

Appendix D: Types and orientation of cross-strata

This appendix provides data for cross-strata that were measured during this study. These data add significantly to those that have been collected by other workers elsewhere in the Revett Formation, and are consistent with those data, which generally indicate northward sediment transport. Many cross-strata herein are noted as possible epsilon cross-strata: large, low-angle sweeping cross-strata that formed by stream channel migration. Alternatively, these bedforms may be climbing megaripples. When the sediment supply to an area greatly exceeds the ability of the current to remove it, ripples or megaripples will “climb” upward, forming climbing ripples or climbing megaripples, respectively (see Rubin and Hunter, 1982, or Harms and others, 1982, for a detailed discussion of bedform climbing). I believe that the possible epsilon cross-strata in the Revett Fm are more likely climbing megaripples, because they reflect northward sediment transport, similar to the local and regional patterns. If these bedforms were true epsilon cross-strata, they would indicate direction of channel migration, which should be perpendicular to regional sediment deposition, i.e. both to the east and west.

COEUR D'ALENE DISTRICT REVETT STUDY

Cross-strata Paleocurrent Data

Section Name: Big Creek I												
Dates: 2 July 1984												
Footage	Thickness	Set		Cross-strata		Base		Strike and Dip		Rotated		Notes
		Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	
30	3'	X		X			?	E-W; 30S	N34W; 33SW	N72W	31	
38.5	1'	X		X			?	N86W; 23SW	N26E; 26SE	N68E	28	
87	2'	X		X		X		N50E; 28SE	N09E; 25SE	N23E	18	
90	3'	X		X		X		N81E; 23SE	N28W; 30SW	N74W	30	
136.5	1'		X	X			X	N52W; 26SW	N01W; 29SW	N36W	23	
162	1.5'		X	X		X		N80E; 30SE	N25E; 38SE	N66E	31	
165	2'		?	X			X	N61E; 22SE	N61E; 38SW	N80W	50	
Section Name: Big Creek II												
Dates: 8 July 1984												
Footage	Thickness	Set		Cross-strata		Base		Strike and Dip		Rotated		Notes
		Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	
172.5	1'	X		X			X	N80E; 27SE	N10W; 51NE	N59E	55	
332.5	1'	X		X			?	N23E; 39SE	N05W; 53NE	N48E	24	
335	2'	X		X		?		N55E; 19SE	N-S; 21W	N67W	36	
348	4.5'	X		X			?	N80W; 21SW	N23W; 19SW	N46W	20	
370	3.5'	X		X			X	N61E; 20SE	N20E; 70SE	S78E	57	
471	1.5'	X		X			X	N72E; 25SE	N35E; 10NW	N28W	34	

