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Benthic Macroinvertebrate Data

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Appendix N

Benthic Macroinvertebrate Metals Data for Red Devil Creek Used In Baseline Ecological Risk Assessment

This appendix includes a summary of the metals data for composite benthic-macroinvertebrate samples collected from Red Devil Creek by BLM in 2010 and 2011.

Table N-1 Red Devil Creek Benthic Macroinvertebrate Sample Composition.

Dataset	Client Sample ID	Order	Family	Genus	Number of Individuals	Wet Wt. (grams)	Functional Feeding Guild
June 2010	RED DEVIL 1/Macro	Ephemeroptera	Baetidae	Baetis	406	1.2	Collector
June 2010	RED DEVIL 2/Macro	Ephemeroptera	Baetidae	Baetis	270	1.2	Collector
June 2010	RED DEVIL 3/Macro	Ephemeroptera	Baetidae	Baetis	425	1.25	Collector
Aug 2010	2-RD-1 R. Devil CK-macro	Ephemeroptera	Heptageniidae	Cinygmula	125	1.00	Scraper
Aug 2010	2-RD-2 R. Devil CK-macro	Ephemeroptera	Heptageniidae	Cinygmula	176	1.03	Scraper
Aug 2010	2-RD-3 R. Devil CK-macro	Ephemeroptera	Heptageniidae	Cinygmula	149	1.10	Scraper
RDC June 2011	RDMACR01-1	Ephemeroptera	Baetidae	Baetis	390	1.12	Collector
RDC June 2011	RDMACR01-2	Plecoptera	Nemouridae	Zapada	106	0.55	Facultative shredder
RDC June 2011	RDMACR01-3	Ephemeroptera	Baetidae	Baetis	400	1.13	Collector
RDC Sept 2011	RDMACRO2-1	Plecoptera	Nemouridae	Zapada	937	4.28	Facultative shredder

Table N-2 Benthic Macroinvertebrate Metals Data from Red Devil Creek Used in Baseline Ecological Risk Assessment.

Dataset	Lab ID	Client Sample ID	Sb (mg/kg wet)		As (mg/kg wet)		Ba (mg/kg wet)		Be (mg/kg wet)		Cd (mg/kg wet)		Cr (mg/kg wet)		Cu (mg/kg wet)		Fe (mg/kg wet)	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
June 2010	263	RED DEVIL 1/Macro	20.389		81.238		4.843		0.025	U	0.116		0.441		6.564		761.3	J-
June 2010	264	RED DEVIL 2/Macro	18.953		98.798		5.907		0.025	U	0.082		0.327		10.384		781.1	J-
June 2010	265	RED DEVIL 3/Macro	21.437		126.444		6.612		0.025	U	0.097		0.368		12.405		974	J-
RDC June 2011	1110262-10	RDMACR01-1	na		235		8.82		0.066	U	0.084		0.52		7.55		1670	
RDC June 2011	1110262-11	RDMACR01-2	na		29.1		2.08		0.076	U	0.003	U	0.06	U	7.9		305	
RDC June 2011	1110262-12	RDMACR01-3	na		144		7.7		0.064	U	0.085		0.5		6.93		1190	
RDC Sept 2011	1110264-17	RDMACRO2-1	na		277		14.6		0.065	U	0.025		0.67		8.75		2570	

Dataset	Lab ID	Client Sample ID	Pb (mg/kg wet)		Mn (mg/kg wet)		Hg (mg/kg wet)		Ni (mg/kg wet)		Se (mg/kg wet)		V (mg/kg wet)		Zn (mg/kg wet)	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
June 2010	263	RED DEVIL 1/Macro	0.146		27.841		2.01		0.557		1.002		0.397		22.551	J-
June 2010	264	RED DEVIL 2/Macro	0.131		41.995		2.38		1.257		3.386		0.433		40.575	J-
June 2010	265	RED DEVIL 3/Macro	0.154		50.779		1.6		1.409		4.046		0.472		44.92	J-
RDC June 2011	1110262-10	RDMACR01-1	0.169		51.1		0.372		1.25		2.58		0.626		48.6	
RDC June 2011	1110262-11	RDMACR01-2	0.005	U	9		0.217		0.538		1.33		0.05	U	36.2	
RDC June 2011	1110262-12	RDMACR01-3	0.178		37.3		0.375		0.997		1.92		0.566		44.6	
RDC Sept 2011	1110264-17	RDMACRO2-1	0.333		164		2.41		2.96		0.12	U	1.09		27.6	

Dataset	Lab ID	Client Sample ID	Methyl Hg (mg/kg wet)	
			Result	Q
June 2010	1007-189-41	RED DEVIL 1/Macro	0.0238	
June 2010	1007-189-42	RED DEVIL 2/Macro	0.0594	
June 2010	1007-189-43	RED DEVIL 3/Macro	0.0504	
Aug 2010	1009071-10	2-RD-1 R. Devil CK-macro	0.131	
Aug 2010	1009071-11	2-RD-2 R. Devil CK-macro	0.0706	
Aug 2010	1009071-12	2-RD-3 R. Devil CK-macro	0.0587	
RDC June 2011	1110262-10	RDMACR01-1	0.0324	
RDC June 2011	1110262-11	RDMACR01-2	0.0826	
RDC June 2011	1110262-12	RDMACR01-3	0.0271	
RDC Sept 2011	1110264-17	RDMACRO2-1	0.0304	

Key:

- J = estimated value
- na = not analyzed
- Q = Qualifier
- RDC = Red Devil Creek
- U = not detected

Box Plots for Methylmercury in Benthos

