

APPENDIX 2.1.A: CROSS-SECTION PHOTOS



Photo 1. 20060809SXW1US.JPG



Photo 2. 20060809SXW1RB.JPG



Photo 3. 20060809SXW1LB.JPG



Photo 4. 20060809SXW1DS.JPG



Photo 5. 20060809SXW2USBW.JPG



Photo 6. 20060809SXW2RB.JPG



Photo 7. 20060809SXW2LB.JPG



Photo 8. 20060809SXW2DS.JPG



Photo 9. 20060809SXW3USRIGHT.JPG



Photo 10. 20060809SXW3USLEFT.JPG



Photo 11. 20060809SXW3RB.JPG



Photo 12. 20060809SXW3LB.JPG



Photo 13. 20060809SXW3DSRIGHT.JPG



Photo 14. 20060809SXW3DSLEFT.JPG



Photo 15. 20060809SXW3&4ISLAND.JPG



Photo 16. 20060809SXW4USRIGHT.JPG



Photo 17. 20060809SXW4USLEFT.JPG



Photo 18. 20060809SXW4RB.JPG



Photo 19. 20060809SXW4LB.JPG



Photo 20. 20060809SXW4DSRIGHT.JPG



Photo 21. 20060809SXW5USBW.JPG



Photo 22. 20060809SXW5RB.JPG



Photo 23. 20060809SXW5LB.JPG



Photo 24. 20060809SXW5DSLEFT.JPG



Photo 25. 20060809SXW5DS.JPG



Photo 26. 20060809SXW6US.JPG



Photo 27. 20060809SXW6RB.JPG



Photo 28. 20060809SXW6LB.JPG



Photo 29. 20060809SXW6DSBW.JPG



Photo 30. 20061108DFC1US.JPG



Photo 31. 20061108DFC1RB.JPG



Photo 32. 20061108DFC1LB.JPG



Photo 33. 20061108DFC1DS.JPG



Photo 34. 20061108DFC2US.JPG



Photo 35. 20061108DFC2RB.JPG



Photo 36. 20061108DFC2LB.JPG



Photo 37. 20061108DFC2DS.JPG



Photo 38. 20061108DFC3US.JPG



Photo 39. 20061108DFC3RB.JPG



Photo 40. 20061108DFC3LB.JPG



Photo 41. 20061108DFC3DS.JPG



Photo 42. 20061108DFC4US.JPG



Photo 43. 20061108DFC4RBa.JPG



Photo 44. 20061108DFC4RBb.JPG



Photo 45. 20061108DFC4LB.JPG



Photo 46. 20061108DFC4DS.JPG



Photo 47. 20061108DFC5US.JPG



Photo 48. 20061108DFC5RB.JPG



Photo 49. 20061108DFC5LB.JPG



Photo 50. 20061108DFC5DS.JPG



Photo 51. 20061108DFC6US.JPG



Photo 52. 20061108DFC6RB.JPG



Photo 53. 20061108DFC6LB.JPG



Photo 54. 20061108DFC6DS.JPG



Photo 55. 20061108DFC7US.JPG



Photo 56. 20061108DFC7RB.JPG



Photo 57. 20061108DFC7LB.JPG



Photo 58. 20061108DFC7DS.JPG



Photo 59. 20061109MO1US.JPG



Photo 60. 20061109MO1RB.JPG



Photo 61. 20061109MO1LB.JPG



Photo 62. 20061109MO1DS.JPG



Photo 63. 20061109MO2US.JPG



Photo 64. 20061109MO2RB.JPG



Photo 65. 20061109MO2LB.JPG



Photo 66. 20061109MO2DS.JPG



Photo 67. 20061109MO3US.JPG



Photo 68. 20061109MO3RB.JPG



Photo 69. 20061109MO3LB.JPG



Photo 70. 20061109MO3DS.JPG



Photo 71. 20061109MO4US.JPG



Photo 72. 20061109MO4RB.JPG



Photo 73. 20061109MO4LB.JPG



Photo 74. 20061109MO4DS.JPG



Photo 75. 20061109MO5US.JPG



Photo 76. 20061109MO5RB.JPG



Photo 77. 20061109MO5LB.JPG



Photo 78. 20061109MO5DS.JPG



Photo 79. 20061109MO6US.JPG



Photo 80. 20061109MO6RB.JPG



Photo 81. 20061109MO6LB.JPG



Photo 82. 20061109MO6DS.JPG



Photo 83. 20061110OX1US.JPG



Photo 84. 20061110OX1RB.JPG



Photo 85. 20061110OX1LB.JPG



Photo 86. 20061110OX1DS.JPG



Photo 87. 20061110OX2US.JPG



Photo 88. 20061110OX2RB.JPG



Photo 89. 20061110OX2LB.JPG



Photo 90. 20061110OX2DS.JPG



Photo 91. 20061110OX3US.JPG



Photo 92. 20061110OX3RB.JPG



Photo 93. 20061110OX3LB.JPG



Photo 94. 20061110OX3DS.JPG



Photo 95. 20061110OX4US.JPG



Photo 96. 20061110OX4RB.JPG



Photo 97. 20061110OX4LB.JPG



Photo 98. 20061110OX4DS.JPG



Photo 99. 20061110OX5US.JPG



Photo 100. 20061110OX5RB.JPG



Photo 101. 20061110OX5LB.JPG



Photo 102. 20061110OX5DS.JPG



Photo 103. 20061110OX6US.JPG



Photo 104. 20061110OX6RB.JPG



Photo 105. 20061110OX6LB.JPG



Photo 106. 20061110OX6DS.JPG



Photo 107. 20061110OX7US.JPG



Photo 108. 20061110OX7RB.JPG

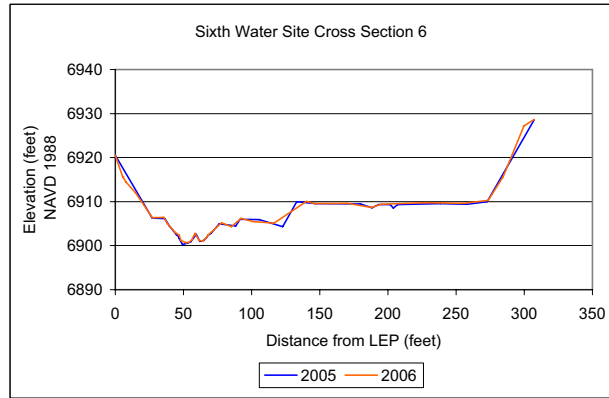
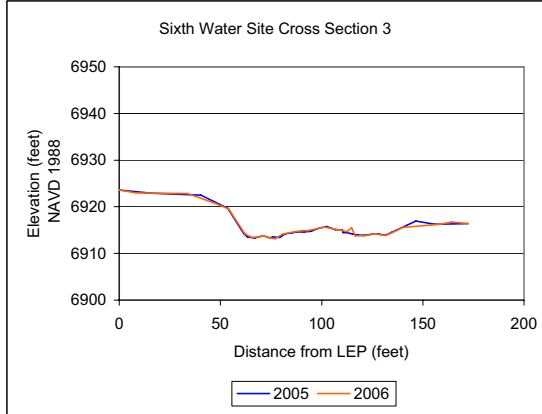
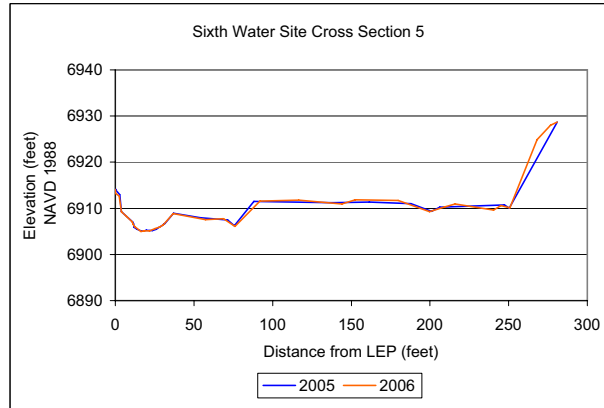
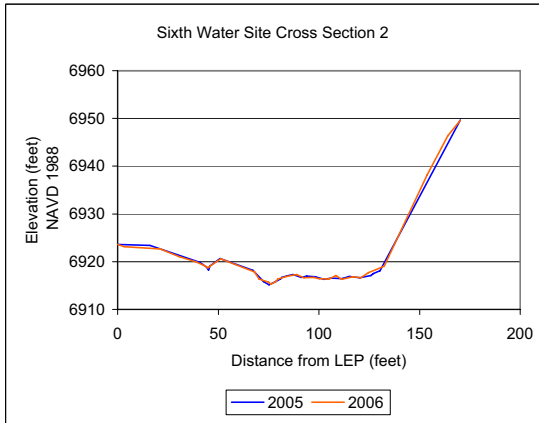
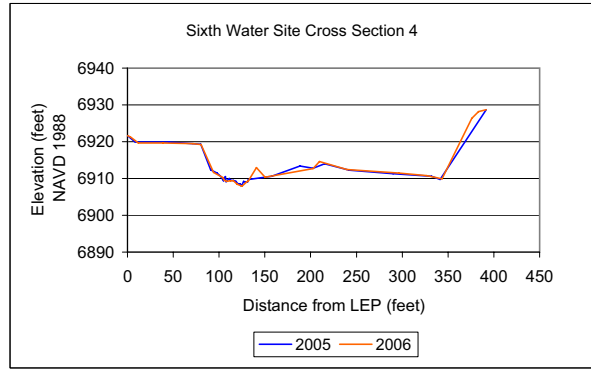
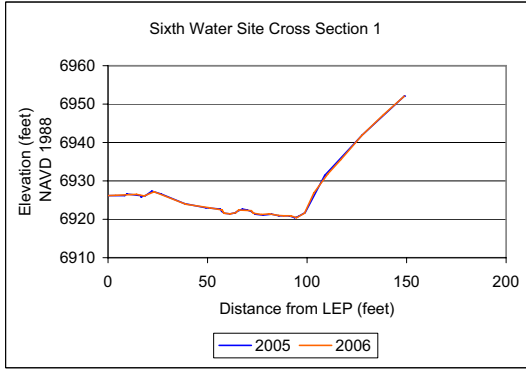


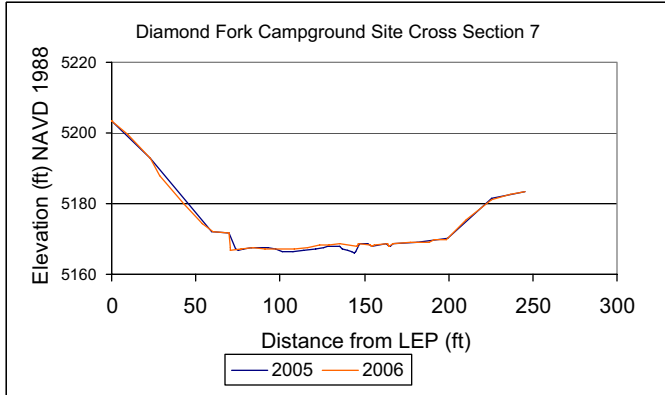
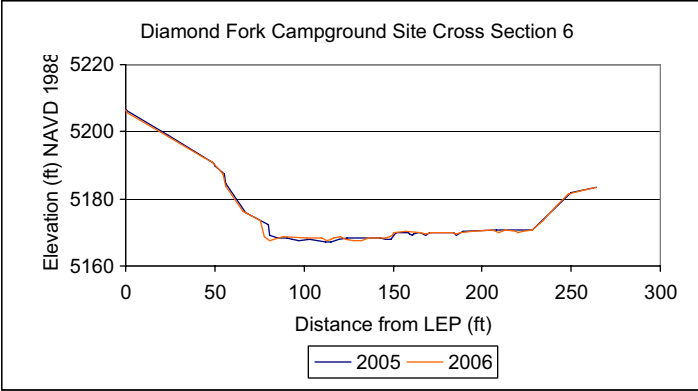
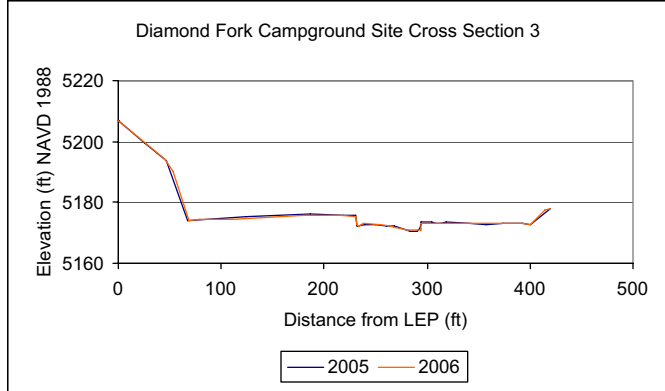
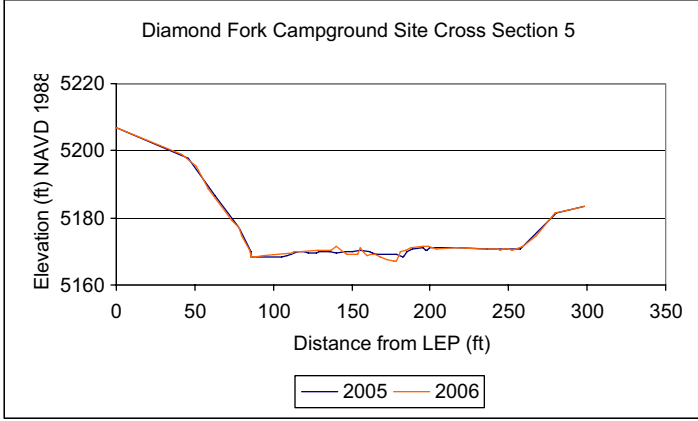
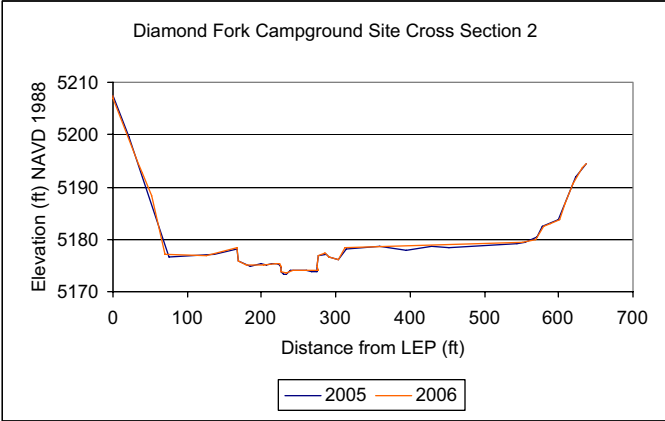
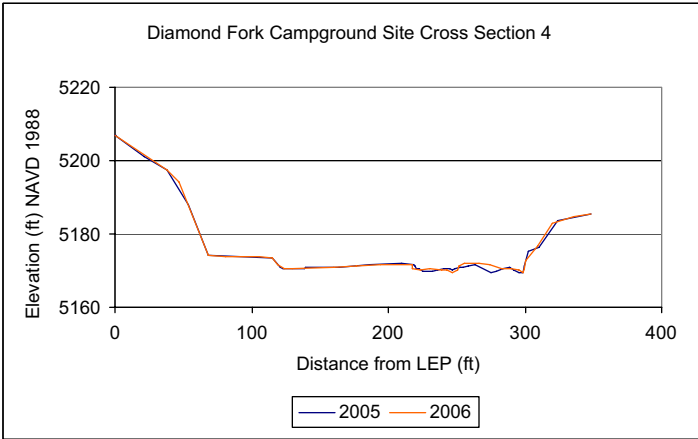
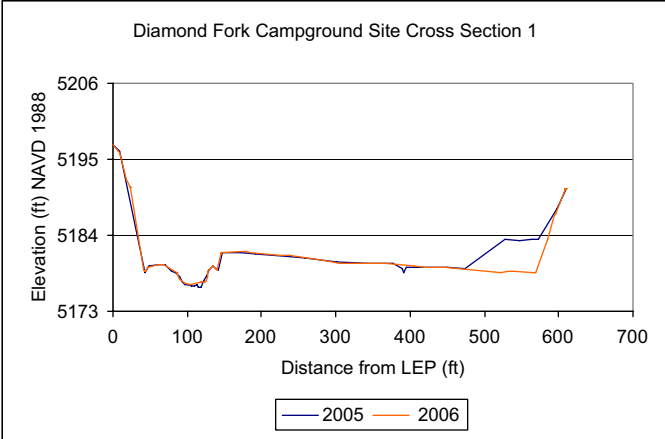
Photo 109. 20061110OX7LB.JPG

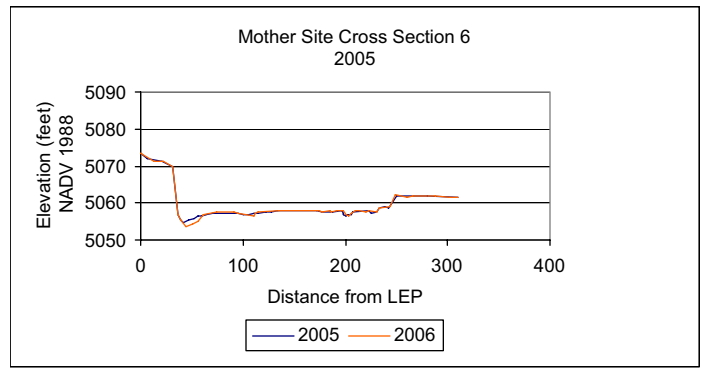
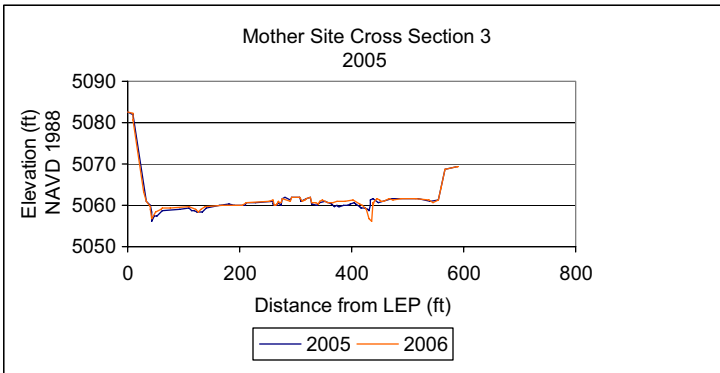
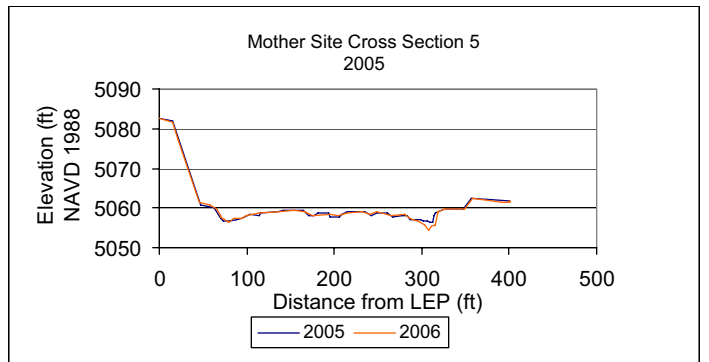
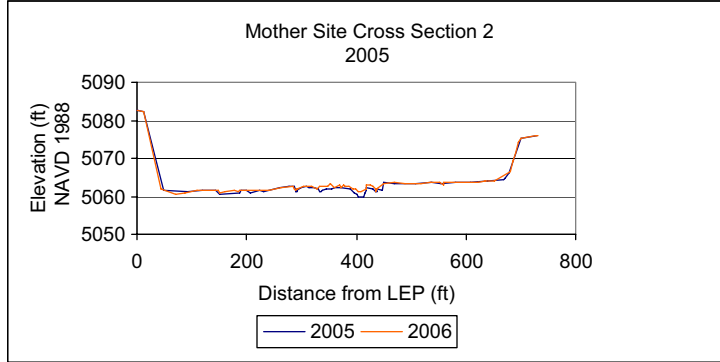
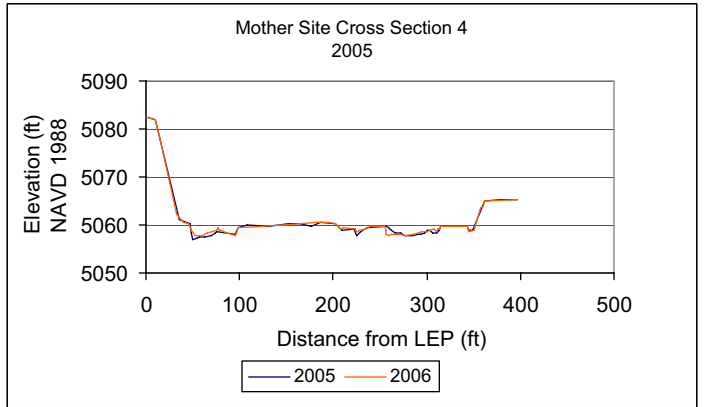
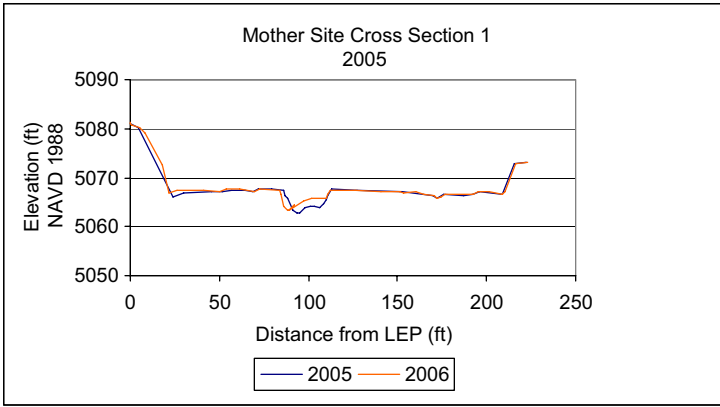


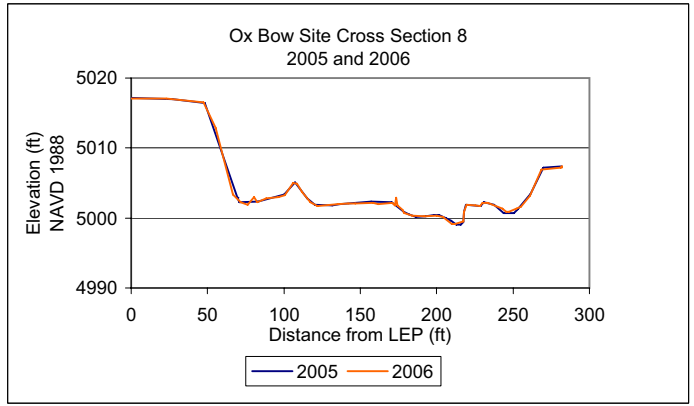
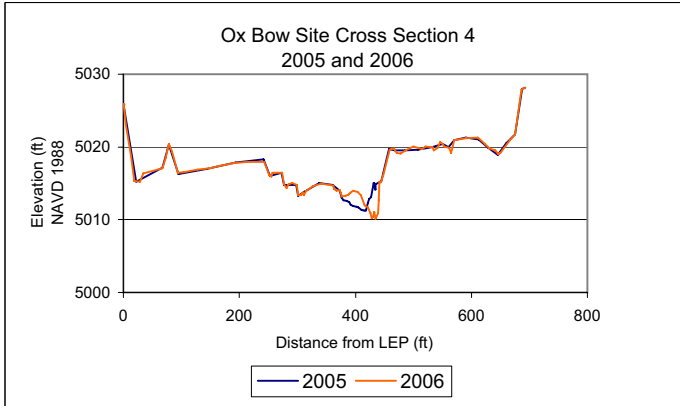
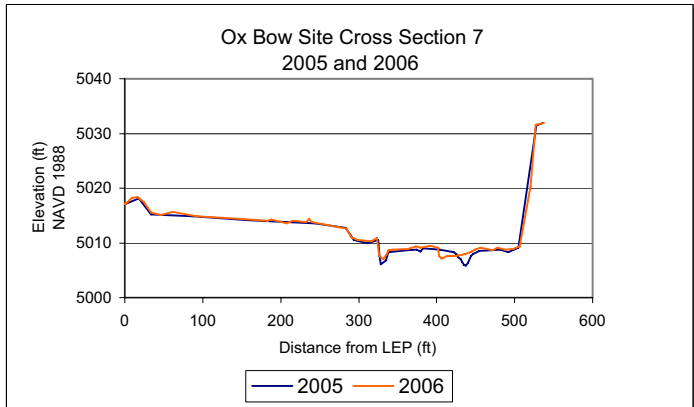
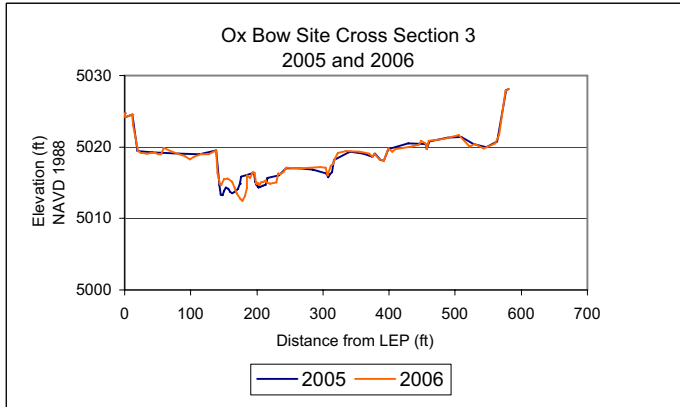
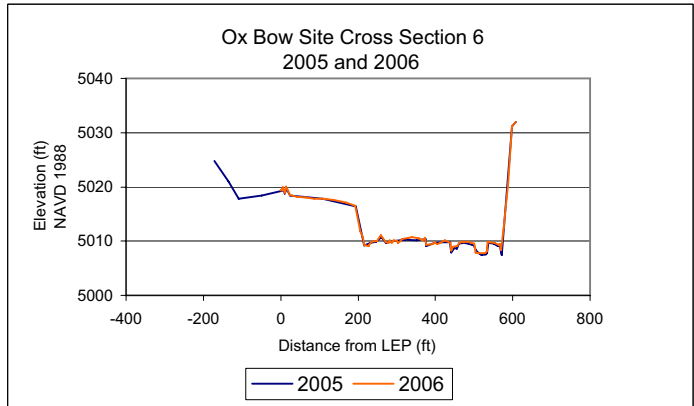
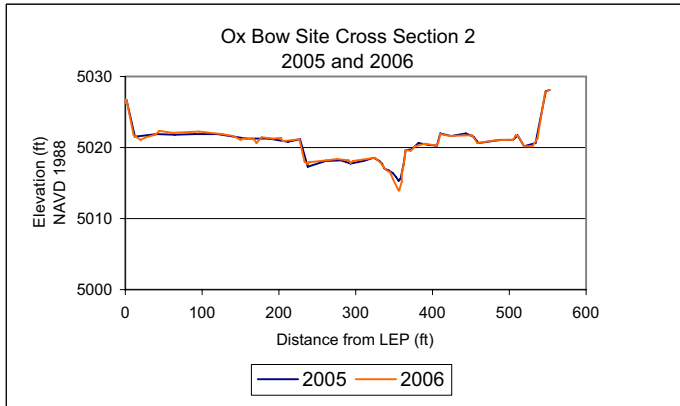
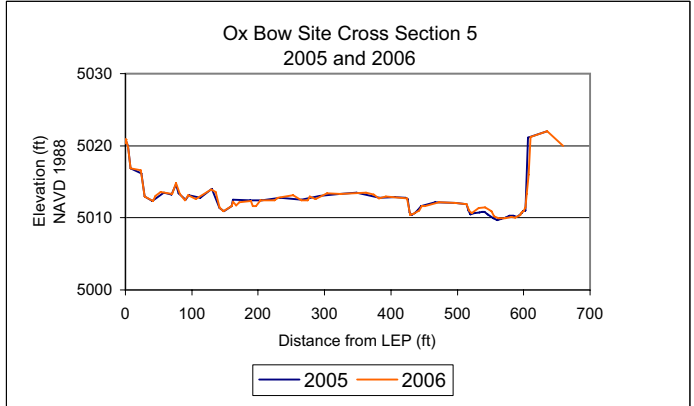
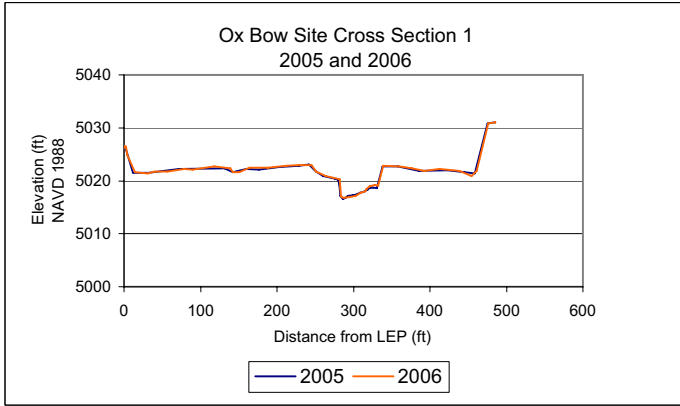
Photo 110. 20061110OX7DS.JPG

APPENDIX 2.2.A: CROSS-SECTION PLOTS









APPENDIX 2.2.B: CROSS-SECTION DATA

SIXTH WATER SITE CROSS SECTION 1 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
1	0.00	6926.19	lep1
2	3.80	6926.24	veg
3	14.30	6926.47	veg
4	18.13	6926.09	veg
5	23.14	6927.16	veg
6	39.03	6923.88	veg
7	51.03	6922.98	veg
8	57.32	6922.39	lbank
9	57.82	6921.95	lew
10	58.29	6921.57	ic
11	61.34	6921.44	ic
12	64.29	6921.72	ic
13	64.58	6921.94	ws
14	65.62	6922.38	is
15	72.03	6922.21	is
16	72.31	6922.01	ws
17	73.06	6921.59	ic
18	77.19	6921.25	ic
19	81.06	6921.42	ic
20	85.65	6920.97	ic
21	88.22	6920.88	ic
22	91.78	6920.88	ic
23	94.74	6920.40	ic
24	98.76	6921.58	rew
25	103.38	6926.81	rbank
26	110.53	6931.81	veg
27	117.01	6935.56	veg
28	127.47	6941.80	veg
29	138.45	6947.28	veg
30	148.83	6952.06	rep1

SIXTH WATER SITE CROSS SECTION 2 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
1	0.00	6923.60	lep2-3
2	3.30	6923.12	veg
3	21.07	6922.68	veg
4	30.50	6921.04	veg
5	38.80	6919.97	veg
6	43.47	6919.11	sch ws
7	44.81	6918.73	sch ic
8	45.66	6918.97	sch ws
9	51.20	6920.56	veg
10	68.08	6917.83	veg
11	70.25	6916.35	veg
12	75.02	6915.72	lew
13	76.13	6915.29	ic
14	78.57	6915.80	ic
15	79.70	6916.36	ws
16	83.90	6916.89	is
17	88.80	6917.30	ws
18	92.57	6916.65	ic
19	97.35	6916.69	ic
20	100.23	6916.47	ic
21	105.10	6916.34	ic
22	108.50	6917.09	ic
23	111.25	6916.27	ic
24	116.78	6916.85	ic
25	120.78	6916.65	ic
26	124.63	6917.69	rew
27	132.38	6919.03	rb
28	153.68	6938.12	veg
29	164.00	6946.41	veg
30	170.30	6949.60	rep2

SIXTH WATER SITE CROSS SECTION 3 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
29	0.00	6923.61	lep2-3
1	0.03	6923.58	lep2-3
2	8.24	6922.94	veg
3	33.81	6922.82	veg
4	47.09	6920.78	veg
5	54.01	6919.55	top lb
6	62.05	6914.25	lew
7	65.26	6913.47	ic
8	67.99	6913.53	ic
9	71.44	6913.80	ic
10	74.50	6913.31	ic
11	77.21	6913.20	ic
12	80.70	6914.10	ic
13	87.00	6914.71	ic
14	90.39	6914.87	ws
15	93.18	6914.86	is
16	101.41	6915.63	is
17	109.87	6914.96	ws
18	112.63	6914.69	ic
19	114.71	6915.50	lwd
20	116.56	6913.78	ic
21	121.11	6913.82	ic
22	126.23	6914.17	ic
23	131.69	6913.85	ic
24	135.26	6914.55	rew
25	140.14	6915.57	rb
26	158.56	6916.25	veg
27	164.32	6916.70	veg
30	172.47	6916.37	rep3

SIXTH WATER SITE CROSS SECTION 4 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
1	0.00	6921.68	lep4
2	3.10	6921.31	veg
3	11.92	6919.63	veg
4	38.81	6919.62	veg
5	71.42	6919.44	veg
6	80.26	6919.19	veg
7	94.06	6911.64	lb
8	104.00	6910.25	lew
9	105.78	6909.50	ic
10	108.37	6909.23	ic
11	112.49	6909.38	ic
12	115.62	6909.39	ic
13	119.78	6908.47	ic
14	125.06	6907.95	ic
15	129.64	6908.94	ic
16	132.15	6909.36	rew
17	140.65	6912.98	top rb
18	150.27	6910.31	veg
19	202.62	6912.68	veg
20	209.76	6914.62	veg
21	239.75	6912.40	veg
22	296.25	6911.46	veg
23	326.50	6910.81	veg
24	343.47	6909.92	veg
25	375.96	6926.38	veg
26	383.42	6928.17	veg
28	391.73	6928.66	rep456

SIXTH WATER SITE CROSS SECTION 5 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
1	0.00	6914.03	lep5
2	0.26	6913.27	veg
3	2.47	6912.64	veg
4	3.90	6909.27	lb
5	7.11	6908.25	lb
6	10.72	6907.04	lb
7	11.34	6906.51	lew
8	12.39	6906.03	ic
9	16.34	6904.97	ic
10	18.22	6905.09	ic
11	21.82	6905.09	ic
12	25.24	6905.62	ic
13	28.31	6905.93	ic
14	30.46	6906.42	rew
15	36.78	6908.86	top rb
16	57.36	6907.57	veg
17	68.81	6907.75	veg
18	75.99	6906.07	veg
19	91.95	6911.58	veg
20	116.47	6911.79	veg
21	143.90	6910.96	veg
22	152.46	6911.83	veg
23	179.84	6911.68	veg
24	199.75	6909.26	veg
25	209.42	6910.34	veg
26	216.07	6910.97	veg
27	240.41	6909.60	veg
28	245.01	6910.62	veg
29	250.81	6910.08	veg
30	267.99	6924.87	veg
31	276.61	6928.01	veg
32	280.97	6928.66	rep456

SIXTH WATER SITE CROSS SECTION 6 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
1	0.00	6920.55	lep6check
2	0.92	6919.65	xs6veg
3	5.43	6915.63	veg
4	5.34	6915.63	veg
5	7.86	6914.46	veg
6	14.73	6911.99	veg
7	27.33	6906.35	veg
8	35.69	6906.42	veg
9	38.35	6904.99	veg
10	43.86	6903.01	top lb
11	47.05	6902.35	lew
12	48.10	6901.16	ic
13	51.82	6900.72	ic
14	54.23	6900.72	ic
15	56.08	6901.37	ic
16	58.42	6902.80	ic bldr
17	61.47	6901.19	ic
18	64.13	6901.08	ic
19	66.90	6901.86	ic
20	68.16	6902.41	rew
21	70.50	6903.06	rb
22	78.03	6905.17	veg
23	85.24	6904.35	veg
24	92.18	6906.22	veg
25	100.72	6905.51	veg
26	116.54	6905.14	veg
27	140.05	6910.08	veg
28	146.24	6909.53	veg
29	170.23	6909.59	veg
30	188.02	6908.66	veg
31	195.00	6909.37	veg
32	227.75	6909.80	veg
33	255.12	6909.62	veg
34	273.36	6910.26	veg
35	284.58	6915.62	veg
36	299.78	6927.19	veg
37	307.18	6928.66	rep456

DIAMOND FORK CAMPGROUND SITE CROSS SECTION 1 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
3	0.00	5197.23	DFCLEP1
42	7.55	5196.35	veg
66	9.32	5196.05	nnveg
41	18.14	5192.25	veg
40	22.65	5191.21	veg
65	23.03	5191.10	nnveg
39	41.98	5179.25	veg
64	42.56	5179.11	nnveg
38	45.77	5179.18	veg
37	47.16	5179.69	veg
36	60.35	5179.99	veg
35	68.43	5180.09	veg
34	85.54	5178.98	veg
63	85.66	5178.98	nnveg
33	87.76	5178.30	lew
32	89.40	5177.91	ic
31	96.20	5177.39	ic
30	104.21	5177.20	ic
29	112.14	5177.27	ic
28	118.59	5177.46	ic
27	123.73	5177.59	ic
26	126.39	5177.78	ic
25	127.17	5178.34	rew
61	128.00	5178.92	nnveg
24	128.33	5179.14	bank
23	134.21	5179.93	veg
22	137.08	5179.62	veg bank
21	140.03	5179.25	veg bank
60	144.54	5181.57	nnveg
20	145.25	5181.66	veg
59	178.68	5181.88	nnveg
19	184.36	5181.67	veg
18	223.65	5181.41	veg
58	237.78	5181.29	nnveg
17	261.37	5181.03	veg
16	284.58	5180.69	veg
57	305.62	5180.32	nnveg
15	322.34	5180.18	veg
56	340.26	5180.24	nnveg
14	366.84	5180.14	veg
13	405.06	5179.81	veg
55	420.72	5179.64	nnveg
12	447.25	5179.57	veg
11	521.42	5178.98	veg
54	530.40	5179.04	nnveg
53	540.91	5178.99	nnveg
52	564.90	5178.88	nnveg
10	569.87	5178.81	veg
9	585.91	5183.75	veg
8	594.37	5187.08	veg
51	595.04	5187.36	nnveg
7	608.89	5190.82	veg
2	609.31	5190.97	DFCREP1
5	609.55	5190.92	rep1
4	609.57	5190.91	rep1

DIAMOND FORK CAMPGROUND SITE CROSS SECTION 2 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
4	0.00	5207.53	lep2
3	0.30	5207.53	DFCLEP2
6	0.67	5207.07	veg
7	34.48	5194.51	veg
8	40.38	5192.62	veg
9	51.49	5188.33	veg
10	70.41	5177.15	veg
11	124.87	5176.86	veg
12	166.50	5178.37	veg
13	168.83	5175.84	veg
14	179.26	5175.12	veg
15	202.30	5175.19	veg
16	219.66	5175.44	veg
17	223.75	5175.39	tbank
18	225.51	5174.80	bank
19	225.86	5174.60	lew
20	226.60	5173.92	ic
21	233.46	5173.65	ic
22	241.48	5174.13	ic
23	248.86	5174.20	ic
24	257.29	5174.19	ic
25	265.03	5174.00	ic
26	272.25	5174.02	ic
27	275.56	5174.06	ic
28	275.42	5174.81	rew
29	276.62	5176.93	tbank
30	284.85	5177.40	veg
31	291.50	5176.63	veg
32	303.86	5176.17	veg
33	313.08	5178.42	veg
34	431.01	5178.93	veg
36	551.67	5179.52	veg
37	569.21	5179.89	veg
38	578.98	5182.54	veg
39	588.77	5183.03	veg
40	601.12	5183.85	veg
41	609.13	5186.77	veg
42	619.36	5190.74	veg
43	631.79	5193.77	veg
2	638.04	5194.35	DFCREP2

230
271

670.6133564
670.6274589

5196.889
5196.899

DIAMOND FORK CAMPGROUND SITE CROSS SECTION 3 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
4	0.00	5206.85	DFCLEP345
6	45.41	5193.97	veg
7	52.72	5190.09	veg
8	68.42	5174.15	veg
9	78.48	5174.24	veg
10	110.78	5174.57	veg
11	180.05	5175.76	veg
12	216.29	5175.61	veg
13	230.41	5175.48	veg
14	231.63	5172.68	veg
15	233.16	5172.39	lew
16	234.10	5172.44	ic
17	235.71	5172.49	ws
18	238.35	5172.99	is
19	254.36	5172.90	is
20	264.02	5172.23	ws
21	267.77	5171.68	ic
22	274.21	5171.56	ic
23	280.83	5170.94	ic
24	286.49	5170.86	ic
25	291.58	5170.81	ic
26	294.22	5171.10	ic
27	294.19	5172.29	rew
28	294.47	5173.30	veg
29	308.32	5173.31	veg
30	340.53	5173.33	veg
31	374.49	5173.22	veg
32	391.89	5173.03	veg
33	399.78	5172.53	veg
34	414.90	5177.64	veg
2	419.64	5178.00	DFCREP3

DIAMOND FORK CAMPGROUND SITE CROSS SECTION 4 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
4	0.00	5206.89	DFCLEP345
6	38.12	5197.31	veg
7	46.87	5194.06	veg
8	68.09	5174.23	veg
9	81.28	5173.71	veg
10	105.71	5173.94	veg
11	115.07	5173.44	veg
12	118.79	5171.53	veg
13	124.32	5170.39	veg
14	129.95	5170.63	veg
15	159.89	5171.03	veg
16	176.76	5171.43	veg
17	194.53	5171.58	veg
18	217.11	5171.78	veg
19	217.23	5170.89	lew
20	217.60	5170.46	ic
21	223.21	5170.08	ic
22	229.85	5170.47	ic
23	238.79	5170.33	ic
24	242.55	5170.16	ic
25	246.73	5169.58	ic
26	250.69	5170.27	ic
27	252.19	5171.21	ws
28	255.37	5171.89	is
29	266.14	5171.99	is
30	273.66	5171.61	is
31	282.47	5170.71	is
32	290.22	5170.43	ws
33	295.36	5170.00	ic
34	298.83	5169.34	ic
35	299.11	5170.43	rew
36	300.07	5172.66	veg
37	309.03	5176.73	veg
38	320.33	5182.75	veg
39	335.83	5184.67	veg
2	348.30	5185.31	DFCREP4

DIAMOND FORK CAMPGROUND SITE CROSS SECTION 5 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
4	0.00	5206.92	DFCLEP345
6	0.33	5206.80	veg
7	41.69	5198.80	veg
8	50.80	5195.28	veg
9	58.27	5188.58	veg
10	73.92	5179.07	veg
11	78.20	5177.01	veg slump
12	79.68	5174.52	veg slump
13	85.10	5170.22	tbank
14	85.79	5168.78	lew bw
15	86.06	5168.15	ic
16	88.28	5168.38	ic
17	93.44	5168.78	lew bw
18	111.77	5169.61	cob sand
19	112.65	5170.09	veg
20	117.54	5170.06	veg
21	128.24	5170.48	veg
22	136.58	5170.38	veg
23	140.12	5171.72	lwd top
24	144.43	5169.94	lew
25	147.20	5169.29	ic
26	148.73	5169.09	ic
27	154.09	5169.26	ic
28	155.58	5171.32	ic lwd pile
29	157.37	5169.95	ws
30	159.52	5168.79	ic
31	162.11	5169.15	ic
32	165.02	5168.97	ic
33	168.09	5168.21	ic
34	172.32	5167.55	ic
35	176.48	5167.03	ic
36	178.35	5167.21	ic
37	180.48	5168.57	ic
38	181.36	5169.94	rew
39	184.76	5170.36	veg
40	188.15	5171.00	veg
41	195.78	5171.69	veg
42	198.68	5171.62	veg
43	203.74	5170.84	veg
44	216.20	5170.99	veg
45	232.48	5170.70	veg
46	243.00	5170.86	veg
47	244.42	5170.33	veg
48	246.70	5170.75	veg
49	249.77	5170.79	veg
50	252.28	5170.27	veg
51	259.21	5171.44	veg
52	267.2593246	5174.859689	veg
53	279.0779279	5181.409327	veg
54	291.2706847	5182.713531	veg
2	297.8106651	5183.52066	DFCREP567