COEUR D'ALENE DISTRICT REVETT STUDY

Cross-strata Paleocurrent Data

Section Name: Blossom Lakes												
Dates: 28 July through 04 August 1984												
Footage	Thickness	Set		Cross-strata		Base		Strike and Dip		Rotated		Notes
		Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	
3.5	1'		X	X		X		N05E; 22NW	N01E; 50NW	S86W	28	
27	2'	X		X		X		N24W; 10SW	N89E; 21NW	N21E	28	
135	0.5'	X		X		X		N09E; 23NW	N36E; 38NW	N28W	20	
167	3.5'	X		X		X		N04E; 21NW	N13E; 43NW	N72W	22	
243	1.5'	X		X		X		N06E; 20NW	N12E; 46NW	N71W	27	
389	2'	X		X			X	N07E; 24NW	N58E; 36NW	N06E	28	
489	3'	X		X		X		N08E; 21NW	N34E; 51NW	N42E	33	
631	1.5'	X		X		X		N11E; 20NW	N25E; 38NW	N53E	19	
654.5	1'		X	X			X	N10E; 19NW	N10W; 03SW	S65W	11	
813	2'	X		X		X		N23E; 18NW	N52W; 25SW	S01E	27	
818.5	1'	X		X		X		N25E; 20NW	N87W; 14NE	N74E	18	
821	1.5'	X		X		?		N07E; 19NW	N38E; 09NW	N71E	12	
863	1'	X		X		X		N07E; 21NW	N14E; 32NW	N62W	10	
896.5	1'	X		X			X	N24E; 24NW	N61W; 11NE	N88E	17	
914	2.5'	X		X			X	N07E; 26NW	N30E; 42NW	N32W	22	
1034	1.5'	X		X		X		N04E; 44NW	N14E; 39NW	N48E	8	
1038	1.5'	X		X		X		N12E; 16NW	N31E; 34NW	N45W	20	
1047	3'		X	X		X		N12E; 16NW	N04W; 06NE	S82E	23	may be epsilons?
1049	1.5'		X	X		X		N05E; 25NW	N73E; 05NW	N80E	25	may be epsilons?
1053	3'	X		X		X		N04E; 24NW	N16E; 14NW	N75E	11	may be epsilons?
1066	3.5'	X		X		X		N14E; 08NW	N57E; 08NW	N39E	6	may be epsilons?
1069.5	0.5'	X		X		X		N14E; 08NW	N72E; 14NW	N06E	11	may be epsilons?
1078.5	1'	X		X		X		N02E; 25NW	N48E; 29NW	N14E	21	may be epsilons?
1113	3'	X		X		X		N19E; 32NW	N71W; 16NE	N82E	37	may be epsilons?
1118	3.5'	X		X		X		N07E; 30NW	N11W; 04NE	S86E	33	may be epsilons?
1195	2'	X		X		X		N12W; 20SW	N14E; 05NW	N61E	8	
1222.5	1'	X		X		X		N02W; 20SW	N29E; 44NW	N44W	28	

COEUR D'ALENE DISTRICT REVETT STUDY

Cross-strata Paleocurrent Data

Section Name: Crescent 3100 A Described by B G White												
Dates: 16 April 1984 data collected by J Mauk and D Dalton												
Footage	Thickness	Set		Cross-strata		Base		Strike and Dip		Rotated		Notes
		Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	
12	5'	?		X		X		N65W; 76NE	N69W; 82SW	N15E	22	
18	1.5'	?		X		X		N79W; 82NE	E-W; 88N	N49W	12	
21	4.5'	?		X		slightly		N83W; 56NE	N78W; 74NE	N21E	18	may be epsilons?
32	5'		slightly	X		X		N74W; 57NE	N71W; 85SW	N24E	28	
37	5'	?		X		X		N50W; 56NE	N76W; 83SW	N05E	48	may be epsilons?
50	4'	X		X		X		N69W; 55NE	N74W; 90	N12E	34	
59	3'	X		X		X		?N82W; 55NE?	N67W; 83SW	S30W	42	
76	2.5'	X		X		X		N60W; 50NE	N70W; 87SW	N16E	44	
241	2'	X		X		X		N78W; 42NE	N62W; 83SW	N32E	56	deformed by folding? overridden?
250.5	1.5'		?	X		X		N78E; 65NW	N71W; 86SW	N38E	43	
331.5	0.5'		X	?		X		N55W; 72NE	N55W; 87SW	N35E	21	
334	1.5'	?		X			X	N67W; 62NE	N55W; 82NE	N54E	23	
Section Name: Deadwood Gulch												
Dates: 11 June 1984												
Footage	Thickness	Set		Cross-strata		Base		Strike and Dip		Rotated		Notes
		Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	
19	1'	X		X		X		N65W; 75SW/OT	N49W; 71SW	S84W	15	
33.5	1'	X		X			X	N81W; 79SW/OT	N56W; 57SW	N51E	30	
35.5	0.5'	X		X		X		N68W; 78SW/OT	N47W; 65SW	N78E	23	
41	1'		X	X		X		N65W; 78SW/OT	N65W; 58SW	N25E	19	
43	2'		X	X		X		N57W; 87SW/OT	N44W; 69SW	N68E	21	
58	1'	X		X		X		N70W; 73SW/OT	N74W; 59SW	N33E	14	
103	1.5'	X		X		X		N64W; 75SW/OT	N61W; 50SW	N34E	24	
106	3.5'	X		X			X	N64W; 73SW/OT	N57W; 54SW	N51E	20	
425	1.5'	X		X		slightly		N64W; 62SW/OT	N62W; 34SW	N29E	28	
1327	2'		X	X		X		N80W; 88SW/OT	N56W; 61SW	N48E	35	
1329	2'	X		X		X		N61W; 83SW/OT	N57W; 55SW	N38E	30	
1373	1'	X		X		X		N78W; 79SW/OT	N50W; 60SW	N63E	32	

