M Slimy Sculpin Metals Data for Reference Creeks Used to Develop Background Benthos-to-Sculpin Trophic Transfer Factors

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Appendix M

Slimy Sculpin Metals Data for Reference Creeks Used to Develop Background Benthos-to-Sculpin Trophic Transfer Factors

This appendix presents the slimy sculpin (*Cottus cognatus*) data for six reference creeks (California, Downey, Fuller, Ice, No Name, and Vreeland Creeks) in the middle Kuskokwim River region (see Tables M-1 and M-2). The data were collected by the United States Department of Interior Bureau of Land Management in 2010 and 2011. A figure showing the locations of the reference creeks is included in Appendix F. The exposure point concentrations developed from these data (see Table G-3) were used in the BERA Supplement to develop background benthos-to-sculpin trophic transfer factors (see Appendix N).

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Table M-1. Slimy Sculpin Metals Data (June, August, and October 2010) for Reference Creeks in the Middle Kuskokwim River Region. Alaska.

Sample Date (Day-Month-Year)	Lab ID	Client Sample ID	Arsenic		Antimony		Mercury		Barium		Beryllium		Cadmium		Chromium		Copper		Lead	
			(ug/ wet g)	QA Qual.	(ug/wet g)	QA Qual.	(ug/wet g)	QA Qual.	(ug/ wet g)	QA Qual.	(ug/wet g)	QA Qual.	(ug/wet g)	QA Qual.	(ug/wet g)	QA Qual.	(ug/wet g)	QA Qual.	(ug/wet g)	QA Qual.
No Name Creek																				
18-Aug-10	563	2-NN-13-SC	0.243		0.055		0.03648		4.336	J+	0.025	UJ	0.044		0.115		0.622		0.03	
18-Aug-10	564	2-NN-14-SC	0.141		0.025	U	0.0464		5.78	J+	0.025	UJ	0.041		0.106		0.792		0.03	
18-Aug-10	565	2-NN-15-SC	0.215		0.025	U	0.05918		4.02	J+	0.025	UJ	0.1		0.112		0.944		0.038	
18-Aug-10	566	2-NN-16-SC	0.138		0.025	U	0.03042		3.674	J+	0.025	UJ	0.074		0.103		0.710		0.03	
18-Aug-10	567	2-NN-17-SC	0.093		0.025	U	0.03028		2.174	J+	0.025	UJ	0.05		0.025	U	0.521		0.025	U
18-Aug-10	568	2-NN-18-SC	0.168		0.025	U	0.03675		4.685	J+	0.025	UJ	0.055		0.092		0.850		0.032	
18-Aug-10	569	2-NN-19-SC	0.298		0.025	U	0.03772		6.298	J+	0.025	UJ	0.107		0.275		0.941		0.089	
18-Aug-10	570	2-NN-20-SC	0.141		0.025	U	0.02917		3.36	J+	0.025	UJ	0.05		0.082		0.614		0.028	
18-Aug-10	571	2-NN-21-SC	0.189		0.025	U	0.05131		2.674	J+	0.025	UJ	0.042		0.057		0.606		0.025	U
18-Aug-10	572	2-NN-22-SC	0.189		0.027		0.02886		4.026	J+	0.025	UJ	0.071		0.131		0.819		0.038	
18-Aug-10	573	2-NN-23-SC	0.216		0.025	U	0.02492		3.389		0.025	UJ	0.047	J	0.144		0.685		0.047	J
18-Aug-10	574	2-NN-24-SC	0.155		0.025	U	0.02488		4.195		0.025	UJ	0.061	J	0.143		0.588		0.035	J
15-Jun-10	185	NONA 1,2,3/Slimey Sculpin	0.171	J	0.038	J	0.04	J	3.574	J	0.025	U	0.082	J	0.163	J	0.941		0.04	J
15-Jun-10	185	NONA 1,2,3/Slimey Sculpin	0.18		0.025	U	0.13		3.714				0.077		0.156				0.044	
15-Jun-10	192	NONA 10/Slimey Sculpin	0.154		0.025	U	0.03		2.642		0.025	U	0.059		0.039	J-	0.824		0.025	UJ
15-Jun-10	193	NONA 11/Slimey Sculpin	0.132		0.025	U	0.04		2.937		0.025	U	0.098		0.071	J-	1.024		0.025	UJ