DIAMOND FORK CAMPGROUND SITE CROSS SECTION 6 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
4	0.00	5206.35	lep6
6	1.12	5205.81	veg
7	24.13	5198.62	veg
8	43.82	5192.31	veg
9	48.70	5190.87	veg
10	54.98	5187.29	veg
11	56.01	5183.97	veg
12	66.10	5176.42	veg
13	75.87	5173.63	tbank
14	77.59	5168.78	lew
15	80.43	5167.62	ic
16	87.95	5168.56	ic
17	101.66	5168.43	ic
18	109.84	5168.47	ic
19	112.91	5167.56	ic
20	115.14	5167.78	ic
21	116.76	5168.46	ic
22	120.72	5168.70	ic
23	123.72	5168.05	ic
24	127.86	5167.59	ic
25	132.21	5167.58	ic
26	136.06	5168.30	ic
27	141.72	5168.27	ic
28	146.06	5168.43	ic
29	148.23	5168.66	ic
30	149.29	5169.18	rew
31	150.68	5169.95	tbank
32	157.41	5170.18	veg
33	165.01	5170.06	veg
34	168.09	5169.64	veg
35	171.19	5170.10	veg
36	183.52	5169.99	veg
37	185.54	5169.36	veg
38	187.55	5170.01	veg
39	194.58	5170.34	veg
40	205.54	5170.54	veg
41	209.47	5170.13	veg
42	211.14	5170.18	veg
43	213.16	5170.63	veg
44	218.92	5170.51	veg
45	220.27	5169.96	veg
46	222.85	5170.49	veg
47	228.43	5170.64	veg
48	233.98	5173.58	veg
49	241.92	5178.01	veg
50	248.54	5181.46	veg
51	257.72	5182.62	veg
2	264.34	5183.52	DFCREP567

DIAMOND FORK CAMPGROUND SITE CROSS SECTION 7 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
3	0.00	5203.44	DFCLEP7
4	0.01	5203.39	lep7
6	9.56	5199.69	veg
7	23.17	5193.00	veg
8	28.69	5188.02	veg
9	42.45	5179.85	veg
10	54.20	5174.27	veg
11	60.17	5172.08	veg
12	69.71	5171.60	tbank
13	70.20	5167.70	lew
14	70.48	5166.95	ic
15	77.17	5167.26	ic
16	83.74	5167.60	ic
17	91.00	5167.32	ic
18	98.77	5167.06	ic
19	108.70	5167.31	ic
20	116.25	5167.45	ic
21	123.51	5168.18	rew
22	129.00	5168.29	veg
23	135.55	5168.68	veg
24	145.33	5168.03	veg
25	145.34	5168.02	veg
26	146.82	5168.83	tbank
27	153.20	5168.48	veg
28	154.20	5167.98	veg
29	155.91	5168.35	veg
30	163.63	5168.52	veg
31	164.76	5167.98	veg
32	166.82	5168.62	veg
33	177.07	5169.01	veg
34	188.14	5169.11	veg
35	191.38	5169.84	veg
36	199.06	5169.91	veg
37	210.64	5175.52	veg
38	225.23	5181.28	veg
39	236.52	5182.57	veg
2	245.22	5183.52	DFCREP567

MOTHER SITE CROSS SECTION 1 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
3	0.00	0.00	MOLEP1
4	13.12	43.06	lep1
7	22.97	75.35	veg
8	26.25	86.12	veg
9	29.53	96.88	veg
10	32.81	107.65	veg
55	180.46	592.07	tw
11	36.09	118.41	veg
12	39.37	129.18	veg
13	42.65	139.94	veg
54	177.17	581.31	tw
14	45.93	150.71	veg
15	49.22	161.47	veg
16	52.50	172.24	veg
53	173.89	570.54	tw
17	55.78	183.00	veg
18	59.06	193.77	veg
19	62.34	204.53	veg
52	170.61	559.78	tw
20	65.62	215.30	tbank
21	68.90	226.06	lew
22	72.18	236.83	ic
23	75.46	247.59	ic
24	78.74	258.36	ic
25	82.03	269.12	ic
51	167.33	549.01	tw
26	85.31	279.89	ic
27	88.59	290.65	ic
28	91.87	301.42	ic
29	95.15	312.18	ic
30	98.43	322.95	ic
31	101.71	333.71	ic
32	104.99	344.48	rew
33	108.27	355.24	tbank
34	111.55	366.01	veg
35	114.84	376.77	veg
36	118.12	387.54	veg
37	121.40	398.30	veg
38	124.68	409.07	veg
39	127.96	419.83	veg
40	131.24	430.60	veg
41	134.52	441.36	veg
42	137.80	452.13	veg
43	141.08	462.89	veg
44	144.36	473.66	veg
45	147.65	484.42	veg
46	150.93	495.19	veg
47	154.21	505.95	veg
48	157.49	516.72	veg
49	160.77	527.48	veg
2	6.56	21.53	MOREP1

MOTHER SITE CROSS SECTION 2 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
3	0.00	5082.53	MOLEP2345
75	13.06	5082.17	veg
74	44.44	5062.06	veg
73	69.90	5060.61	veg
72	87.80	5060.84	veg
71	110.00	5061.66	veg
70	147.68	5061.66	veg
69	150.60	5060.91	veg
68	160.42	5061.27	veg
67	177.31	5061.50	veg
66	185.35	5061.27	veg
65	188.40	5061.43	veg
64	220.75	5061.70	veg
63	239.83	5061.73	veg
62	263.14	5062.32	veg
61	285.46	5062.78	veg
60	288.04	5061.76	ws
59	290.43	5061.50	sc
58	291.83	5061.80	ws
57	292.07	5062.06	veg
56	303.79	5062.68	veg
55	317.38	5062.58	lew
54	322.54	5062.35	ic
53	328.45	5062.09	ic
52	332.53	5062.52	ic
51	339.24	5062.52	ic
50	345.24	5062.58	ic
49	347.95	5062.71	ws
48	352.80	5063.50	lwd
47	356.76	5062.68	ws
46	360.59	5062.42	ic
45	363.62	5062.52	ws
44	368.65	5062.85	is
43	372.24	5062.39	is
42	376.73	5062.88	is
41	380.21	5062.68	is
40	385.89	5062.65	ws
39	393.06	5062.06	ic
38	397.75	5061.80	ic
37	403.43	5061.17	ic
36	409.03	5061.37	ic
35	418.02	5061.76	ic
34	418.32	5062.52	rew
33	419.13	5062.88	veg
32	424.76	5062.98	veg
31	430.54	5062.58	veg

30	434.07	5061.93	ws bkwtr
29	435.70	5061.27	ic bkwtr
28	437.40	5061.96	ws bkwtr
27	439.16	5062.39	veg
26	449.62	5063.17	veg
25	468.25	5063.70	veg
24	489.13	5063.37	veg
22	516.80	5063.34	veg
23	535.50	5063.76	veg
21	552.36	5063.60	veg
20	558.74	5062.91	veg
19	559.65	5063.70	veg
18	569.82	5063.67	veg
17	578.35	5063.63	veg
16	604.17	5063.73	veg
15	622.43	5063.80	veg
14	634.64	5063.93	veg
13	651.20	5064.19	veg
12	681.13	5066.49	veg
11	686.7441487	5069.37467	veg
10	690.3321936	5071.47451	veg
9	695.9682247	5074.23055	veg
8	699.0882391	5075.18204	veg
7	727.767852	5075.87105	veg
5	728.4968415	5075.90386	MOREP2
4	728.5232235	5075.90386	MOREP2

MOTHER SITE CROSS SECTION 3 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
3	0.00	5082.52	MOLEP2345
76	9.35	5082.10	veg
75	10.68	5080.55	veg
74	29.10	5063.36	veg
73	33.09	5061.02	veg
72	39.65	5059.75	veg
71	41.15	5059.16	ws sc
70	44.02	5056.79	ic sc
69	50.79	5058.39	ic sc
68	59.21	5059.04	ws sc
67	61.54	5059.28	veg
66	76.89	5059.23	veg
65	110.33	5059.57	veg
64	122.18	5058.99	ws sc
63	125.65	5058.27	ic sc
62	130.52	5059.05	ws sc
61	139.03	5059.63	veg
60	169.83	5059.96	veg
59	204.88	5060.03	veg
58	211.09	5060.51	veg
57	252.37	5061.12	veg
56	258.88	5061.27	veg
55	261.19	5060.16	ws
54	262.22	5059.95	ic sc
53	263.97	5060.13	ws
52	266.03	5060.24	veg
51	268.84	5060.94	veg
50	271.58	5060.53	veg
49	274.46	5060.60	veg
48	275.76	5061.72	veg
47	289.71	5061.12	veg
46	292.93	5061.85	veg
45	306.86	5061.87	veg
44	310.98	5060.94	veg
43	316.61	5061.25	veg
42	319.43	5061.74	veg
41	325.69	5061.86	veg
40	329.54	5060.54	veg
39	336.54	5060.69	veg
38	339.33	5060.42	veg
37	341.91	5060.84	veg
36	348.39	5061.21	veg
35	357.52	5060.63	veg

34	365.29	5060.74	veg
33	367.70	5060.49	veg
32	374.99	5060.86	gravel veg
31	388.67	5061.05	gravel veg
30	402.05	5061.23	gravel veg
29	413.62	5060.26	gravel veg
28	420.06	5059.99	lew
27	423.77	5059.44	ic
26	427.27	5059.12	ic
25	431.86	5056.64	ic
24	436.02	5056.00	ic
23	438.23	5060.76	ic
22	439.13	5059.87	rew
21	439.97	5061.13	tbank
20	445.72	5061.47	veg
19	450.89	5061.36	veg
18	453.31	5060.92	veg
17	456.56	5061.12	veg
16	463.02	5061.23	veg
15	466.57	5061.75	veg
14	473.41	5061.33	veg
13	488.47	5061.60	veg
12	514.86	5061.60	veg
11	538.59	5061.28	veg
10	545.28	5060.74	veg
9	554.49	5061.33	veg
8	560.25	5064.21	veg
7	566.90	5068.70	veg
6	587.64	5069.22	veg
2	588.4675064	5069.282802	MOREP3
4	588.7460305	5069.271401	MOREP3

MOTHER SITE CROSS SECTION 4 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
3	0.00	0.00	MOLEP2345
63	10.39	5082.00	veg
62	14.38	5078.55	veg
61	32.92	5062.14	veg
60	39.67	5060.44	veg
54	42.37	5068.29	bw
59	45.74	5060.34	veg
58	48.49	5059.00	ws
57	53.10	5057.80	bw
56	59.98	5057.78	bw
55	66.06	5058.21	bw
53	75.77	5059.01	ws dam
52	77.18	5059.52	damtop
51	78.81	5058.94	ws dam
50	79.92	5058.78	bw
49	86.93	5058.39	bw
48	91.80	5058.17	bw
47	95.85	5057.88	bw
46	96.98	5058.33	ws bw
45	98.46	5059.50	veg
44	126.01	5059.66	veg
43	164.86	5060.34	veg
42	182.23	5060.50	veg
41	194.73	5060.58	veg
40	202.52	5060.36	veg
39	208.18	5059.05	veg
38	210.93	5059.31	veg
37	224.06	5059.22	veg
36	225.06	5058.62	veg
35	227.15	5058.63	veg
34	228.20	5058.91	veg
33	235.73	5059.23	veg
32	239.65	5059.61	veg
31	249.49	5059.81	veg
30	255.25	5059.76	bank
29	255.89	5058.86	lew
28	256.72	5057.96	ic
27	258.88	5057.84	ic
26	262.55	5058.12	ic
25	272.63	5058.18	ic
24	276.90	5057.81	ic
23	286.10	5058.08	ic
22	294.95	5058.51	ic
21	300.53	5058.66	rew
20	303.91	5059.01	veg
19	307.08	5059.05	veg
18	309.86	5058.50	veg
17	311.32	5059.05	veg

16	313.95	5059.21	veg
15	315.00	5059.70	veg
14	333.92	5059.63	veg
13	337.1466603	5059.588855	veg
12	343.370891	5059.591932	veg
11	345.3173432	5058.73693	veg
10	350.2237561	5058.946143	veg
9	357.6481588	5063.620413	veg
8	359.7572559	5063.818054	veg
7	362.0116183	5065.076347	veg
6	395.9402209	5065.153289	veg
2	396.5207569	5065.260296	MOREP4
4	396.6918024	5065.222066	MOREP4

MOTHER SITE CROSS SECTION 5 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
3	0.00	5082.53	MOLEP2345
48	15.38	5081.71	veg
47	21.38	5077.09	veg
46	45.77	5061.43	veg
45	57.97	5060.61	veg
44	66.20	5059.60	veg
43	69.36	5058.09	ewtr bvr dm
42	69.72	5057.76	ic bvr dm
41	74.15	5057.07	ic bvr dm
40	78.85	5056.55	ic bvr dm
39	85.54	5057.40	ic bvr dm
38	94.34	5057.53	ic bvr dm
37	99.73	5057.96	ewtr bvr dm
36	114.91	5058.61	veg
35	136.63	5059.04	veg
34	154.20	5059.30	veg
33	165.41	5059.17	veg
32	175.81	5058.09	veg
31	195.15	5058.32	veg
30	204.55	5058.09	veg
29	214.21	5058.84	veg
27	232.44	5058.94	veg
26	241.54	5058.28	veg
25	248.95	5058.91	veg
24	264.58	5058.19	veg
23	280.94	5058.35	veg
22	286.68	5057.46	lew
21	289.96	5056.97	ic
20	296.41	5056.74	ic
19	302.95	5055.82	ic
18	307.66	5054.51	ic
17	311.32	5055.36	ic
16	314.87	5055.76	ic
15	316.97	5057.46	rew
14	317.94	5059.14	tbnk
13	326.31	5059.70	veg
12	330.78	5059.76	veg
11	341.76	5059.86	veg
10	346.96	5059.73	veg
9	348.87	5059.83	veg
8	357.68	5062.45	veg
7	391.14	5061.57	veg
6	400.10	5061.50	veg
2	400.30	5061.63	MOREP56
4	400.58	5061.57	MOREP56

MOTHER SITE CROSS SECTION 6 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
5	0.00	5073.48	MOLEP6
3	0.25	5073.54	MOLEP6
7	0.59	5073.31	veg
8	12.60	5071.29	veg
9	21.93	5071.21	veg
10	31.46	5069.76	tbank
11	36.51	5056.72	lew
12	38.96	5055.47	ic
13	44.95	5053.64	ic
14	51.44	5054.25	ic
15	56.48	5055.11	ic
16	61.29	5056.68	rew
17	61.63	5056.98	gravel veg
18	73.74	5057.40	veg
19	77.64	5057.65	veg
20	90.74	5057.47	veg
21	95.70	5057.33	gravel veg
22	102.71	5056.70	gravel veg
23	110.17	5056.46	gravel veg
24	112.04	5057.16	veg
25	115.02	5057.71	veg
26	135.90	5057.81	veg
27	166.07	5057.78	veg
28	174.55	5058.08	veg
29	177.49	5057.73	veg
30	185.27	5057.84	veg
31	186.80	5057.56	veg
32	191.69	5057.92	veg
33	197.82	5057.98	veg
34	200.64	5056.76	veg
35	202.91	5056.63	veg
36	204.12	5056.99	veg
37	206.08	5057.10	veg
38	209.25	5058.00	veg
39	213.58	5057.91	veg
40	220.35	5057.74	veg
41	222.82	5057.91	veg
42	230.44	5057.52	veg
43	233.30	5058.82	veg
44	243.09	5058.90	veg
45	249.48	5062.08	veg
46	260.69	5061.54	veg
47	266.19	5061.87	veg
48	287.30	5061.89	veg
49	301.74	5061.50	veg
2	310.03	5061.64	MOREP56

OXBOW SITE CROSS SECTION 1 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
4	0.00	5026.59	OXLEP12
5	0.04	5026.59	OXLEP12
3	0.85	5026.20	OXLEP12
8	2.31	5026.43	veg
9	4.05	5024.85	veg
10	13.84	5021.60	veg
11	30.60	5021.44	veg
12	40.52	5021.70	veg
13	57.24	5021.70	veg
14	78.43	5022.29	veg
15	89.27	5022.06	veg
16	117.65	5022.72	veg
17	139.15	5022.33	veg
18	142.46	5021.64	veg
19	150.83	5021.64	veg
20	164.01	5022.46	veg
21	188.26	5022.49	veg
22	211.59	5022.78	veg
23	228.86	5023.01	veg
24	245.37	5023.01	veg
25	250.87	5021.77	veg
26	263.19	5020.88	veg
27	274.45	5020.55	veg
28	281.89	5020.29	t bnk
29	283.05	5018.58	lew
30	283.66	5017.01	ic
31	287.25	5016.85	ic
32	294.55	5016.91	ic
33	302.74	5017.21	ic
34	309.98	5017.80	ic
35	315.16	5018.03	ic
36	316.84	5018.45	rew
38	321.59	5018.91	veg
39	328.13	5019.18	veg
40	332.54	5019.14	veg
41	338.74	5022.88	veg
42	359.97	5022.69	veg
43	376.20	5022.36	veg
44	392.22	5021.83	veg
45	412.80	5022.19	veg
46	438.79	5021.93	veg
47	454.59	5020.88	veg
48	460.81	5021.93	veg
49	475.83	5030.79	veg
2	485.42	5031.05	OXREP1
52	485.43	5030.99	rep1

OXBOW SITE CROSS SECTION 2 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
4	0.00	5026.73	OXLEP12
5	0.05	5026.72	OXLEP12
3	0.80	5026.19	OXLEP12
7	1.47	5026.63	veg
8	10.60	5021.71	veg
9	13.21	5021.55	veg
10	20.18	5021.05	veg
11	26.54	5021.47	veg
12	38.76	5021.76	veg
13	44.34	5022.30	veg
14	61.91	5022.10	veg
15	95.85	5022.28	veg
16	125.97	5021.89	veg
17	141.24	5021.66	veg
18	150.32	5021.04	veg
19	153.54	5021.24	veg
20	167.91	5021.15	veg
21	171.14	5020.66	veg
22	177.30	5021.45	veg
23	192.81	5021.26	veg
24	202.69	5021.33	veg
25	204.89	5020.89	veg
26	226.40	5021.21	veg
27	233.45	5018.03	veg
28	237.90	5017.62	veg
29	239.23	5017.90	veg
30	261.70	5018.21	veg
31	275.66	5018.41	veg
32	290.90	5018.21	veg
33	293.50	5017.87	veg
34	296.48	5018.10	veg
35	325.37	5018.59	veg
36	332.69	5017.87	veg
37	335.02	5017.44	lew
38	337.98	5016.93	ic
39	344.89	5016.47	ic
40	348.61	5015.61	ic
41	353.83	5014.28	ic
42	355.87	5013.96	ic
43	356.80	5013.95	ic
44	360.02	5015.21	ic
45	360.30	5016.31	ic
46	362.29	5017.55	rew
47	364.82	5019.61	tbank
48	372.06	5019.54	veg
49	377.17	5020.21	veg
50	389.84	5020.50	veg
51	404.64	5020.30	veg

52	407.09	5020.70	veg
53	409.81	5021.94	veg
54	423.72	5021.61	veg
55	440.73	5021.69	veg
56	451.55	5021.73	veg
57	458.54	5020.67	veg
58	480.28	5021.02	veg
59	495.02	5021.10	veg
60	505.22	5021.12	veg
61	508.46	5021.72	veg
62	511.39	5021.62	veg
63	519.38	5020.15	veg
64	530.39	5020.20	veg
65	536.69	5021.31	veg
66	546.99	5027.82	veg
2	552.35	5028.13	OXREP234

OXBOW SITE CROSS SECTION 3 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
6	0.00	5024.68	lep3
4	0.06	5024.67	OXLEP3
3	0.80	5024.20	OXLEP3
7	11.43	5024.56	veg
8	11.33	5024.55	veg
9	12.68	5023.14	veg
10	19.95	5019.41	veg
11	25.27	5019.20	veg
12	33.57	5019.09	veg
13	44.93	5019.28	veg
14	51.03	5019.00	veg
15	54.79	5018.98	veg
16	58.69	5019.87	veg
17	71.57	5019.31	veg
18	90.93	5018.72	veg
19	98.88	5018.31	veg
20	104.16	5018.59	veg
21	114.89	5019.01	veg
22	127.08	5018.98	veg
23	138.83	5019.50	veg
24	140.46	5016.42	veg
25	143.93	5014.74	veg
26	146.27	5014.65	veg
27	150.27	5015.46	veg
28	156.10	5015.57	veg
29	162.48	5015.17	veg
30	166.24	5014.24	lew
31	169.28	5013.53	ic
32	175.35	5012.68	ic
33	177.91	5012.49	ic
34	182.17	5013.17	ic
35	184.54	5014.25	ws
36	185.31	5016.01	is
37	190.11	5015.69	is
38	193.71	5016.52	is
39	196.07	5016.36	is
40	198.12	5015.04	ws
41	199.35	5014.85	ic
42	201.01	5014.92	ic
44	203.29	5014.69	ic?
43	203.71	5014.69	ic
45	205.91	5015.03	wetbar
46	210.00	5015.13	wetbar

47	212.57	5015.29	wetbarlwd
48	214.66	5015.01	ic
49	219.77	5014.90	ic
50	229.09	5015.02	ic
51	230.85	5015.51	rew
52	232.11	5016.26	bank
53	235.19	5016.19	veg
54	239.78	5016.46	veg
55	243.62	5017.10	veg
56	263.03	5017.00	veg
57	281.85	5017.08	veg
58	295.48	5017.24	veg
59	304.26	5017.10	veg
60	307.20	5016.06	veg
61	311.38	5017.40	veg
62	315.0599149	5017.560862	veg
63	317.7484477	5018.295189	veg
64	322.7056473	5019.163092	veg
65	335.1300677	5019.459078	veg
66	355.1438693	5019.337192	veg
67	369.8750862	5019.039336	veg
68	374.5440412	5018.656749	veg
69	377.1949481	5019.075674	veg
70	385.7182685	5018.285661	veg
71	392.5772126	5018.128475	veg
72	398.4841801	5019.758722	veg
73	404.6359858	5019.376804	veg
74	409.3228552	5019.729469	veg
75	433.7190699	5020.066526	veg
76	445.766544	5020.292738	veg
77	448.6798552	5020.852273	veg
78	454.604567	5020.53165	veg
79	456.7321155	5019.711456	veg
80	460.228775	5020.8562	veg
81	483.3020114	5021.098732	veg
82	505.6591655	5021.653982	veg
83	522.2254871	5020.0853	veg
84	529.5760981	5020.459547	veg
85	542.7401781	5019.812573	veg
86	560.6818972	5020.482563	veg
87	566.4247036	5021.71241	veg
88	576.5058909	5027.848198	veg
2	581.3888937	5028.1325	OXREP234

OXBOW SITE CROSS SECTION 4 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
5	0.00	5025.85	OXLEP4
4	0.02	5025.86	OXLEP4
7	0.08	5025.85	veg
8	0.74	5025.65	veg
3	0.73	5025.39	OXLEP4
9	4.78	5022.98	veg
10	13.08	5018.76	veg
11	19.13	5015.31	veg
12	28.86	5015.25	veg
13	33.70	5016.37	veg
14	67.42	5017.10	veg
15	72.47	5018.51	veg
16	78.53	5020.38	veg
17	84.33	5019.32	veg
18	93.85	5016.49	veg
19	104.96	5016.53	veg
20	127.65	5016.85	veg
21	148.61	5017.06	veg
22	162.17	5017.36	veg
23	189.93	5017.81	veg
24	212.53	5017.92	veg
25	243.08	5017.93	veg
26	251.09	5016.07	veg
27	254.76	5015.96	veg
28	257.63	5016.43	veg
29	273.49	5016.43	veg
30	276.90	5014.89	veg
31	281.54	5014.37	veg
32	285.16	5014.90	veg
33	291.23	5015.08	veg
34	298.77	5014.78	veg
35	301.44	5013.34	veg
36	305.82	5013.36	veg
37	308.85	5013.70	veg
38	311.67	5013.37	veg
39	314.96	5013.92	veg
40	326.22	5014.57	veg
41	340.66	5014.94	veg
42	362.10	5014.74	veg
43	363.13	5014.29	veg
44	367.09	5013.95	veg
45	372.79	5014.12	veg
46	375.33	5013.66	lew
47	376.20	5013.18	ic
48	382.51	5013.29	ic

49	388.19	5013.46	ic
50	391.29	5013.69	ws
51	395.68	5013.95	bar
52	403.41	5013.79	bar
53	409.77	5013.33	bar
54	412.15	5012.64	ws
55	415.80	5011.98	ic
56	421.40	5011.74	ic
57	425.65	5010.89	ic
58	428.3330021	5010.21845	ic
59	429.8392405	5010.394604	ic
60	432.9257884	5011.075431	ic debrispile
61	435.1665325	5010.110751	ic
62	439.252512	5010.893663	ic
63	440.4051287	5012.634585	rew
64	441.3465254	5015.246556	tbank
65	443.9483356	5015.172855	veg
66	447.79612	5016.092874	veg
67	458.6641325	5019.654235	veg
68	466.310629	5019.82258	veg
69	470.9764625	5019.194488	veg
70	477.9526864	5019.110531	veg
71	487.1315812	5019.496288	veg
72	499.9905994	5020.07359	veg
73	515.6612688	5019.743055	veg
74	521.3357658	5020.061565	veg
75	532.7194884	5019.936385	veg
76	534.8857731	5019.529324	veg
77	542.1431717	5019.914717	veg
78	545.7238515	5020.634247	veg
79	550.9978016	5020.420952	veg
80	552.3123883	5020.05601	veg
81	561.6737497	5019.894352	veg
82	564.9783008	5019.16824	veg
83	570.9356764	5020.907305	veg
84	589.8688455	5021.236629	veg
85	611.4805073	5021.264888	veg
86	623.694118	5020.42801	veg
87	631.7214269	5019.780137	veg
88	641.0064455	5019.497482	veg
89	646.2267294	5018.975222	veg
90	649.862985	5019.204502	veg
91	666.6517715	5020.918765	veg
92	675.6706264	5021.723132	veg
93	686.8335699	5027.844838	veg
2	693.3696302	5028.1325	OXREP234

OXBOW SITE CROSS SECTION 5 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
5	0.00	5020.84	OXLEP5
4	0.05	5020.83	OXLEP5
6	0.08	5020.83	OXLEP5
3	0.78	5020.37	OXLEP5
8	1.32	5020.79	veg
9	4.10	5019.93	veg
10	7.48	5016.88	veg
11	22.85	5016.57	veg
12	29.14	5013.00	veg
13	41.32	5012.33	veg
14	45.13	5013.05	veg
15	53.40	5013.60	veg
16	70.02	5013.29	veg
17	76.60	5014.81	veg
18	81.85	5013.33	veg
19	89.78	5012.45	veg
20	94.73	5013.14	veg
21	106.06	5012.63	veg
22	129.05	5013.92	veg
23	136.21	5013.56	veg
24	141.82	5011.44	veg
25	147.20	5010.91	veg
26	159.84	5011.66	veg
27	162.17	5012.28	veg
28	166.54	5011.70	veg
29	171.39	5012.12	veg
30	188.81	5012.32	veg
31	191.71	5011.62	veg
32	196.43	5011.65	veg
33	203.00	5012.41	veg
34	224.50	5012.45	veg
35	229.57	5012.80	veg
36	252.46	5013.12	veg
37	265.45	5012.45	veg
39	274.82	5012.40	veg
40	278.14	5012.95	veg
41	286.33	5012.63	veg
42	303.92	5013.38	veg
43	324.19	5013.33	veg
44	362.49	5013.45	veg
45	374.55	5013.23	veg
46	382.26	5012.71	veg
47	392.53	5012.92	veg

48	424.12	5012.69	veg
49	429.25	5010.42	veg
50	434.23	5010.58	veg
51	442.56	5010.98	veg
52	446.03	5011.62	veg
54	451.30	5011.59	veg
55	472.23	5012.18	veg
56	496.19	5012.07	veg
57	513.84	5011.93	veg
58	517.56	5010.96	veg
59	522.01	5010.67	veg
60	532.37	5011.34	veg
61	542.20	5011.48	veg
62	551.33	5010.89	lew
63	553.5900655	5010.596605	ic
64	555.4034201	5010.20404	ic
65	561.9720912	5009.901082	ic
66	571.8014075	5009.965472	ic
67	581.0674545	5010.081898	ic
68	586.886931	5010.042848	ic
69	594.7411989	5010.415894	ic
70	597.0389994	5010.780971	ic
71	600.0896744	5010.888995	rew
72	602.5238289	5011.478236	veg
73	604.8183632	5013.319963	veg
74	607.6648131	5015.956269	veg
75	609.8694667	5021.211385	veg
2	635.4771999	5021.987187	OXREP5
38	659.1770391	5019.995315	veg

OXBOW SITE CROSS SECTION 6 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
4	0.00	5019.30	OXLEP6
3	0.27	5019.39	OXLEP6
6	5.23	5019.99	veg
7	10.67	5018.92	veg
8	14.30	5020.00	veg
9	23.95	5018.48	veg
10	42.35	5018.21	veg
11	63.17	5018.02	veg
12	86.67	5017.85	veg
13	111.92	5017.83	veg
14	138.58	5017.56	veg
15	168.64	5017.12	veg
16	193.16	5016.55	veg
17	205.37	5011.80	veg
18	212.01	5010.77	veg
19	216.25	5009.35	veg
20	225.32	5009.05	veg
21	226.12	5009.14	veg
22	235.36	5009.90	veg
23	248.33	5009.98	veg
24	259.29	5011.06	veg
25	271.27	5009.82	veg
26	278.49	5009.66	veg
27	282.50	5010.17	veg
28	286.48	5009.65	veg
29	292.15	5010.20	veg
30	299.97	5010.03	veg
31	303.43	5009.70	veg
32	310.33	5010.05	veg
33	313.34	5010.43	veg
34	331.77	5010.60	veg
35	339.31	5010.73	veg
36	358.07	5010.50	veg
37	366.74	5010.17	veg
38	372.91	5010.63	veg
39	376.70	5009.30	veg
40	392.19	5009.43	veg
41	397.74	5009.82	veg
42	403.86	5009.43	veg
43	413.21	5009.71	veg
44	424.07	5010.20	veg
45	438.54	5009.72	veg
46	440.49	5008.24	veg
47	445.08	5008.96	veg
48	455.78	5009.07	veg
49	461.68	5009.71	veg

52	469.63	5009.87	veg
50	471.88	5009.82	veg
51	485.96	5009.95	veg
53	491.95	5009.71	veg
54	500.15	5009.61	veg
55	502.86	5008.91	lew
56	503.39	5007.95	ic
57	508.78	5007.75	ic
58	514.32	5007.83	ic
59	520.53	5007.81	ic
60	528.48	5007.81	ic
61	534.14	5008.10	ic
62	534.31	5008.91	rew
63	535.91	5009.81	t bnk
64	539.68	5009.82	veg
65	552.95	5009.65	veg
66	563.19	5009.30	veg
67	567.06	5009.42	veg
68	570.49	5008.41	veg
69	576.79	5012.47	veg
70	588.18	5020.61	veg
71	597.28	5031.17	veg
2	607.37	5031.94	OXREP67

OXBOW SITE CROSS SECTION 7 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
4	0.00	5017.22	OXLEP78
5	0.00	5017.21	OXLEP78
3	0.39	5017.11	OXLEP78
7	3.44	5017.42	veg
8	8.82	5018.30	veg
9	16.72	5018.40	veg
10	24.72	5017.44	veg
11	33.73	5015.55	veg
12	45.79	5015.09	veg
13	61.96	5015.63	veg
14	92.91	5014.87	veg
15	148.96	5014.38	veg
16	182.75	5014.08	veg
17	188.15	5014.26	veg
18	207.91	5013.58	veg
19	215.37	5014.08	veg
20	232.28	5013.84	veg
21	236.33	5014.34	veg
22	239.98	5013.82	veg
23	274.20	5012.90	veg
24	283.67	5012.59	veg
25	290.86	5010.97	veg
26	299.02	5010.54	veg
27	316.05	5010.29	veg
28	323.35	5010.90	t bnk
29	326.22	5008.04	ws
30	327.29	5007.48	bw
31	331.21	5007.08	bw
32	336.55	5008.08	ws
33	338.00	5008.68	veg
34	344.14	5008.79	veg
35	362.94	5008.85	veg
36	373.31	5009.34	veg
37	379.14	5009.08	veg
39	391.77	5009.48	veg
40	401.70	5009.07	veg
41	402.26	5008.70	lew
42.00	403.31	5007.59	ic
43.00	406.05	5007.19	ic
44.00	413.38	5007.63	ic
45.00	421.49	5007.60	ic
46.00	428.33	5007.74	ic
47.00	436.75	5007.99	ic

48.00	445.19	5008.45	ic
49.00	449.32	5008.72	rew
50.00	456.19	5009.13	veg
51.00	471.95	5008.65	veg
52.00	477.54	5009.09	veg
53.00	481.14	5009.05	veg
54.00	487.62	5008.82	veg
55.00	497.21	5008.92	veg
56.00	506.04	5009.36	veg
57.00	520.39	5020.33	veg
58.00	527.30	5031.60	veg
2.00	537.22	5031.94	OXREP67

OXBOW SITE CROSS SECTION 8 DATA

POINT	DISTANCE FROM LEP (FT)	ELEVATION (NAVD 1988 FT)	DESCRIPTION
3	0.00	5017.11	OXLEP78
54	23.01	5017.03	veg
53	47.49	5016.56	veg
52	55.36	5012.85	veg
51	66.68	5003.37	veg
50	71.69	5002.26	veg
49	76.07	5001.87	veg
48	80.54	5003.01	beavrdam
47	82.44	5002.25	veg
46	88.46	5002.82	veg
45	96.52	5002.97	veg
44	100.58	5003.30	veg
43	106.17	5005.00	veg
42	108.54	5004.91	veg
41	111.86	5003.69	veg
40	117.16	5002.27	veg
39	121.86	5001.69	veg
38	135.43	5001.99	veg
37	142.13	5002.04	veg
36	146.67	5002.04	veg
35	158.31	5002.15	veg
34	161.55	5001.99	veg
33	171.03	5002.21	veg
32	172.71	5001.81	veg
31	173.64	5002.86	log
30	174.43	5001.78	veg
29	177.76	5001.20	veg
28	178.64	5000.82	lew
27	179.03	5000.72	ic
26	184.13	5000.34	ic
25	191.70	5000.28	ic
24	200.00	5000.34	ic
23	204.11	5000.13	ic
22	209.93	4999.17	ic
21	212.07	4999.13	ic
20	217.38	4999.55	ic
19	217.98	5000.91	rew
18	219.35	5001.85	tbank
17	225.25	5001.81	veg
16	228.55	5001.69	veg
15	230.17	5002.21	veg
14	233.56	5002.20	veg
13	242.84	5001.34	veg

12	245.52	5000.88	veg
11	247.41	5000.88	veg
10	252.11	5001.30	veg
9	255.15	5001.63	veg
8	261.20	5003.20	veg
7	268.60	5006.94	veg
6	281.05	5007.17	veg
2	281.84	5007.35	OXREP8
4	282.00	5007.21	rep8

APPENDIX 2.2.C:

SIXTH WATER ADJUSTED CROSS-
SECTION DATA

Sixth Water Cross Section 1 2005 data
 Elevations adjusted to resurveyed endpoints in 2006

point	north	east	dist	elev adj to 2006 survey	desc
2	7227793.00	1701668.34	0.00	6926.19	lep1
32	7227786.39	1701673.33	8.29	6926.20	slope
31	7227800.49	1701662.59	9.45	6926.56	slope
35	7227788.39	1701683.99	16.32	6926.13	wssc
34	7227787.26	1701684.04	16.72	6925.77	sc
33	7227786.07	1701684.48	17.57	6926.10	wssc
30	7227807.91	1701656.90	18.79	6926.13	slope
29	7227810.45	1701654.93	22.00	6927.29	tbank
28	7227814.18	1701652.11	26.68	6926.62	willowstbank
27	7227823.51	1701644.96	38.43	6924.07	botbankwills
26	7227832.06	1701638.43	49.20	6922.99	willows
25	7227837.71	1701633.97	56.40	6922.66	willows
24	7227838.34	1701633.54	57.15	6922.07	wssc
23	7227839.38	1701632.85	58.40	6921.62	sc
22	7227841.51	1701631.07	61.17	6921.44	sc
21	7227843.60	1701629.52	63.78	6921.67	sc
20	7227844.27	1701629.01	64.62	6921.97	wssc
19	7227846.59	1701627.23	67.54	6922.67	cobbgrasswill
18	7227848.46	1701625.80	69.89	6922.43	cobbgrasswill
17	7227850.29	1701624.48	72.16	6922.00	lew
16	7227851.68	1701623.27	73.99	6921.36	ic
15	7227854.80	1701621.01	77.84	6921.10	ic
14	7227858.28	1701618.35	82.22	6921.31	ic
13	7227861.04	1701616.10	85.78	6920.88	tw
12	7227862.95	1701614.56	88.23	6920.92	ic
11	7227865.27	1701612.93	91.07	6920.92	ic
10	7227867.41	1701611.29	93.77	6920.45	ic
9	7227868.95	1701610.11	95.70	6920.72	ic
8	7227870.71	1701607.05	98.97	6921.74	rew
7	7227879.32	1701601.98	108.88	6931.41	slope
6	7227894.36	1701590.67	127.69	6941.95	slope
60	7227911.09	1701577.71	148.86	6952.10	rep
5	7227911.09	1701577.70	148.86	6952.10	rep1

Sixth Water Cross section 2 2005 data
 Elevations adjusted to resurveyed endpoints in 2006

point	north	east	dist	elev adj to	desc
2	7227718	1701543	0	6923.601	lep2
29	7227732	1701535	16.04737	6923.382	slope
28	7227753	1701522	40.78704	6919.844	wssc
27	7227756	1701521	44.17277	6918.869	wssc
26	7227757	1701520	45.22497	6918.272	sc
25	7227758	1701520	45.87353	6919.121	wssc
24	7227762	1701517	50.81672	6920.654	willow
23	7227776	1701509	67.31029	6918.168	tbank
22	7227781	1701506	72.48443	6915.851	lew
21	7227783	1701505	75.20278	6915.154	ic
20	7227786	1701503	78.55001	6915.818	ic
19	7227788	1701502	81.09981	6916.429	ws
18	7227789	1701502	81.52247	6916.698	iscobwil
17	7227791	1701500	84.30446	6917.016	iscobwil
16	7227794	1701499	87.08514	6917.286	ws
15	7227797	1701497	91.2879	6916.715	ic
14	7227800	1701496	93.90929	6916.95	ic
13	7227803	1701494	98.1888	6916.836	ic
12	7227807	1701491	102.5999	6916.32	ic
11	7227810	1701490	106.2624	6916.589	ic
54	7227815	1701487	111.7614	6916.439	tw
10	7227815	1701487	111.897	6916.509	tw
9	7227818	1701485	115.0542	6916.878	ic
8	7227823	1701483	120.3879	6916.611	ic
7	7227827	1701480	125.935	6917.132	ic
6	7227828	1701479	127.0602	6917.521	rew
5	7227831	1701478	130.3181	6918.112	botslopwill
30	7227866	1701458	170.2582	6949.711	rep

Sixth Water Cross section 3 2005 data
 Elevations adjusted to resurveyed endpoints in 2006

point	north	east	dist	elev adj to 2006 survey	desc
2	7227718.07	1701542.53	0.00	6923.58	lep3
36	7227722.08	1701527.01	16.03	6922.94	slope
35	7227728.20	1701503.47	40.35	6922.51	slope
34	7227731.53	1701490.71	53.54	6919.65	tbank
33	7227733.49	1701482.94	61.56	6914.24	lew
32	7227733.96	1701481.14	63.41	6913.54	ic
31	7227734.93	1701477.82	66.87	6913.29	ic
30	7227735.92	1701473.66	71.15	6913.79	ic
29	7227736.67	1701470.77	74.13	6913.38	ic
28	7227737.17	1701468.87	76.10	6913.54	ic
27	7227737.98	1701465.74	79.33	6913.47	ic
26	7227738.65	1701463.13	82.02	6914.17	ic
25	7227739.44	1701460.10	85.16	6914.41	ic
24	7227740.06	1701457.72	87.62	6914.58	ic
23	7227740.95	1701454.29	91.16	6914.61	ic
22	7227741.89	1701450.65	94.92	6914.78	wsis
21	7227742.58	1701447.87	97.78	6915.29	is
20	7227743.73	1701443.42	102.37	6915.75	is
19	7227744.97	1701439.16	106.81	6915.10	is
18	7227745.75	1701435.83	110.23	6915.04	wsis
17	7227745.84	1701435.47	110.61	6914.45	ic
16	7227746.30	1701433.71	112.42	6914.48	iclog
15	7227747.10	1701430.61	115.62	6914.13	iclog
14	7227747.67	1701428.35	117.96	6913.91	ic
13	7227748.67	1701424.23	122.19	6913.94	tw
12	7227749.43	1701421.01	125.50	6914.22	ic
11	7227750.24	1701418.28	128.34	6914.14	ic
10	7227751.13	1701414.98	131.76	6913.95	ic
9	7227751.87	1701412.12	134.72	6914.57	rew
8	7227754.80	1701400.62	146.59	6916.93	willow
7	7227757.12	1701391.65	155.85	6916.23	willow
37	7227761.25	1701375.61	172.41	6916.40	rep

Sixth Water Cross section 4 2005 data
 Elevations adjusted to resurveyed endpoints in 2006

point	north	east	dist	elev adj to 2006 survey	desc
3	7227636.79	1701531.21	0.00	6921.68	lep4
4	7227637.56	1701522.95	8.30	6919.91	slope
5	7227641.04	1701486.03	45.39	6919.89	slope
6	7227644.28	1701451.45	80.12	6919.31	top bnk
7	7227645.87	1701440.78	90.89	6912.32	bnk
8	7227645.96	1701433.94	97.71	6911.45	bot bnk
9	7227648.09	1701429.88	101.96	6910.55	lew
10	7227647.77	1701427.02	104.77	6909.42	ic
11	7227648.54	1701424.34	107.52	6909.17	ic
12	7227648.05	1701420.74	111.04	6909.99	ic
13	7227648.31	1701418.84	112.96	6909.45	ic
14	7227647.77	1701416.20	115.54	6909.50	ic
15	7227648.06	1701413.45	118.30	6909.18	ic
16	7227648.33	1701411.62	120.14	6908.57	ic
17	7227648.29	1701408.72	123.03	6908.54	ic
18	7227648.11	1701407.31	124.42	6907.95	thalwag
19	7227648.33	1701405.04	126.70	6909.18	ic
20	7227648.37	1701402.92	128.81	6908.96	ic
21	7227649.13	1701400.59	131.20	6909.09	ic
22	7227649.68	1701400.09	131.76	6909.54	rew
23	7227649.68	1701399.38	132.46	6909.76	bot bnk willows
25	7227651.52	1701374.43	157.48	6910.58	willows
26	7227654.40	1701343.78	188.26	6913.42	willows
27	7227655.74	1701329.52	202.58	6912.74	willows
28	7227656.92	1701316.87	215.29	6914.00	willows
29	7227659.44	1701290.03	242.25	6912.28	willows grass
30	7227664.02	1701242.68	289.81	6911.33	willows grass
31	7227668.06	1701200.75	331.94	6910.59	willows grass
32	7227668.71	1701191.42	341.29	6909.72	bot slope
1	7227673.42	1701141.19	391.75	6928.67	rep4

