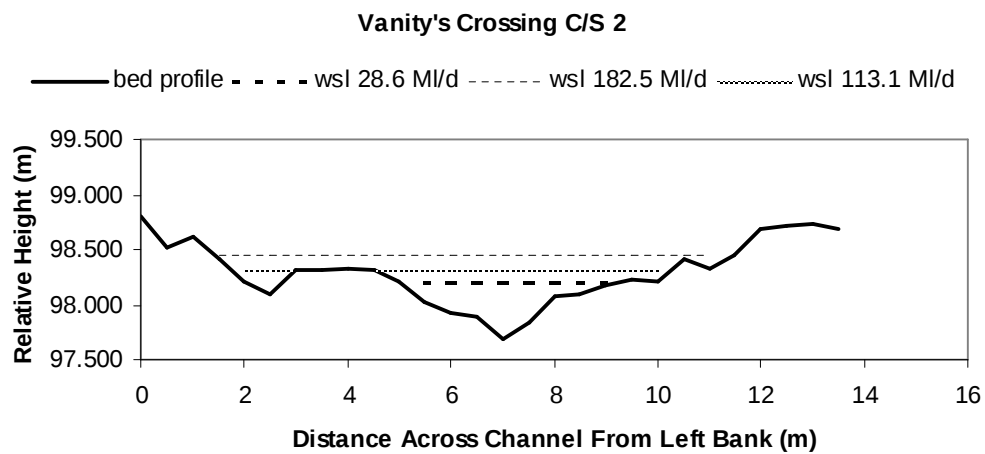
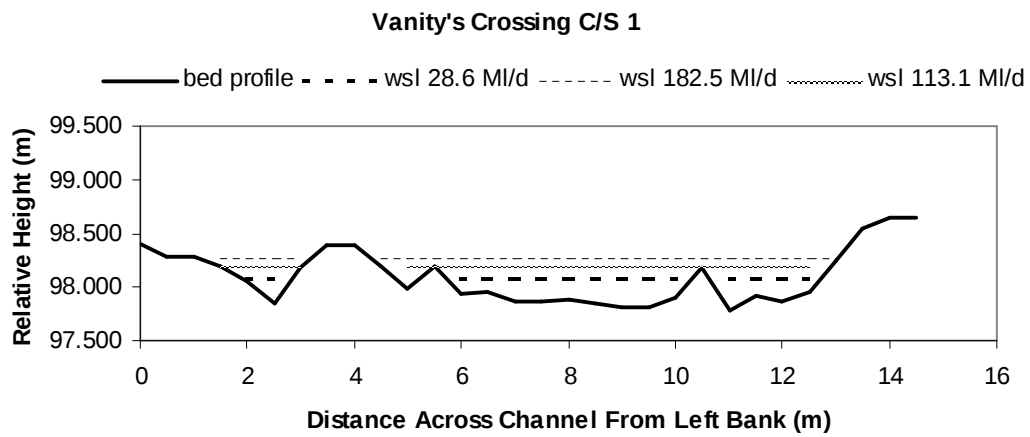


Figure G-3 Bed profiles for cross-sections 1, 2 and 3 at Vanity's Crossing

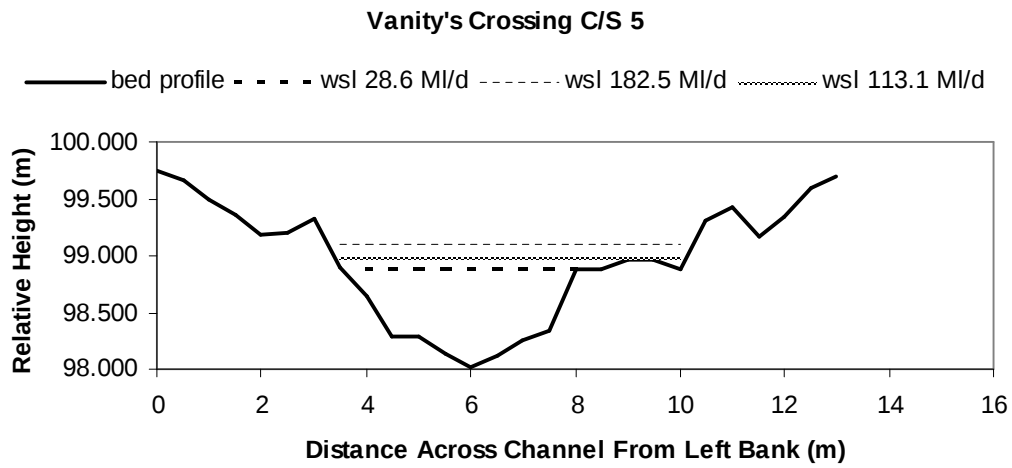
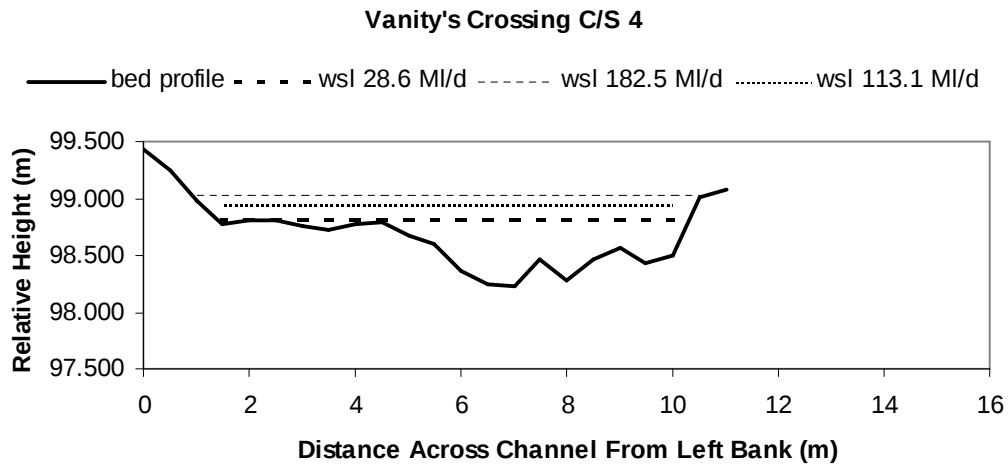


Figure G-4 Bed profiles for cross-sections 4 and 5 at Vanity's Crossing