COEUR D'ALENE DISTRICT REVETT STUDY

Cross-strata Paleocurrent Data

Section Name: Military Gulch												
Dates: 12 August and 16 August 1984												
Footage	Thickness	Set		Cross-strata		Base		Strike and Dip		Rotated		Notes
		Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	
4	2'	X		X		X		N49W; 26SW	N06E; 15NW	N04E	21	
18	1.5'	X		X		X		N41W; 31SW	N78E; 05SE	N62E	31	
22	3.5'	?		X		X		N41W; 31SW	N45E; 13SE	N76E	36	
47	1.5'	X		X		X		N21W; 35SW	N16E; 19NW	N40E	23	may be epsilons?
299	2'	X		X		X		N26W; 34SW	N00E; 16W	N25E	24	
301	1.5'	X		X		X		N26W; 34SW	N08E; 30NW	N01E	19	
Section Name: Silver Hill												
Date: 10 September 1984												
Footage	Thickness	Set		Cross-strata		Base		Strike and Dip		Rotated		Notes
		Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	
20	3'	X		X		X		N05E; 48SE	N58E; 38SE	S40W	38	
24.5	1'	X		X		?		N04E; 48SE	N40W; 67NE	N16E	41	may be fractures?
48	1'	X		X		X		N00E; 43E	N16W; 39NE	N24W	11	
56	3'	X		X		?		N09E; 36SE	N30W; 70NE	N43E	45	
116	2'	X		X		slightly		N04W; 41NE	N31W; 73NE	N42E	38	
556.5	1'	X		X		X		N28E; 34SE	N75E; 28SE	S75W	31	
Section Name: Sunshine 2700 A												
Date: 1 October 1984												
Footage	Thickness	Set		Cross-strata		Base		Strike and Dip		Rotated		Notes
		Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	
206	6'	X		X		?		N84W; 86SW/OT	N65W; 72SW	N58E	23	
211	3'	X		X			?	N74W; 79SW/OT	N63W; 69SW	N60E	15	
Section Name: Sunshine 2700 D												
Date: 3 October 1984												
Footage	Thickness	Set		Cross-strata		Base		Strike and Dip		Rotated		Notes
		Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	
258	2'	X		X		X		N71W; 87SW/OT	N73W; 81SW	N01E	6	

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Cross-strata Paleocurrent Data

Section Name: Sunshine 3100 A												
Date: 19 June 1984												
		Set		Cross-strata		Base		Strike and Dip		Rotated		
Footage	Thickness	Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	Notes
248	4'	?		X		X		N80W; 79NE	N64W; 81SW	N50E	26	
256	3'	X		X			X	N87E; 71NW	N66W; 71SW	N28E	55	
Section Name: Sunshine 3100 B												
Date: 19 June 1984												
		Set		Cross-strata		Base		Strike and Dip		Rotated		
Footage	Thickness	Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	Notes
10	4'	X		X			X	N82E; 90	N71W; 74SW	N63W	32	
18	2'	X		X			X	N85E; 79SE/OT	N80W; 76SW	N71E	17	
36	2'	X		X			X	N65W; 77NE	N68W; 73SW	N19E	30	
Section Name: Sunshine 3100 C												
Date: 20 June 1984												
		Set		Cross-strata		Base		Strike and Dip		Rotated		
Footage	Thickness	Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	Notes
14	7'	X		X			X	N80E; 81NW	N70W; 67SW	N32E	44	
20	2'	X		X			X	N82E; 86NW	N80W; 59SW	N18E	39	
24	6'	X		X			X	N89W; 86SW/OT	N65W; 70SW	N55E	28	
43	2.5'	X		X			X	N84W; 86SW/OT	N69W; 64SW	N38E	27	
141.5	1'	X		X			X	N82E; 76SE/OT	N65W; 62SW	N51E	34	
146.5	1'	X		X			X	N85E; 85NW/OT	N81W; 78SW	N88E	17	
Section Name: Sunshine 3700 C												
Date: 18 June 1984												
		Set		Cross-strata		Base		Strike and Dip		Rotated		
Footage	Thickness	Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	Notes
58	2'	X		X			X	N86E; 86NW	N68W; 81SW	N59E	29	