Sixth Water Cross section 5 2005 data
 Elevations adjusted to resurveyed endpoints in 2006

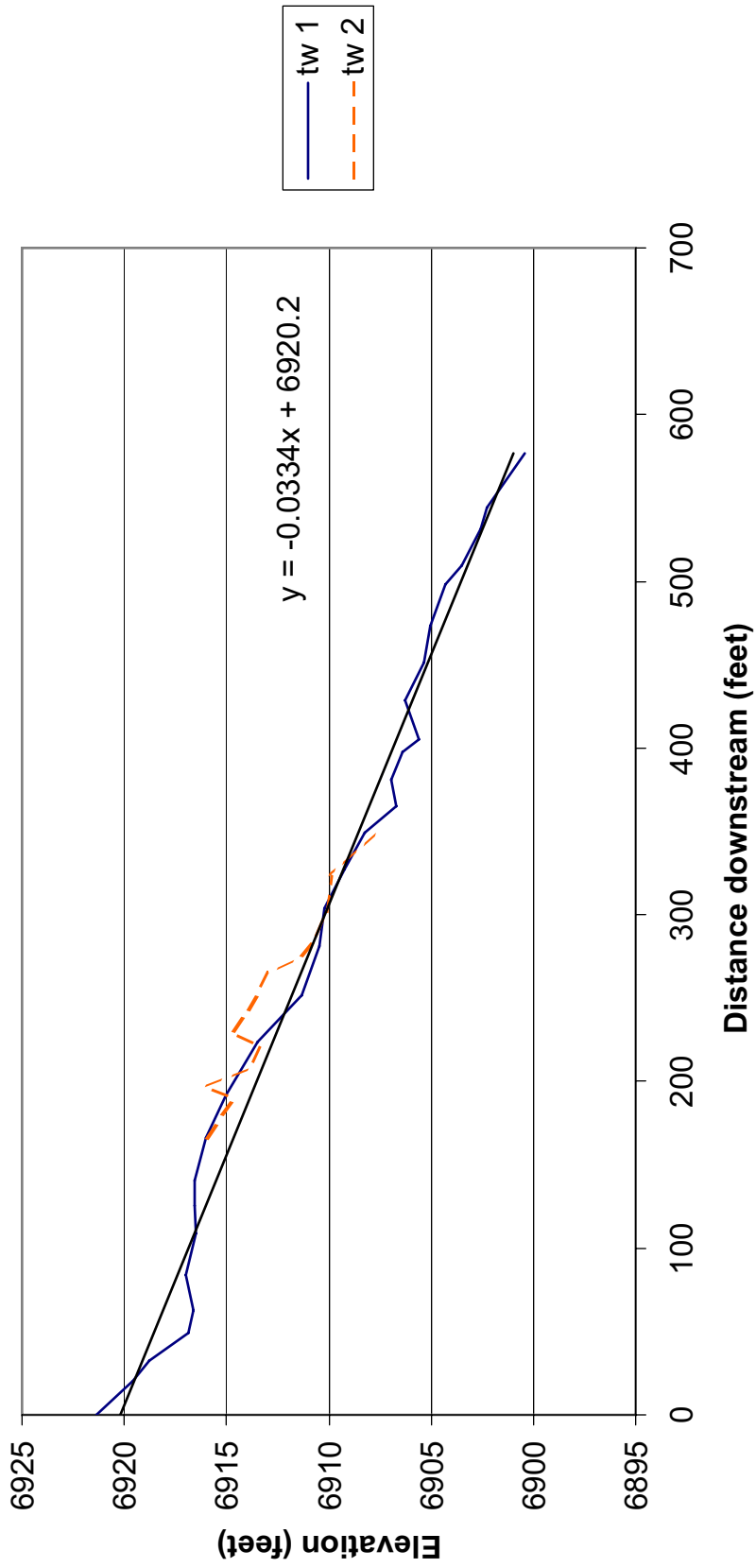
point	north	east	dist	elev adj to 2006 survey	desc
4	7227522.65	1701378.19	0.00	6914.03	lep5
5	7227524.20	1701375.77	2.88	6912.96	top bnk
6	7227524.71	1701374.97	3.82	6909.28	bnk
7	7227528.55	1701368.93	10.98	6907.08	bot bnk
8	7227528.90	1701368.38	11.63	6906.62	lew
9	7227529.06	1701368.13	11.93	6905.88	ic
10	7227530.05	1701366.57	13.77	6905.45	ic
11	7227531.36	1701364.51	16.22	6905.15	ic
12	7227532.49	1701363.23	17.91	6905.04	ic
13	7227533.24	1701361.60	19.69	6905.23	ic
14	7227534.27	1701359.99	21.59	6905.17	ic
15	7227535.39	1701358.23	23.68	6905.20	tw
16	7227536.60	1701356.32	25.94	6905.43	ic
17	7227537.80	1701354.44	28.17	6905.98	ic
18	7227538.90	1701352.71	30.23	6906.38	ic
19	7227539.15	1701352.31	30.69	6906.59	rew
20	7227539.55	1701351.69	31.44	6906.74	bot bnk bouldr
21	7227542.58	1701346.93	37.07	6908.92	top bnk
22	7227551.66	1701332.59	54.05	6907.98	old willow
23	7227561.15	1701318.17	71.31	6907.47	boldr willow
24	7227563.41	1701314.36	75.73	6906.20	edg willows
25	7227569.90	1701303.91	88.04	6911.49	willow
26	7227596.66	1701261.83	137.90	6911.19	willow
27	7227609.48	1701242.09	161.44	6911.33	boldr willow
28	7227623.59	1701219.71	187.89	6911.00	boldr willow
29	7227630.57	1701208.71	200.93	6909.34	edge willow
30	7227633.48	1701204.19	206.30	6910.27	gr
31	7227655.42	1701169.54	247.31	6910.73	gr
32	7227657.02	1701166.87	250.42	6910.05	bot slope
1	7227673.42	1701141.19	280.90	6928.67	rep5

Sixth Water Cross section 6 2005 data
 Elevations adjusted to resurveyed endpoints in 2006

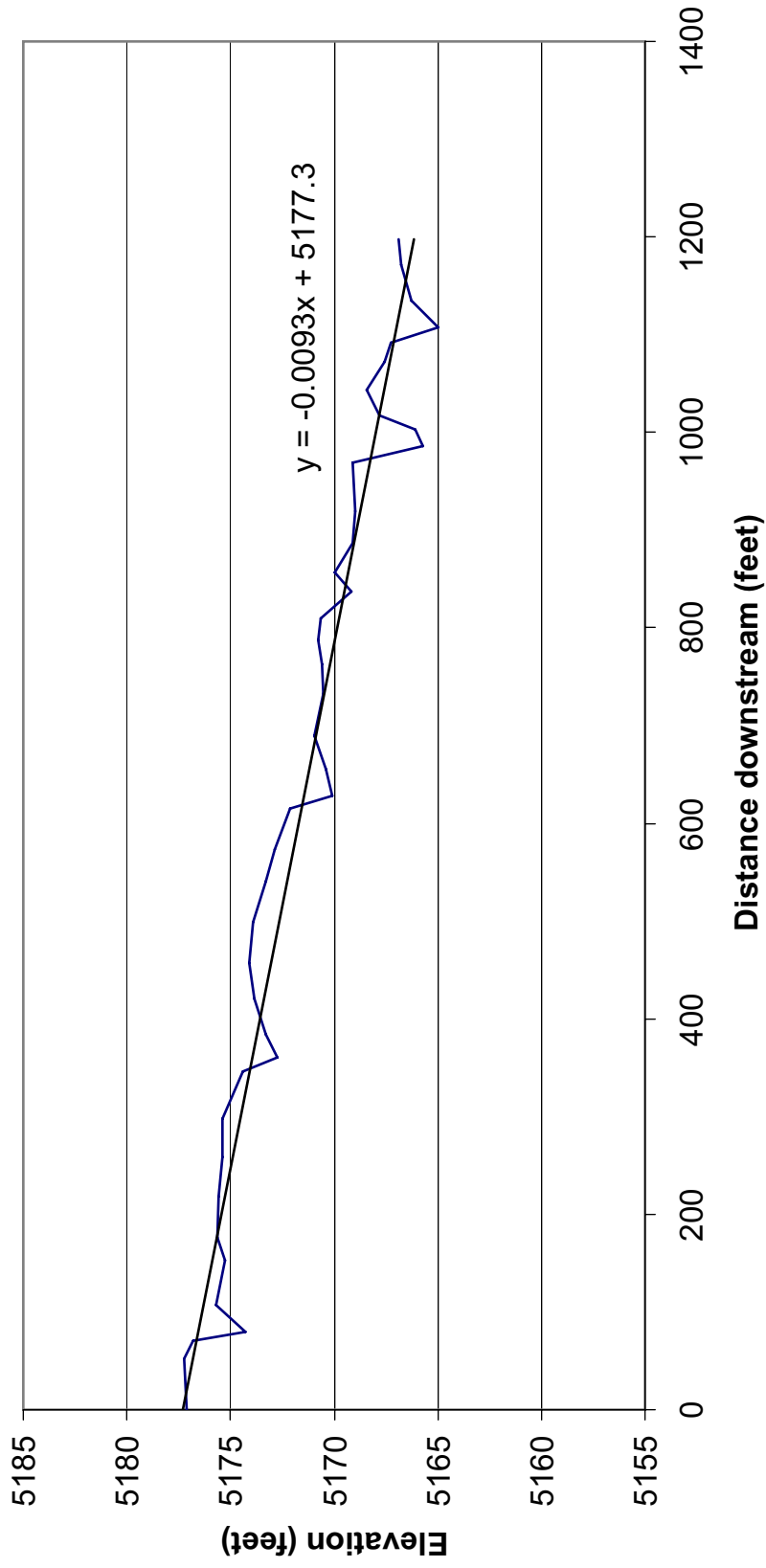
point	north	east	dist	elev adj to 2006 survey	desc
35	7227415.96	1701308.91	0.00	6920.55	lep6
4	7227438.69	1701294.13	27.11	6906.31	bot slope
5	7227446.49	1701289.05	36.41	6906.12	top bnk
6	7227448.81	1701286.83	39.57	6904.49	bnk
7	7227452.53	1701282.99	44.82	6902.49	bot bnk
8	7227454.24	1701283.50	45.94	6902.30	lew
9	7227455.16	1701283.41	46.76	6901.71	ic
10	7227457.33	1701282.01	49.34	6900.27	ic
11	7227460.39	1701279.71	53.16	6900.60	ic
12	7227462.57	1701279.16	55.29	6900.87	ic tw
13	7227465.57	1701276.32	59.35	6902.58	rock
14	7227468.08	1701275.16	62.08	6900.94	ic
15	7227470.25	1701273.69	64.71	6901.17	ic
16	7227472.12	1701272.37	66.99	6901.80	ic
17	7227473.01	1701271.80	68.05	6902.34	rew
18	7227474.75	1701270.64	70.14	6902.78	bnk
19	7227479.85	1701267.32	76.23	6904.98	top bnk
20	7227489.98	1701260.71	88.32	6904.45	willow
21	7227492.93	1701259.32	91.56	6906.00	willow
22	7227504.75	1701251.77	105.58	6905.92	willow
23	7227518.90	1701241.86	122.85	6904.35	bldr willow
24	7227526.14	1701234.40	133.00	6910.01	willow
25	7227539.01	1701228.74	146.86	6909.53	willow
26	7227566.67	1701210.86	179.79	6909.47	willow gr
27	7227573.69	1701206.26	188.18	6908.60	willow gr
28	7227577.95	1701203.48	193.27	6909.37	willow gr
29	7227585.01	1701199.18	201.54	6909.34	willow gr
30	7227586.99	1701197.57	204.07	6908.51	willow gr
31	7227589.44	1701195.71	207.14	6909.34	willow gr
32	7227615.97	1701178.83	238.58	6909.56	willow gr
33	7227632.00	1701168.09	257.87	6909.41	willow gr
34	7227644.59	1701160.19	272.74	6910.00	bot slope
1	7227673.42	1701141.19	307.27	6928.59	rep6

APPENDIX 2.3.A: LONGITUDINAL PROFILES

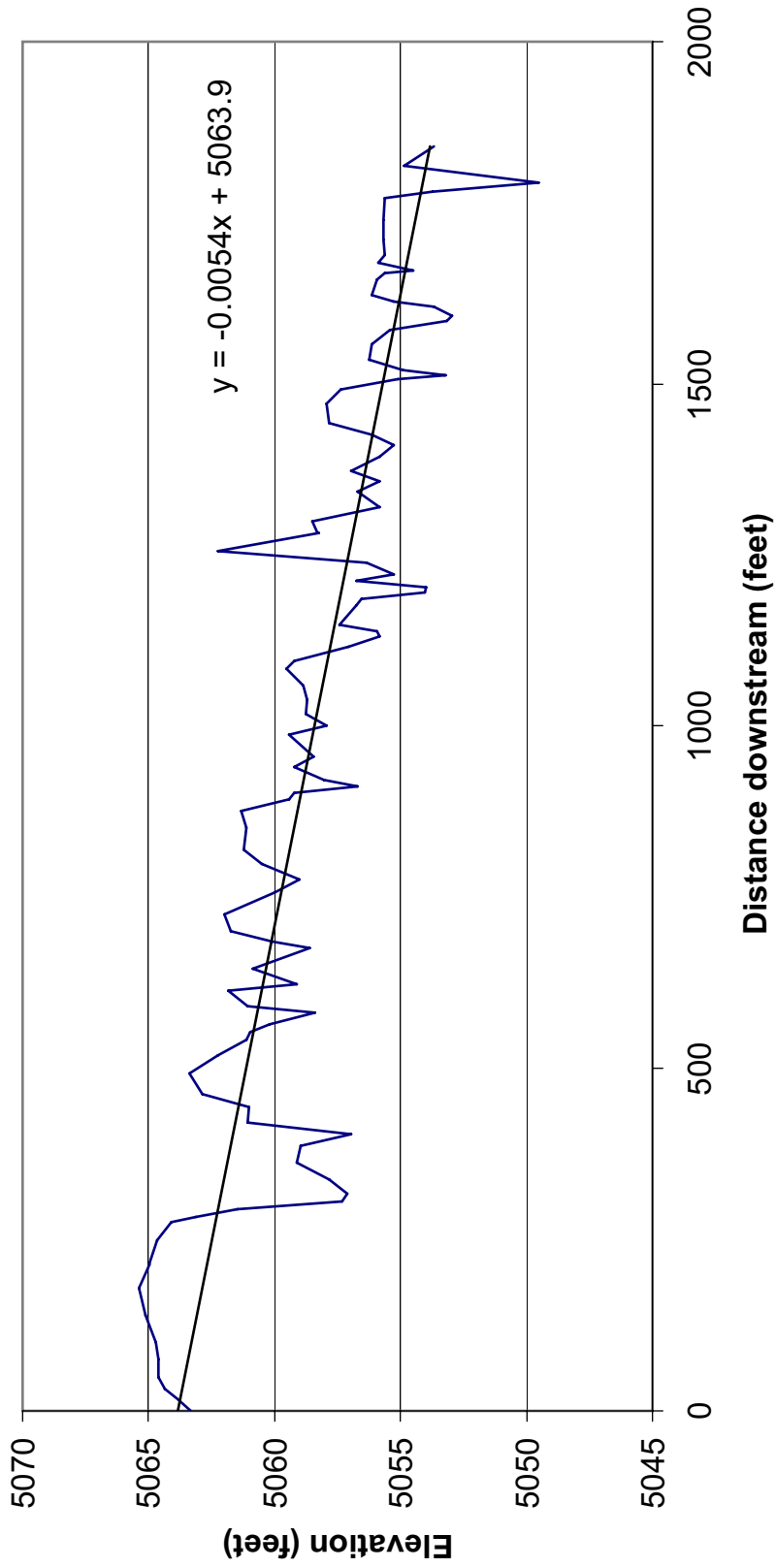
Sixth Water Site Longitudinal Profile 2006



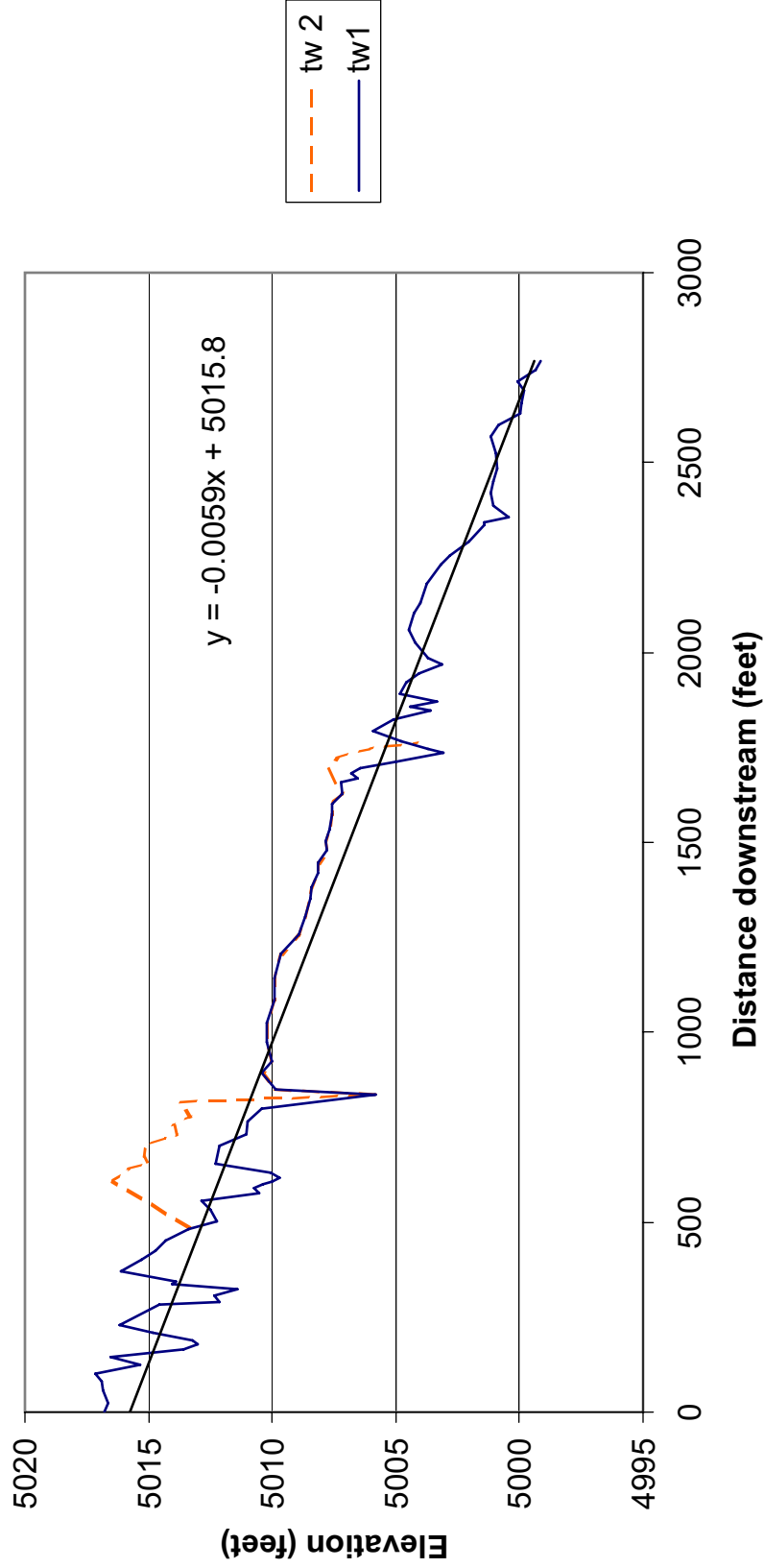
Diamond Fork Camground Site Longitudinal Profile 2006



Mother Site Longitudinal Profile 2006



Oxbow Site Longitudinal Profile 2006



tw 2
tw1

APPENDIX 2.3.B: LONGITUDINAL PROFILE DATA

Sixth Water Site Longitudinal Profile Data 2006

thalweg 1

number	northing	easting	elevation (m)	distance (m)	distance feet	curmu dist feet	distance from xs 1=0	elevation feet	Description
364	4445785.99	476070.86	2109.54	0.00	0.00	0.00	-3.44	6921.39	tw
365	4445783.97	476065.05	2108.99	6.15	20.19	20.19	16.75	6919.59	tw
366	4445783.00	476061.36	2108.74	3.81	12.49	32.68	29.24	6918.77	tw
367	4445781.36	476056.71	2108.17	4.94	16.20	48.87	45.43	6916.90	tw
368	4445780.79	476052.58	2108.08	4.17	13.68	62.55	59.11	6916.61	tw
369	4445779.34	476046.12	2108.20	6.62	21.72	84.27	80.83	6917.01	tw
370	4445776.71	476039.00	2108.04	7.59	24.90	109.17	105.73	6916.47	tw
371	4445774.68	476034.44	2108.06	4.99	16.37	125.55	122.11	6916.56	tw
372	4445771.19	476031.33	2108.07	4.67	15.34	140.88	137.44	6916.58	tw
373	4445764.45	476027.46	2107.90	7.78	25.52	166.40	162.96	6916.03	tw
374	4445756.59	476026.55	2107.60	7.91	25.94	192.34	188.90	6915.04	tw
375	4445747.01	476025.19	2107.12	9.68	31.75	224.10	220.66	6913.48	tw
376	4445739.44	476021.24	2106.48	8.54	28.01	252.10	248.66	6911.35	tw
377	4445732.09	476016.39	2106.20	8.81	28.91	281.01	277.57	6910.45	tw
378	4445726.26	476012.71	2106.13	6.89	22.62	303.63	300.19	6910.21	tw
379	4445720.86	476007.95	2105.83	7.20	23.63	327.26	323.82	6909.24	tw
380	4445716.04	476003.33	2105.53	6.68	21.90	349.16	345.72	6908.25	tw
381	4445712.80	475999.81	2105.06	4.78	15.68	364.85	361.41	6906.70	tw
382	4445708.22	475998.08	2105.13	4.90	16.08	380.92	377.48	6906.94	tw
383	4445703.38	475996.49	2104.97	5.09	16.68	397.61	394.17	6906.41	tw
384	4445701.14	475995.75	2104.73	2.36	7.76	405.36	401.92	6905.61	tw
385	4445694.65	475993.03	2104.92	7.04	23.09	428.45	425.01	6906.25	tw
386	4445688.72	475989.58	2104.65	6.86	22.52	450.97	447.53	6905.37	tw
387	4445682.87	475985.96	2104.56	6.87	22.55	473.52	470.08	6905.06	tw
388	4445678.13	475980.00	2104.33	7.62	24.99	498.52	495.08	6904.29	tw
389	4445676.15	475977.17	2104.09	3.45	11.33	509.85	506.41	6903.53	tw
390	4445672.76	475971.44	2103.80	6.66	21.84	531.69	528.25	6902.56	tw
391	4445670.45	475968.24	2103.70	3.95	12.95	544.64	541.20	6902.25	tw
392	4445664.95	475960.19	2103.15	9.75	31.99	576.63	573.19	6900.43	tw

Sixth Water Site Longitudinal Profile Data 2006

thalweg 2

number	northing	easting	elevation (m)	distance (m)	distance feet	cumu dist feet	distance from xs 1=0	elevation feet	Description
393	4445766.79	476026.15	2107.90	0.00	0.00	166.40	162.96	6916.01	tw r
394	4445761.85	476021.03	2107.47	7.11	23.34	189.74	186.30	6914.62	tw r
395	4445761.64	476018.76	2107.90	2.28	7.48	197.23	193.79	6916.03	tw r
396	4445761.78	476015.59	2107.24	3.18	10.42	207.65	204.21	6913.86	tw r
397	4445758.48	476013.55	2107.09	3.88	12.74	220.39	216.95	6913.36	tw r
398	4445756.22	476011.75	2107.53	2.88	9.46	229.85	226.41	6914.80	tw r
399	4445753.53	476010.71	2107.31	2.88	9.47	239.32	235.88	6914.08	tw r
400	4445746.06	476007.93	2106.97	7.98	26.18	265.49	262.05	6912.97	tw r
401	4445743.93	476006.98	2106.55	2.32	7.63	273.12	269.68	6911.58	tw r
402	4445741.13	476006.04	2106.31	2.96	9.71	282.83	279.39	6910.80	tw r
403	4445735.29	476005.75	2106.09	5.85	19.18	302.01	298.57	6910.07	tw r
404	4445728.84	476004.93	2106.02	6.50	21.32	323.33	319.89	6909.85	tw r
405	4445721.65	476003.55	2105.40	7.33	24.04	347.37	343.93	6907.81	tw r

Diamond Fork Campground Site Longitudinal Profile Data 2006

number	northing	easting	elevation (m)	distance (m)	distance feet	cumu dist feet	distance from xs 1=0	elevation feet
163	4435404.25	462868.96	1577.91	0.00	0.00	0.00	0.00	5177.12
164	4435401.71	462853.42	1577.94	15.74	51.65	51.65	51.65	5177.22
165	4435402.69	462847.79	1577.81	5.71	18.74	70.39	70.39	5176.79
166	4435402.75	462844.84	1577.04	2.95	9.68	80.07	80.07	5174.27
167	4435403.69	462836.78	1577.47	8.12	26.65	106.72	106.72	5175.68
168	4435408.54	462823.50	1577.35	14.13	46.37	153.09	153.09	5175.29
169	4435412.24	462817.46	1577.46	7.09	23.26	176.35	176.35	5175.65
170	4435417.79	462806.16	1577.43	12.59	41.29	217.65	217.65	5175.55
171	4435423.42	462795.05	1577.38	12.46	40.87	258.51	258.51	5175.38
172	4435429.67	462785.04	1577.38	11.80	38.71	297.22	297.22	5175.38
173	4435435.69	462771.56	1577.08	14.76	48.43	345.65	345.65	5174.40
174	4435436.78	462767.02	1576.57	4.68	15.34	360.99	360.99	5172.73
175	4435437.91	462760.07	1576.74	7.04	23.10	384.09	384.09	5173.28
176	4435437.90	462748.92	1576.91	11.15	36.59	420.68	420.68	5173.84
177	4435439.91	462738.07	1576.99	11.03	36.18	456.86	456.86	5174.10
178	4435441.81	462725.55	1576.94	12.67	41.58	498.44	498.44	5173.94
179	4435444.67	462713.02	1576.75	12.85	42.17	540.60	540.60	5173.32
180	4435446.23	462703.18	1576.61	9.96	32.68	573.28	573.28	5172.86
181	4435446.13	462690.56	1576.38	12.62	41.39	614.67	614.67	5172.10
182	4435445.91	462686.32	1575.77	4.25	13.95	628.62	628.62	5170.10
183	4435446.15	462678.12	1575.86	8.20	26.91	655.52	655.52	5170.40
184	4435445.71	462667.71	1576.03	10.42	34.20	689.72	689.72	5170.95
185	4435443.57	462654.75	1575.90	13.13	43.09	732.81	732.81	5170.53
186	4435440.29	462646.35	1575.91	9.02	29.59	762.40	762.40	5170.56
187	4435434.02	462642.09	1575.97	7.58	24.86	787.27	787.27	5170.76
188	4435429.84	462636.91	1575.94	6.66	21.84	809.11	809.11	5170.66
189	4435422.72	462631.97	1575.49	8.66	28.42	837.53	837.53	5169.18
190	4435417.50	462629.37	1575.73	5.83	19.12	856.66	856.66	5169.97
191	4435408.28	462630.99	1575.47	9.37	30.74	887.40	887.40	5169.12
192	4435399.14	462627.18	1575.43	9.91	32.50	919.90	919.90	5168.99

Diamond Fork Campground Site Longitudinal Profile Data 2006

number	northing	easting	elevation (m)	distance (m)	distance feet	cumu dist feet	distance from xs 1=0	elevation feet
193	4435385.91	462619.95	1575.46	15.07	49.44	969.34	969.34	5169.08
194	4435380.81	462619.28	1574.43	5.15	16.88	986.22	986.22	5165.70
195	4435376.22	462621.35	1574.55	5.04	16.54	1002.75	1002.75	5166.10
196	4435371.65	462621.41	1575.07	4.56	14.97	1017.73	1017.73	5167.80
197	4435364.24	462619.15	1575.26	7.75	25.43	1043.15	1043.15	5168.43
198	4435356.07	462615.55	1574.99	8.93	29.28	1072.44	1072.44	5167.54
199	4435350.94	462612.94	1574.91	5.76	18.90	1091.33	1091.33	5167.28
200	4435347.61	462609.48	1574.20	4.80	15.74	1107.08	1107.08	5164.95
201	4435343.38	462602.18	1574.61	8.44	27.70	1134.78	1134.78	5166.30
202	4435340.94	462591.37	1574.76	11.08	36.36	1171.13	1171.13	5166.79
203	4435338.79	462583.74	1574.79	7.93	26.01	1197.14	1197.14	5166.89

Mother Site Longitudinal Profile Data 2006

number	northing	easting	elevation (m)	distance	distance ft	cum dis ft	distance from xs 1=0	elev ft	name
51	4432969.79	460130.76	1543.22	0.00	0.00	0.00	0.00	5063.30	tw
52	4432965.64	460127.61	1543.39	5.21	17.10	17.10	17.10	5063.86	tw
53	4432961.70	460125.17	1543.54	4.63	15.19	32.30	32.30	5064.35	tw
54	4432958.25	460121.73	1543.62	4.87	15.98	48.28	48.28	5064.62	tw
55	4432953.75	460114.67	1543.61	8.37	27.45	75.73	75.73	5064.58	tw
56	4432949.72	460108.27	1543.65	7.57	24.83	100.55	100.55	5064.72	tw
57	4432942.53	460098.71	1543.78	11.96	39.24	139.79	139.79	5065.14	tw
58	4432934.78	460089.18	1543.85	12.29	40.31	180.10	180.10	5065.37	tw
59	4432930.95	460079.48	1543.72	10.43	34.23	214.33	214.33	5064.95	tw
60	4432930.95	460079.46	1543.72	0.02	0.05	214.38	214.38	5064.95	tw
61	4432925.89	460070.38	1543.63	10.40	34.13	248.51	248.51	5064.65	tw
62	4432922.01	460063.20	1543.46	8.16	26.77	275.28	275.28	5064.09	tw
63	4432919.96	460061.85	1543.16	2.46	8.07	283.35	283.35	5063.11	tw
64	4432916.88	460059.77	1542.67	3.71	12.17	295.52	295.52	5061.50	tw
65	4432913.72	460059.64	1541.39	3.16	10.37	305.89	305.89	5057.30	tw
66	4432911.11	460061.71	1541.34	3.33	10.93	316.82	316.82	5057.14	tw
67	4432904.58	460062.78	1541.56	6.62	21.71	338.53	338.53	5057.86	tw
68	4432897.23	460063.98	1541.95	7.44	24.42	362.95	362.95	5059.14	tw
69	4432890.22	460062.83	1541.89	7.11	23.33	386.28	386.28	5058.94	tw
70	4432885.27	460060.49	1541.29	5.47	17.95	404.24	404.24	5056.97	tw
71	4432883.14	460056.09	1542.54	4.88	16.02	420.26	420.26	5061.07	tw
72	4432879.23	460049.81	1542.53	7.40	24.29	444.55	444.55	5061.04	tw
73	4432875.48	460045.36	1543.08	5.81	19.08	463.62	463.62	5062.85	tw
74	4432870.91	460037.87	1543.24	8.78	28.81	492.43	492.43	5063.37	tw
75	4432867.60	460030.32	1542.90	8.24	27.04	519.47	519.47	5062.25	tw
76	4432864.71	460024.10	1542.56	6.86	22.49	541.97	541.97	5061.14	tw
77	4432864.14	460020.96	1542.51	3.19	10.47	552.43	552.43	5060.98	tw
78	4432866.62	460018.47	1542.27	3.52	11.56	563.99	563.99	5060.19	tw
79	4432867.98	460013.00	1541.72	5.63	18.48	582.47	582.47	5058.38	tw
80	4432868.55	460010.32	1542.54	2.74	8.98	591.45	591.45	5061.07	tw

Mother Site Longitudinal Profile Data 2006

number	northing	easting	elevation (m)	distance	distance ft	cum dis ft	distance from xs 1=0	elev ft	name
81	4432872.89	460005.26	1542.78	6.67	21.87	613.33	613.33	5061.86	tw
82	4432874.25	460002.62	1541.94	2.98	9.76	623.09	623.09	5059.11	tw
83	4432878.82	459997.56	1542.48	6.82	22.37	645.46	645.46	5060.88	tw
84	4432882.85	459994.60	1542.13	5.00	16.40	661.86	661.86	5059.73	tw
85	4432886.96	459994.68	1541.79	4.11	13.48	675.34	675.34	5058.61	tw
412	4432889.73	459993.02	1542.24	3.23	10.61	685.95	685.95	5060.09	tw
413	4432894.46	459993.02	1542.74	4.73	15.52	701.47	701.47	5061.73	tw
414	4432901.44	459993.18	1542.82	6.98	22.91	724.37	724.37	5061.99	tw
415	4432911.55	459992.21	1542.21	10.16	33.32	757.69	757.69	5059.99	tw
416	4432915.00	459987.84	1541.91	5.57	18.29	775.98	775.98	5059.01	tw
417	4432919.77	459982.80	1542.37	6.93	22.75	798.73	798.73	5060.52	tw
418	4432923.51	459977.98	1542.59	6.10	20.02	818.75	818.75	5061.24	tw
419	4432931.27	459971.94	1542.55	9.84	32.27	851.02	851.02	5061.11	tw
420	4432936.07	459965.94	1542.61	7.68	25.20	876.22	876.22	5061.30	tw
421	4432939.57	459962.14	1542.04	5.17	16.96	893.18	893.18	5059.43	tw
422	4432940.45	459959.48	1541.97	2.80	9.18	902.37	902.37	5059.20	tw
423	4432941.25	459956.79	1541.21	2.81	9.23	911.60	911.60	5056.71	tw
424	4432940.24	459954.16	1541.61	2.82	9.24	920.84	920.84	5058.02	tw
425	4432935.65	459950.50	1541.97	5.87	19.25	940.09	940.09	5059.20	tw
426	4432931.41	459948.49	1541.74	4.69	15.40	955.49	955.49	5058.45	tw
427	4432924.53	459941.30	1542.03	9.95	32.64	988.13	988.13	5059.40	tw
428	4432922.97	459937.97	1541.58	3.68	12.08	1000.21	1000.21	5057.92	tw
429	4432925.10	459932.82	1541.84	5.57	18.28	1018.50	1018.50	5058.78	tw
430	4432927.19	459926.83	1541.82	6.34	20.80	1039.30	1039.30	5058.71	tw
431	4432929.86	459921.36	1541.86	6.09	19.98	1059.28	1059.28	5058.84	tw
432	4432935.01	459916.03	1542.07	7.41	24.32	1083.60	1083.60	5059.53	tw
433	4432936.50	459912.99	1541.98	3.38	11.10	1094.70	1094.70	5059.24	tw
434	4432937.14	459906.76	1541.31	6.26	20.53	1115.23	1115.23	5057.04	tw
435	4432935.70	459902.34	1540.95	4.65	15.26	1130.49	1130.49	5055.86	tw

Mother Site Longitudinal Profile Data 2006

number	northing	easting	elevation (m)	distance	distance ft	cum dis ft	distance from xs 1=0	elev ft	name
436	4432936.28	459899.92	1540.98	2.49	8.16	1138.65	1138.65	5055.96	tw
437	4432935.82	459896.99	1541.42	2.96	9.71	1148.36	1148.36	5057.40	tw
438	4432932.67	459889.15	1541.22	8.45	27.73	1176.09	1176.09	5056.74	tw
439	4432930.65	459887.12	1541.16	2.86	9.38	1185.47	1185.47	5056.55	tw
440	4432928.11	459885.78	1540.40	2.87	9.43	1194.90	1194.90	5054.05	tw
441	4432926.68	459884.09	1540.38	2.22	7.28	1202.18	1202.18	5053.99	tw
442	4432924.31	459881.70	1541.23	3.36	11.03	1213.21	1213.21	5056.78	tw
443	4432921.95	459881.96	1540.77	2.38	7.80	1221.01	1221.01	5055.27	tw
444	4432917.79	459885.67	1541.10	5.57	18.28	1239.29	1239.29	5056.35	tw
445	4432914.45	459889.19	1542.90	4.85	15.93	1255.22	1255.22	5062.25	tw
446	4432908.28	459894.62	1541.68	8.22	26.98	1282.19	1282.19	5058.25	tw
447	4432908.23	459894.67	1541.69	0.07	0.24	1282.43	1282.43	5058.28	tw
448	4432904.93	459898.25	1541.76	4.87	15.99	1298.42	1298.42	5058.51	tw
449	4432899.30	459901.44	1540.94	6.47	21.21	1319.63	1319.63	5055.82	tw
450	4432892.46	459899.66	1541.21	7.07	23.20	1342.83	1342.83	5056.71	tw
451	4432888.26	459897.95	1540.95	4.53	14.87	1357.70	1357.70	5055.86	tw
452	4432883.70	459896.24	1541.28	4.88	16.00	1373.69	1373.69	5056.94	tw
453	4432878.40	459893.02	1540.94	6.19	20.31	1394.01	1394.01	5055.82	tw
454	4432874.78	459889.03	1540.77	5.39	17.70	1411.71	1411.71	5055.27	tw
455	4432871.70	459885.75	1541.03	4.50	14.75	1426.46	1426.46	5056.12	tw
456	4432870.52	459880.86	1541.55	5.03	16.50	1442.95	1442.95	5057.83	tw
457	4432868.44	459872.52	1541.59	8.60	28.21	1471.16	1471.16	5057.96	tw
458	4432866.51	459866.54	1541.41	6.29	20.64	1491.80	1491.80	5057.37	tw
459	4432864.18	459862.59	1540.73	4.58	15.03	1506.83	1506.83	5055.14	tw
460	4432863.46	459860.63	1540.14	2.09	6.86	1513.69	1513.69	5053.20	tw
461	4432862.69	459858.59	1540.66	2.18	7.15	1520.84	1520.84	5054.91	tw
462	4432859.80	459854.95	1541.07	4.64	15.23	1536.07	1536.07	5056.25	tw
463	4432854.70	459850.49	1541.03	6.78	22.23	1558.30	1558.30	5056.12	tw
464	4432850.25	459846.26	1540.82	6.15	20.17	1578.47	1578.47	5055.43	tw

Mother Site Longitudinal Profile Data 2006

number	northing	easting	elevation (m)	distance	distance ft	cum dis ft	distance from xs 1=0	elev ft	name
465	4432846.53	459844.97	1540.13	3.94	12.92	1591.38	1591.38	5053.17	tw
466	4432844.23	459843.73	1540.07	2.61	8.56	1599.95	1599.95	5052.97	tw
467	4432840.55	459844.66	1540.28	3.80	12.46	1612.41	1612.41	5053.66	tw
468	4432838.13	459845.09	1540.77	2.46	8.07	1620.47	1620.47	5055.27	tw
469	4432835.01	459845.21	1541.04	3.13	10.25	1630.73	1630.73	5056.15	tw
470	4432828.19	459845.50	1540.98	6.82	22.39	1653.12	1653.12	5055.96	tw
471	4432826.64	459847.36	1540.88	2.42	7.95	1661.06	1661.06	5055.63	tw
472	4432825.05	459847.47	1540.54	1.59	5.22	1666.29	1666.29	5054.51	tw
473	4432822.35	459848.85	1540.96	3.03	9.93	1676.22	1676.22	5055.89	tw
474	4432818.70	459850.30	1540.88	3.93	12.90	1689.12	1689.12	5055.63	tw
475	4432812.13	459851.42	1540.89	6.66	21.86	1710.98	1710.98	5055.66	tw
476	4432803.70	459853.24	1540.89	8.62	28.29	1739.27	1739.27	5055.66	tw
477	4432795.15	459858.18	1540.88	9.88	32.40	1771.67	1771.67	5055.63	tw
478	4432792.42	459859.35	1540.30	2.97	9.75	1781.43	1781.43	5053.72	tw
479	4432788.55	459860.11	1539.01	3.94	12.93	1794.35	1794.35	5049.49	tw
480	4432781.45	459858.75	1540.65	7.23	23.73	1818.08	1818.08	5054.87	tw
481	4432776.08	459851.99	1540.28	8.63	28.32	1846.39	1846.39	5053.66	tw

Oxbow Site Longitudinal Profile Data 2006

Name	Northing	Easting	Elevation	distance	distance ft	cumu dist ft	distance from xs 1=0	elev ft	Description
54	4432319.25	458793.68	1529.05	0.00	0.00	0.00	0.00	5016.81	tw
55	4432318.02	458786.66	1529.00	7.12	23.37	23.37	23.37	5016.65	tw
56	4432316.80	458776.46	1529.06	10.27	33.70	57.08	57.08	5016.85	tw
57	4432315.15	458769.71	1529.07	6.95	22.79	79.87	79.87	5016.88	tw
58	4432312.94	458763.36	1529.16	6.73	22.07	101.94	101.94	5017.17	tw
59	4432309.55	458757.74	1528.60	6.56	21.54	123.47	123.47	5015.34	tw
60	4432304.91	458753.82	1528.97	6.08	19.94	143.41	143.41	5016.55	tw
61	4432299.27	458751.31	1528.06	6.17	20.26	163.67	163.67	5013.56	tw
62	4432295.06	458750.99	1527.89	4.22	13.85	177.52	177.52	5013.01	tw
63	4432291.46	458750.73	1527.96	3.60	11.83	189.35	189.35	5013.24	tw
64	4432285.42	458748.99	1528.44	6.29	20.65	209.99	209.99	5014.81	tw
65	4432279.36	458749.31	1528.86	6.07	19.91	229.90	229.90	5016.19	tw
66	4432263.97	458753.81	1528.36	16.03	52.60	282.50	282.50	5014.55	tw
67	4432262.46	458755.37	1527.63	2.17	7.12	289.63	289.63	5012.15	tw
68	4432259.46	458759.17	1527.69	4.84	15.88	305.51	305.51	5012.35	tw
69	4432258.68	458764.58	1527.40	5.47	17.95	323.46	323.46	5011.40	tw
70	4432257.15	458768.00	1528.20	3.74	12.26	335.72	335.72	5014.02	tw
71	4432257.32	458770.20	1528.16	2.21	7.27	342.99	342.99	5013.89	tw
72	4432252.47	458777.25	1528.84	8.56	28.07	371.06	371.06	5016.12	tw1
73	4432244.58	458781.57	1528.58	9.00	29.51	400.57	400.57	5015.27	tw1
74	4432237.36	458782.55	1528.42	7.28	23.88	424.46	424.46	5014.75	tw1
75	4432228.99	458780.51	1528.29	8.62	28.29	452.75	452.75	5014.32	tw1
76	4432220.60	458778.11	1528.00	8.72	28.62	481.36	481.36	5013.37	tw1
77	4432216.00	458774.25	1527.66	6.01	19.70	501.07	501.07	5012.25	tw
78	4432209.66	458767.32	1527.74	9.39	30.82	531.89	531.89	5012.51	tw
79	4432203.35	458764.14	1527.85	7.07	23.19	555.08	555.08	5012.88	tw
80	4432200.21	458759.04	1527.14	5.99	19.65	574.73	574.73	5010.55	tw
81	4432198.46	458755.30	1527.19	4.13	13.54	588.27	588.27	5010.71	tw
82	4432198.99	458751.87	1527.09	3.47	11.39	599.66	599.66	5010.38	tw
83	4432201.19	458752.49	1526.98	2.29	7.52	607.18	607.18	5010.02	tw
84	4432204.43	458751.57	1526.88	3.36	11.03	618.21	618.21	5009.69	tw
85	4432206.81	458749.33	1527.00	3.27	10.72	628.94	628.94	5010.09	tw
86	4432210.77	458742.59	1527.67	7.82	25.67	654.60	654.60	5012.29	tw
87	4432219.31	458731.60	1527.62	13.92	45.67	700.27	700.27	5012.12	tw