15-Jun-10	194	NONA 12/Slimey Sculpin	0.142		0.025	U	0.04		2.716		0.025	U	0.043		0.07	J-	0.665		0.025	UJ
15-Jun-10	186	NONA 4/Slimey Sculpin	0.116		0.025	U	0.03		2.146		0.025	U	0.036		0.048	J-	0.597		0.025	UJ
15-Jun-10	187	NONA 5/Slimey Sculpin	0.169		0.025	U	0.04		2.92		0.025	U	0.049		0.096	J-	0.647		0.025	UJ
15-Jun-10	188	NONA 6/Slimey Sculpin	0.121		0.025	U	0.04		3.044		0.025	U	0.054		0.12	J-	1.091		0.028	J-
15-Jun-10	189	NONA 7/Slimey Sculpin	0.159		0.025	U	0.04		2.98		0.025	U	0.036		0.06	J-	0.565		0.025	UJ
15-Jun-10	190	NONA 8/Slimey Sculpin	0.179		0.025	U	0.02		3.278		0.025	U	0.064		0.106	J-	1.546		0.036	J-
15-Jun-10	191	NONA 9/Slimey Sculpin	0.165		0.043		0.04		2.845		0.025	U	0.056		0.079	J-	0.897		0.028	J-
Downey Creek																				
05-Oct-10	1154	2-DOW-SS-1	0.085		0.025	U	0.04246	J-	3.21	J+	0.025	UJ	0.038		0.025	U	0.596		0.025	U
05-Oct-10	1162	2-DOW-SS-10	0.129		0.025	U	0.03507	J-	3.121	J+	0.025	UJ	0.025	U	0.061		0.682		0.025	U
25-Oct-10	1163	2-DOW-SS-11	0.114		0.025	U	0.1441	J-	4.068	J+	0.025	UJ	0.031		0.036		0.611		0.025	U
25-Oct-10	1164	2-DOW-SS-12	0.115		0.025	U	0.07433	J-	3.699	J+	0.025	UJ	0.025	U	0.057		0.647		0.025	U
05-Oct-10	1155	2-DOW-SS-3	0.13		0.025	U	0.05876	J-	3.615	J+	0.025	UJ	0.066		0.038		0.645		0.025	U
05-Oct-10	1156	2-DOW-SS-4	0.138		0.025	U	0.03414	J-	2.514	J+	0.025	UJ	0.026		0.082		0.626		0.025	U
05-Oct-10	1157	2-DOW-SS-5	0.121		0.025	U	0.03279	J-	2.696	J+	0.025	UJ	0.049		0.029		0.578		0.025	U
05-Oct-10	1158	2-DOW-SS-6	0.067		0.025	U	0.066	J-	2.428	J+	0.025	UJ	0.025	U	0.031		0.534		0.025	U
05-Oct-10	1159	2-DOW-SS-7	0.14		0.025	U	0.0399	J-	5.573	J+	0.025	UJ	0.033		0.111		0.703		0.032	
05-Oct-10	1160	2-DOW-SS-8	0.124		0.025	U	0.04851	J-	2.62	J+	0.025	UJ	0.035		0.025	U	0.534		0.025	U
05-Oct-10	1161	2-DOW-SS-9	0.143		0.025	U	0.03239	J-	2.777	J+	0.025	UJ	0.041		0.039		0.573		0.025	U
15-Jun-10	198	DOW 1/Slimey Sculpin	0.166		0.025	U	0.03		3.779		0.025	U	0.07		0.609	J-	0.764		0.025	UJ
15-Jun-10	204	DOW 10/Slimey Sculpin	0.236		0.025	U	0.03		2.69		0.025	U	0.025	U	0.093	J-	3.443		0.030	J-
15-Jun-10	205	DOW 11/Slimey Sculpin	0.131		0.025	U	0.07		3.283		0.025	U	0.047		0.065	J-	1.12	J-	0.025	UJ
15-Jun-10	206	DOW 12/Slimey Sculpin	0.186		0.025	U	0.05		2.936		0.025	U	0.078		0.192	J-	1.258	J-	0.033	J-
15-Jun-10	199	DOW 2/Slimey Sculpin	0.101		0.025	U	0.05		3.52		0.025	U	0.042		0.469	J-	0.764		0.025	UJ
15-Jun-10	200	DOW 3/Slimey Sculpin	0.112		0.025	U	0.03		2.259		0.025	U	0.061		0.025	UJ	0.561		0.025	UJ
15-Jun-10	201	DOW 4/Slimey Sculpin	0.117		0.025	U	0.02		2.282		0.025	U	0.048		0.087	J-	0.71		0.025	UJ
15-Jun-10	202	DOW 5,6,7,9/Slimey Sculpin	0.114		0.025	U	0.05		2.775		0.025	U	0.052		0.136	J-	2.076		0.031	J-
15-Jun-10	202	DOW 5,6,7,9/Slimey Sculpin	0.117		0.052		0.05		3.306		0.025	U	0.055		0.134		0.804	J-	0.029	
15-Jun-10	202	DOW 5,6,7,9/Slimey Sculpin									0.025	U					2.109			
15-Jun-10	202	DOW 5,6,7,9/Slimey Sculpin									0.025	U					0.761			
15-Jun-10	203	DOW 8/Slimey Sculpin	0.15		0.025	U	0.03		4.088		0.025	U	0.081		0.106	J-	1.072	J-	0.025	UJ