COEUR D'ALENE DISTRICT REVETT STUDY

Cross-strata Paleocurrent Data

<i>Section Name: Two Mile Creek</i>												
<i>Date: 19 September 1984</i>												
Footage	Thickness	Set		Cross-strata		Base		Strike and Dip		Rotated		Notes
		Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	
676	2'	X		X		?		N34W; 47NE	N34W; 74NE	N56E	27	
731	1.5'	X		X		X		N33W; 68NE	N64W; 75NE	N24W	30	
<i>Section Name: West Fork of Big Creek</i>												
<i>Dates: 5 August through 7 August 1984</i>												
Footage	Thickness	Set		Cross-strata		Base		Strike and Dip		Rotated		Notes
		Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	
7	2'	X		X		X		N37W; 24SW	N20W; 11SW	N36E	14	
47	3.5'	X		X		X		N68W; 39SW	N12W; 17SW	N16W	36	
48	1'	X		X		X		N68W; 39SW	N70W; 24SW	N30E	16	
99	1.5'	X		X		X		N53W; 37SW	N03W; 23SW	N04W	28	
113	2'	X		X		X		N49W; 36SW	N53E; 20SE	N66E	37	
259	1.5'	X		X		X		N54W; 37SW	N60W; 09SW	N38E	28	
312.5	1'	X		X		X		N79E; 32SE	N25E; 25SE	N26E	20	
368.5	0.5'	X		X		X		N56W; 34SW	N50W; 17SW	N27E	18	
459.5	1'	X		X		X		N60W; 31SW	N45W; 11SW	N21E	20	
460.5	1'	X		X		X		N77W; 49SW	N56E; 39SE	N72E	35	
461.5	1'	X		X			X	N67W; 29SW	N05W; 52SW	N69W	45	
464	1'	X		X		slightly		N67W; 37SW	N67E; 41SE	S86E	30	
530.5	1'	X		X		X		N72W; 25SW	N24E; 26SE	N73E	33	
532	2'	X		X		X		N72W; 25SW	N09W; 12SW	N12W	23	
571	2'	X		X		X		N70W; 27SW	N50E; 24SE	N78E	24	
715	1'	X		X		X		N78W; 28SW	N05E; 07SE	N26E	29	
719	2'	X		X		X		N72W; 21SW	N63E; 17SE	N74E	14	
732	2'	X		X		X		N68W; 26SW	N18W; 34SW	N63W	26	
869.5	1.5'	X		X		X		N79W; 28SW	N79W; 28SW	N32W	11	

COEUR D'ALENE DISTRICT REVETT STUDY

Cross-strata Paleocurrent Data

<i>Section Name: West Fork of Pine Creek</i>												
<i>Dates: 26 August through 1 September 1984</i>												
Footage	Thickness	Set		Cross-strata		Base		Strike and Dip		Rotated		Notes
		Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	
13	6'	X		X		X		N17W; 18NE	N09E; 29NE	S86E	11	
296	2'	?		X		X		N20W; 21NE	N66W; 25NE	N26W	18	
297.5	1'	?		X		X		N25W; 18NE	N54W; 15NE	N59W	9	
484.5	1'	X		X		X		N35W; 13NE	N64E; 21NW	N61W	24	
487	1.5'	X		X		X		N47W; 12NE	N71W; 35NE	N08E	24	
488	1'	X		X		X		N47W; 12NE	N77W; 31NE	N02W	22	
911	2.5'	X		X		X		N43W; 13NE	N60E; 22NW	N58W	23	
1196	1'	X		X		X		N10W; 11NE	N40W; 25NE	N31E	16	
1199	1'	X		X		X		N41W; 11NE	N89W; 20NE	N30W	14	
1262	2'	X		X		X		N20E; 07SE	N78W; 17NE	N19E	15	
1263.5	1'	X		X		X		N14W; 07NE	N70E; 18NW	N31W	19	
1285.75	0.5'	X		X		X		N09W; 11NE	N60W; 37NE	N15E	31	
1302	2'	X		X		X		N34E; 86SE	N78E; 18NW	N20W	22	
1313	1'	X		X		X		N50E; 04SE	N56E; 18NW	N52E	22	
1390.25	0.5'	X		X		slightly		N13E; 07SE	N26W; 40NE	N58W	35	
1391	1'		X	X		X		N04E; 19SE	N26E; 31SE	S36E	15	
1647	1'	X		X		X		N08W; 11NE	N48W; 26NE	N20E	18	
1738	1.5'	X		X		X		N04E; 13SE	N53W; 23NE	N04E	19	
1744.75	0.5'	X		X		X		N16W; 06NE	N42W; 36NE	N44E	30	