Oxbow Site Longitudinal Profile Data 2006

Name	Northing	Easting	Elevation	distance	distance ft	cumu dist ft	distance from xs 1=0	elev ft	Description
98	4432224.59	458723.68	1527.30	9.52	31.23	731.49	731.49	5011.07	tw
99	4432228.89	458714.28	1527.28	10.33	33.90	765.40	765.40	5011.01	tw
100	4432230.95	458704.79	1527.11	9.71	31.87	797.27	797.27	5010.45	tw
101	4432232.71	458693.38	1525.70	11.54	37.87	835.13	835.13	5005.82	tw
102	4432231.80	458688.94	1526.93	4.53	14.86	850.00	850.00	5009.86	tw
103	4432229.56	458676.47	1527.10	12.68	41.59	891.59	891.59	5010.42	tw
104	4432228.23	458666.38	1526.98	10.17	33.37	924.96	924.96	5010.02	tw
105	4432231.92	458651.56	1527.04	15.28	50.14	975.10	975.10	5010.22	tw
106	4432232.39	458636.05	1527.04	15.51	50.89	1025.99	1025.99	5010.22	tw
107	4432233.02	458618.22	1526.95	17.84	58.55	1084.54	1084.54	5009.92	tw
108	4432229.99	458600.74	1526.94	17.74	58.20	1142.74	1142.74	5009.89	tw
109	4432225.22	458581.45	1526.87	19.87	65.20	1207.94	1207.94	5009.66	tw
110	4432220.80	458566.63	1526.64	15.46	50.73	1258.67	1258.67	5008.91	tw
111	4432216.59	458553.09	1526.56	14.19	46.55	1305.21	1305.21	5008.64	tw
112	4432211.90	458539.48	1526.50	14.39	47.21	1352.42	1352.42	5008.45	tw
113	4432210.23	458530.46	1526.48	9.17	30.10	1382.53	1382.53	5008.38	tw
114	4432206.16	458519.74	1526.41	11.46	37.61	1420.14	1420.14	5008.15	tw
74	4432203.29	458512.72	1526.41	7.59	24.89	1445.03	1445.03	5008.16	thal
75	4432203.94	458502.15	1526.30	10.59	34.76	1479.79	1479.79	5007.80	thal
76	4432204.03	458494.57	1526.32	7.57	24.85	1504.64	1504.64	5007.85	thal
77	4432204.33	458485.48	1526.27	9.10	29.85	1534.48	1534.48	5007.71	thal
78	4432206.57	458473.56	1526.24	12.13	39.80	1574.29	1574.29	5007.58	thal
79	4432207.50	458465.52	1526.24	8.09	26.55	1600.84	1600.84	5007.60	thal
80	4432209.07	458457.53	1526.12	8.14	26.69	1627.53	1627.53	5007.19	thal
81	4432211.91	458448.92	1526.12	9.06	29.74	1657.27	1657.27	5007.19	thal
86	4432212.29	458445.39	1525.91	3.55	11.66	1668.94	1668.94	5006.53	thal
87	4432215.57	458443.63	1526.00	3.73	12.22	1681.16	1681.16	5006.80	thal
88	4432219.46	458443.59	1525.89	3.88	12.74	1693.90	1693.90	5006.45	thal
89	4432225.04	458442.37	1525.45	5.72	18.75	1712.65	1712.65	5005.00	thal
90	4432231.45	458444.96	1524.86	6.91	22.68	1735.33	1735.33	5003.07	thal
91	4432234.08	458447.61	1525.05	3.73	12.23	1747.56	1747.56	5003.69	thal
92	4432238.69	458451.55	1525.39	6.07	19.92	1767.48	1767.48	5004.81	thal
93	4432246.10	458454.56	1525.73	8.00	26.24	1793.72	1793.72	5005.93	thal

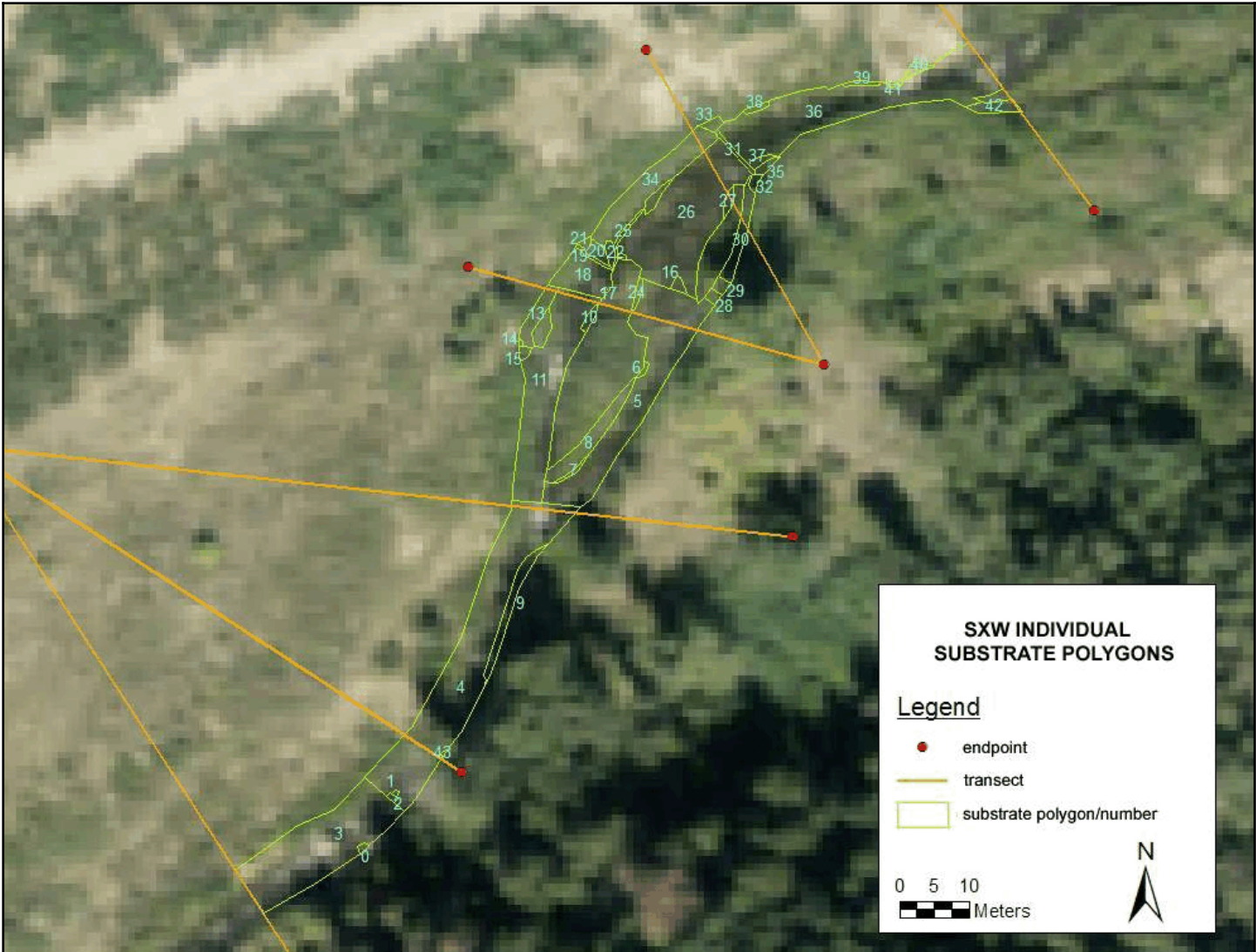
Oxbow Site Longitudinal Profile Data 2006

Name	Northing	Easting	Elevation	distance	distance ft	cumu dist ft	distance from xs 1=0	elev ft	Description
94	4432253.13	458460.80	1525.48	9.40	30.85	1824.58	1824.58	5005.09	thal
95	4432258.31	458465.38	1525.02	6.91	22.67	1847.25	1847.25	5003.59	thal
96	4432261.11	458463.62	1525.27	3.31	10.84	1858.10	1858.10	5004.41	thal
97	4432261.17	458459.68	1524.93	3.94	12.92	1871.01	1871.01	5003.31	thal
98	4432265.88	458455.45	1525.40	6.33	20.77	1891.79	1891.79	5004.83	thal
99	4432273.24	458450.25	1525.32	9.02	29.59	1921.37	1921.37	5004.57	thal
100	4432278.50	458444.95	1525.16	7.46	24.48	1945.85	1945.85	5004.05	thal
101	4432282.30	458438.97	1524.88	7.08	23.23	1969.09	1969.09	5003.12	thal
102	4432284.08	458433.83	1525.05	5.44	17.86	1986.95	1986.95	5003.69	thal
103	4432284.66	458421.74	1525.21	12.10	39.70	2026.65	2026.65	5004.20	thal
104	4432284.12	458411.58	1525.29	10.18	33.39	2060.04	2060.04	5004.49	thal
105	4432283.80	458398.86	1525.22	12.73	41.76	2101.80	2101.80	5004.24	thal
106	4432280.06	458390.50	1525.14	9.15	30.03	2131.82	2131.82	5003.99	thal
107	4432273.79	458376.99	1525.07	14.90	48.89	2180.71	2180.71	5003.76	thal
108	4432264.73	458364.75	1524.89	15.22	49.94	2230.66	2230.66	5003.17	thal
109	4432260.08	458358.78	1524.78	7.57	24.85	2255.50	2255.50	5002.79	thal
110	4432251.74	458350.81	1524.54	11.53	37.84	2293.35	2293.35	5002.02	thal
56	4432246.74	458338.96	1524.35	12.86	42.19	2335.53	2335.53	5001.39	tw
111	4432244.30	458338.08	1524.35	2.60	8.52	2344.05	2344.05	5001.40	thal
57	4432241.75	458335.45	1524.06	3.66	12.00	2356.05	2356.05	5000.44	tw
58	4432234.09	458329.89	1524.25	9.47	31.06	2387.11	2387.11	5001.07	tw
59	4432224.58	458326.16	1524.27	10.22	33.53	2420.64	2420.64	5001.14	tw
60	4432216.09	458321.71	1524.24	9.59	31.45	2452.09	2452.09	5001.03	tw
61	4432206.71	458319.08	1524.20	9.74	31.96	2484.05	2484.05	5000.90	tw
62	4432194.90	458315.80	1524.22	12.26	40.22	2524.26	2524.26	5000.95	tw
63	4432181.93	458316.75	1524.28	13.00	42.67	2566.93	2566.93	5001.17	tw
64	4432172.69	458318.16	1524.19	9.34	30.66	2597.59	2597.59	5000.86	tw
65	4432162.86	458319.54	1523.91	9.93	32.57	2630.16	2630.16	4999.95	tw
66	4432155.48	458318.62	1523.91	7.43	24.39	2654.55	2654.55	4999.94	tw
67	4432145.17	458317.89	1523.87	10.34	33.92	2688.47	2688.47	4999.81	tw
68	4432138.04	458316.16	1523.94	7.33	24.06	2712.53	2712.53	5000.05	tw
69	4432129.59	458310.81	1523.73	10.01	32.84	2745.37	2745.37	4999.34	tw
70	4432122.68	458309.77	1523.67	6.98	22.90	2768.27	2768.27	4999.16	tw

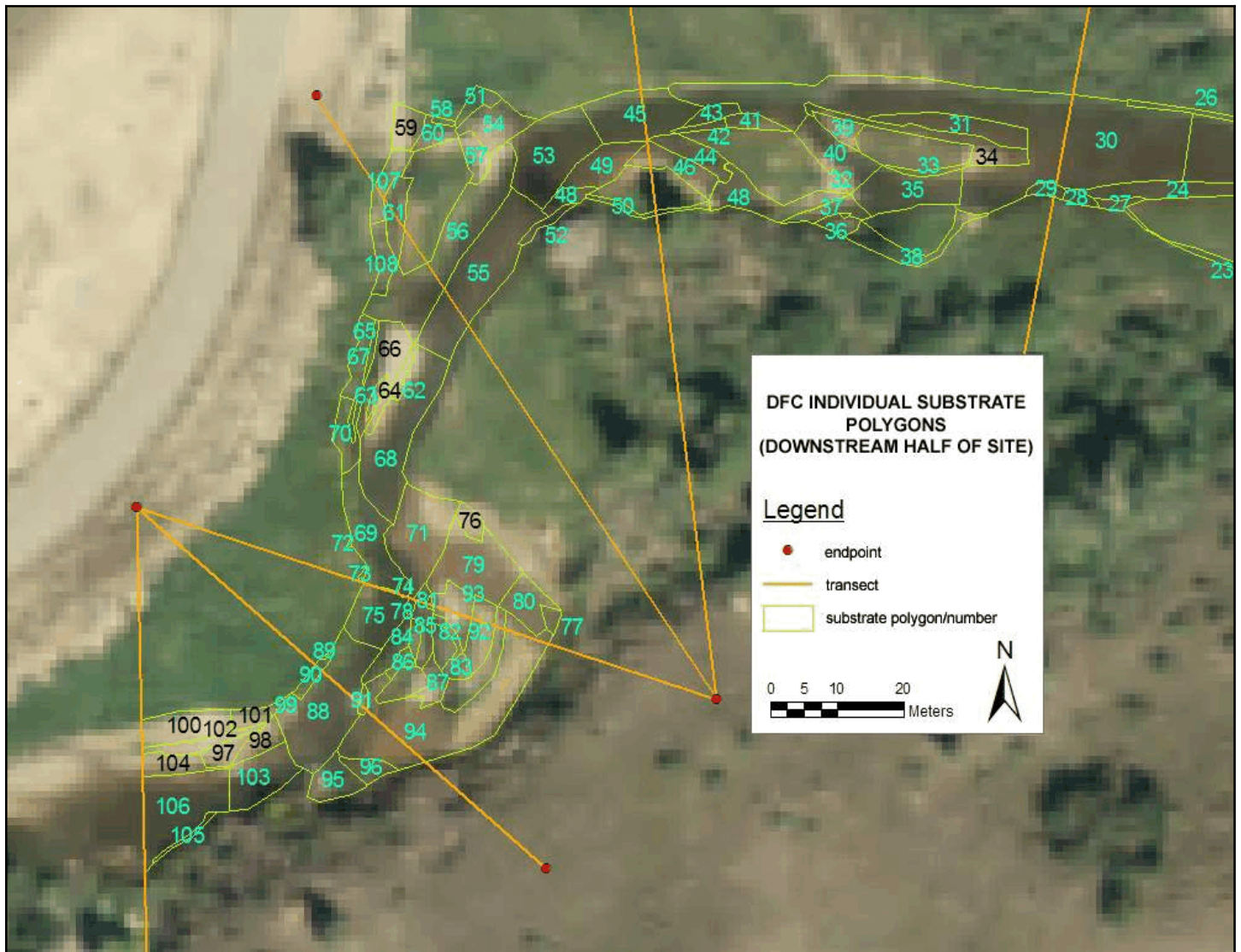
Oxbow Site Longitudinal Profile Data 2006

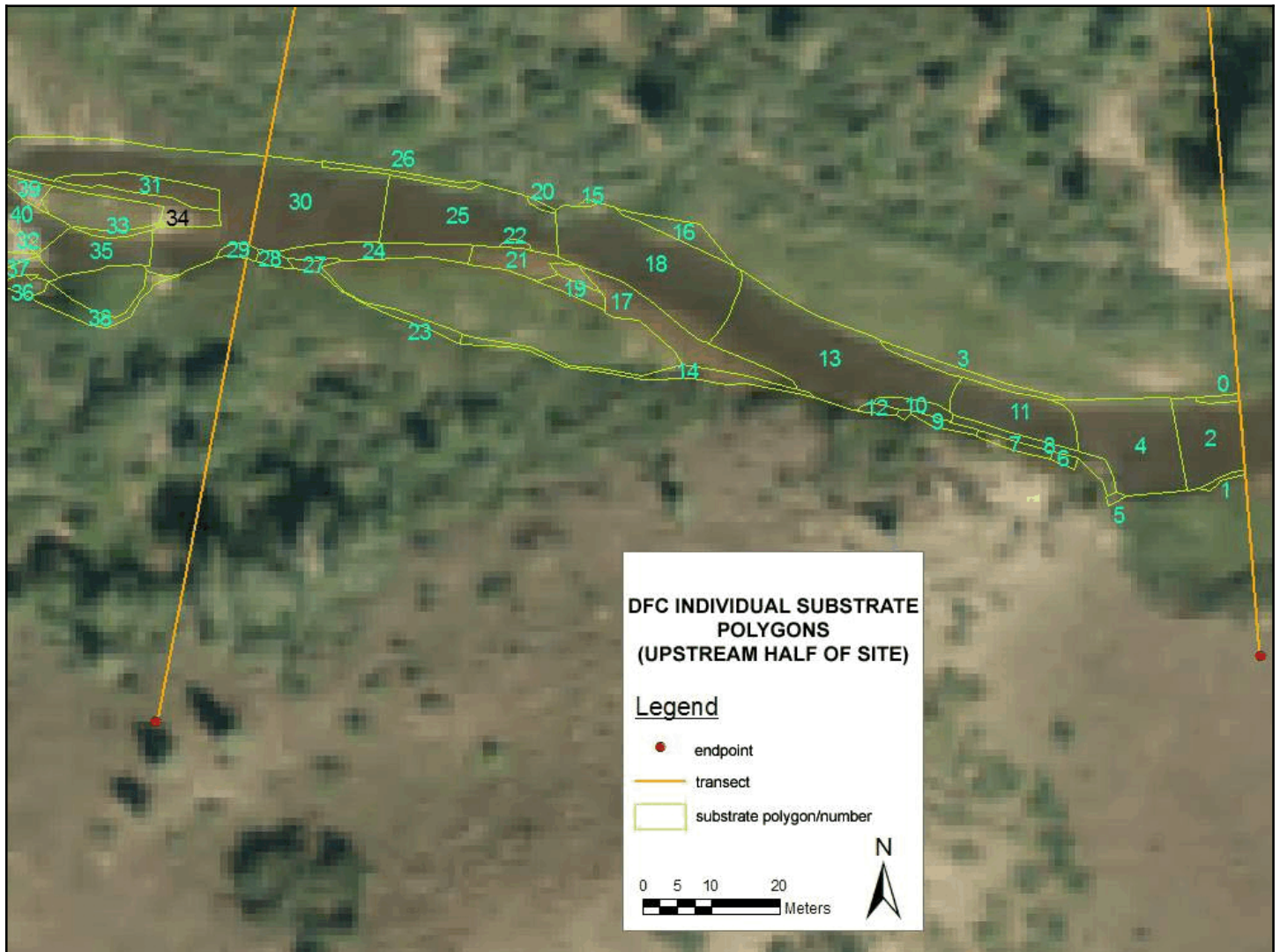
Name	Northing	Easting	Elevation	distance	distance ft	cumu dist ft	distance from xs 1=0	elev ft	Description
77	4432259.02	458777.10	1528.91	38.44	126.11	607.47	607.47	5016.35	tw2
78	4432258.94	458787.40	1528.75	10.30	33.78	641.25	641.25	5015.83	tw2
79	4432256.52	458790.63	1528.49	4.04	13.25	654.50	654.50	5014.98	tw2
80	4432250.42	458792.45	1528.55	6.36	20.86	675.36	675.36	5015.17	tw2
81	4432241.89	458793.87	1528.54	8.65	28.38	703.74	703.74	5015.14	tw2
82	4432237.26	458796.84	1528.29	5.50	18.04	721.78	721.78	5014.32	tw2
83	4432234.63	458797.88	1528.14	2.83	9.28	731.07	731.07	5013.83	tw2
84	4432227.02	458797.05	1528.17	7.66	25.13	756.20	756.20	5013.93	tw2
85	4432221.80	458792.84	1527.99	6.71	22.01	778.21	778.21	5013.34	tw2
86	4432217.83	458782.20	1528.12	11.36	37.26	815.47	815.47	5013.76	tw2
82	4432213.85	458460.56	1526.29	11.80	38.71	1695.99	1695.99	38.71	thal2
83	4432218.92	458454.55	1526.17	7.87	25.82	1721.81	1721.81	25.82	thal2
84	4432224.29	458449.38	1525.76	7.45	24.46	1746.27	1746.27	24.46	thal2
85	4432227.69	458446.10	1525.17	4.71	15.47	1761.74	1761.74	15.47	thal2

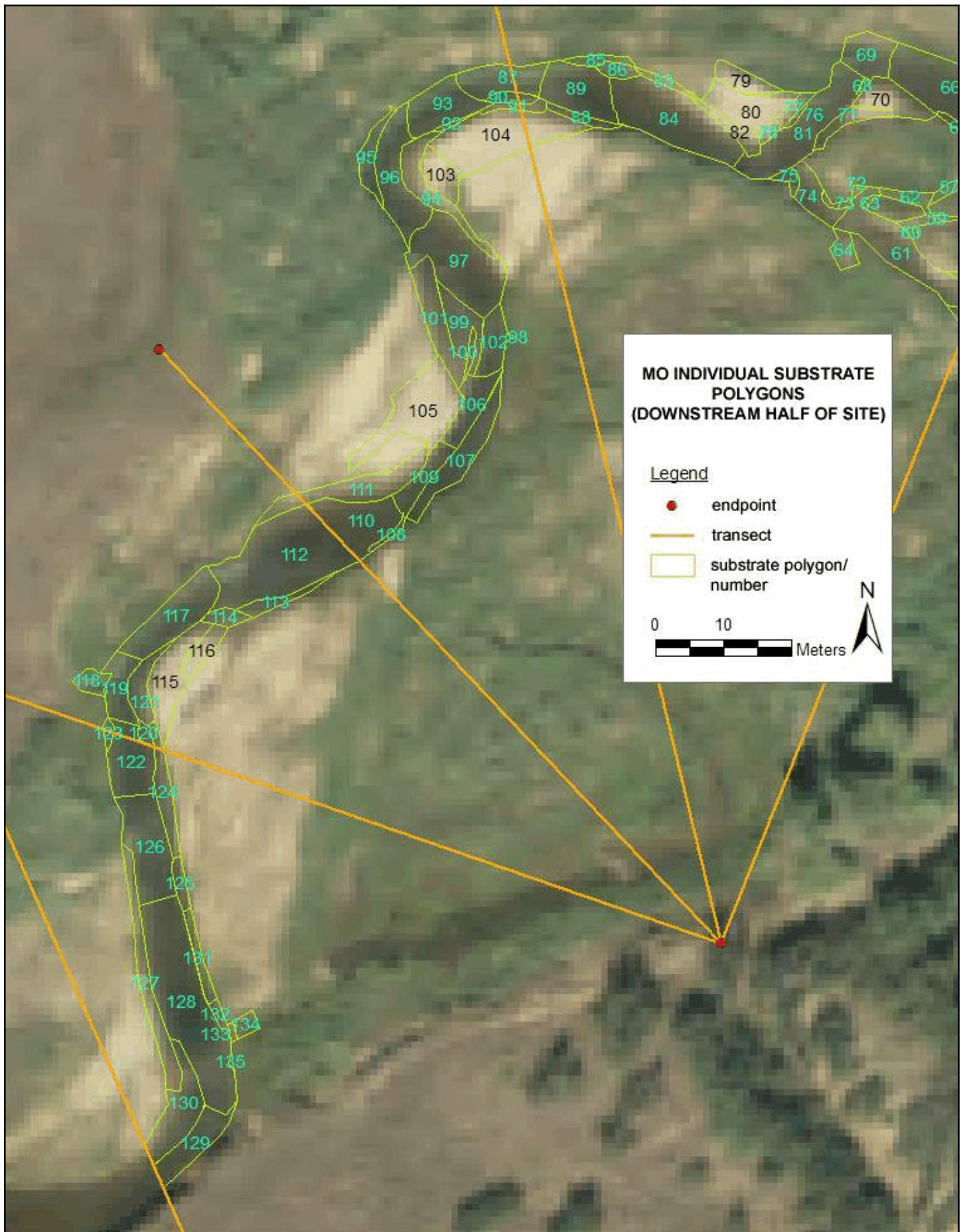
**APPENDIX 3.1A. MAPS OF INDIVIDUAL SUBSTRATE
POLYGONS**

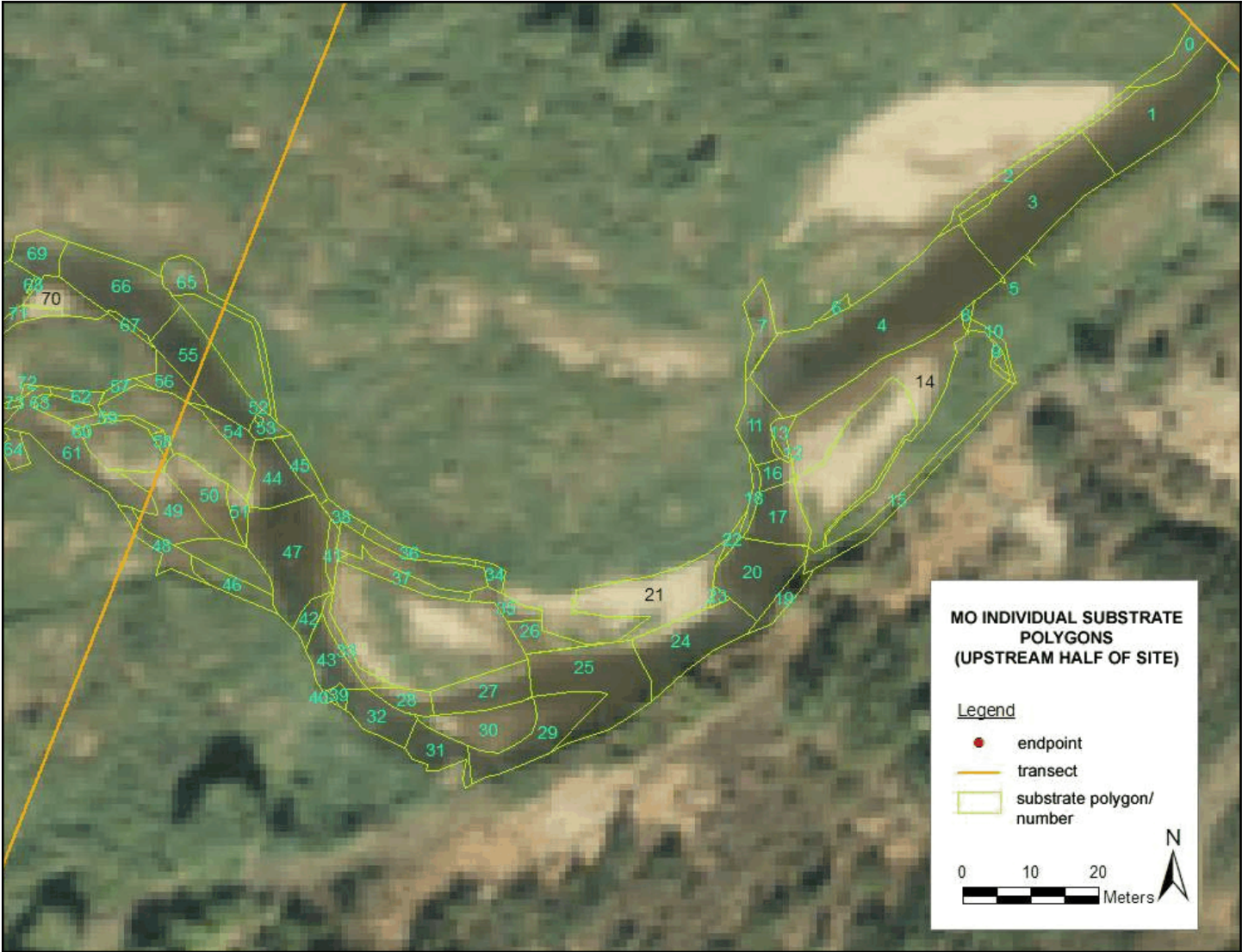


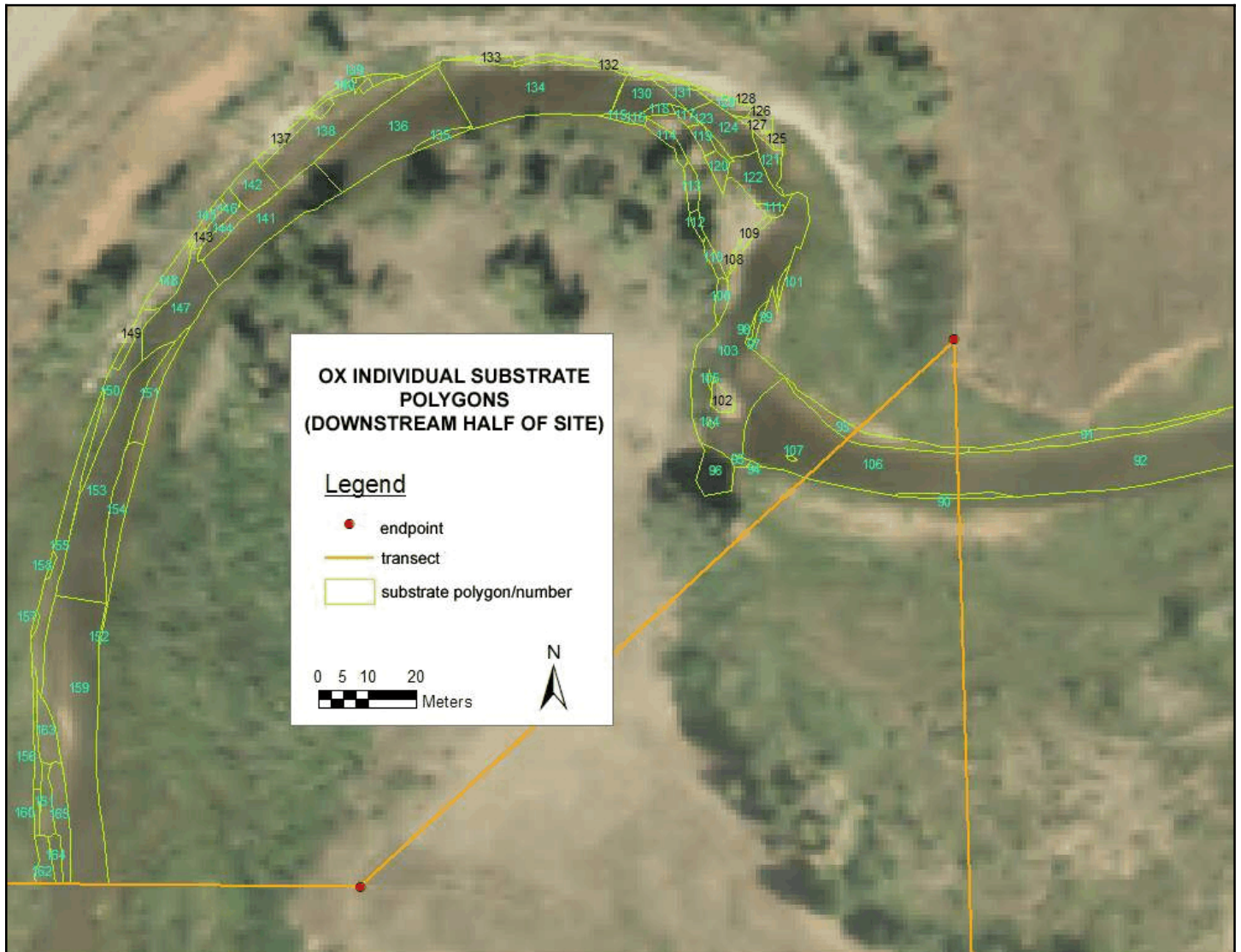
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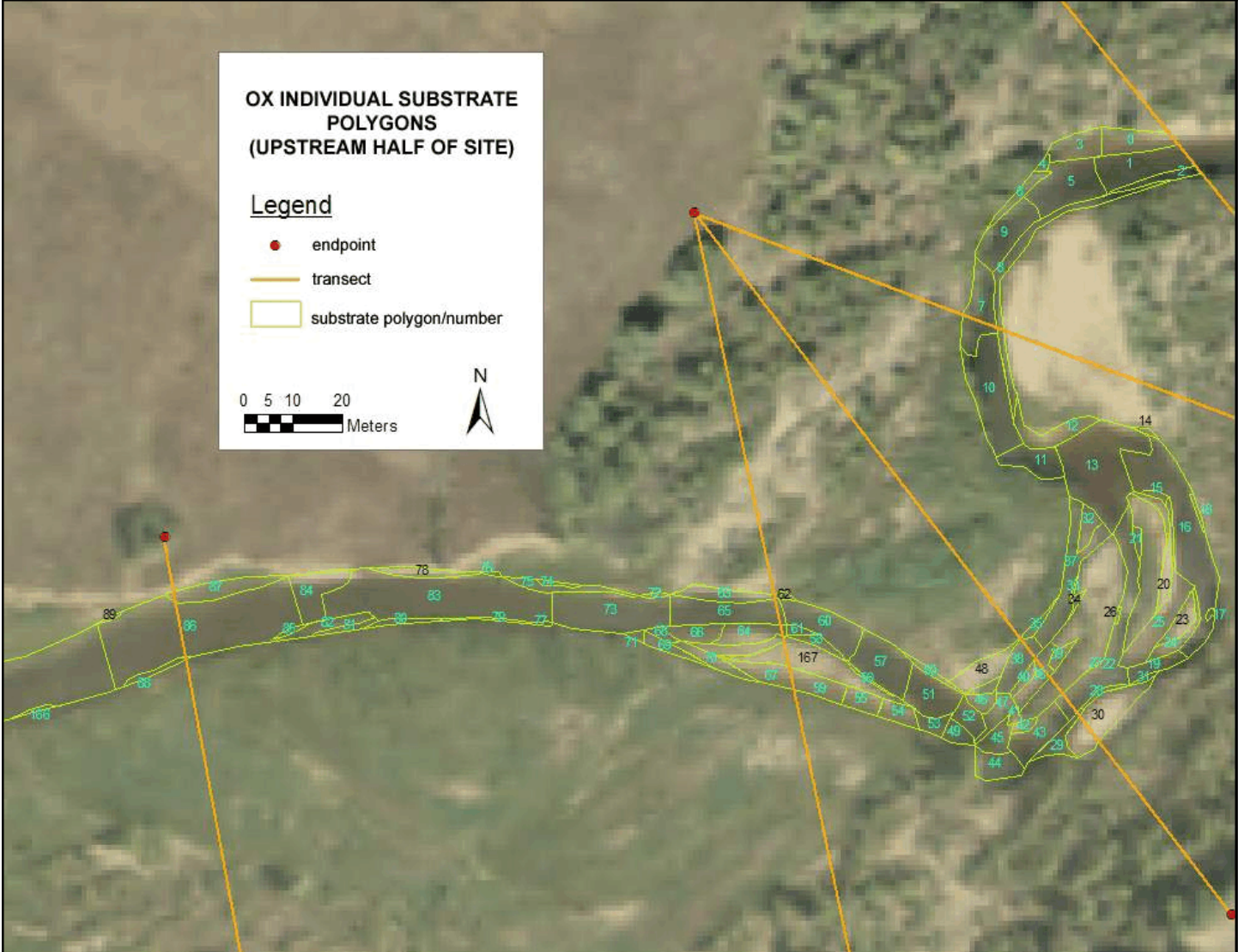












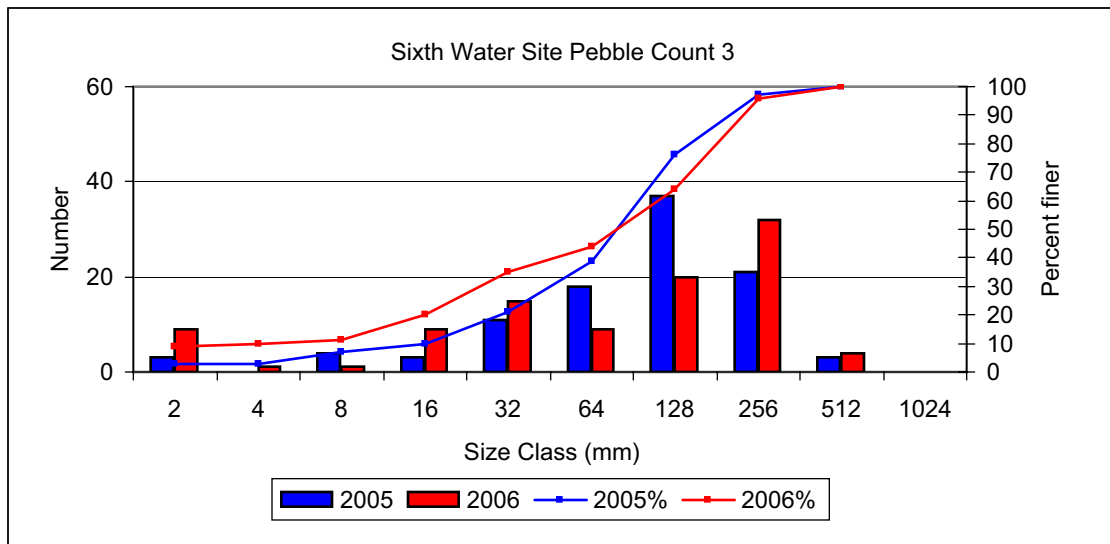
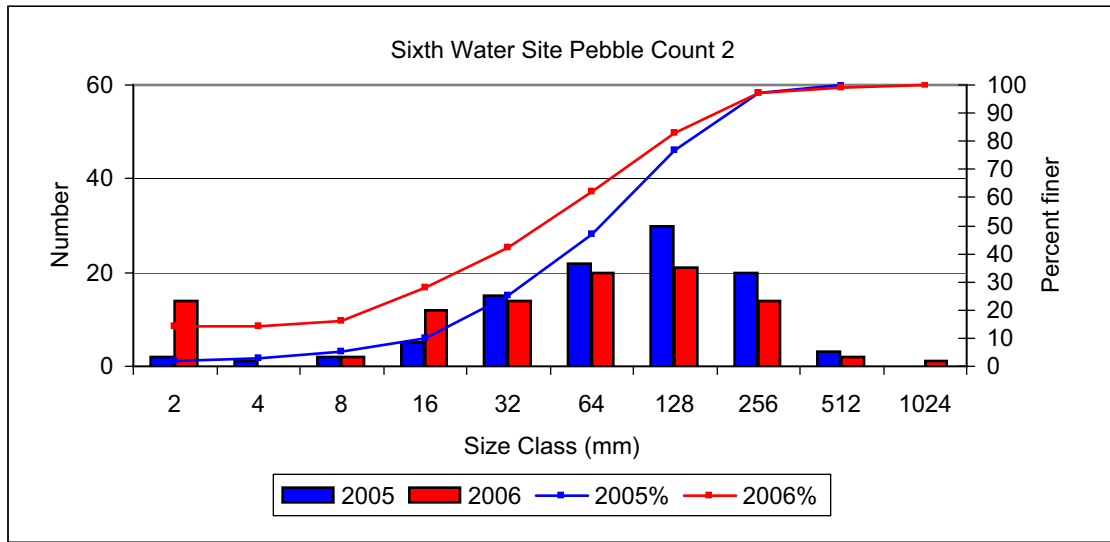
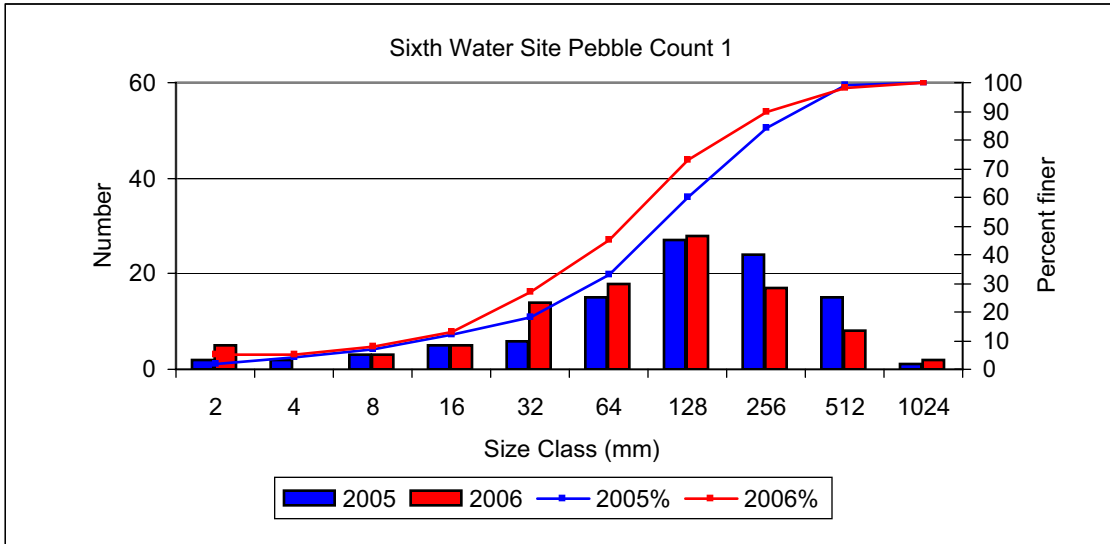
APPENDIX 3.1B. SUBSTRATE POLYGON ATTRIBUTE TABLES