Table M-1. Slimy Sculpin Metals Data (June, August, and October 2010) for Reference Creeks in the Middle Kuskokwim River Region. Alaska.

Sample Date (Day-Month-Year)	Lab ID	Client Sample ID	Arsenic		Antimony		Mercury		Barium		Beryllium		Cadmium		Chromium		Copper		Lead	
			(ug/ wet g)	QA Qual.	(ug/wet g)	QA Qual.	(ug/wet g)	QA Qual.	(ug/ wet g)	QA Qual.	(ug/wet g)	QA Qual.	(ug/wet g)	QA Qual.	(ug/wet g)	QA Qual.	(ug/wet g)	QA Qual.	(ug/wet g)	QA Qual.
Ice Creek																				
18-Aug-10	504	2-ICE-13-SC	0.104		0.025	U	0.039	J-	3.364		0.025	U	0.045		0.035		0.594		0.025	UJ
18-Aug-10	505	2-ICE-14-SC	0.157		0.025	U	0.040	J-	5.969		0.025	U	0.079		0.177		0.775		0.036	J
18-Aug-10	506	2-ICE-15-SC	0.203		0.025	U	0.023	J-	4.498		0.025	U	0.058		0.271		0.934		0.055	J
18-Aug-10	507	2-ICE-16-SC	0.088		0.025	U	0.048		2.749		0.025	UJ	0.035	J	0.055		0.683		0.023	J
18-Aug-10	508	2-ICE-17-SC	0.126		0.025	U	0.024	J-	3.523		0.025	U	0.068		0.078		0.655		0.025	UJ
18-Aug-10	509	2-ICE-18-SC	0.164		0.025	U	0.027	J-	4.891		0.025	U	0.074		0.154		0.567		0.036	J
18-Aug-10	510	2-ICE-19-SC	0.107		0.025	U	0.025	J-	3.179		0.025	U	0.042		0.121		0.746		0.028	J
18-Aug-10	511	2-ICE-20-SC	0.138		0.025	U	0.030	J-	3.242		0.025	U	0.038		1.518		0.733		0.027	J
18-Aug-10	512	2-ICE-21-SC	0.151		0.025	U	0.025	J-	2.756		0.025	U	0.048		0.046		0.742		0.025	UJ
18-Aug-10	513	2-ICE-22-SC	0.122		0.025	U	0.031	J+	3.024	J+	0.025	U	0.059		0.075		0.689		0.025	UJ
18-Aug-10	514	2-ICE-23-SC	0.157		0.027		0.026	J+	4.546	J+	0.025	U	0.067		0.164		0.765		0.029	J
17-Aug-10	515	2-ICE-24-SC	0.171		0.025	U	0.026	J+	5.35	J+	0.025	U	0.034		0.279		0.693		0.052	J
15-Jun-10	218	ICE 1/Slimey Sculpin	0.117		0.025	U	0.020		2.717		0.025	U	0.050		0.058	J-	0.868	J-	0.025	UJ
15-Jun-10	227	ICE 10/Slimey Sculpin	0.111	J	0.039		0.030		2.463		0.025	U	0.030		0.035		0.574		0.025	UJ
15-Jun-10	228	ICE 11/Slimey Sculpin	0.149	J	0.025	U	0.030		3.284		0.025	U	0.045		0.067		1.232	J	0.025	UJ
15-Jun-10	243	ICE 19/Slimey Sculpin	0.092	J	0.043		0.020		2.346		0.025	U	0.036		0.025	U	0.528		0.031	J-