COEUR D'ALENE DISTRICT REVETT STUDY

Cross-strata Paleocurrent Data

Section Name: West Fork Placer Creek												
Dates: 15 July through 18 July 1984												
Footage	Thickness	Set		Cross-strata		Base		Strike and Dip		Rotated		Notes
		Tabular	Lenticular	Planar	Trough	Tangential	Angular	Lower Surface	Cross-strata	Azimuth	Dip	
6	3.5'	X		X		X		N84E; 55NW	N68W; 65NE	N69E	26	
251	3'	X		X		X		N72W; 54NE	N54W; 70NE	N65E	22	
390	5'	X		X		X		N72W; 61NE	N80W; 68NE	N27W	11	
451	2'	X		X		X		N66W; 60NE	N78W; 74NE	N17W	18	
454	3'	X		X		X		N68W; 54NE	N79W; 76NE	N03W	24	
487	4'	X		X		X		N60W; 51NE	N74W; 68NE	N07W	20	
492	1.5'	X		X		X		N54W; 58NE	N56W; 72NE	N28E	14	
495.5	1'	X		X		X		N56W; 54NE	N51W; 60NE	N61E	6	
500	1'	X		X		X		N63W; 54NE	N55W; 74NE	N48E	21	
501	1.5'	X		X		X		N66W; 54NE	N36W; 60NE	S89E	29	
503.5	1'	X		X		X		N33W; 60NE	N64W; 78NE	N07W	35	
504.5	1'	X		X		X		N45W; 73NE	N83W; 63NE	N67W	35	
502.5	1'	X		X		X		N33W; 60NE	N42W; 73NE	N22E	16	
507	5'	X		X		X		N50W; 54NE	N68W; 65NE	N18W	20	
511	1.5'		X	X			X	N48W; 48NE	N61W; 59NE	N04W	14	
512	1.5'		X	X		X		N18W; 61NE	N61W; 59NE	N32W	36	
515	5'	X		X			X	N36W; 36NE	N57W; 56NE	N09E	25	
537.5	1'	X		X			X	N64W; 39NE	N59W; 61NE	N48E	13	
542	3.5'	X		X		X		N51W; 59NE	N73W; 74NE	N17W	25	
562	2.5'	X		X		X		N49W; 41NE	N35W; 57NE	N81E	19	
565	1.5'	X		X		X		N52W; 53NE	N48W; 74NE	N46E	30	
567.5	1'		X	X		X		N72W; 52NE	N51W; 53NE	S69E	16	
568.5	1'	X		X		X		N69W; 57NE	N67W; 59NE	N64E	4	
574	2.5'	X		X		X		N83W; 54NE	N87W; 64NE	N07E	10	
660	2.5'	X		X		X		N84W; 50NE	N51W; 57NE	S87E	27	
776	5'	X		X		X		N88W; 28NE	N62W; 53NE	N46E	30	
793	2.5'	X		X		X		N68W; 29NE	N85W; 43NE	N20W	18	
849	2'	X		X		X		N64W; 23NE	N78E; 32NW	N53W	19	
856	1.5'		X	X		X		N83W; 25NE	N58W; 34NE	N70E	16	
857	1'		X	X		X		N62W; 46NE	N33W; 60NE	S83E	27	
936	1.5'	X		X		X		N28E; 28NW	N46E; 46NW	N22W	22	
1066	2.5'	X		X		X		N15E; 34NW	N56E; 38NW	N23E	24	
1069	3'	X		X		X		N31E; 33NW	N70E; 39NW	N31E	23	
1143	5'	X		X			X	N68E; 32NW	N71E; 36NW	N04E	4	