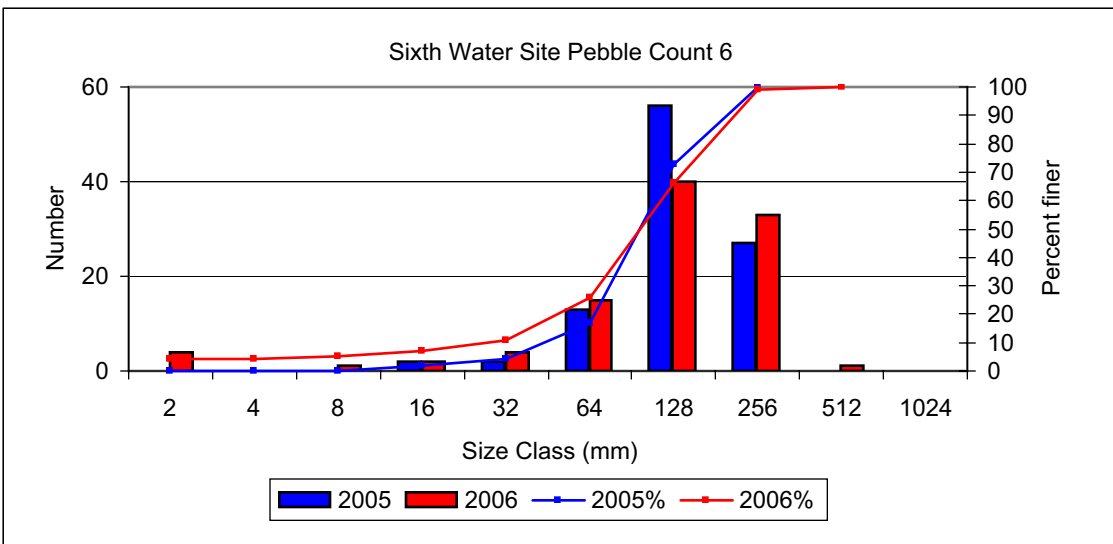
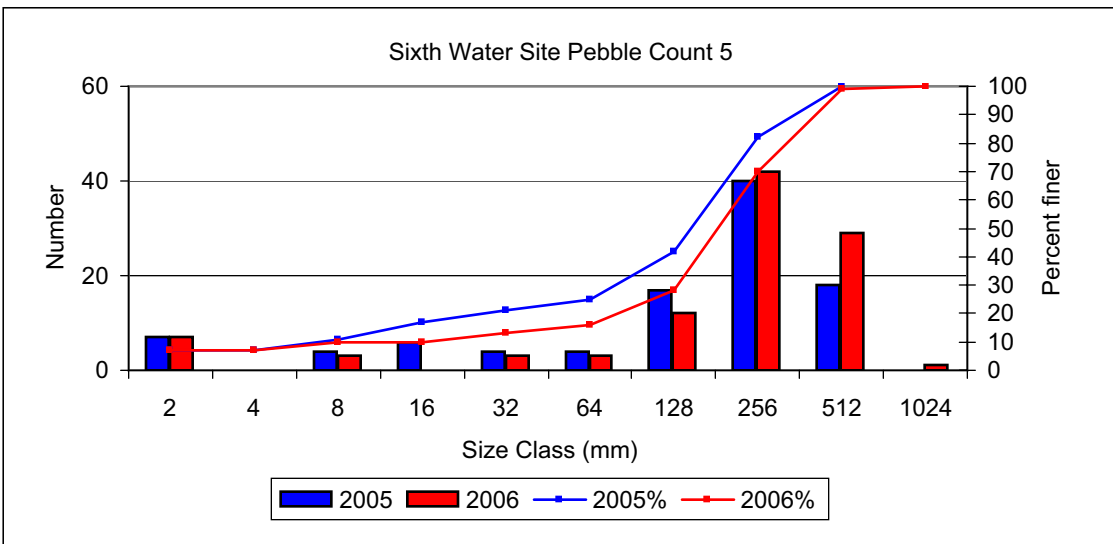
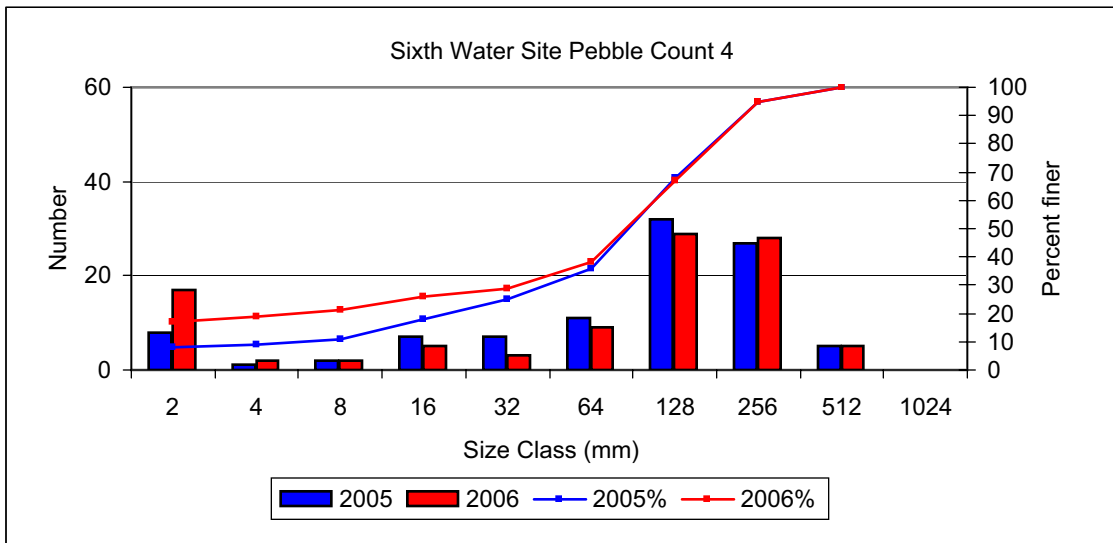
SXW 2006		POLYGON		Area m2	Substype	Notes	Major Type	PERCENTAGES				
NUMBER	Area m2	Substype	Notes					Major Type	%B	%C	%LG	%MG
0	1.60	5B 5SI			boulder-sand/silt	50					50	
1	0.62	10B			boulder	100						
2	1.10	10S		behind lg boulder	sand/silt						100	
3	182.17	5B 5C			boulder-cobble	50	50					
4	284.57	5B 5C			boulder-cobble	50	50					
5	185.02	5B 5C			boulder-cobble	50	50					
6	1.74	10SI			sand/silt						100	
7	2.76	3.3B 3.3C 3.3S		and grass	boulder-cobble-sand/silt	33	33				33	
8	32.67	3.3B 3.3C 3.3LG		some minor MG SI	boulder-cobble-gravel	33	33	33				
9	22.35	1B 4C 4LG 1SI			cobble-gravel	10	40	40			10	
10	3.61	10SI			sand/silt						100	
11	151.95	5B 5C			boulder-cobble	50	50					
12	0.00	5B 5C			boulder-cobble	50	50					
13	17.13	5B 5C			boulder-cobble	50	50					
14	0.44	10SI			sand/silt						100	
15	2.89	3.3B 3.3C 3.3SA			boulder-cobble-sand/silt	33	33				33	
16	3.34	1.5B 1.5C 7S			sand/silt	15	15				70	
17	0.66	4B 4C 2SI		behind log	boulder-cobble	40	40				20	
18	37.63	5B 5C			boulder-cobble	50	50					
19	2.47	7B 3C		step	boulder	70	30					
20	6.17	5B 5C			boulder-cobble	50	50					
21	2.03	10SI			sand/silt						100	
22	3.74	2C 8SI			sand/silt		20				80	
23	0.80	10SI			sand/silt						100	
24	3.16	7C 3SI			cobble		70				30	
25	3.74	7B 3C		step	boulder	70	30					
26	196.37	5B 5C			boulder-cobble	50	50					
27	3.65	10SI			sand/silt						100	
28	3.35	2.5B 2.5C 2.5LG 2.5MG			gravel	25	25	25	25			
29	3.91	1.9B 1.9C 1.8LG 1.9MG 2.5S			gravel	19	19	18	19		25	
30	21.17	2.5B 2.5C 2.5LG 2.5MG			gravel	25	25	25	25			
31	3.86	7B 3C			boulder	70	30					
32	2.83	2.5B 2.5C 5SI			sand/silt	25	25				50	
33	3.94	2.5B 2.5C 5SI			sand/silt	25	25				50	
34	72.45	5B 5C			boulder-cobble	50	50					
35	3.82	1B 9S			sand/silt	10					90	
36	217.51	5B5C			boulder-cobble	50	50					
37	3.65	2.5B 2.5C 2.5G 2.5SA		pool	boulder-cobble-gravel-sand/silt	25	25	25	25		25	
38	2.78	10SI			sand/silt						100	
39	3.41	10SI			sand/silt						100	
40	3.93	1B 3.5C 1.16LG 1.17MG 1.17FG 2S		bank blew out here btw 05 and 06	cobble-gravel	10	35	11.6	11.7	11.7	20	
41	1.08	1B 2LG 7S		assumed G was LG	sand/silt	10		20			70	
42	10.39	3.3B 3.3C 3.3LG			boulder-cobble-gravel	33	33	33				
43	0.38	5B 5SI			boulder-sand/silt	50					50	

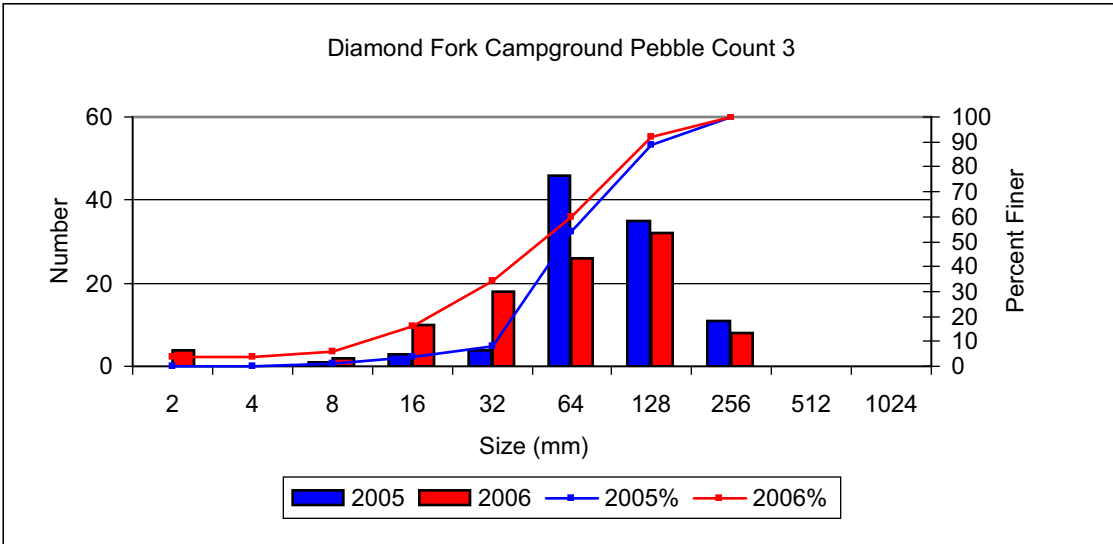
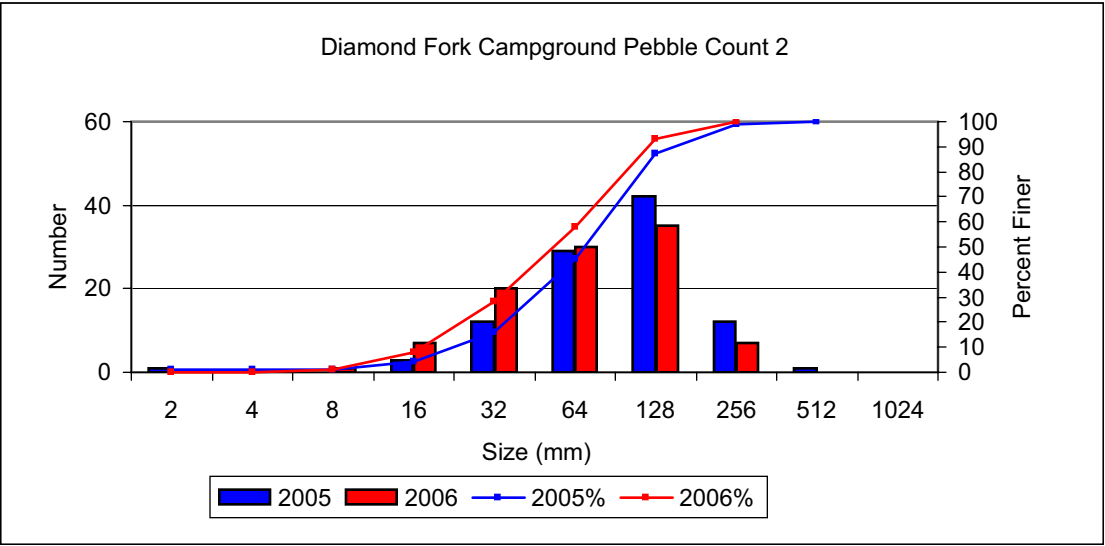
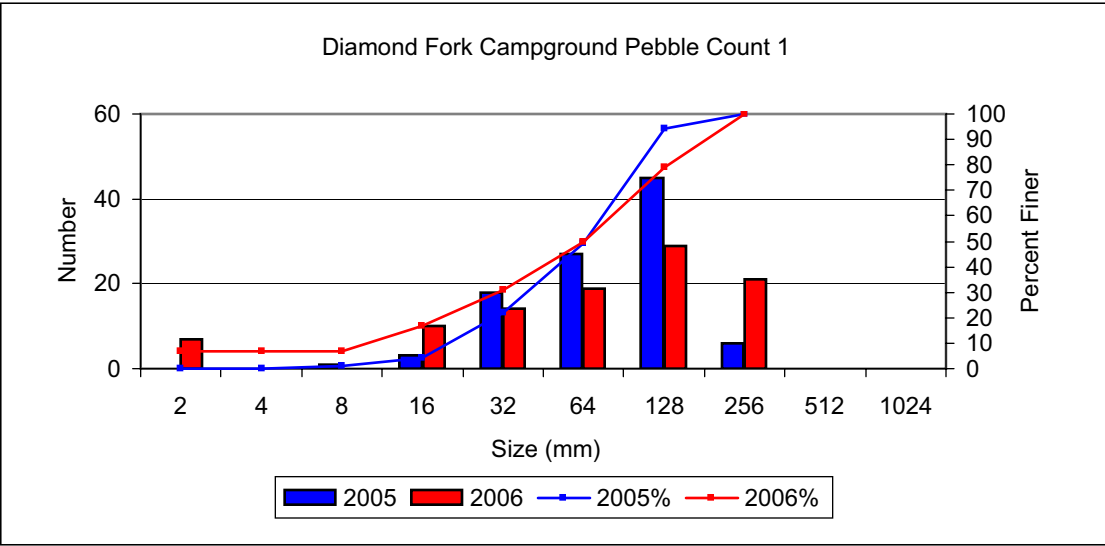
POLYGON NUMBER	Area	Subtype	Notes	MajorType	%B	PERCENTAGES				%SASI	%unknown
						%C	%MG	%FG	%S		
0	60.99	1.75C 1.75LG 6.5S		sand/silt		17.50	17.50			68.00	
1	104.83	2.67C 2.67LG 2.67MG 1FG 1S		gravel		26.70	26.70	26.60	10.00	10.00	
2	24.82	2.17C 2.17LG 2.17MG 1.75FG 1.75S	commented	gravel		21.70	21.60	21.70	17.50	17.50	
3	59.59	2C 2LG 2MG 2FG 2S		gravel		20.00	20.00	20.00	20.00	20.00	
4	5.69	10S1		sand/silt						100.00	
5	115.20	2.83C 2.83LG 2.83MG 0.75FG 0.75S		gravel		28.30	28.30	28.40	7.50	7.50	
6	23.74	1C 2.17LG 2.17MG 1.75FG 1.75S		gravel		10.00	21.70	21.60	17.50	17.50	
7	87.42	2.17C 2.17LG 2.17MG 1.75FG 1.75S	deep, parts feel cemented	gravel		21.70	21.70	21.60	17.50	17.50	
8	86.97	1.33C 1.33LG 1.33MG 0S		sand/silt		13.30	13.30	13.40	10.00	10.00	
9	87.25	2.66C 2.66LG 2.66MG 1FG 1S		gravel		26.60	26.70	26.70	10.00	10.00	
10	157.69	2.5C 2.5LG 2.5MG 1.25FG 1.25S		gravel		25.00	25.00	25.00	12.50	12.50	
11	58.10	unknown	deep	unknown						100.00	
12	56.24	10S1		sand/silt		20.00	20.00	20.00	20.00	20.00	
13	239.41	2C 2LG 2MG 2FG 2S		gravel		20.00	20.00	20.00	20.00	20.00	
14	3.89	1.5LG 1.5MG 7S		sand/silt		23.30	23.30	23.30	30.00	30.00	
15	6.81	2.33C 2.33LG 2.33MG 3S		gravel		23.30	23.30	23.30	10.00	10.00	
16	259.37	2.67C 2.67LG 2.67MG 1FG 1S		gravel		26.70	26.60	26.70	10.00	10.00	
17	2.34	10S1		sand/silt		25.00	25.00			50.00	
18	5.48	2.6C 2.6LG 5S		sand/silt		30.00	30.00	30.00	5.00	5.00	
19	31.77	3C 3LG 3MG 0.5FG 0.5S		gravel		30.00	30.00	30.00	11.00	11.00	
20	38.82	3.33C 3.33LG 3.33S	snow covered dry bar - guess subtype	cobble-gravel-sand/silt		33.30	33.30	33.30	20.00	20.00	
21	8.87	2C 2LG 2MG 2FG 2S		gravel		20.00	20.00	20.00	10.00	10.00	
22	159.81	3.33C 3.33LG 3.33MG		gravel		33.30	33.30	33.30	33.30	33.30	
23	29.58	3.33C 3.33LG 3.33S		gravel		33.30	33.30	33.30	11.00	11.00	
24	27.62	1.33C 1.33LG 1.33MG 6S	dry bar snow covered - guess subtype	cobble-gravel-sand/silt		13.30	13.30	13.30	60.00	60.00	
25	96.72	1.33C 1.33LG 1.33MG 6S	small dry bar in center	sand/silt		13.30	13.30	13.30	60.00	60.00	
26	2.46	10S		sand/silt		20.00	20.00			80.00	
27	0.94	2C 8S		sand/silt		20.00	20.00			80.00	
28	7.91	2C 8S		sand/silt		20.00	20.00			80.00	
29	27.79	10S		sand/silt		33.30	11.10	11.10	11.10	33.30	
30	106.01	3.33C 3.33LG 3.33S	guess subtype - dry bar under snow	cobble-gravel-sand/silt		23.30	23.40	23.30	30.00	30.00	
31	3.72	2.33C 2.33LG 2.33MG 3S		gravel		16.60	16.70	16.70	40.00	40.00	
32	24.49	1.66C 1.67LG 1.67MG 6S	part dry bar	sand/silt		30.00	30.00			100.00	
33	1.89	3C 3LG 4S		sand/silt		10.00	35.00			20.00	
34	4.47	10S		gravel		30.00	30.00	40.00		40.00	
35	11.23	1C 3.5LG 3.5MG 2S		gravel		25.00	25.00	25.00		100.00	
36	39.84	3C 3LG 4S		gravel		16.70	16.70	16.60		25.00	
37	105.16	2C 4LG 4MG		gravel		20.00	20.00	15.00		50.00	
38	50.46	3.33C 3.33LG 3.33MG		gravel		33.30	33.30			35.00	
39	1.69	10S		sand/silt		25.00	25.00			25.00	
40	12.07	2.3C 2.3LG 2.3MG 2.5S	dry bar	gravel		16.70	16.70	16.60		35.00	
41	16.72	1.67C 1.67LG 1.66MG 5S	dry bar	sand/silt		28.30	28.30	28.30	7.50	7.50	
42	9.82	1.5LG 1.5MG 3.9FG 3.5S		gravel		15.00	15.00	15.00		35.00	
43	66.23	2.83C 2.83LG 2.83MG 0.75FG 0.75S		gravel		28.30	28.30	28.30	7.50	7.50	
44	47.59	unknown	deep	unknown						100.00	
45	31.84	10S		sand/silt		30.00	30.00	30.00	20.00	20.00	
46	17.47	3LG 3MG 2FG 2S	high dry bar	gravel		50.00	50.00			100.00	
47	30.47	5LG 5MG		gravel		15.00	15.00			70.00	
48	52.68			sand/silt		23.30	23.30	23.30	15.00	15.00	
49	21.02	10S		sand/silt		20.00	20.00	20.00	20.00	20.00	
50	10.37	1.5C 1.5LG 7S		sand/silt		15.00	15.00			100.00	
51	77.52	2.83C 2.83LG 2.83MG 1.5FG 1.5S		gravel		23.30	23.30	23.30	15.00	15.00	
52	30.59	2C 2LG 3FG 3S	deep - map by feel	gravel		20.00	20.00	20.00	30.00	30.00	
53	21.58	2.33C 2.33LG 2.33MG 3S		gravel		23.30	23.30	23.30	30.00	30.00	
54	28.60	10S		sand/silt		20.00	20.00	20.00	20.00	20.00	
55	30.80	3C 7S		sand/silt		30.00	35.00	35.00	10.00	10.00	
56	6.32	3.5C 3.5LG 3S		cobble-gravel		35.00	35.00			70.00	
57	98.89	4C 4LG 2MG		gravel		40.00	40.00	20.00		80.00	
58	17.41	2C 8S		sand/silt		20.00	20.00			40.00	
59	43.94	2C 2LG 2MG 4S		gravel-sand/silt		33.30	33.30	33.30		40.00	
60	92.17	3.33C 3.33LG 3.33MG		gravel		10.00	10.00	10.00	35.00	35.00	
61	8.57	1C 1LG 1MG 3.5FG 3.5S		sand/silt		23.30	23.30	23.40	15.00	15.00	
62	2.75	10S	sticks and eroding bank	sand/silt		26.60	26.70	26.70	10.00	10.00	
63	44.73	2.33C 2.33LG 2.34MG 1.5FG 1.5S	LWD on bank	gravel		5.00	23.80	23.80	2.50	2.50	
64	47.57	3LG 5MG 2S		gravel		23.30	23.40	23.30	30.00	30.00	
65	111.08	2.66C 2.67LG 2.67MG 1FG 1S	part dry bar	gravel		26.60	26.70	26.70	10.00	10.00	
66	36.82	2.5LG 2.5MG 2FG 3S		gravel		25.00	25.00	25.00	20.00	20.00	
67	43.94	2.5C 2.5LG 2.5MG 2.5S		gravel		25.00	25.00	25.00	20.00	20.00	
68	10.02	2C 3.5LG 3.5MG 1FG		gravel		20.00	20.00	20.00	35.00	35.00	
69	19.97	2.17C 2.17LG 2.16MG 3.5S		gravel		21.70	21.70	21.60	10.00	10.00	
70	29.62	3.33C 3.33LG 3.33MG		gravel		33.30	33.30	33.30		35.00	
71	5.43	10S1		sand/silt		20.00	20.00	20.00	20.00	20.00	
72	4.40	2C 2LG 2MG 2FG 2S		gravel		33.30	33.30	33.30		100.00	
73	170.06	3.33C 3.33LG 3.33MG		gravel		33.30	33.30	33.30		100.00	
74	6.66	10S		sand/silt		30.00	30.00	30.00		100.00	
75	29.52	3C 3LG 3MG 1S		gravel		30.00	30.00	30.00		100.00	
76	3.12	10S		sand/silt		31.70	31.70	31.60	2.50	2.50	
77	3.10	9FG 5S		gravel-sand/silt		5.00	23.80	23.80	2.50	2.50	
78	29.29	3.17C 3.17LG 3.16MG 0.25FG 0.25S		gravel		23.30	23.40	23.30	15.00	15.00	
79	7.70	0.5C 2.38LG 2.37MG 2.38FG 2.37S		gravel		30.00	30.00	30.00	5.00	5.00	
80	14.97	2.33C 2.34LG 2.33MG 1.5FG 1.5S		gravel		20.00	20.00	20.00	20.00	20.00	
81	12.80	3C 3LG 3MG 0.5FG 0.5S		gravel		20.00	20.00	20.00	20.00	20.00	
82	34.01	2C 2LG 2MG 2FG 2S		gravel		28.30	28.30	28.40	7.50	7.50	
83	38.17	2.83C 2.83LG 2.84MG 0.75FG 0.75S	LWD at us end	gravel		33.30	33.30	33.30		40.00	
84	77.89	3.33C 3.33LG 3.33MG		gravel		10.00	45.00	45.00			
85	5.44	1C 4.5LG 4.5MG		gravel		30.00	30.00	30.00	5.00	5.00	
86	453.39	3C 3LG 3MG 0.5FG 0.5S		gravel		30.00	30.00	30.00	20.00	20.00	
87	62.85	3C 3LG 2FG 2S		gravel		30.00	30.00	30.00		100.00	
88	13.14	10S		sand/silt		13.30	13.30	13.30		60.00	
89	3.03	1.33C 1.33LG 1.33MG 6S		sand/silt		20.00	20.00	20.00	40.00	40.00	
90	17.96	3C 3LG 4S		sand/silt		20.00	20.00	20.00	40.00	40.00	
91	71.78	2C 2LG 2MG 4S		gravel-sand/silt		28.30	28.40	28.30	7.50	7.50	
92	831.76	2.83C 2.84LG 2.83MG 0.75FG 0.75S		gravel		30.00	30.00	30.00		100.00	
93	73.56	3C 3LG 4S		sand/silt		26.70	26.60	26.70	10.00	10.00	
94	2.55	10S		sand/silt		50.00	50.00			100.00	
95	6.53	2.67C 2.67LG 2.67MG 1FG 1S	part dry bar	gravel		20.00	20.00	20.00	40.00	40.00	
96	56.66	10S	backwater	sand/silt		20.00	20.00	20.00		100.00	
97	2.18	5MG 9FG		gravel		20.00	20.00	20.00		100.00	
98	3.06	10S		sand/silt		10.00	50.00	50.00		100.00	
99	8.73	2C 2LG 2MG 4S		gravel-sand/silt		10.00	50.00	50.00		100.00	
100	16.39	10S1	log across	sand/silt		33.30	33.30	33.30		100.00	
101	5.24	10S		sand/silt		40.00	40.00	40.00		100.00	
102	19.65	1C 5LG 3MG 1S	dry bar PC3 - opt subtype fr PC	gravel		28.40	28.30	28.30	7.50	7.50	
103	511.73	3.33C 3.33LG 3.33MG		gravel		23.30	23.30	23.30	30.00	30.00	
104	1.35	4LG 4MG 1FG 1S		gravel		20.00	20.00	20.00	20.00	20.00	
105	2.27	10S		sand/silt		20.00	20.00	20.00	20.00	20.00	
106	491.26	2.84C 2.84LG 2.83MG 0.75FG 0.75S		gravel		23.30	23.30	23.30	20.00	20.00	
107	1.27	10S		sand/silt		23.30	23.30	23.30	20.00	20.00	
108	3.97	10S		sand/silt		23.30	23.30	23.30	20.00	20.00	
109	14.72	2.33C 2.33LG 2.33MG 3S		sand/silt		23.30	23.30	23.30	25.00	25.00	
110	14.55	1.67C 1.67LG 1.66MG 2.5FG 2.5S1		gravel		16.70	16.70	16.60	25.00	25.00	
111	10.45	10S	logs across	sand/silt		20.00	20.00	20.00	100.00	100.00	
112	9.05	2C 2LG 2MG 4S	dry bar in middle	gravel-sand/silt		20.00	20.00	20.00	40.00	40.00	
113	22.04	2C 2LG 2MG 4S		sand/silt		23.30					

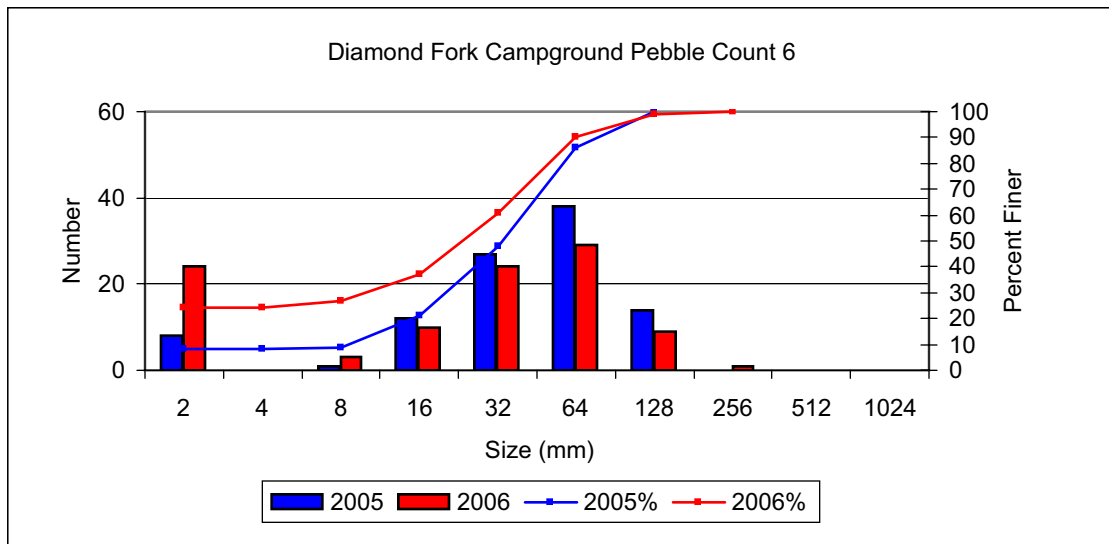
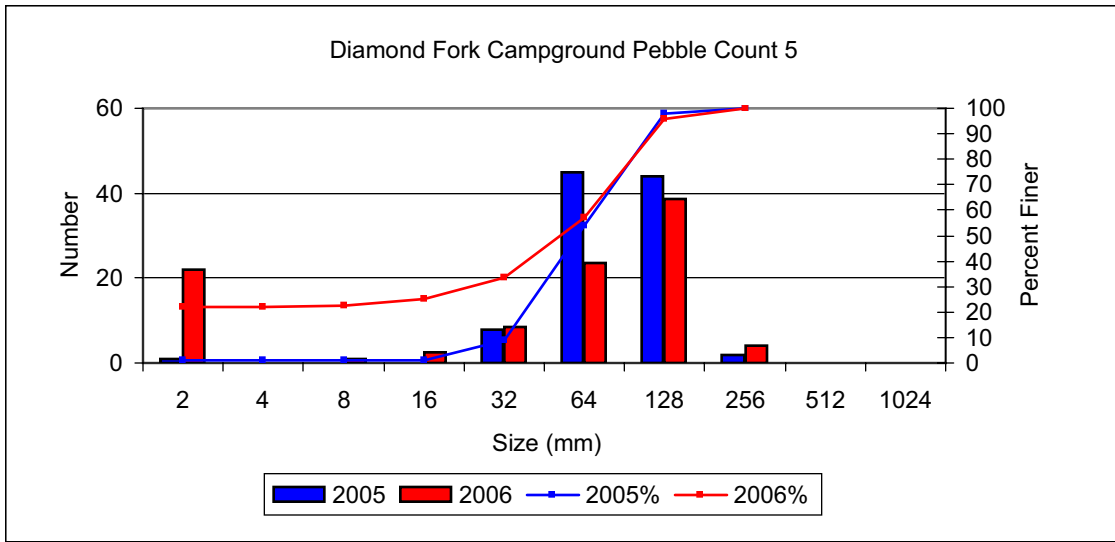
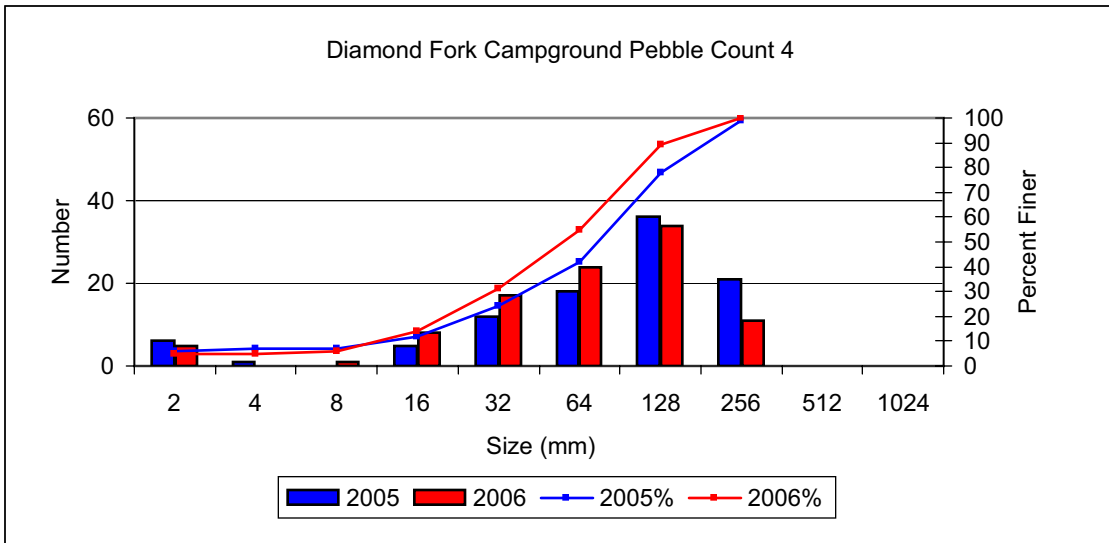
APPENDIX 3.2.

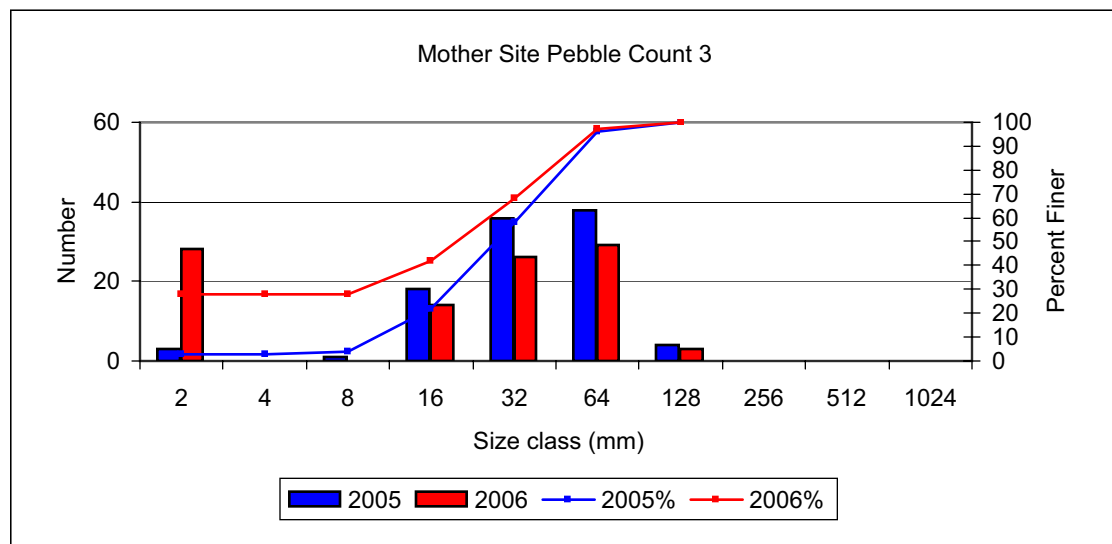
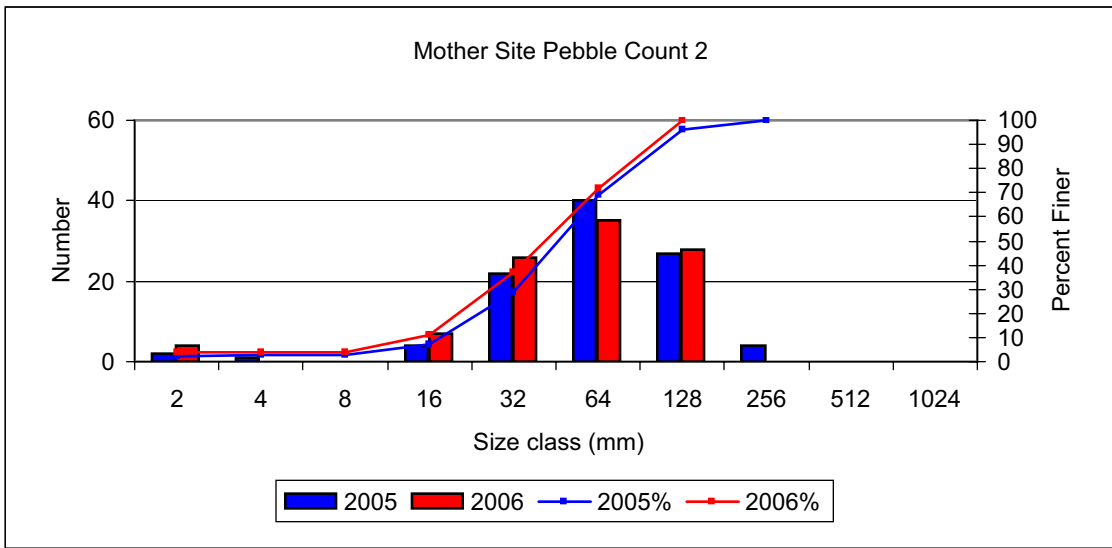
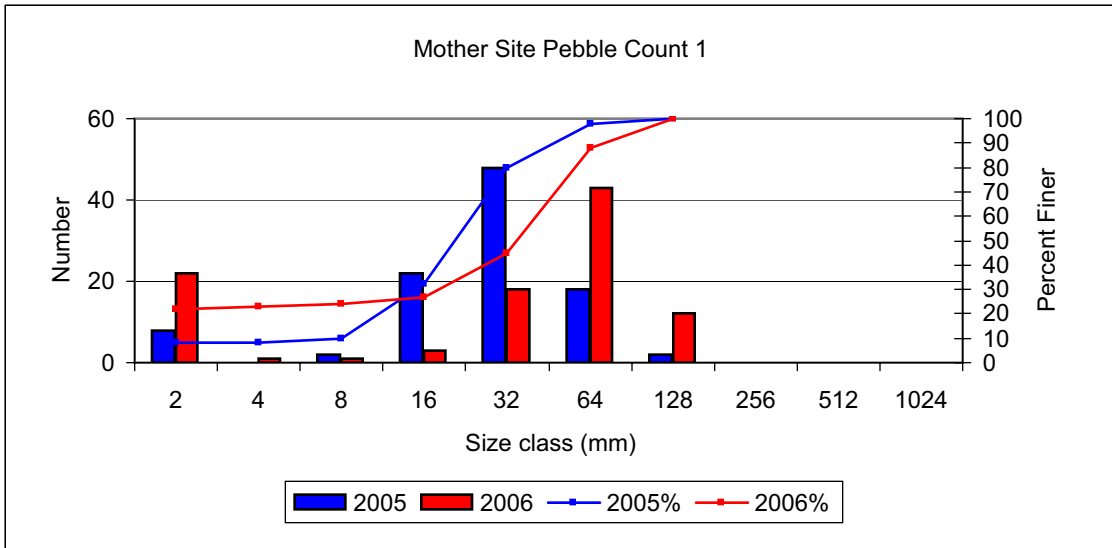
PEBBLE COUNT PLOTS FOR STUDY
SITES

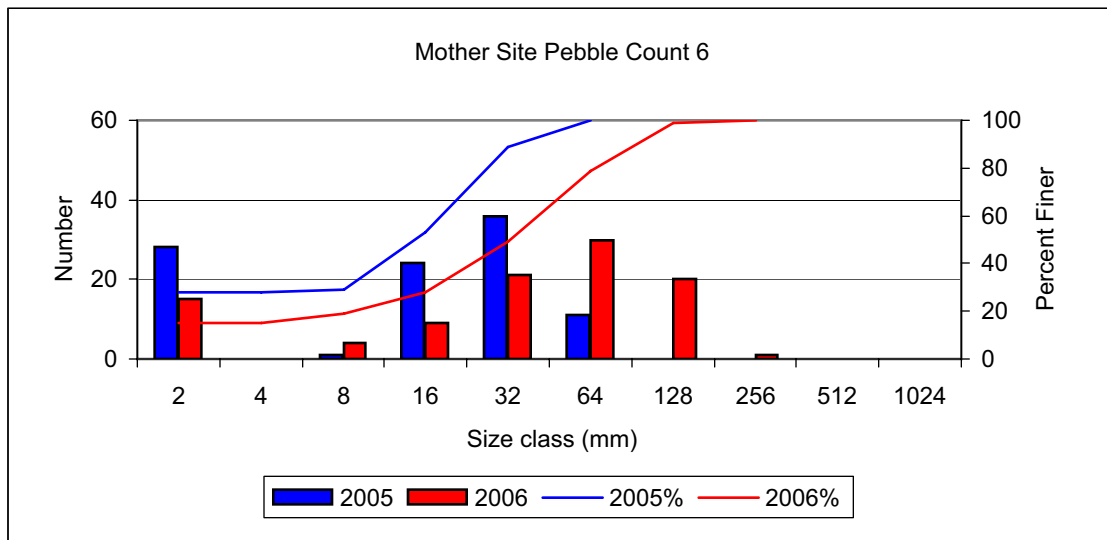
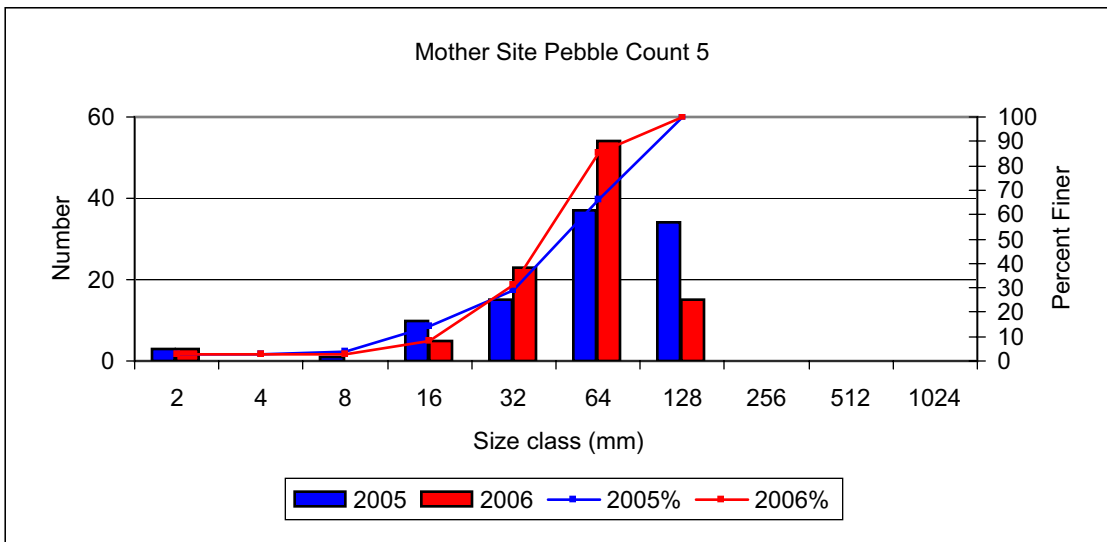
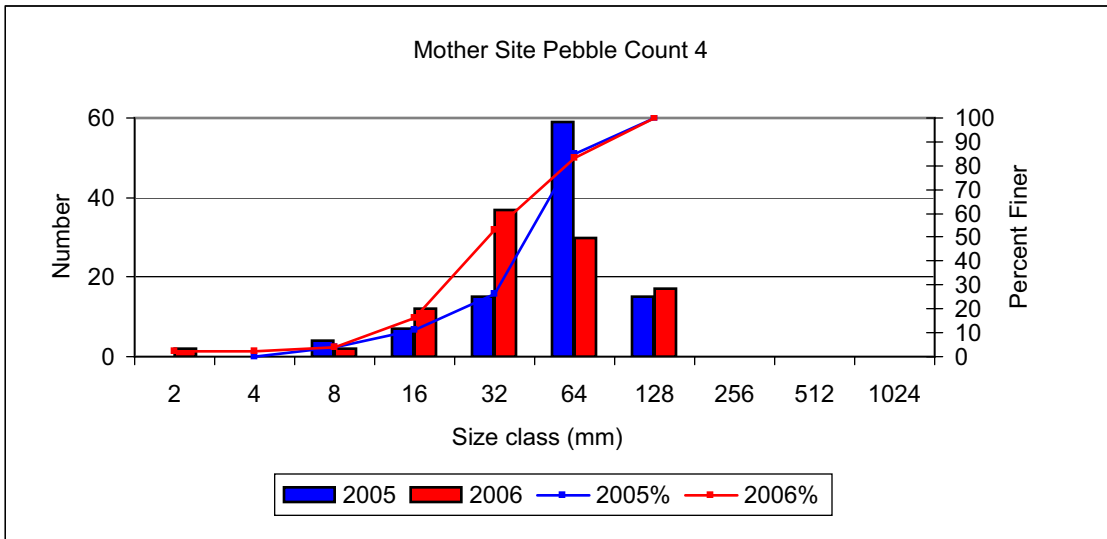


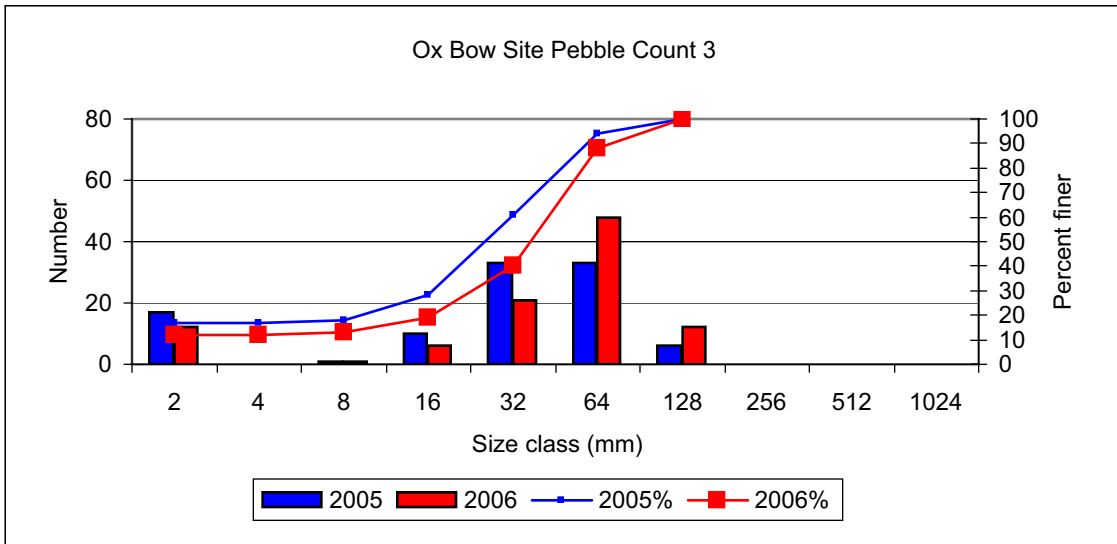
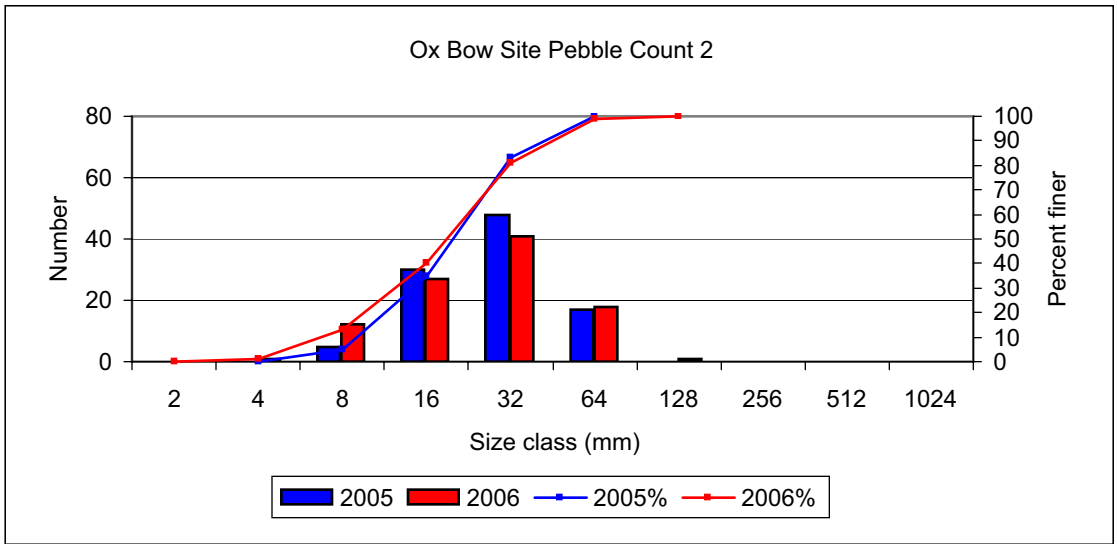
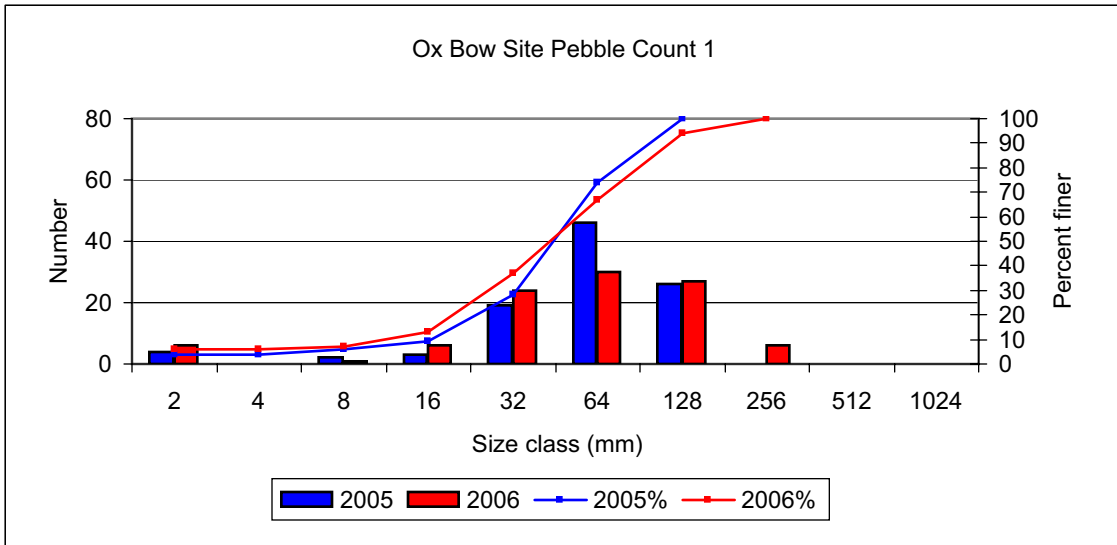


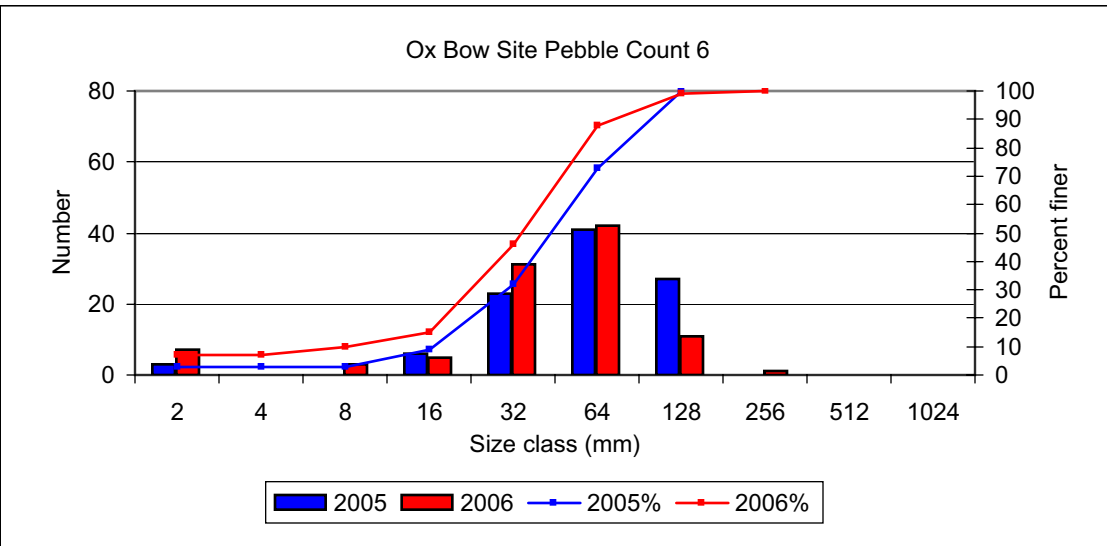
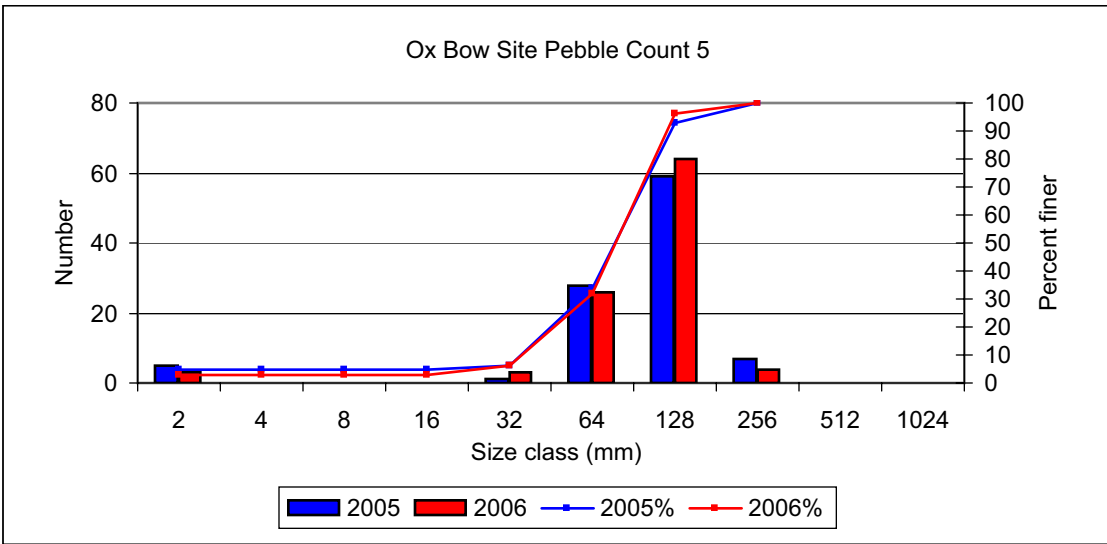
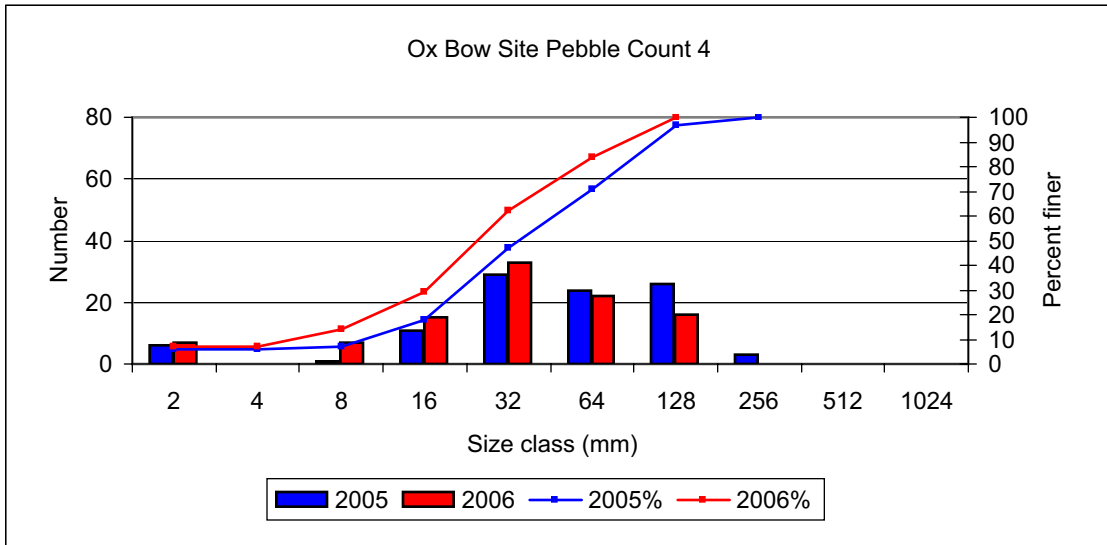




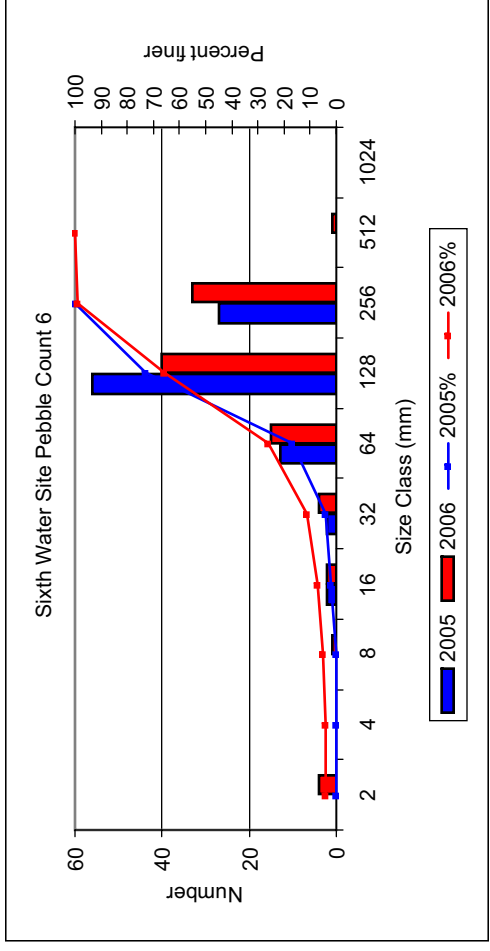
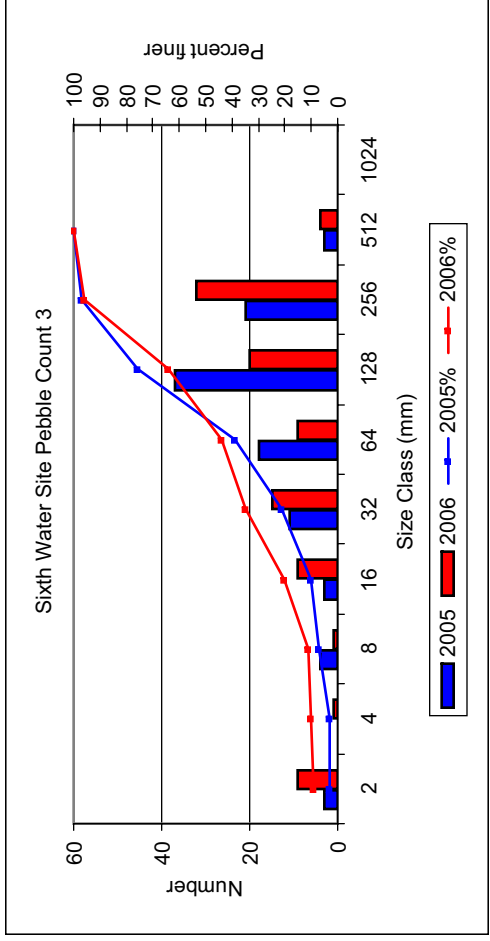
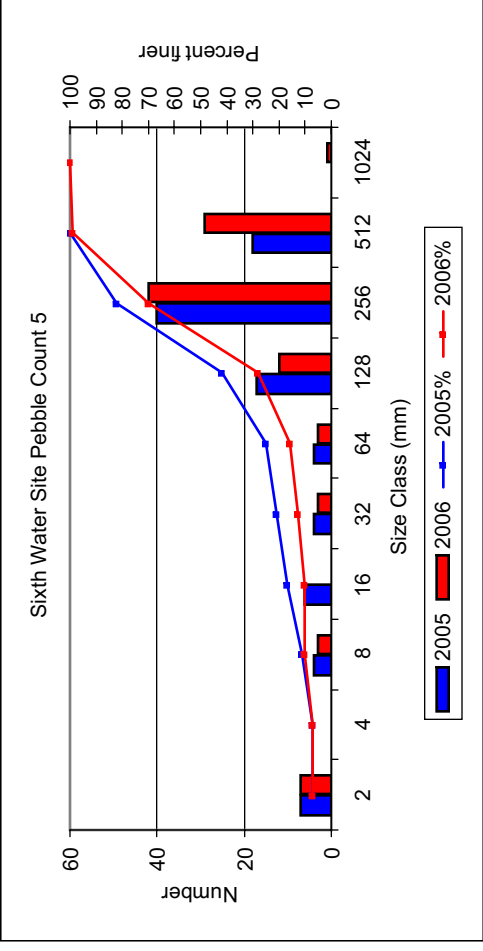
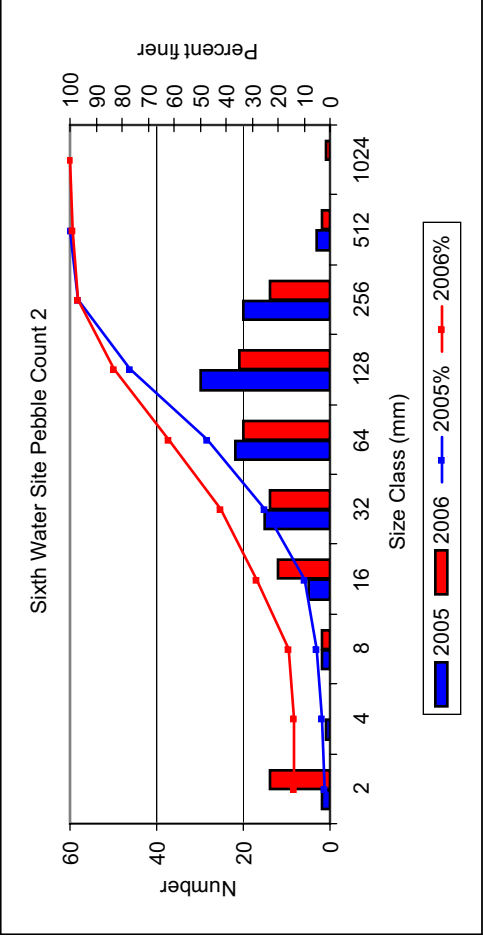
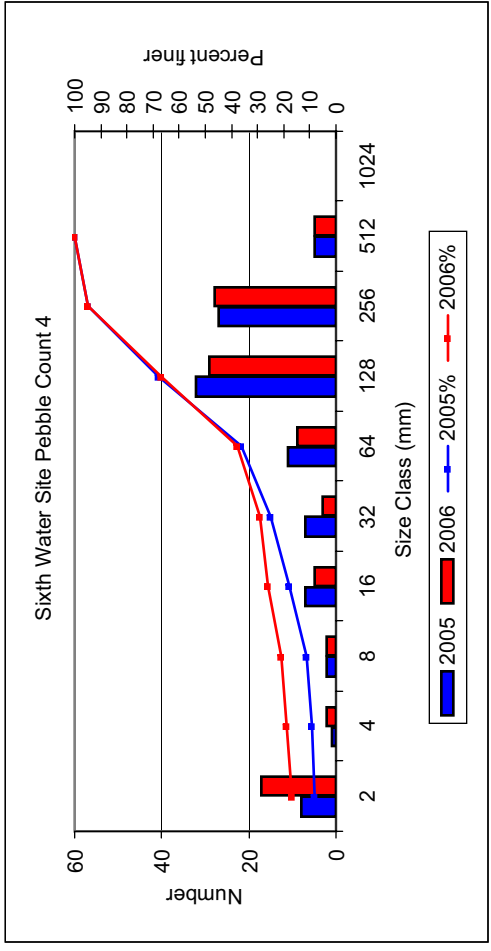
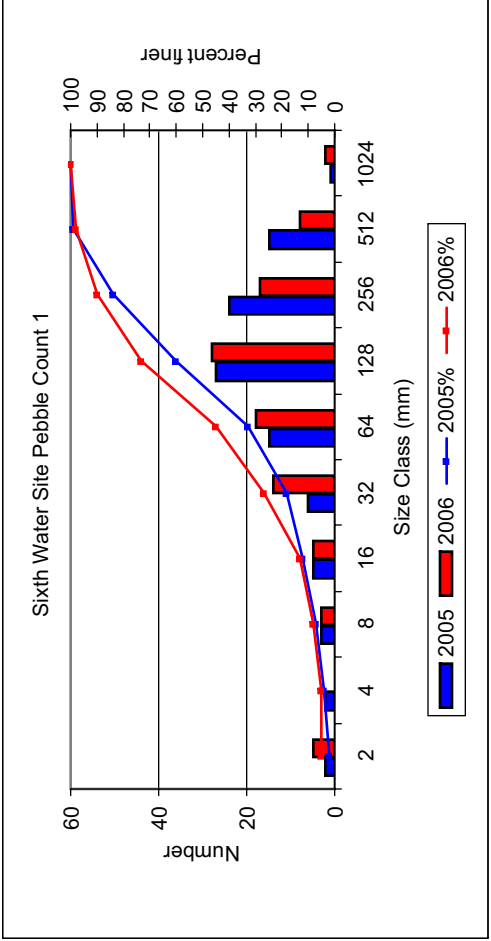




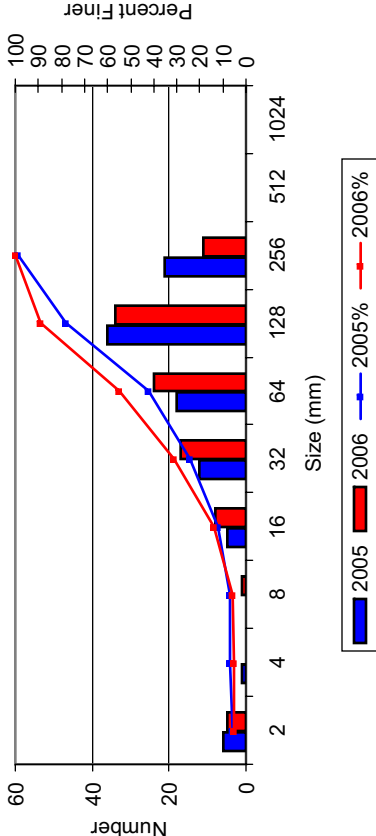




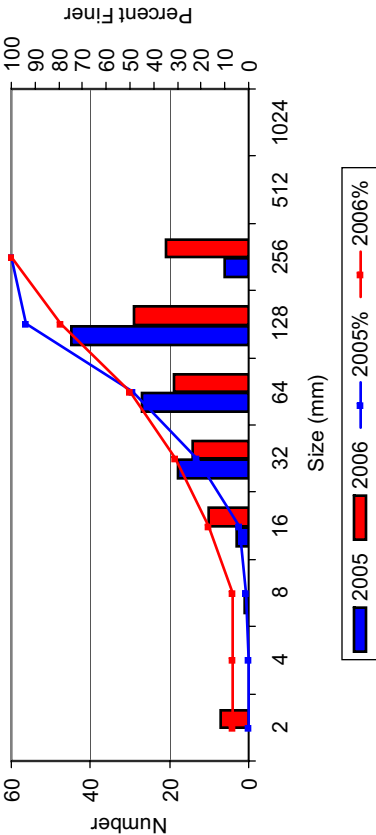
**APPENDIX 3.3. PEBBLE COUNT PLOTS FOR BEDLOAD
MONITORING BRIDGES**



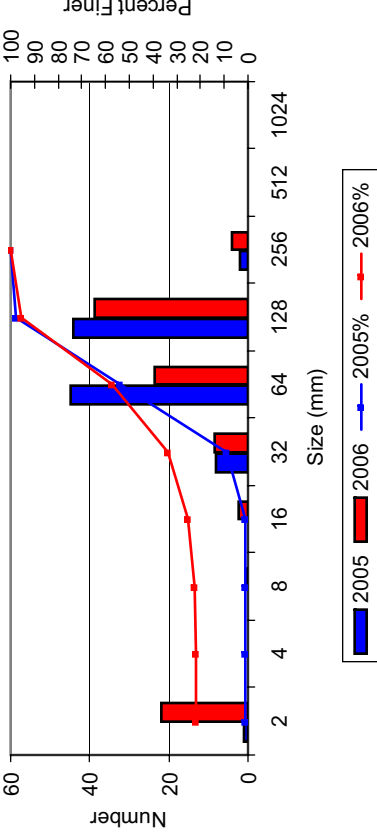
Diamond Fork Campground Pebble Count 4



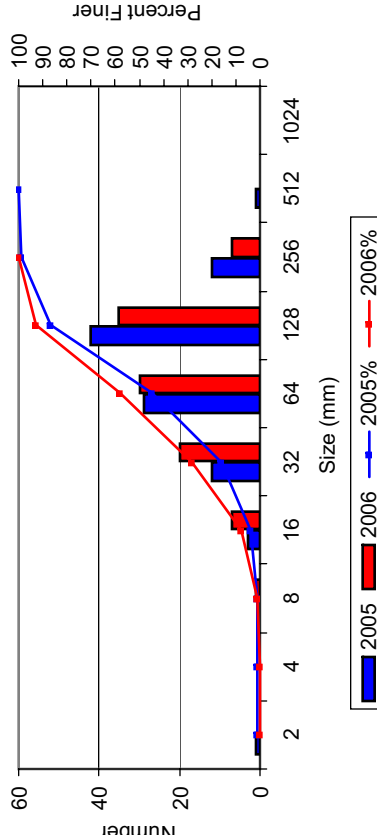
Diamond Fork Campground Pebble Count 1



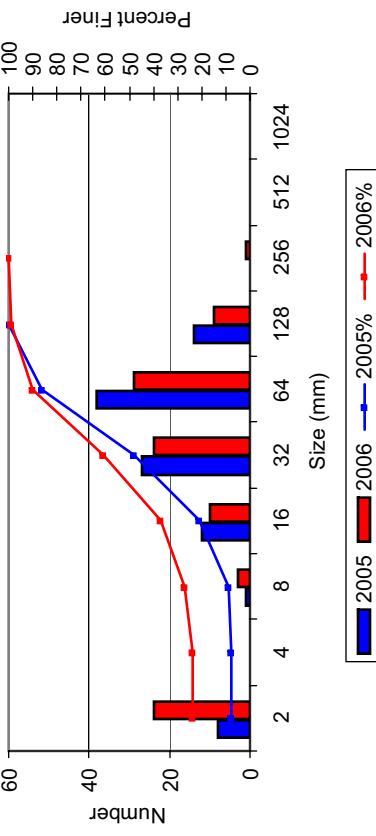
Diamond Fork Campground Pebble Count 5



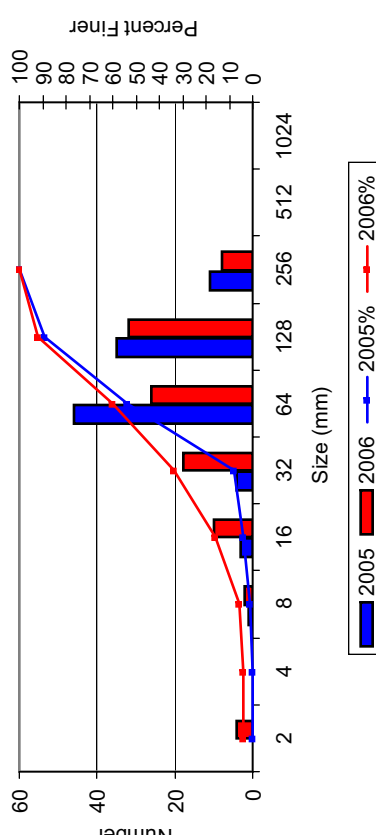
Diamond Fork Campground Pebble Count 2



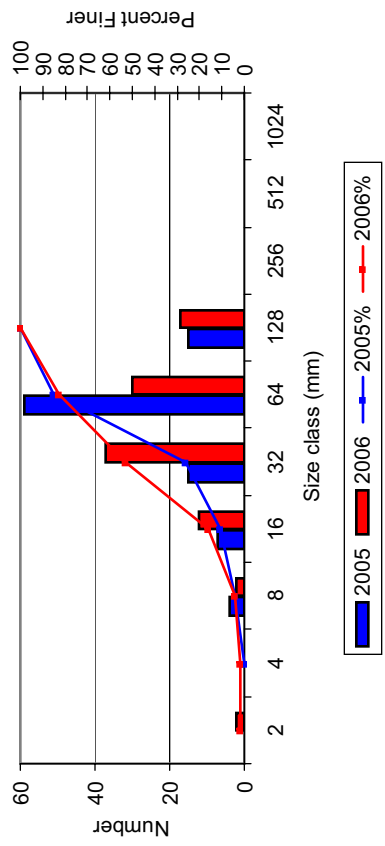
Diamond Fork Campground Pebble Count 6



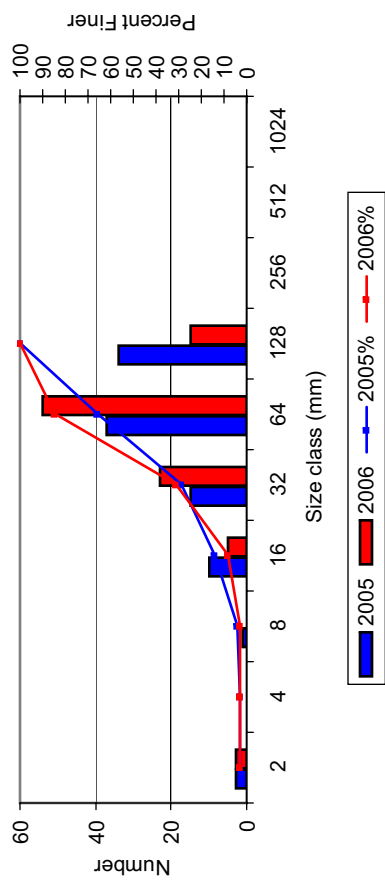
Diamond Fork Campground Pebble Count 3



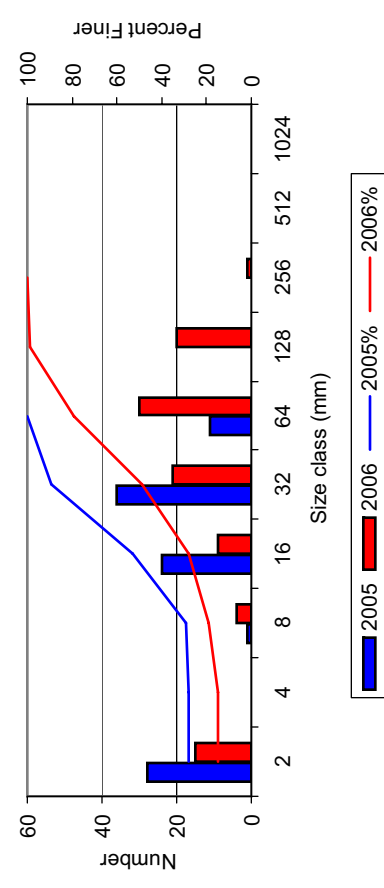
Mother Site Pebble Count 4



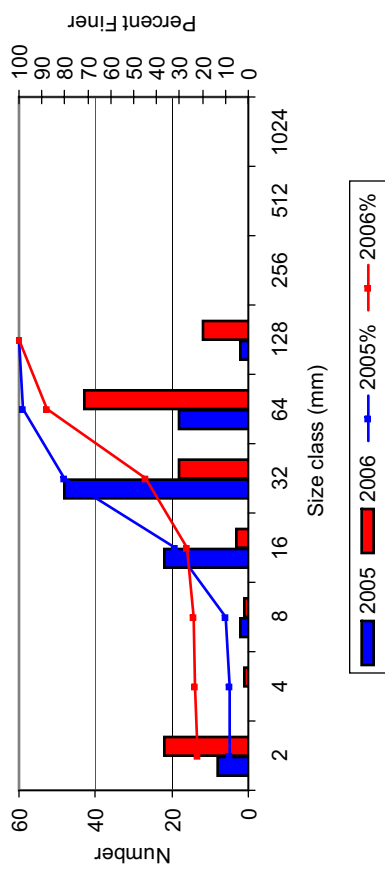
Mother Site Pebble Count 5



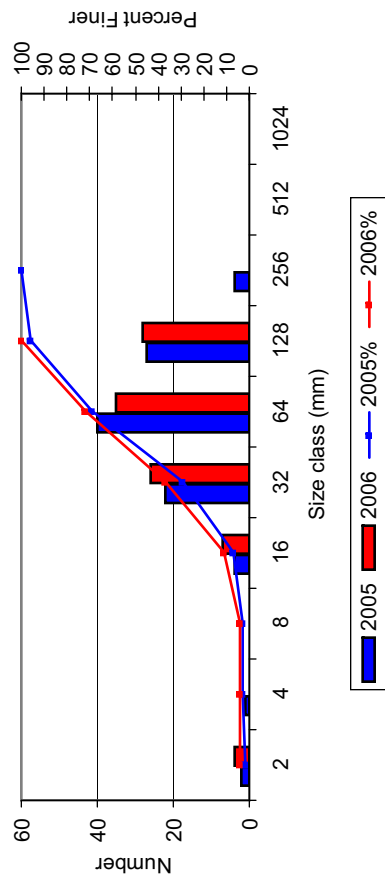
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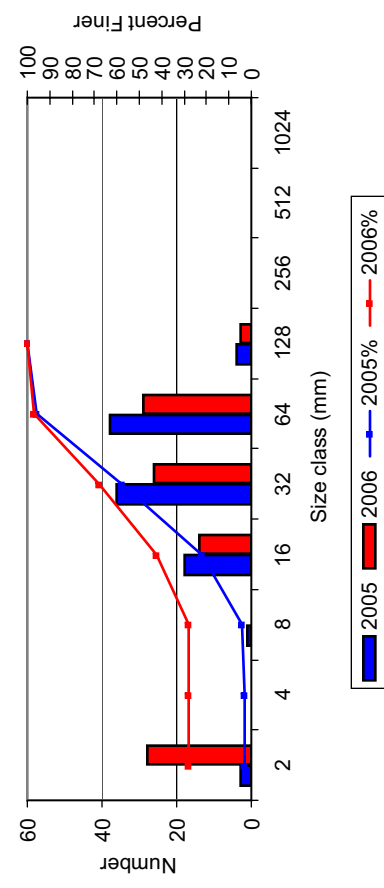
Mother Site Pebble Count 1



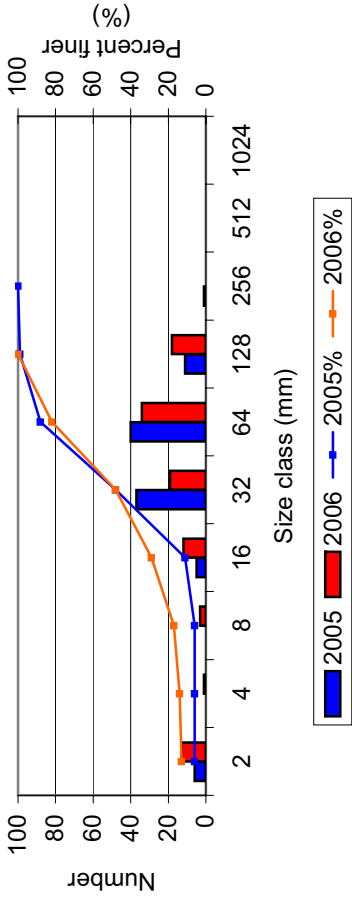
Mother Site Pebble Count 2



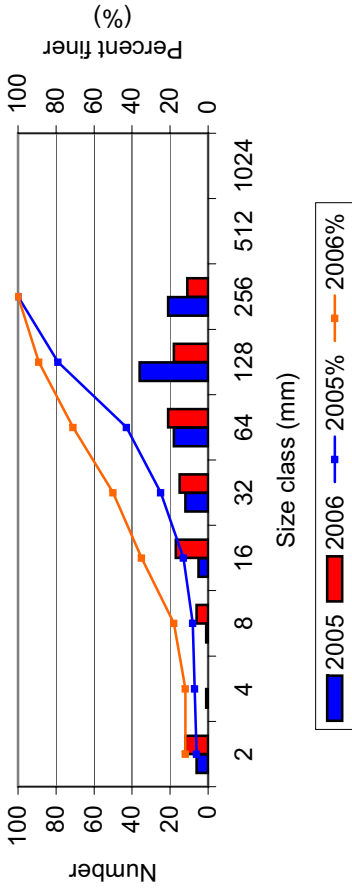
Mother Site Pebble Count 3



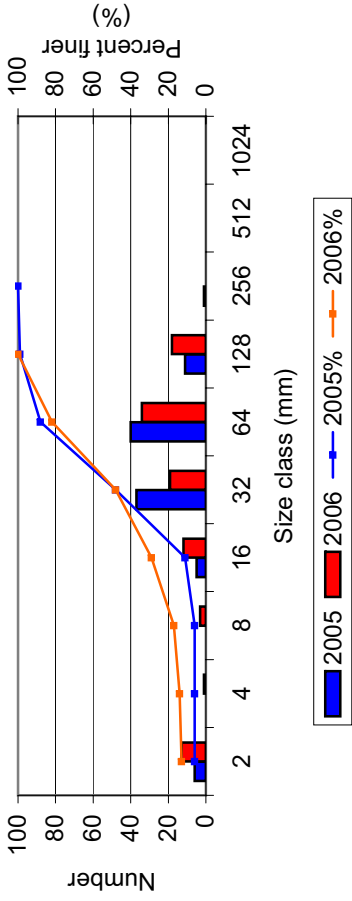
Childs Bridge Pebble Count



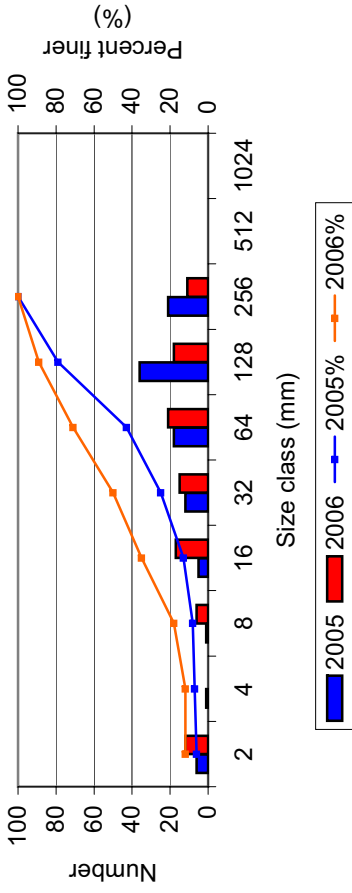
Diamond Fork Bridge Pebble Count



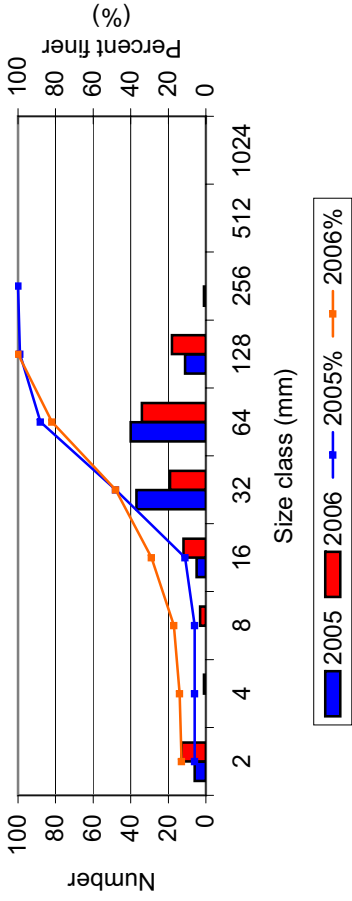
Brimhall Bridge Pebble Count



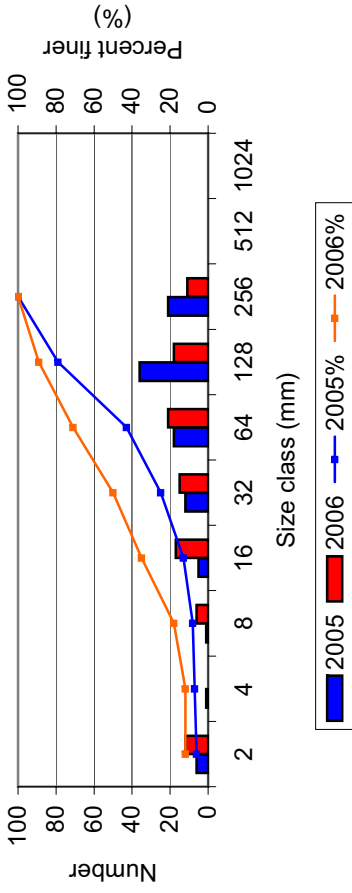
Sixth Water Lower Bridge Pebble Count



Monks Bridge Pebble Count



Sixth Water Upper Bridge Pebble Count



APPENDIX 4.A:

**SUSPENDED SEDIMENT
AND BEDLOAD SAMPLING RESULTS**

Table 1. Suspended Sediment Sampling Results

Bridge	Date	Streamflow (cfs)	Suspended Sediment Loads (tons/day)
Upper Sixth Water	4/27/2006	76	29.0
	5/1/2006	86	17.9
	5/3/2006	100	31.6
	5/12/2006	78	5.6
	5/21/2006	64	3.9
	5/24/2006	60	1.6
	5/31/2006	55	1.6
	9/14/2006	38	0.5
	10/27/2006	37	0.4
	Lower Sixth Water	4/6/2006	98
4/17/2006		144	25.6
4/20/2006		150	21.6
4/27/2006		166	83.8
5/1/2006		207	150.7
5/3/2006		227	141.4
5/12/2006		176	11.9
5/21/2006		132	15.0
5/24/2006		122	12.5
5/31/2006		122	4.8
Diamond Fork	9/14/2006	56	1.0
	10/27/2006	73	1.1
	4/6/2006	19	8.8
	4/17/2006	91	43.9
	4/20/2006	35	4.8
	4/27/2006	113	77.4
	5/1/2006	146	81.1
	5/3/2006	140	114.8
	5/12/2006	131	23.7
	5/21/2006	100	25.2
Monks	5/24/2006	71	5.8
	5/31/2006	39	2.1
	9/14/2006	15	0.2
	10/27/2006	11	0.1
	4/6/2006	113	24.7
	4/17/2006	247	133.6
	4/20/2006	194	38.7
	4/27/2006	290	133.5
	5/1/2006	409	300.0
	5/3/2006	480	470.4
Brimhall	5/12/2006	333	32.3
	5/21/2006	246	54.4
	5/24/2006	204	29.2
	5/31/2006	165	10.5
	9/14/2006	90	1.3
	10/27/2006	63	0.4
	4/6/2006	118	56.5
	4/17/2006	270	143.2
	4/20/2006	214	21.8
	4/27/2006	333	301.8
Childs	5/1/2006	473	311.3
	5/3/2006	558	514.7
	5/12/2006	381	30.3
	5/21/2006	280	36.7
	5/24/2006	229	12.0
	5/31/2006	180	5.1
	9/14/2006	95	1.7
	10/27/2006	66	1.0
	4/6/2006	118	69.5
	4/17/2006	270	103.7
4/20/2006	221	80.5	
4/27/2006	358	259.7	
5/1/2006	492	384.8	
5/3/2006	560	629.3	
5/12/2006	383	42.4	
5/21/2006	280	36.2	
5/24/2006	229	26.6	
5/31/2006	180	5.6	
9/14/2006	98	3.0	
10/27/2006	66	1.6	

Table 2. Bedload Sampling Results

Bridge	Date	Streamflow (cfs)	Bedload (tons/day)	
Upper Sixth Water	4/27/2006	76.0	0.4	
	5/1/2006	86.0	0.9	
	5/3/2006	100.0	0.9	
	5/12/2006	78.0	1.4	
	5/21/2006	64.0	0.8	
	5/24/2006	60.0	0.4	
	5/31/2006	55.0	0.0	
	7/31/2006	41.0	0.3	
	9/14/2006	38.0	1.5	
	10/27/2006	37.0	0.4	
	Lower Sixth Water	4/6/2006	99.0	0.0
		4/6/2006	98.0	0.0
		4/17/2006	144.0	0.3
		4/20/2006	150.0	0.2
4/27/2006		166.0	0.1	
5/1/2006		207.0	0.0	
5/3/2006		227.0	0.6	
5/12/2006		176.0	1.1	
5/21/2006		132.0	1.0	
5/24/2006		122.0	0.1	
5/31/2006		122.0	0.1	
7/31/2006		60.0	0.3	
9/14/2006		56.0	0.2	
10/27/2006		73.0	0.1	
Diamond Fork	4/6/2006	19.0	0.2	
	4/6/2006	19.0	0.3	
	4/17/2006	91.0	2.4	
	4/20/2006	35.0	1.0	
	4/27/2006	113.0	13.0	
	5/1/2006	146.0	17.2	
	5/3/2006	140.0	16.0	
	5/12/2006	131.0	3.6	
	5/21/2006	100.0	2.3	
	5/24/2006	71.0	0.8	
	5/31/2006	39.0	0.4	
	7/31/2006	15.0	0.0	
	9/14/2006	15.0	0.0	
	10/27/2006	11.0	0.0	
Monks	4/6/2006	113.0	6.1	
	4/6/2006	113.0	2.3	
	4/17/2006	247.0	1.6	
	4/20/2006	194.0	3.4	
	4/27/2006	290.0	1.2	
	5/1/2006	409.0	0.7	
	5/3/2006	480.0	7.1	
	5/12/2006	333.0	0.8	
	5/21/2006	246.0	0.3	
	5/24/2006	204.0	0.1	
	5/31/2006	165.0	0.1	
	7/31/2006	92.0	0.3	
	9/14/2006	90.0	0.7	
	10/27/2006	63.0	0.2	
Brimhall	4/5/2006	127.0	0.8	
	4/6/2006	118.0	2.4	
	4/17/2006	270.0	1.0	
	4/20/2006	214.0	1.6	
	4/27/2006	333.0	2.3	
	5/1/2006	473.0	4.0	
	5/3/2006	558.0	29.7	
	5/12/2006	381.0	7.5	
	5/21/2006	280.0	0.5	
	5/24/2006	229.0	1.1	
	5/31/2006	180.0	0.1	
	7/31/2006	100.0	0.5	
	9/14/2006	95.0	1.1	
	10/27/2006	66.0	0.1	
Childs	4/5/2006	127.0	3.3	
	4/6/2006	118.0	2.6	
	4/17/2006	270.0	1.2	
	4/20/2006	221.0	1.9	
	4/27/2006	358.0	4.2	
	5/3/2006	560.0	83.1	
	5/12/2006	383.0	23.3	
	5/21/2006	280.0	2.0	
	5/24/2006	229.0	1.9	
	5/31/2006	180.0	0.1	
	7/31/2006	101.0	0.7	
	9/14/2006	98.0	0.4	
	10/27/2006	66.0	0.1	

APPENDIX 4.B:

BEDLOAD PHOTOS



127 cubic feet per second



118 cubic feet per second



270 cubic feet per second



214 cubic feet per second



333 cubic feet per second



473 cubic feet per second



554 cubic feet per second (bag ripped during sampling)



558 cubic feet per second



381 cubic feet per second



280 cubic feet per second



229 cubic feet per second



180 cubic feet per second



95 cubic feet per second



100 cubic feet per second



66 cubic feet per second



Childs Bridge 04-06-06 9:05 am 3" sampler

118 cubic feet per second



Childs Bridge 04-20-06 7:48 pm 6" sampler

221 cubic feet per second



Childs Bridge 04-05-06 11:40 am 3" sampler

127 cubic feet per second



Childs Bridge 04-17-06 5:16 pm 6" sampler

270 cubic feet per second



358 cubic feet per second



492 cubic feet per second (sample lost)



560 cubic feet per second



383 cubic feet per second



280 cubic feet per second



229 cubic feet per second



180 cubic feet per second



101 cubic feet per second



98 cubic feet per second



66 cubic feet per second



19 cubic feet per second



19 cubic feet per second



91 cubic feet per second



35 cubic feet per second



146 cubic feet per second



131 cubic feet per second



113 cubic feet per second



140 cubic feet per second



100 cubic feet per second



71 cubic feet per second



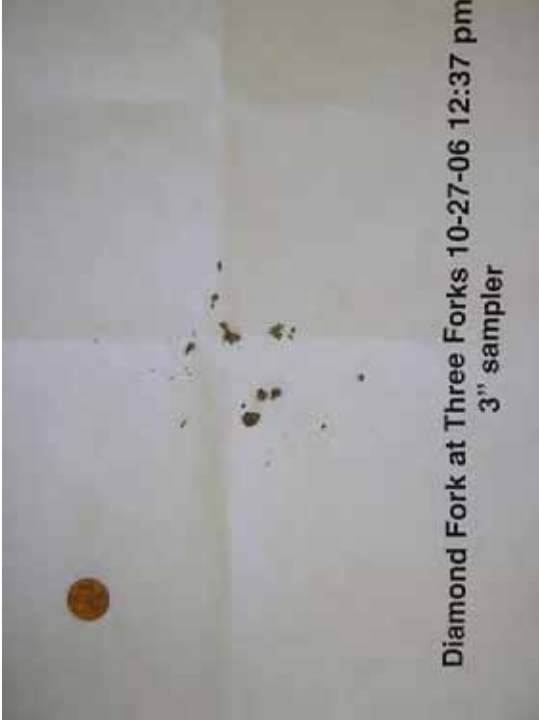
39 cubic feet per second



15 cubic feet per second



15 cubic feet per second



11 cubic feet per second



99 cubic feet per second



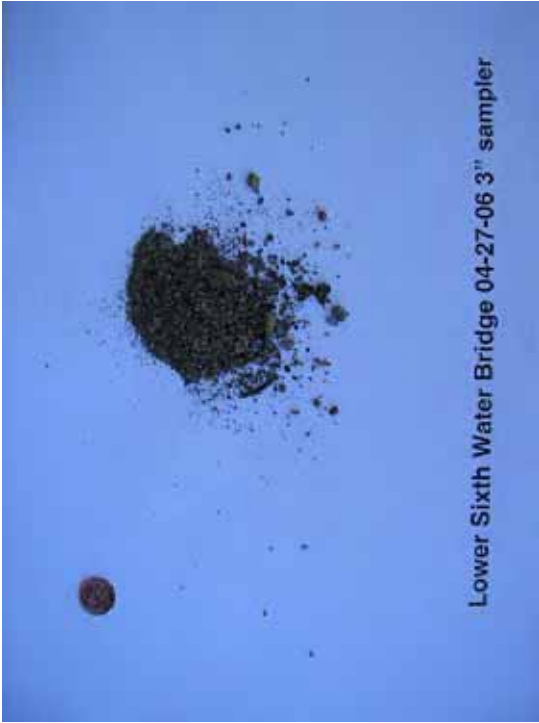
98 cubic feet per second



144 cubic feet per second



150 cubic feet per second



166 cubic feet per second



207 cubic feet per second



227 cubic feet per second



176 cubic feet per second



132 cubic feet per second



122 cubic feet per second



122 cubic feet per second



60 cubic feet per second



56 cubic feet per second



73 cubic feet per second



113 cubic feet per second



113 cubic feet per second



247 cubic feet per second



194 cubic feet per second



290 cubic feet per second



409 cubic feet per second



480 cubic feet per second



333 cubic feet per second



246 cubic feet per second



204 cubic feet per second



165 cubic feet per second



92 cubic feet per second



90 cubic feet per second



63 cubic feet per second



Upper Sixth Water Bridge 04-27-06 pm 3" sampler

76 cubic feet per second



Upper Sixth Water Bridge 05-01-06 3:11 pm 6" sampler

86 cubic feet per second



Upper Sixth Water Bridge 05-03-06 3:03 pm 6" sampler

100 cubic feet per second



Upper Sixth Water Bridge 05-12-06 3:00 pm 3" sampler

78 cubic feet per second



64 cubic feet per second



60 cubic feet per second



55 cubic feet per second



41 cubic feet per second



38 cubic feet per second



37 cubic feet per second

APPENDIX 5.1:

**MACROINVERTEBRATE TAXA
AND MATRIX RESULTS**

Diamond Fork Benthos 2006 #1: EcoAnalysts, Inc.

Data are NOT adjusted for subsampling

Stream	Diamond Fork, Utah Co., UT	Diamond Fork, Utah Co., UT	Diamond Fork, Utah Co., UT	Diamond Fork, Utah Co., UT	Diamond Fork, Utah Co., UT	Diamond Fork, Utah Co., UT	
Site	Guard Station (GS)	Guard Station (GS)	Guard Station (GS)	Guard Station (GS)	Sawmill Canyon (SC)	Sawmill Canyon (SC)	
Rep	GS-01	GS-02	GS-03	GS-04	SC-01	SC-02	
Date	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	
Percent Subsampled	100.00	100.00	100.00	8.33	75.19	100.00	
Device	Hess	Hess	Hess	D-Frame	Hess	Hess	
Habitat	blank	blank	blank	blank	12T,4443115N,471103E	12T,4443115N,471103E	
EcoAnalysts Sample ID	1	2	3	4	5	6	
Ephemeroptera	Baetis tricaudatus	32	67	71	127	50	52
	Cinygmula sp.	0	1	1	4	0	0
	Dipheter hageni	0	0	0	1	0	0
	Drumella grandis	7	2	4	10	3	4
	Epeorus longimanus	0	3	0	2	1	0
	Epeorus sp.	0	0	0	0	0	1
	Ephemerella inermis/infrequens	1	10	5	30	1	0
	Paraleptophlebia sp.	0	0	0	6	0	0
	Rhithrogena sp.	0	0	0	0	1	0
Plecoptera	Chloroperlidae	0	0	0	0	1	0
	Isogenoides sp.	0	0	0	0	0	0
	Isoperla sp.	0	0	3	2	0	0
	Perlodidae	0	0	0	0	1	1
	Pteronarcella sp.	2	0	4	36	0	0
	Triznaka sp.	0	1	0	0	0	0
Coleoptera	Cleptelmis addenda		0	0	0	3	0
	Optioservus sp.	61	27	49	99	28	15
	Zaitzevia sp.	5	2	0	12	13	1
Diptera-Chironomidae	Chironomidae	394	299	327	159	380	299
Diptera	Antocha sp.	6	1	2	3	2	0
	Atherix sp.	0	0	0	0	0	0
	Bezzia/Palpomyia sp.	2	0	0	1	1	0
	Dicranota sp.	0	0	0	0	1	0
	Hexatoma sp.	2	5	7	2	0	0
	Neoplasta sp.	4	1	4	1	0	1
	Simulium sp.	2	3	0	34	42	36
	Tipula sp.	0	0	1	0	0	0
Trichoptera	Arctopsyche grandis	1	0	0	0	0	0
	Brachycentrus americanus	5	2	3	6	0	0
	Brachycentrus occidentalis	0	0	0	0	0	0
	Helicopsyche sp.	4	2	5	2	1	3
	Hydropsyche sp.	4	0	7	14	2	6
	Lepidostoma sp.	0	0	1	2	0	0
	Neotrichia sp.	0	0	0	0	1	0
	Oecetis disjuncta	0	0	1	0	0	0
	Rhyacophila coloradensis gr.	0	0	0	4	0	2
Gastropoda	Lymnaeidae	0	0	0	0	1	0
	Physa sp.	0	0	0	0	0	0
Bivalvia	Sphaeriidae	0	1	2	1	0	3
Annelida	Oligochaeta	9	1	1	12	0	1
Acari	Atractides sp.	0	0	0	0	0	0
	Protzia sp.	0	0	0	0	0	0
	Sperchon sp.	0	6	3	4	1	2
	Torrenticola sp.	0	2	2	15	0	0
Crustacea	Ostracoda	1	0	0	2	0	1
Other Organisms	Nematoda	13	8	11	18	3	0
	Turbellaria	1	0	2	4	0	0
		556	444	516	613	537	428

Diamond Fork, Utah Co., UT Sawmill Canyon (SC) SC-03 06-06-2006 50.00 Hess 12T,4443115N,471103E	Diamond Fork, Utah Co., UT Sawmill Canyon (SC) SC-04 06-06-2006 16.67 D-Frame 12T,4443115N,471103E	Diamond Fork, Utah Co., UT Sulfur Impact (SI) SI-01 06-06-2006 100.00 Hess 12T,4439015N,470806E	Diamond Fork, Utah Co., UT Sulfur Impact (SI) SI-02 06-06-2006 58.48 Hess 12T,4439015N,470806E	Diamond Fork, Utah Co., UT Sulfur Impact (SI) SI-03 06-06-2006 81.30 Hess 12T,4439015N,470806E	Diamond Fork, Utah Co., UT Sulfur Impact (SI) SI-04 06-06-2006 20.83 D-Frame 12T,4439015N,470806E
7	8	9	10	11	12
37	74	35	21	22	77
0	0	0	0	0	0
0	0	0	0	0	0
0	4	5	4	4	12
0	0	0	0	0	0
1	0	0	0	0	0
0	5	1	1	3	1
0	4	0	0	0	0
0	0	0	0	0	1
0	0	0	0	0	0
0	0	0	0	0	3
0	2	0	0	0	0
1	0	3	4	2	0
0	19	8	11	7	13
0	0	0	0	0	0
0	5	0	0	0	0
8	76	24	6	9	30
4	4	0	0	0	0
406	152	425	447	455	330
1	0	0	0	0	0
0	0	0	1	1	3
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	0	0
0	4	7	1	4	7
64	161	0	1	0	2
0	1	0	0	0	0
2	0	0	0	0	0
0	0	0	0	0	0
0	1	0	0	0	0
0	8	0	0	1	3
2	8	1	0	2	3
0	6	1	0	0	1
1	1	0	0	0	0
0	0	0	0	0	0
2	0	0	0	0	1
0	0	0	0	0	0
0	1	0	0	0	0
1	12	0	0	0	4
4	3	44	29	18	32
0	1	0	0	0	0
0	2	0	0	0	0
0	1	0	0	0	4
0	9	0	0	0	2
0	1	0	0	0	0
0	1	0	2	1	7
0	0	0	0	0	0
534	566	554	528	530	537

Diamond Fork Benthos 2006 #1
EcoAnalysts, Inc.
Data are adjusted for subsampling

Stream	Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., UT											
Site	Guard Station (GS)	Guard Station (GS)	Guard Station (GS)	Guard Station (GS)	Sawmill Canyon (SC)	Sawmill Canyon (SC)	Sawmill Canyon (SC)	Sawmill Canyon (SC)	Sulfur Impact (SI)	Sulfur Impact (SI)	Sulfur Impact (SI)	Sulfur Impact (SI)
Rep	GS-01	GS-02	GS-03	GS-04	SC-01	SC-02	SC-03	SC-04	SI-01	SI-02	SI-03	SI-04
Date	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006
Percent Subsampled	100.00	100.00	100.00	8.33	75.19	100.00	50.00	16.67	100.00	58.48	81.30	20.83
Device	Hess	Hess	Hess	D-Frame	Hess	Hess	Hess	D-Frame	Hess	Hess	Hess	D-Frame
Habitat	blank	blank	blank	blank	12T,4443115N,471103E	12T,4443115N,471103E	12T,4443115N,471103E	12T,4443115N,471103E	12T,4439015N,470806E	12T,4439015N,470806E	12T,4439015N,470806E	12T,4439015N,470806E
EcoAnalysts Sample ID	1	2	3	4	5	6	7	8	9	10	11	12
Abundance Measures												
Corrected Abundance	556.00	444.00	516.00	7356.00	714.21	428.00	1068.00	3396.00	554.00	902.88	651.90	2577.60
EPT Abundance	56.00	88.00	105.00	2952.00	82.46	69.00	92.00	792.00	54.00	70.11	50.43	552.00
Dominance Measures												
Dominant Taxon	Chironomidae	Chironomidae	Chironomidae	Chironomidae	Chironomidae	Chironomidae	Chironomidae	Simulium sp.	Chironomidae	Chironomidae	Chironomidae	Chironomidae
Dominant Abundance	394.00	299.00	327.00	1908.00	505.40	299.00	812.00	966.00	425.00	764.37	559.65	1584.00
2nd Dominant Taxon	Optioservus sp.	Baetis tricaudatus	Baetis tricaudatus	Baetis tricaudatus	Baetis tricaudatus	Baetis tricaudatus	Simulium sp.	Chironomidae	Oligochaeta	Oligochaeta	Baetis tricaudatus	Baetis tricaudatus
2nd Dominant Abundance	61.00	67.00	71.00	1524.00	66.50	52.00	128.00	912.00	44.00	49.59	27.06	369.60
3rd Dominant Taxon	Baetis tricaudatus	Optioservus sp.	Optioservus sp.	Optioservus sp.	Simulium sp.	Simulium sp.	Baetis tricaudatus	Optioservus sp.	Baetis tricaudatus	Baetis tricaudatus	Oligochaeta	Oligochaeta
3rd Dominant Abundance	32.00	27.00	49.00	1188.00	55.86	36.00	74.00	456.00	35.00	35.91	22.14	153.60
% Dominant Taxon	70.86	67.34	63.37	70.76	70.76	69.86	76.03	28.45	76.71	84.66	85.85	61.45
% 2 Dominant Taxa	81.83	82.43	77.13	46.66	80.07	82.01	88.01	55.30	84.66	90.15	90.00	75.79
% 3 Dominant Taxa	87.59	88.51	86.63	62.81	87.90	90.42	94.94	68.73	90.97	94.13	93.40	81.75
Richness Measures												
Species Richness	20.00	20.00	23.00	29.00	21.00	16.00	14.00	27.00	11.00	12.00	14.00	21.00
EPT Richness	8.00	8.00	11.00	14.00	10.00	7.00	7.00	11.00	7.00	5.00	7.00	10.00
Ephemeroptera Richness	3.00	5.00	4.00	7.00	5.00	3.00	2.00	4.00	3.00	3.00	3.00	4.00
Plecoptera Richness	1.00	1.00	2.00	2.00	2.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00
Trichoptera Richness	4.00	2.00	5.00	5.00	3.00	3.00	4.00	5.00	2.00	0.00	2.00	4.00
Chironomidae Richness	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Oligochaeta Richness	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Non-Chiro. Non-Olig. Richness	18.00	18.00	21.00	27.00	20.00	14.00	12.00	25.00	9.00	10.00	12.00	19.00
Rhyacophila Richness	0.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00
Community Composition												
% Ephemeroptera	7.19	18.69	15.70	29.36	10.43	13.32	7.12	15.37	7.40	4.92	5.47	16.95
% Plecoptera	0.36	0.23	1.36	6.20	0.37	0.23	0.19	3.71	1.99	2.84	1.70	2.98
% Trichoptera	2.52	0.90	3.29	4.57	0.74	2.57	1.31	4.24	0.36	0.00	0.57	1.49
% EPT	10.07	19.82	20.35	40.13	11.55	16.12	8.61	23.32	9.75	7.77	7.74	21.42
% Coleoptera	11.87	6.53	9.50	18.11	8.19	3.74	2.25	15.02	4.33	1.14	1.70	5.59
% Diptera	73.74	69.59	66.09	32.63	79.33	78.50	88.20	56.18	77.98	85.23	86.98	63.87
% Oligochaeta	1.62	0.23	0.19	1.96	0.00	0.23	0.75	0.53	7.94	5.49	3.40	5.96
% Baetidae	5.76	15.09	13.76	20.88	9.31	12.15	6.93	13.07	6.32	3.98	4.15	14.34
% Brachycentridae	0.90	0.45	0.58	0.98	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00
% Chironomidae	70.86	67.34	63.37	25.94	70.76	69.86	76.03	26.86	76.71	84.66	85.85	61.45
% Ephemerellidae	1.44	2.70	1.74	6.53	0.74	0.93	0.00	1.59	1.08	0.95	1.32	2.42
% Hydropsychidae	0.90	0.00	1.36	2.28	0.37	1.40	0.75	1.41	0.18	0.00	0.38	0.56
% Odonata	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% Perlidae	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% Pteronarcyidae	0.36	0.00	0.78	5.87	0.00	0.00	0.00	3.36	1.44	2.08	1.32	2.42
% Simuliidae	0.36	0.68	0.00	5.55	7.82	8.41	11.99	28.45	0.00	0.19	0.00	0.37

Stream	Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., U1 Diamond Fork, Utah Co., UT												
Site	Guard Station (GS)	Guard Station (GS)	Guard Station (GS)	Guard Station (GS)	Sawmill Canyon (SC)	Sawmill Canyon (SC)	Sawmill Canyon (SC)	Sawmill Canyon (SC)	Sawmill Canyon (SC)	Sulfur Impact (SI)	Sulfur Impact (SI)	Sulfur Impact (SI)	Sulfur Impact (SI)
Rep	GS-01	GS-02	GS-03	GS-04	SC-01	SC-02	SC-03	SC-04	SC-04	SI-01	SI-02	SI-03	SI-04
Date	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006	06-06-2006
Percent Subsampled	100.00	100.00	100.00	100.00	8.33	75.19	100.00	50.00	16.67	100.00	58.48	81.30	20.83
Device	Hess	Hess	Hess	D-Frame	Hess	Hess	Hess	Hess	D-Frame	Hess	Hess	Hess	D-Frame
Habitat	blank	blank	blank	blank	12T,4443115N,471103E	12T,4443115N,471103E	12T,4443115N,471103E	12T,4443115N,471103E	12T,4443115N,471103E	12T,4439015N,470806E	12T,4439015N,470806E	12T,4439015N,470806E	12T,4439015N,470806E
EcoAnalysts Sample ID	1	2	3	4	5	6	7	8	9	10	11	11	12
Functional Group Composition													
% Filterers	2.16	1.35	2.33	8.97	8.19	10.51	12.92	32.16	0.18	0.19	0.38	1.68	
% Gatherers	80.40	83.33	77.71	52.53	83.43	82.71	84.64	42.93	90.97	94.13	93.40	81.75	
% Predators	3.96	4.95	6.20	8.32	1.49	1.40	0.56	3.53	1.81	1.52	1.70	5.21	
% Scrapers	12.95	7.88	11.43	19.09	6.52	5.37	1.69	15.72	5.23	1.89	2.64	8.57	
% Shredders	0.54	2.25	2.13	11.09	0.19	0.00	0.00	5.48	1.81	2.27	1.89	2.79	
% Piercer-Herbivores	0.00	0.00	0.00	0.00	0.19	0.00	0.19	0.18	0.00	0.00	0.00	0.00	
% Unclassified	0.00	0.23	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Filterer Richness	4.00	3.00	3.00	4.00	2.00	3.00	4.00	4.00	1.00	1.00	1.00	3.00	
Gatherer Richness	6.00	5.00	4.00	8.00	5.00	5.00	5.00	7.00	3.00	3.00	3.00	3.00	
Predator Richness	5.00	5.00	7.00	9.00	6.00	4.00	2.00	7.00	2.00	4.00	5.00	8.00	
Scraper Richness	3.00	5.00	4.00	5.00	6.00	4.00	2.00	4.00	2.00	2.00	3.00	4.00	
Shredder Richness	2.00	1.00	4.00	3.00	1.00	0.00	0.00	4.00	3.00	2.00	2.00	3.00	
Piercer-Herbivore Richness	0.00	0.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	
Unclassified	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Diversity/Evenness Measures													
Shannon-Weaver H' (log 10)	0.53	0.55	0.62	1.02	0.51	0.50	0.39	0.89	0.41	0.31	0.30	0.64	
Shannon-Weaver H' (log 2)	1.77	1.82	2.05	3.39	1.68	1.65	1.31	2.97	1.35	1.01	1.01	2.14	
Shannon-Weaver H' (log e)	1.23	1.26	1.42	2.35	1.17	1.14	0.91	2.06	0.94	0.70	0.70	1.48	
Margalef's Richness	3.01	3.12	3.52	3.14	3.04	2.48	1.86	3.20	1.58	1.62	2.01	2.55	
Pielou's J'	0.41	0.42	0.45	0.70	0.38	0.41	0.34	0.62	0.39	0.28	0.26	0.49	
Simpson's Heterogeneity	0.48	0.52	0.57	0.85	0.48	0.49	0.40	0.81	0.40	0.28	0.26	0.59	
Biotic Indices													
% Indiv. w/ HBI Value	98.92	97.75	98.06	96.57	99.63	99.30	100.00	97.00	98.74	99.81	99.06	97.39	
Hilsenhoff Biotic Index	5.59	5.35	5.35	4.64	5.54	5.55	5.67	5.01	5.88	5.90	5.86	5.54	
% Indiv. w/ MTI Value	25.36	29.73	34.50	65.42	25.51	28.50	22.28	66.96	13.54	8.90	9.43	29.98	
Metals Tolerance Index	4.57	4.45	4.51	4.44	4.75	4.66	4.81	4.69	4.55	4.38	4.38	4.40	
% Indiv. w/ FSBI Value	22.66	27.70	29.65	58.08	27.37	27.34	22.66	60.95	11.91	6.44	7.74	24.21	
Fine Sediment Biotic Index	56.00	55.00	51.00	72.00	54.00	38.00	45.00	47.00	24.00	28.00	30.00	43.00	
FSBI - average	2.80	2.75	2.22	2.48	2.57	2.38	3.21	1.74	2.18	2.33	2.14	2.05	
FSBI - weighted average	4.22	4.46	4.27	4.19	4.03	4.19	3.86	3.54	4.41	4.82	4.71	4.71	
% Indiv. w/ TPM Value	93.88	95.05	93.22	88.91	98.32	97.20	98.69	90.99	90.79	93.94	95.28	88.27	
Temp. Pref. Metric - average	2.90	3.00	2.52	2.86	3.43	2.75	3.43	1.93	4.00	3.67	2.93	2.76	
TPM - weighted average	4.71	4.90	4.77	4.61	4.85	4.90	4.96	4.66	4.92	5.00	4.96	4.85	
Karr BIBI Metrics													
Long-Lived Taxa Richness	4.00	3.00	4.00	4.00	3.00	3.00	4.00	6.00	2.00	3.00	3.00	4.00	
Clinger Richness	11.00	10.00	11.00	15.00	15.00	10.00	11.00	13.00	6.00	6.00	7.00	9.00	
% Clingers	23.20	24.77	29.07	58.08	27.93	28.27	23.03	64.31	13.72	8.90	8.87	26.44	
Intolerant Taxa Richness	5.00	5.00	6.00	9.00	7.00	4.00	5.00	7.00	4.00	3.00	3.00	5.00	
% Tolerant Individuals	1.82	0.23	0.20	0.20	0.00	0.47	0.37	0.15	8.04	3.22	2.79	1.27	
% Tolerant Taxa	10.00	5.00	4.35	6.90	0.00	12.50	7.14	11.11	9.09	8.33	7.14	4.76	
Coleoptera Richness	2.00	2.00	1.00	2.00	3.00	2.00	2.00	3.00	1.00	1.00	1.00	1.00	
UIN	775-1	775-2	775-3	775-4	775-5	775-6	775-7	775-8	775-9	775-10	775-11	775-12	

Diamond Fork Benthos 2006 #1: EcoAnalysts, Inc.

Data are NOT adjusted for subsampling

Stream		Diamond Fork, Utah Co., UT	Diamond Fork, Utah Co., UT	Diamond Fork, Utah Co., UT	
Site		Guard Station (GS)	Sawmill Canyon (SC)	Sulfur Impact (SI)	
Rep		Pooled	Pooled	Pooled	
Percent Subsampled		100.00	100.00	100.00	
EcoAnalysts Sample ID		13	14	15	
Ephemeroptera	Baetis tricaudatus	297	213	155	
	Cinygmula sp.	6	0	0	
	Dipheter hageni	1	0	0	
	Drunella grandis	23	11	25	
	Epeorus longimanus	5	1	0	
	Epeorus sp.	0	2	0	
	Ephemerella inermis/infrequens	46	6	6	
	Paraleptophlebia sp.	6	4	0	
	Rhithrogena sp.	0	1	1	
	Plecoptera	Chloroperlidae	0	1	0
Isogenoides sp.		0	0	3	
Isoperla sp.		5	2	0	
Perlodidae		0	3	9	
Pteronarcella sp.		42	19	39	
Coleoptera	Triznaka sp.	1	0	0	
	Cleptelmis addenda	0	8	0	
	Optioservus sp.	236	127	69	
Diptera-Chironomidae	Zaitzevia sp.	19	22	0	
	Chironomidae	1,179	1,237	1,657	
Diptera	Antocha sp.	12	3	0	
	Atherix sp.	0	0	5	
	Bezzia/Palpomyia sp.	3	1	2	
	Dicranota sp.	0	1	0	
	Hexatoma sp.	16	0	0	
	Neoplasta sp.	10	5	19	
	Simulium sp.	39	303	3	
	Tipula sp.	1	1	0	
	Trichoptera	Arctopsyche grandis	1	2	0
		Brachycentrus americanus	16	0	0
Brachycentrus occidentalis		0	1	0	
Helicopsyche sp.		13	12	4	
Hydropsyche sp.		25	18	6	
Lepidostoma sp.		3	6	2	
Neotrichia sp.		0	3	0	
Oecetis disjuncta		1	0	0	
Rhyacophila coloradensis gr.		4	4	1	
Gastropoda	Lymnaeidae	0	1	0	
	Physa sp.	0	1	0	
Bivalvia	Sphaeriidae	4	16	4	
Annelida	Oligochaeta	23	8	123	
Acari	Atractides sp.	0	1	0	
	Protzia sp.	0	2	0	
	Sperchon sp.	13	4	4	
	Torrenticola sp.	19	9	2	
Crustacea	Ostracoda	3	2	0	
Other Organisms	Nematoda	50	4	10	
	Turbellaria	7	0	0	
		2,129	2,065	2,149	

Diamond Fork Benthos 2006 #1

EcoAnalysts, Inc.

Data are NOT adjusted for subsampling

Stream	Diamond Fork, Uta Diamond Fork, Utah (Diamond Fork, Utah Co., UT			
Site	Guard Station (GS) Sawmill Canyon (SC) Sulfur Impact (SI)			
Rep	Pooled	Pooled	Pooled	Pooled
Percent Subsampled	100.00	100.00	100.00	100.00
EcoAnalysts Sample ID	13	14	15	15

Abundance Measures

Corrected Abundance	2129.00	2065.00	2149.00
EPT Abundance	495.00	309.00	251.00

Dominance Measures

Dominant Taxon	Chironomidae	Chironomidae	Chironomidae
Dominant Abundance	1179.00	1237.00	1657.00
2nd Dominant Taxon	Baetis tricaudatus	Simulium sp.	Baetis tricaudatus
2nd Dominant Abundance	297.00	303.00	155.00
3rd Dominant Taxon	Optioservus sp.	Baetis tricaudatus	Oligochaeta
3rd Dominant Abundance	236.00	213.00	123.00
% Dominant Taxon	55.38	59.90	77.11
% 2 Dominant Taxa	69.33	74.58	84.32
% 3 Dominant Taxa	80.41	84.89	90.04

Richness Measures

Species Richness	33.00	38.00	22.00
EPT Richness	17.00	18.00	11.00
Ephemeroptera Richness	7.00	7.00	4.00
Plecoptera Richness	3.00	4.00	3.00
Trichoptera Richness	7.00	7.00	4.00
Chironomidae Richness	1.00	1.00	1.00
Oligochaeta Richness	1.00	1.00	1.00
Non-Chiro. Non-Olig. Richness	31.00	36.00	20.00
Rhyacophila Richness	1.00	1.00	1.00

Community Composition

% Ephemeroptera	18.04	11.53	8.70
% Plecoptera	2.25	1.21	2.37
% Trichoptera	2.96	2.23	0.60
% EPT	23.25	14.96	11.68
% Coleoptera	11.98	7.60	3.21
% Diptera	59.18	75.11	78.46
% Oligochaeta	1.08	0.39	5.72
% Baetidae	14.00	10.31	7.21
% Brachycentridae	0.75	0.05	0.00
% Chironomidae	55.38	59.90	77.11
% Ephemerellidae	3.24	0.82	1.44
% Hydropsychidae	1.22	0.97	0.28
% Odonata	0.00	0.00	0.00
% Perlidae	0.00	0.00	0.00
% Pteronarcyidae	1.97	0.92	1.81
% Simuliidae	1.83	14.67	0.14

Functional Group Composition

% Filterers	3.99	16.46	0.60
% Gatherers	72.33	72.49	90.04
% Predators	5.97	1.79	2.56
% Scrapers	13.29	7.55	4.61
% Shredders	4.32	1.55	2.19
% Piercer-Herbivores	0.00	0.15	0.00
% Unclassified	0.09	0.00	0.00
Filterer Richness	5.00	5.00	3.00
Gatherer Richness	8.00	8.00	3.00
Predator Richness	9.00	12.00	9.00
Scraper Richness	5.00	8.00	4.00
Shredder Richness	4.00	4.00	3.00
Piercer-Herbivore Richness	0.00	1.00	0.00
Unclassified	2.00	0.00	0.00

Diversity/Evenness Measures

Shannon-Weaver H' (log 10)	0.76	0.65	0.44
Shannon-Weaver H' (log 2)	2.51	2.14	1.45
Shannon-Weaver H' (log e)	1.74	1.49	1.01
Margalef's Richness	4.18	4.85	2.74
Pielou's J'	0.50	0.41	0.33
Simpson's Heterogeneity	0.66	0.61	0.40

Biotic Indices

% Indiv. w/ HBI Value	97.79	98.93	98.74
Hilsenhoff Biotic Index	5.21	5.43	5.80
% Indiv. w/ MTI Value	40.02	36.66	15.50
Metals Tolerance Index	4.48	4.71	4.43
% Indiv. w/ FSBI Value	35.60	35.35	12.61
Fine Sediment Biotic Index	83.00	85.00	43.00
FSBI - average	2.52	2.24	1.95
FSBI - weighted average	4.26	3.79	4.65
% Indiv. w/ TPM Value	92.53	96.17	92.04
Temp. Pref. Metric - average	2.67	2.55	3.00
TPM - weighted average	4.74	4.84	4.93

Karr BIBI Metrics

Long-Lived Taxa Richness	6.00	7.00	4.00
Clinger Richness	17.00	22.00	10.00
% Clingers	34.99	36.71	14.52
Intolerant Taxa Richness	10.00	14.00	6.00
% Tolerant Individuals	1.25	0.54	5.80
% Tolerant Taxa	6.06	7.89	4.55
Coleoptera Richness	2.00	3.00	1.00

UIN

775-13	775-14	775-15
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Diamond Fork Benthos 2006 #2

EcoAnalysts, Inc.

Data are NOT adjusted for subsampling

	Stream		Diamond Fork, Utah Co., UT		Diamond Fork, Utah Co., UT		Diamond Fork, Utah Co., UT	
	Site	Rep	DF Camp Ground(DFC)	DFC01	DF Camp Ground(DFC)	DFC02	DF Camp Ground(DFC)	DFC03
	Date	Date	09-19-2006	91.74	09-19-2006	100.00	09-19-2006	62.50
	Percent Subsampled	Device	Hess	Hess	Hess	Hess	Hess	Hess
	Habitat	Habitat	12T,0462650E,4435437N	12T,0462650E,4435437N	12T,0462650E,4435437N	12T,0462650E,4435437N	12T,0462650E,4435437N	12T,0462650E,4435437N
	EcoAnalysts Sample ID	Sample ID	1	2	2	2	3	3
Ephemeroptera	<i>Baetis tricaudatus</i>		62	86	91	0	0	0
	<i>Drunella grandis</i>		0	0	0	0	0	0
	<i>Ephemerella</i> sp.		0	0	0	0	0	0
	Ephemerellidae		6	0	0	0	0	0
	Leptophlebiidae		10	0	0	0	0	0
	<i>Paraleptophlebia</i> sp.		0	0	0	0	0	0
	<i>Rhithrogena</i> sp.		51	8	0	0	0	0
Plecoptera	Capniidae		0	0	0	0	0	0
	Chloroperlidae		2	3	0	0	0	0
	<i>Claassenia sabulosa</i>		0	0	0	0	0	0
	<i>Isogenoides</i> sp.		14	15	0	0	0	0
	<i>Isoperla</i> sp.		14	12	0	0	0	0
	Perlodidae		0	0	1	0	1	1
	<i>Pteronarcella</i> sp.		45	13	1	0	0	0
	<i>Skwala</i> sp.		1	0	0	0	0	0
	<i>Zapada cinctipes</i>		3	0	0	0	0	0
Coleoptera	<i>Cleptelmis addenda</i>		0	0	0	0	0	0
	<i>Optioservus</i> sp.		27	28	11	0	0	0
	<i>Zaitzevia parvula</i>		0	0	0	0	0	0
	<i>Zaitzevia</i> sp.		0	0	0	0	0	0
Diptera-Chironomidae	Chironomidae		150	121	155	28	28	28
Diptera	<i>Antocha</i> sp.		0	0	0	0	0	0
	<i>Atherix</i> sp.		2	7	6	0	0	0
	<i>Bezzia/Palpomyia</i> sp.		2	0	7	0	0	0
	Ceratopogoninae		0	0	0	0	0	0
	<i>Chelifera/Metachela</i> sp.		0	0	2	0	0	0
	<i>Clinocera</i> sp.		0	0	5	0	0	0
	<i>Dasyhelea</i> sp.		0	0	0	0	0	0
	<i>Dicranota</i> sp.		0	0	0	0	0	0
	<i>Hemerodromia</i> sp.		0	0	2	0	0	0
	<i>Hexatoma</i> sp.		0	0	0	0	0	0
	Muscidae		0	0	0	0	0	0
	<i>Neoplasta</i> sp.		1	0	0	0	0	0
	<i>Pericoma/Telmatoscopus</i> sp.		0	0	0	0	0	0
	<i>Simulium</i> sp.		52	271	118	0	0	0
	<i>Tipula</i> sp.		0	0	0	0	0	0
	Tipulidae		2	0	0	0	0	0
Trichoptera	<i>Arctopsyche grandis</i>		0	0	2	0	0	0
	<i>Brachycentrus americanus</i>		0	0	0	0	0	0
	<i>Brachycentrus occidentalis</i>		18	9	79	0	0	0
	<i>Glossosoma</i> sp.		0	0	6	0	0	0
	Glossosomatidae		0	0	0	0	0	0
	<i>Helicopsyche</i> sp.		0	0	0	0	0	0
	<i>Hydropsyche</i> sp.		47	16	13	0	0	0
	<i>Hydroptila</i> sp.		0	0	0	0	0	0
	Hydroptilidae		7	0	0	0	0	0
	<i>Lepidostoma</i> sp.		4	2	0	0	0	0
	<i>Micrasema</i> sp.		0	0	0	0	0	0
	<i>Neotrichia</i> sp.		0	0	0	0	0	0
	<i>Ochrotrichia</i> sp.		0	0	0	0	0	0
	<i>Oligophlebodes</i> sp.		0	0	0	0	0	0
	<i>Rhyacophila brunnea</i> gr.		0	0	0	0	0	0
	<i>Rhyacophila coloradensis</i> gr.		0	0	0	0	0	0
Gastropoda	Gastropoda		0	0	0	0	0	0
	Lymnaeidae		0	0	0	0	0	0
	<i>Physa</i> sp.		1	1	0	0	0	0
Bivalvia	<i>Pisidium</i> sp.		0	0	0	0	0	0
	Sphaeriidae		5	2	1	0	0	0
Annelida	Erpobdellidae		6	2	0	0	0	0
	Oligochaeta		26	5	6	0	0	0
Acari	<i>Atractides</i> sp.		1	0	0	0	0	0
	<i>Corticacarus</i>		0	0	0	0	0	0
	<i>Hygrobates</i> sp.		0	0	0	0	0	0
	<i>Lebertia</i> sp.		0	0	0	0	0	0
	<i>Protzia</i> sp.		0	0	0	0	0	0
	<i>Sperchon</i> sp.		1	2	1	0	0	0
	<i>Testudacarus</i> sp.		0	0	0	0	0	0
Crustacea	Amphipoda		0	0	0	0	0	0
	Ostracoda		1	0	0	0	0	0
Other Organisms	Nematoda		1	1	7	0	0	0
	<i>Polycelis</i> sp.		0	0	0	0	0	0
	Turbellaria		0	0	0	0	0	0
			562	604	542			

Diamond Fork, Utah Co., UT DF Camp Ground(DFC)	Diamond Fork, Utah Co., UT Guard Shack(DFGS)	Diamond Fork, Utah Co., UT Guard Shack(DFGS)	Diamond Fork, Utah Co., UT Guard Shack(DFGS)	Diamond Fork, Utah Co., UT Guard Shack(DFGS)
DFC04 09-19-2006 13.55 D-frame	DFGS01 09-18-2006 20.83 Hess	DFGS02 09-18-2006 22.94 Hess	DFGS03 09-18-2006 18.76 Hess	DFGS04 09-18-2006 12.50 D-frame
12T,0462650E,4435437N	12T,0471990E,4445550N	12T,0471990E,4445550N	12T,0471990E,4445550N	12T,0471990E,4445550N
4	5	6	7	8
183	60	89	88	96
0	1	2	1	3
0	0	1	4	2
0	0	0	0	0
0	2	8	11	3
0	0	0	0	0
14	0	0	0	0
0	0	1	0	0
1	0	0	0	0
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
6	0	0	1	0
4	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	1	2	4
28	132	52	117	162
0	0	0	0	0
0	13	3	9	14
91	226	244	204	135
4	5	3	2	0
3	0	0	0	0
0	7	5	6	5
0	0	0	0	0
0	0	1	0	0
1	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	2	0	0	1
0	0	0	0	0
0	4	21	2	6
0	9	6	5	3
192	17	67	9	40
0	2	0	0	6
0	0	0	0	0
1	0	0	0	0
0	0	0	0	0
45	1	0	3	1
0	0	0	0	1
1	0	0	0	0
0	0	0	0	0
5	39	34	46	2
0	0	0	0	30
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	0
0	0	0	0	1
0	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	11	5	1	7
1	0	0	0	0
0	0	0	0	0
1	0	2	0	0
0	0	0	0	0
0	0	0	0	2
0	0	0	0	0
0	0	0	0	0
13	10	22	10	40
1	0	0	0	1
2	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
2	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	7	3	5
0	0	0	0	1
0	0	0	0	0
601	546	574	525	574

Diamond Fork Benthos 2006 #2

EcoAnalysts, Inc.

Data are adjusted for subsampling

Stream Site Rep	Diamond Fork, Utah Co., UT DF Camp Ground(DFC)	Diamond Fork, Utah Co., UT DFC01	Diamond Fork, Utah Co., UT DF Camp Ground(DFC)	Diamond Fork, Utah Co., UT DFC02	Diamond Fork, Utah Co., UT DF Camp Ground(DFC)	Diamond Fork, Utah Co., UT DFC03	Diamond Fork, Utah Co., UT DF Camp Ground(DFC)	Diamond Fork, Utah Co., UT DFC04
Date	09-19-2006	09-19-2006	09-19-2006	09-19-2006	09-19-2006	09-19-2006	09-19-2006	09-19-2006
Percent Subsampled	91.74	100.00	100.00	100.00	62.50	62.50	13.55	13.55
Device	Hess	Hess	Hess	Hess	Hess	Hess	D-frame	D-frame
Habitat	12T,0462650E,4435437N	12T,0462650E,4435437N	12T,0462650E,4435437N	12T,0462650E,4435437N	12T,0462650E,4435437N	12T,0462650E,4435437N	12T,0462650E,4435437N	12T,0462650E,4435437N
EcoAnalysts Sample ID	1	2	2	2	3	3	4	4

Abundance Measures

Corrected Abundance	612.58	604.00	867.20	4435.38
EPT Abundance	309.56	164.00	308.80	1926.18

Dominance Measures

Dominant Taxon	Chironomidae	Simulium sp.	Chironomidae	Simulium sp.
Dominant Abundance	163.50	271.00	248.00	1416.96
2nd Dominant Taxon	Baetis tricaudatus	Chironomidae	Simulium sp.	Baetis tricaudatus
2nd Dominant Abundance	67.58	121.00	188.80	1350.54
3rd Dominant Taxon	Simulium sp.	Baetis tricaudatus	Baetis tricaudatus	Chironomidae
3rd Dominant Abundance	56.68	86.00	145.60	671.58
% Dominant Taxon	26.69	44.87	28.60	31.95
% 2 Dominant Taxa	37.72	64.90	50.37	62.40
% 3 Dominant Taxa	46.98	79.14	67.16	77.54

Richness Measures

Species Richness	29.00	19.00	20.00	23.00
EPT Richness	14.00	9.00	7.00	10.00
Ephemeroptera Richness	4.00	2.00	1.00	2.00
Plecoptera Richness	6.00	4.00	2.00	4.00
Trichoptera Richness	4.00	3.00	4.00	4.00
Chironomidae Richness	1.00	1.00	1.00	1.00
Oligochaeta Richness	1.00	1.00	1.00	1.00
Non-Chiro. Non-Olig. Richness	27.00	17.00	18.00	21.00
Rhyacophila Richness	0.00	0.00	0.00	0.00

Community Composition

% Ephemeroptera	22.95	15.56	16.79	32.78
% Plecoptera	14.06	7.12	0.37	2.00
% Trichoptera	13.52	4.47	18.45	8.65
% EPT	50.53	27.15	35.61	43.43
% Coleoptera	4.80	4.64	2.03	4.66
% Diptera	37.19	66.06	59.59	48.42
% Oligochaeta	4.63	0.83	1.11	2.16
% Baetidae	11.03	14.24	16.79	30.45
% Brachycentridae	3.20	1.49	14.58	7.49
% Chironomidae	26.69	20.03	28.60	15.14
% Ephemerellidae	1.07	0.00	0.00	0.00
% Hydropterygidae	8.36	2.65	2.77	1.00
% Odonata	0.00	0.00	0.00	0.00
% Perlidae	0.00	0.00	0.00	0.00
% Pteronarcyidae	8.01	2.15	0.18	0.67
% Simuliidae	9.25	44.87	21.77	31.95

Functional Group Composition

% Filterers	21.71	49.34	39.30	40.43
% Gatherers	45.37	35.10	51.66	48.42
% Predators	8.01	6.95	5.35	2.66
% Scrapers	14.06	6.13	3.14	7.32
% Shredders	9.61	2.48	0.18	0.67
% Piercer-Herbivores	1.25	0.00	0.00	0.00
% Unclassified	0.00	0.00	0.37	0.50
Filterer Richness	4.00	4.00	5.00	4.00
Gatherer Richness	6.00	3.00	4.00	4.00
Predator Richness	11.00	7.00	7.00	8.00
Scraper Richness	3.00	3.00	2.00	4.00
Shredder Richness	4.00	2.00	1.00	1.00
Piercer-Herbivore Richness	1.00	0.00	0.00	0.00
Unclassified	0.00	0.00	1.00	2.00

Diversity/Evenness Measures

Shannon-Weaver H' (log 10)	1.09	0.78	0.87	0.80
Shannon-Weaver H' (log 2)	3.63	2.57	2.89	2.64
Shannon-Weaver H' (log e)	2.51	1.78	2.01	1.83
Margalef's Richness	4.36	2.81	2.81	2.62
Pielou's J'	0.75	0.61	0.67	0.58
Simpson's Heterogeneity	0.88	0.73	0.82	0.77

Biotic Indices

% Indiv. w/ HBI Value	99.11	99.67	98.15	99.00
Hilsenhoff Biotic Index	4.41	4.83	4.54	4.50
% Indiv. w/ MTI Value	62.63	78.15	68.27	80.37
Metals Tolerance Index	4.02	4.71	4.44	4.70
% Indiv. w/ FSBI Value	49.29	72.35	66.61	79.20
Fine Sediment Biotic Index	44.00	36.00	58.00	53.00
FSBI - average	1.52	1.89	2.90	2.30
FSBI - weighted average	4.51	3.60	4.63	4.22
% Indiv. w/ TPM Value	83.63	93.38	95.20	96.34
Temp. Pref. Metric - average	2.10	2.53	2.90	3.17
TPM - weighted average	4.70	4.77	4.36	4.71

Karr BIBI Metrics

Long-Lived Taxa Richness	4.00	4.00	5.00	4.00
Clinger Richness	14.00	10.00	11.00	14.00
% Clingers	59.79	74.01	65.50	80.87
Intolerant Taxa Richness	9.00	5.00	4.00	6.00
% Tolerant Individuals	5.60	1.33	0.70	0.32
% Tolerant Taxa	13.79	15.79	5.00	8.70
Coleoptera Richness	1.00	1.00	1.00	1.00

UIN

776-1

776-2

776-3

776-4

Diamond Fork, Utah Co., UTDiamond Fork, Utah Co., UTDiamond Fork, Utah Co., UTDiamond Fork, Utah Co., UTDiamond Fork, Utah Co., UT									
Guard Shack(DFGS)		Guard Shack(DFGS)		Guard Shack(DFGS)		Guard Shack(DFGS)		Motherlode(MO)	
DFGS01	DFGS02	DFGS03	DFGS04	MO01	MO02	DFGS01	DFGS02	DFGS03	DFGS04
09-18-2006	09-18-2006	09-18-2006	09-18-2006	09-19-2006	09-19-2006	09-18-2006	09-18-2006	09-18-2006	09-19-2006
Hess	Hess	Hess	Hess	Hess	Hess	D-frame	D-frame	Hess	Hess
12T,0471990E,4445550N	12T,0471990E,4445550N	12T,0471990E,4445550N	12T,0471990E,4445550N	12T,0471990E,4445550N	12T,0471990E,4432924N	12T,0471990E,4445550N	12T,0471990E,4445550N	12T,0471990E,4445550N	12T,0460068E,4432924N
5	6	7	8	9	10				
2620.80	2502.64	2798.25	4592.00	609.90	3204.00				
556.80	610.40	826.15	1176.00	148.20	462.00				
Chironomidae	Chironomidae	Chironomidae	Optioservus sp.	Chironomidae	Chironomidae				
1084.80	1063.84	1087.32	1296.00	253.08	2016.00				
Optioservus sp.	Baetis tricaudatus	Optioservus sp.	Chironomidae	Baetis tricaudatus	Simulium sp.				
633.60	388.04	623.61	1080.00	75.24	348.00				
Baetis tricaudatus	Simulium sp.	Baetis tricaudatus	Baetis tricaudatus	Oligochaeta	Baetis tricaudatus				
288.00	292.12	469.04	768.00	63.84	222.00				
41.39	42.51	38.86	28.22	41.50	62.92				
65.57	58.01	61.14	51.74	53.83	73.78				
76.56	69.69	77.90	68.47	64.30	80.71				
22.00	20.00	20.00	28.00	24.00	24.00				
8.00	7.00	8.00	11.00	12.00	12.00				
3.00	4.00	4.00	4.00	3.00	4.00				
0.00	1.00	1.00	0.00	6.00	4.00				
5.00	2.00	3.00	7.00	3.00	4.00				
1.00	1.00	1.00	1.00	1.00	1.00				
1.00	1.00	1.00	1.00	1.00	1.00				
20.00	18.00	18.00	26.00	22.00	22.00				
1.00	1.00	1.00	1.00	0.00	0.00				
11.54	17.42	19.81	18.12	13.83	8.99				
0.00	0.17	0.19	0.00	5.98	2.62				
9.71	6.79	9.52	7.49	4.49	2.81				
21.25	24.39	29.52	25.61	24.30	14.42				
26.74	9.76	24.38	31.36	9.72	6.37				
50.00	60.45	43.43	34.15	52.52	74.34				
1.83	3.83	1.90	6.97	10.47	0.75				
10.99	15.51	16.76	16.72	12.34	6.93				
0.18	0.00	0.57	0.17	0.56	0.56				
41.39	42.51	38.86	23.52	41.50	62.92				
0.18	0.52	0.95	0.87	0.75	1.69				
7.14	5.92	8.76	5.23	2.24	1.31				
0.00	0.00	0.00	0.00	0.00	0.00				
0.00	0.00	0.00	0.00	0.19	0.19				
0.00	0.00	0.00	0.00	1.68	1.87				
3.11	11.67	1.71	6.97	6.54	10.86				
10.44	17.60	11.05	12.72	9.35	12.73				
59.71	65.68	63.81	51.92	65.61	72.47				
4.58	6.62	2.67	4.88	10.65	4.87				
24.54	9.76	22.48	29.44	10.65	6.74				
0.37	0.17	0.00	1.05	3.74	2.62				
0.18	0.00	0.00	0.00	0.00	0.19				
0.18	0.17	0.00	0.00	0.00	0.37				
3.00	2.00	3.00	4.00	3.00	3.00				
8.00	9.00	9.00	9.00	5.00	5.00				
5.00	4.00	6.00	9.00	10.00	9.00				
3.00	3.00	2.00	5.00	3.00	3.00				
1.00	1.00	0.00	1.00	3.00	2.00				
1.00	0.00	0.00	0.00	0.00	1.00				
1.00	1.00	0.00	0.00	0.00	1.00				
0.80	0.83	0.79	0.92	0.91	0.65				
2.65	2.77	2.62	3.06	3.01	2.16				
1.83	1.92	1.81	2.12	2.08	1.49				
2.67	2.43	2.39	3.20	3.59	2.85				
0.59	0.64	0.61	0.64	0.66	0.47				
0.75	0.77	0.76	0.82	0.79	0.58				
97.62	95.30	98.29	97.56	96.07	95.69				
5.20	5.29	5.13	5.14	5.33	5.44				
51.47	46.34	52.38	62.89	42.99	29.78				
4.72	4.84	4.92	4.80	4.50	4.74				
53.85	45.82	54.67	64.63	37.20	28.65				
65.00	49.00	55.00	69.00	54.00	45.00				
2.95	2.45	2.75	2.46	2.25	1.88				
3.95	4.09	4.11	3.85	3.94	3.73				
94.87	88.50	93.71	87.11	79.44	94.01				
3.09	3.30	3.45	2.75	2.63	2.38				
4.29	4.63	4.23	4.18	4.66	4.84				
4.00	3.00	3.00	5.00	4.00	4.00				
12.00	12.00	12.00	14.00	14.00	13.00				
51.65	45.30	53.90	63.41	38.69	30.90				
7.00	5.00	6.00	8.00	7.00	7.00				
0.39	1.01	0.36	0.89	9.73	0.16				
4.55	10.00	5.00	3.57	8.33	8.33				
3.00	3.00	3.00	3.00	1.00	1.00				
776-5	776-6	776-7	776-8	776-9	776-10				

Diamond Fork, Utah Co., UT		Diamond Fork, Utah Co., UT		Diamond Fork, Utah Co., UT		Diamond Fork, Utah Co., UT		Diamond Fork, Utah Co., UT	
Motherlode(MO)	Motherlode(MO)	Motherlode(MO)	Motherlode(MO)	Oxbow(OX)	Oxbow(OX)	Oxbow(OX)	Oxbow(OX)	Oxbow(OX)	Oxbow(OX)
MO03	MO04	MO01	MO02	OX01	OX02	OX03	OX04	OX03	OX04
09-19-2006	09-19-2006	09-19-2006	09-19-2006	09-19-2006	09-19-2006	09-19-2006	09-19-2006	09-19-2006	09-19-2006
Hess	D-frame	Hess	Hess	Hess	Hess	Hess	D-frame	Hess	D-frame
12T,0460068E,4432924N	12T,0460068E,4432924N	12T,0458761E,4432308N	12T,0458761E,4432308N	12T,0458761E,4432308N	12T,0458761E,4432308N	12T,0458761E,4432308N	12T,0458761E,4432308N	12T,0458761E,4432308N	12T,0458761E,4432308N
11	12	13	14	15	16	15	16	15	16
2083.04	3197.90	903.84	1852.20	1090.00	6528.00				
327.12	1610.25	460.32	576.24	584.00	3228.00				
Simulium sp.	Brachycentrus occidentalis	Baetis tricaudatus	Chironomidae	Baetis tricaudatus	Baetis tricaudatus	Baetis tricaudatus	Baetis tricaudatus	Baetis tricaudatus	Baetis tricaudatus
1071.60	757.10	223.44	607.11	223.44	607.11	380.00	1800.00	380.00	1800.00
Chironomidae	Chironomidae	Optioservus sp.	Simulium sp.	Optioservus sp.	Simulium sp.	Chironomidae	Simulium sp.	Chironomidae	Simulium sp.
646.72	446.35	157.92	428.75	157.92	428.75	304.00	1536.00	304.00	1536.00
Baetis tricaudatus	Oligochaeta	Chironomidae	Baetis tricaudatus	Chironomidae	Baetis tricaudatus	Brachycentrus occidentalis	Optioservus sp.	Brachycentrus occidentalis	Optioservus sp.
251.92	440.70	154.56	329.28	154.56	329.28	110.00	732.00	110.00	732.00
51.44	23.67	24.72	32.78	24.72	32.78	34.86	27.57	34.86	27.57
82.49	37.63	42.19	55.93	42.19	55.93	62.75	51.10	62.75	51.10
94.58	51.41	59.29	73.70	59.29	73.70	72.84	62.32	72.84	62.32
16.00	25.00	22.00	20.00	22.00	20.00	21.00	26.00	21.00	26.00
8.00	12.00	11.00	10.00	11.00	10.00	10.00	12.00	10.00	12.00
2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
3.00	3.00	5.00	2.00	5.00	2.00	3.00	4.00	3.00	4.00
3.00	6.00	3.00	5.00	3.00	5.00	4.00	5.00	4.00	5.00
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
14.00	23.00	21.00	19.00	21.00	19.00	19.00	24.00	19.00	24.00
0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.27	14.49	25.28	18.15	25.28	18.15	35.23	28.86	35.23	28.86
1.44	7.77	5.95	2.04	5.95	2.04	1.10	4.41	1.10	4.41
1.99	28.09	19.70	10.93	19.70	10.93	17.25	16.18	17.25	16.18
15.70	50.35	50.93	31.11	50.93	31.11	53.58	49.45	53.58	49.45
0.72	9.89	17.47	8.33	17.47	8.33	3.12	11.21	3.12	11.21
82.85	22.08	28.62	56.85	28.62	56.85	39.82	33.46	39.82	33.46
0.36	13.78	0.00	0.00	0.00	0.00	1.28	1.29	1.28	1.29
12.09	13.25	24.72	17.78	24.72	17.78	34.86	27.57	34.86	27.57
1.08	23.67	13.94	7.78	13.94	7.78	10.09	10.85	10.09	10.85
31.05	13.96	17.10	32.78	17.10	32.78	27.89	9.56	27.89	9.56
0.18	0.18	0.19	0.19	0.19	0.19	0.18	0.18	0.18	0.18
0.90	1.06	5.76	2.04	5.76	2.04	6.79	3.13	6.79	3.13
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.56	0.00	0.56	0.00	0.00	0.18	0.00	0.18
0.90	4.42	3.35	1.67	3.35	1.67	0.37	2.02	0.37	2.02
51.44	6.36	7.81	23.15	7.81	23.15	7.16	23.53	7.16	23.53
53.43	31.10	27.70	32.96	27.70	32.96	24.04	37.50	24.04	37.50
43.68	41.52	42.01	51.30	42.01	51.30	66.79	38.79	66.79	38.79
1.26	7.42	8.36	4.07	8.36	4.07	4.95	6.07	4.95	6.07
0.72	12.90	18.22	8.52	18.22	8.52	3.49	13.24	3.49	13.24
0.90	6.89	3.35	2.22	3.35	2.22	0.73	3.68	0.73	3.68
0.00	0.00	0.00	0.56	0.00	0.56	0.00	0.37	0.00	0.37
0.00	0.18	0.37	0.37	0.37	0.37	0.00	0.37	0.00	0.37
4.00	3.00	5.00	4.00	5.00	4.00	4.00	3.00	4.00	3.00
4.00	5.00	3.00	4.00	3.00	4.00	4.00	5.00	4.00	5.00
6.00	8.00	9.00	6.00	9.00	6.00	8.00	10.00	8.00	10.00
1.00	6.00	3.00	2.00	3.00	2.00	3.00	4.00	3.00	4.00
1.00	2.00	1.00	2.00	1.00	2.00	2.00	2.00	2.00	2.00
0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
0.54	1.02	0.95	0.82	0.95	0.82	0.82	0.94	0.82	0.94
1.80	3.40	3.16	2.72	3.16	2.72	2.74	3.12	2.74	3.12
1.25	2.36	2.19	1.89	2.19	1.89	1.90	2.17	1.90	2.17
1.96	2.97	3.09	2.53	3.09	2.53	2.86	2.85	2.86	2.85
0.45	0.73	0.71	0.63	0.71	0.63	0.62	0.66	0.62	0.66
0.62	0.87	0.85	0.79	0.85	0.79	0.78	0.83	0.78	0.83
99.82	96.47	98.14	96.48	98.14	96.48	97.25	96.69	97.25	96.69
5.13	4.38	4.38	4.83	4.38	4.83	4.55	4.30	4.55	4.30
68.23	67.84	80.11	63.15	80.11	63.15	67.52	84.01	67.52	84.01
4.92	3.87	4.48	4.66	4.48	4.66	4.59	4.55	4.59	4.55
67.15	59.19	74.16	60.74	74.16	60.74	66.42	79.78	66.42	79.78
47.00	56.00	49.00	58.00	49.00	58.00	60.00	45.00	60.00	45.00
2.94	2.24	2.23	2.90	2.23	2.90	2.86	1.73	2.86	1.73
3.46	4.78	4.52	4.12	4.52	4.12	4.91	4.21	4.91	4.21
98.56	77.92	92.38	96.11	92.38	96.11	94.86	91.54	94.86	91.54
2.56	2.64	2.50	3.30	2.50	3.30	3.00	2.50	3.00	2.50
4.93	3.81	3.98	4.51	3.98	4.51	4.38	4.34	4.38	4.34
4.00	3.00	6.00	4.00	6.00	4.00	4.00	3.00	4.00	3.00
9.00	15.00	13.00	12.00	13.00	12.00	11.00	15.00	11.00	15.00
67.69	64.49	75.65	62.59	75.65	62.59	66.06	83.46	66.06	83.46
4.00	7.00	6.00	6.00	6.00	6.00	6.00	7.00	6.00	7.00
0.10	2.66	0.23	0.00	0.23	0.00	0.66	0.19	0.66	0.19
6.25	8.00	4.55	0.00	4.55	0.00	4.76	11.54	4.76	11.54
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
776-11	776-12	776-13	776-14	776-15	776-16	776-15	776-16	776-15	776-16

Diamond Fork, Utah Co., UT		Diamond Fork, Utah Co., UT		Diamond Fork, Utah Co., UT		Diamond Fork, Utah Co., UT		Diamond Fork, Utah Co., UT		Diamond Fork, Utah Co., UT	
Sulfur Impact(SI)		Sulfur Impact(SI)		Sixth Water(SX)		Sixth Water(SX)		Sixth Water(SX)		Sixth Water(SX)	
SI03	SI04	SI04	SI04	SX01	SX02	SX03	SX03	SX04	SX04	SX04	SX04
09-19-2006	09-19-2006	09-19-2006	09-19-2006	09-18-2006	09-18-2006	09-18-2006	09-18-2006	09-18-2006	09-18-2006	09-18-2006	09-18-2006
21.88	10.50	10.50	10.50	43.67	31.25	53.19	53.19	8.86	8.86	8.86	8.86
Hess	D-frame	D-frame	D-frame	Hess	Hess	Hess	Hess	D-frame	D-frame	D-frame	D-frame
12T,0470806E,4439021N	12T,0470806E,4439021N	12T,0470806E,4439021N	12T,0470806E,4439021N	12T,0476023E,4445768N	12T,0476023E,4445768N	12T,0476023E,4445768N	12T,0476023E,4445768N	12T,0476023E,4445768N	12T,0476023E,4445768N	12T,0476023E,4445768N	12T,0476023E,4445768N
23	24	24	24	25	26	27	27	28	28	28	28
2586.62	5588.24	5588.24	5588.24	1252.63	1712.00	1024.60	1024.60	6367.56	6367.56	6367.56	6367.56
233.07	580.72	580.72	580.72	764.86	784.00	530.16	530.16	2777.34	2777.34	2777.34	2777.34
Chironomidae	Chironomidae	Chironomidae	Chironomidae	Oligophlebodes sp.	Chironomidae	Oligophlebodes sp.	Oligophlebodes sp.	Chironomidae	Chironomidae	Chironomidae	Chironomidae
2211.88	4046.00	4046.00	4046.00	602.27	649.60	406.08	406.08	2032.20	2032.20	2032.20	2032.20
Baetis tricaudatus	Simulium sp.	Simulium sp.	Simulium sp.	Chironomidae	Oligophlebodes sp.	Chironomidae	Chironomidae	Oligophlebodes sp.	Oligophlebodes sp.	Oligophlebodes sp.	Oligophlebodes sp.
228.50	590.24	590.24	590.24	261.06	486.40	246.28	246.28	1467.70	1467.70	1467.70	1467.70
Simulium sp.	Baetis tricaudatus	Baetis tricaudatus	Baetis tricaudatus	Brachycentrus occidentalis	Turbellaria	Optioservus sp.	Optioservus sp.	Baetis tricaudatus	Baetis tricaudatus	Baetis tricaudatus	Baetis tricaudatus
100.54	580.72	580.72	580.72	80.15	92.80	95.88	95.88	688.69	688.69	688.69	688.69
85.51	72.40	72.40	72.40	48.08	37.94	39.63	39.63	31.91	31.91	31.91	31.91
94.35	82.96	82.96	82.96	68.92	66.36	63.67	63.67	54.96	54.96	54.96	54.96
98.23	93.36	93.36	93.36	75.32	71.78	73.03	73.03	65.78	65.78	65.78	65.78
8.00	8.00	8.00	8.00	24.00	17.00	21.00	21.00	24.00	24.00	24.00	24.00
2.00	1.00	1.00	1.00	9.00	8.00	9.00	9.00	11.00	11.00	11.00	11.00
1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
0.00	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	2.00	2.00	2.00
1.00	0.00	0.00	0.00	6.00	6.00	6.00	6.00	7.00	7.00	7.00	7.00
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
6.00	6.00	6.00	6.00	22.00	15.00	19.00	19.00	22.00	22.00	22.00	22.00
0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00
8.83	10.39	10.39	10.39	3.66	9.72	6.06	6.06	12.94	12.94	12.94	12.94
0.00	0.00	0.00	0.00	0.18	0.00	0.18	0.18	0.53	0.53	0.53	0.53
0.18	0.00	0.00	0.00	57.22	36.07	45.50	45.50	30.14	30.14	30.14	30.14
9.01	10.39	10.39	10.39	61.06	45.79	51.74	51.74	43.62	43.62	43.62	43.62
0.71	0.17	0.17	0.17	6.22	4.30	9.36	9.36	6.38	6.38	6.38	6.38
89.75	83.99	83.99	83.99	23.22	41.87	26.24	26.24	36.17	36.17	36.17	36.17
0.35	5.28	5.28	5.28	2.19	0.93	1.10	1.10	1.06	1.06	1.06	1.06
8.83	10.39	10.39	10.39	1.28	4.86	3.85	3.85	10.82	10.82	10.82	10.82
0.00	0.00	0.00	0.00	8.04	6.92	4.77	4.77	5.50	5.50	5.50	5.50
85.51	72.40	72.40	72.40	20.84	37.94	24.04	24.04	31.91	31.91	31.91	31.91
0.00	0.00	0.00	0.00	2.38	4.86	2.20	2.20	2.13	2.13	2.13	2.13
0.18	0.00	0.00	0.00	0.18	0.00	0.37	0.37	0.35	0.35	0.35	0.35
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.89	10.56	10.56	10.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.06	10.56	10.56	10.56	7.50	5.05	3.30	3.30	1.24	1.24	1.24	1.24
94.70	88.07	88.07	88.07	25.41	47.10	30.28	30.28	47.70	47.70	47.70	47.70
0.53	0.85	0.85	0.85	8.04	7.85	13.03	13.03	14.36	14.36	14.36	14.36
0.71	0.34	0.34	0.34	56.86	37.76	51.19	51.19	31.56	31.56	31.56	31.56
0.00	0.17	0.17	0.17	1.65	2.06	2.20	2.20	5.14	5.14	5.14	5.14
0.00	0.00	0.00	0.00	0.55	0.19	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00	1.00	1.00	1.00	3.00	2.00	4.00	4.00	4.00	4.00	4.00	4.00
3.00	3.00	3.00	3.00	5.00	4.00	4.00	4.00	6.00	6.00	6.00	6.00
2.00	1.00	1.00	1.00	10.00	5.00	8.00	8.00	9.00	9.00	9.00	9.00
1.00	2.00	2.00	2.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00
0.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.25	0.41	0.41	0.41	0.79	0.80	0.83	0.83	0.92	0.92	0.92	0.92
0.82	1.35	1.35	1.35	2.64	2.67	2.74	2.74	3.06	3.06	3.06	3.06
0.57	0.94	0.94	0.94	1.83	1.85	1.90	1.90	2.12	2.12	2.12	2.12
0.89	0.81	0.81	0.81	3.22	2.15	2.89	2.89	2.63	2.63	2.63	2.63
0.27	0.45	0.45	0.45	0.58	0.65	0.62	0.62	0.67	0.67	0.67	0.67
0.26	0.45	0.45	0.45	0.72	0.76	0.77	0.77	0.82	0.82	0.82	0.82
99.65	99.15	99.15	99.15	97.44	97.94	98.17	98.17	92.91	92.91	92.91	92.91
5.78	5.79	5.79	5.79	2.90	3.67	3.40	3.40	3.74	3.74	3.74	3.74
13.78	21.29	21.29	21.29	72.21	58.88	64.22	64.22	59.22	59.22	59.22	59.22
5.00	4.99	4.99	4.99	1.88	2.28	2.13	2.13	2.77	2.77	2.77	2.77
13.60	21.29	21.29	21.29	67.64	53.27	62.39	62.39	53.37	53.37	53.37	53.37
16.00	14.00	14.00	14.00	51.00	50.00	62.00	62.00	71.00	71.00	71.00	71.00
2.00	1.75	1.75	1.75	2.13	2.94	2.95	2.95	2.96	2.96	2.96	2.96
4.32	3.98	3.98	3.98	7.09	6.74	6.72	6.72	6.12	6.12	6.12	6.12
99.12	93.53	93.53	93.53	88.30	91.21	86.42	86.42	85.46	85.46	85.46	85.46
2.50	2.25	2.25	2.25	2.04	3.12	3.10	3.10	3.42	3.42	3.42	3.42
4.98	5.00	5.00	5.00	6.83	5.99	6.57	6.57	5.98	5.98	5.98	5.98
1.00	2.00	2.00	2.00	3.00	3.00	5.00	5.00	4.00	4.00	4.00	4.00
4.00	4.00	4.00	4.00	12.00	10.00	11.00	11.00	13.00	13.00	13.00	13.00
13.60	21.29	21.29	21.29	68.37	53.46	62.39	62.39	53.19	53.19	53.19	53.19
0.00	0.00	0.00	0.00	6.00	6.00	8.00	8.00	10.00	10.00	10.00	10.00
0.08	0.58	0.58	0.58	1.15	0.30	0.60	0.60	0.10	0.10	0.10	0.10
12.50	25.00	25.00	25.00	12.50	5.88	4.76	4.76	4.17	4.17	4.17	4.17
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
776-23	776-24	776-24	776-24	776-25	776-26	776-27	776-27	776-28	776-28	776-28	776-28

Diamond Fork Benthos 2006 #2

EcoAnalysts, Inc.

Data are NOT adjusted for subsampling

	Stream Site	Diamond Fork, Utah Co., UT DF Camp Ground(DFC)	Diamond Fork, Utah Co., UT Guard Shack(DFGS)	Diamond Fork, Utah Co., UT Motherlode(MO)	Percent Subsampled	
					EcoAnalysts Sample ID	Rep
Ephemeroptera		29	30	31	100.00	100.00
	Baetis tricaudatus	422	333	245		
	Drunella grandis	0	7	0		
	Ephemerella sp.	0	7	15		
	Ephemereillidae	6	0	0		
	Leptophlebiidae	10	24	1		
	Paraleptophlebia sp.	0	0	0		
	Rhithrogena sp.	73	0	11		
Plecoptera	Capniidae	0	1	0		
	Chloroperlidae	6	0	2		
	Claassenia sabulosa	0	0	2		
	Isogenoides sp.	30	0	13		
	Isoperla sp.	26	0	30		
	Perlodidae	7	1	0		
	Pteronarcella sp.	63	0	49		
	Skwala sp.	1	0	0		
	Zapada cinctipes	3	0	2		
Coleoptera	Cleptelmis addenda	0	8	0		
	Optioservus sp.	94	463	146		
	Zaitzevia parvula	0	0	0		
	Zaitzevia sp.	0	39	0		
Diptera-Chironomidae	Chironomidae	517	809	809		
Diptera	Antocha sp.	32	10	5		
	Atherix sp.	18	0	8		
	Bezzia/Palomyia sp.	9	23	23		
	Ceratopogoninae	0	0	0		
	Chelifera/Metachela sp.	2	2	0		
	Clinocera sp.	6	0	0		
	Dasyhelea sp.	0	0	0		
	Dicranota sp.	0	0	0		
	Hemerodromia sp.	2	0	2		
	Hexatoma sp.	0	3	0		
	Muscidae	0	0	0		
	Neoplasta sp.	1	33	1		
	Pericoma/Teimatoscopus sp.	0	23	0		
	Simulium sp.	633	133	414		
	Tipula sp.	0	8	0		
	Tipulidae	2	0	0		
Trichoptera	Arctopsyche grandis	3	0	2		
	Brachycentrus americanus	0	0	0		
	Brachycentrus occidentalis	151	5	0		
	Glossosoma sp.	6	1	3		
	Glossosomatidae	1	0	0		
	Helicopsyche sp.	0	2	1		
	Hydropsyche sp.	81	149	28		
	Hydroptila sp.	0	0	1		
	Hydroptilidae	7	0	0		
	Lepidostoma sp.	6	0	27		
	Micrasema sp.	0	0	0		
	Neotrichia sp.	0	1	0		
	Ochrotrichia sp.	0	1	0		
	Oligophlebodes sp.	0	2	0		
	Rhyacophila brunnea gr.	0	0	0		
	Rhyacophila coloradensis gr.	0	24	1		
Gastropoda	Gastropoda	1	0	0		
	Lymnaeidae	0	0	3		
	Physa sp.	3	2	6		
Bivalvia	Pisidium sp.	0	0	0		
Annelida	Sphaeriidae	8	2	0		
	Erpobdellidae	8	0	0		
	Oligochaeta	50	82	140		
Acari	Atractides sp.	2	1	17		
	Corticacarus	2	0	3		
	Hygrobates sp.	0	0	1		
	Lebertia sp.	0	0	0		
	Protzia sp.	0	2	0		
	Sperchon sp.	6	2	19		
	Testudacarus sp.	0	0	1		
Crustacea	Amphipoda	0	0	0		
	Ostracoda	1	0	0		
Other Organisms	Nematoda	10	15	12		
	Polycelis sp.	0	1	0		
	Turbellaria	0	0	0		
		2,309	2,219	2,189		

Diamond Fork, Utah Co., UT	Diamond Fork, Utah Co., UT	Diamond Fork, Utah Co., UT	Diamond Fork, Utah Co., UT	Diamond Fork, Utah Co., UT
Oxbow(OX)	Sawmill Canyon(SC)	Sixth Water(SX)	Sulfer Impact(SI)	
Pooled	Pooled	Pooled	Pooled	Pooled
100.00	100.00	100.00	100.00	100.00
32	33	34	35	
569	637	115	136	
1	1	63	0	
1	0	0	0	
2	1	0	0	
0	26	0	1	
0	10	0	0	
10	0	0	0	
0	0	0	0	
6	0	1	0	
4	0	0	0	
6	0	0	0	
14	0	1	0	
3	0	1	0	
40	0	0	0	
0	0	0	0	
0	0	2	0	
0	7	0	0	
217	464	144	10	
0	10	0	0	
0	0	0	0	
473	693	628	1,914	
18	4	48	0	
11	5	0	0	
7	18	10	4	
0	1	0	0	
0	0	0	0	
1	0	0	0	
0	2	0	0	
0	1	0	1	
16	1	0	1	
0	0	0	0	
0	0	3	0	
0	11	6	26	
0	1	2	1	
334	186	0	116	
0	7	1	1	
0	0	0	0	
5	0	4	0	
0	0	2	0	
231	1	78	0	
1	1	1	0	
0	0	0	0	
0	1	0	0	
91	67	1	1	
3	1	0	0	
2	0	4	0	
14	1	0	0	
0	0	58	0	
0	1	0	0	
0	2	0	0	
0	0	761	0	
0	0	12	0	
0	4	3	0	
0	0	0	0	
6	0	1	1	
0	0	6	0	
1	2	2	0	
0	0	0	0	
14	33	29	45	
17	2	2	0	
6	0	0	0	
1	0	0	0	
1	0	3	0	
0	3	1	0	
30	1	49	0	
0	0	4	0	
0	0	2	0	
1	2	1	0	
10	3	19	1	
0	0	46	0	
0	0	77	0	
2,167	2,211	2,191	2,259	

Diamond Fork Benthos 2006 #2

EcoAnalysts, Inc.

Data are NOT adjusted for subsampling

Stream Site Rep	Diamond Fork, Utah Co., DF Camp Ground(DFC)	UTDiamond Fork, Utah Co., Guard Shack(DFGS)	UTDiamond Fork, Utah Co., Motherlode(MO)	UTDiamond Fork, Utah Co., Oxbow(OX)
Percent Subsampled	100.00	100.00	100.00	100.00
EcoAnalysts Sample ID	29	30	31	32
Abundance Measures				
Corrected Abundance	2309.00	2219.00	2189.00	2167.00
EPT Abundance	902.00	558.00	579.00	1003.00
Dominance Measures				
Dominant Taxon	Simulium sp.	Chironomidae	Chironomidae	Baetis tricaudatus
Dominant Abundance	633.00	809.00	809.00	569.00
2nd Dominant Taxon	Chironomidae	Optioservus sp.	Simulium sp.	Chironomidae
2nd Dominant Abundance	517.00	463.00	414.00	473.00
3rd Dominant Taxon	Baetis tricaudatus	Baetis tricaudatus	Baetis tricaudatus	Simulium sp.
3rd Dominant Abundance	422.00	333.00	245.00	334.00
% Dominant Taxon	27.41	36.46	36.96	26.26
% 2 Dominant Taxa	49.81	57.32	55.87	48.08
% 3 Dominant Taxa	68.08	72.33	67.06	63.50
Richness Measures				
Species Richness	39.00	34.00	35.00	36.00
EPT Richness	18.00	14.00	18.00	18.00
Ephemeroptera Richness	4.00	4.00	4.00	5.00
Plecoptera Richness	7.00	2.00	6.00	6.00
Trichoptera Richness	7.00	8.00	8.00	7.00
Chironomidae Richness	1.00	1.00	1.00	1.00
Oligochaeta Richness	1.00	1.00	1.00	1.00
Non-Chiro. Non-Olig. Richness	37.00	32.00	33.00	34.00
Rhyacophila Richness	0.00	1.00	1.00	0.00
Community Composition				
% Ephemeroptera	22.13	16.72	12.43	26.90
% Plecoptera	5.89	0.09	4.48	3.37
% Trichoptera	11.04	8.34	9.55	16.01
% EPT	39.06	25.15	26.45	46.29
% Coleoptera	4.07	22.98	6.67	10.01
% Diptera	52.92	47.05	57.65	39.69
% Oligochaeta	2.17	3.70	6.40	0.65
% Baetidae	18.28	15.01	11.19	26.26
% Brachycentridae	6.54	0.23	6.67	10.66
% Chironomidae	22.39	36.46	36.96	21.83
% Ephemerellidae	0.26	0.63	0.69	0.18
% Hydropsychidae	3.64	6.71	1.37	4.43
% Odonata	0.00	0.00	0.00	0.00
% Perlidae	0.00	0.00	0.09	0.18
% Pteronarcyidae	2.73	0.00	2.24	1.85
% Simuliidae	27.41	5.99	18.91	15.41
Functional Group Composition				
% Filters	37.94	13.02	26.95	30.55
% Gatherers	44.95	60.21	55.50	49.75
% Predators	5.72	4.73	6.03	5.86
% Scrapers	7.67	21.50	7.77	10.84
% Shredders	3.20	0.41	3.56	2.49
% Piercer-Herbivores	0.30	0.05	0.05	0.23
% Unclassified	0.22	0.09	0.14	0.28
Filterer Richness	5.00	4.00	4.00	5.00
Gatherer Richness	7.00	10.00	6.00	7.00
Predator Richness	14.00	10.00	14.00	14.00
Scrapper Richness	5.00	6.00	6.00	5.00
Shredder Richness	4.00	2.00	3.00	2.00
Piercer-Herbivore Richness	1.00	1.00	1.00	2.00
Unclassified	3.00	1.00	1.00	1.00
Diversity/Evenness Measures				
Shannon-Weaver H' (log 10)	0.97	0.87	0.91	0.94
Shannon-Weaver H' (log 2)	3.22	2.89	3.03	3.12
Shannon-Weaver H' (log e)	2.23	2.00	2.10	2.16
Margalef's Richness	4.91	4.28	4.42	4.56
Pielou's J'	0.61	0.57	0.59	0.60
Simpson's Heterogeneity	0.83	0.79	0.80	0.84
Biotic Indices				
% Indiv. w/ HBI Value	99.00	97.16	97.03	97.14
Hilsenhoff Biotic Index	4.57	5.19	5.06	4.52
% Indiv. w/ MTI Value	72.63	53.31	52.58	73.70
Metals Tolerance Index	4.50	4.82	4.46	4.56
% Indiv. w/ FSBI Value	67.17	54.75	48.38	70.28
Fine Sediment Biotic Index	74.00	75.00	77.00	82.00
FSBI - average	1.90	2.21	2.20	2.28
FSBI - weighted average	4.19	3.99	4.01	4.44
% Indiv. w/ TPM Value	92.20	90.94	87.44	93.72
Temp. Pref. Metric - average	2.49	2.82	2.40	2.72
TPM - weighted average	4.64	4.33	4.59	4.31
Karr BIBI Metrics				
Long-Lived Taxa Richness	5.00	5.00	5.00	6.00
Clinger Richness	20.00	19.00	20.00	21.00
% Clingers	70.33	53.58	50.80	71.94
Intolerant Taxa Richness	13.00	11.00	11.00	11.00
% Tolerant Individuals	2.71	3.90	6.87	1.00
% Tolerant Taxa	10.26	5.88	5.71	8.33
Coleoptera Richness	1.00	3.00	1.00	1.00
UIN	776-29	776-30	776-31	776-32

Diamond Fork, Utah Co., UT Diamond Fork, Utah Co., UT Diamond Fork, Utah Co., UT
 Sawmill Canyon(SC) Sixth Water(SX) Pooled

100.00 100.00
 33 34 35

2211.00 2191.00 2259.00
 754.00 1107.00 138.00

Chironomidae	Oligophlebodes sp.	Chironomidae
693.00	761.00	1914.00
Baetis tricaudatus	Chironomidae	Baetis tricaudatus
637.00	628.00	136.00
Optiosevus sp.	Optiosevus sp.	Simulium sp.
464.00	144.00	116.00
31.34	34.73	84.73
60.15	63.40	90.75
81.14	69.97	95.88

36.00	38.00	15.00
14.00	16.00	3.00
5.00	2.00	2.00
0.00	4.00	0.00
9.00	10.00	1.00
1.00	1.00	1.00
1.00	1.00	1.00
34.00	36.00	13.00
1.00	2.00	0.00

30.53	8.12	6.06
0.00	0.23	0.00
3.57	42.17	0.04
34.10	50.52	6.11
21.75	6.57	0.44
42.06	31.86	91.37
1.49	1.32	1.99
28.81	5.25	6.02
0.05	6.30	0.00
31.34	28.66	84.73
0.09	2.88	0.00
3.03	0.23	0.04
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00
8.41	0.00	5.14

11.58	4.24	5.18
64.59	37.65	92.83
2.26	10.86	1.46
21.12	44.27	0.49
0.36	2.78	0.04
0.09	0.18	0.00
0.00	0.00	0.00
4.00	6.00	2.00
13.00	7.00	5.00
11.00	16.00	5.00
4.00	5.00	2.00
2.00	3.00	1.00
2.00	1.00	0.00
0.00	0.00	0.00

0.76	0.89	0.28
2.54	2.97	0.94
1.76	2.06	0.65
4.54	4.81	1.81
0.49	0.57	0.24
0.77	0.78	0.28

98.33	96.58	98.67
5.00	3.43	5.86
63.41	63.62	11.86
4.94	2.25	4.98
63.68	59.15	11.82
80.00	87.00	31.00
2.22	2.29	2.07
4.03	6.69	4.04
94.26	87.81	96.41
2.11	2.58	1.73
4.45	6.34	4.99

6.00	6.00	2.00
16.00	19.00	5.00
62.78	59.33	11.69
9.00	13.00	1.00
1.61	1.47	2.06
5.56	7.89	13.33
3.00	1.00	1.00

776-33 776-34 776-35