15-Jun-10	219	ICE 2/Slimey Sculpin	0.122		0.025	U	0.030		3.323		0.025	U	0.071		0.155	J-	2.261		0.034	J-
15-Jun-10	220	ICE 3/Slimey Sculpin	0.106		0.025	U	0.030		2.953		0.025	U	0.053		0.065	J-	0.944	J-	0.046	J-
15-Jun-10	221	ICE 4/Slimey Sculpin	0.153		0.025	U	0.040		3.274		0.025	U	0.074		0.092	J-	0.935	J-	0.030	J-
15-Jun-10	222	ICE 5/Slimey Sculpin	0.188		0.025	U	0.040		4.705		0.025	U	0.087		0.169	J-	1.701	J-	0.046	J-
15-Jun-10	223	ICE 6/Slimey Sculpin	0.129		0.025	U	0.030		2.816		0.025	U	0.061		0.089	J-	0.856	J-	0.035	J-
15-Jun-10	224	ICE 7/Slimey Sculpin	0.138		0.025	U	0.030		2.813		0.025	U	0.065		0.096	J-	0.794	J-	0.027	J-
15-Jun-10	225	ICE 8/Slimey Sculpin	0.113		0.025	U	0.100		5.305		0.025	U	0.053		0.070	J-	0.805	J-	0.025	UJ
15-Jun-10	226	ICE 9/Slimey Sculpin	0.145	J	0.025	U	0.030		3.95		0.025	U	0.058		0.034		1.227	J	0.025	UJ
Vreeland Creek																				
04-Oct-10	1137	2-VR-SS-1	0.107	J	0.025	U	0.029	J-	4.292	J+	0.025	UJ	0.025	U	0.114		0.589		0.025	U
04-Oct-10	1146	2-VR-SS-10	0.099	J	0.025	U	0.019	J-	2.699	J+	0.025	UJ	0.025	U	0.025	U	0.679		0.025	U
04-Oct-10	1147	2-VR-SS-11	0.174	J	0.034		0.029	J-	4.157	J+	0.025	UJ	0.041		0.033		0.539		0.025	U
04-Oct-10	1148	2-VR-SS-12	0.104	J	0.025	U	0.062	J-	5.164	J+	0.025	UJ	0.031		0.025	U	0.579		0.025	U
04-Oct-10	1138	2-VR-SS-2	0.102	J	0.025	U	0.034	J-	6.902	J+	0.025	UJ	0.025	U	0.069		0.651		0.025	U
04-Oct-10	1139	2-VR-SS-3	0.167	J	0.025	U	0.021	J-	5.814	J+	0.025	UJ	0.041		0.109		0.665		0.025	U
04-Oct-10	1140	2-VR-SS-4	0.113	J	0.025	U	0.018	J-	4.010	J+	0.025	UJ	0.031		0.053		0.604		0.025	U
04-Oct-10	1141	2-VR-SS-5	0.164	J	0.025	U	0.032	J-	5.068	J+	0.025	UJ	0.046		0.036		0.765		0.025	U
04-Oct-10	1142	2-VR-SS-6	0.109	J	0.025	U	0.043	J-	6.936	J+	0.025	UJ	0.025	U	0.031		0.570		0.025	U
04-Oct-10	1143	2-VR-SS-7	0.208	J	0.025	U	0.020	J-	4.036	J+	0.025	UJ	0.041		0.046		0.677		0.025	U
04-Oct-10	1144	2-VR-SS-8	0.081	J	0.025	U	0.068	J-	5.416	J+	0.025	UJ	0.025	U	0.025	U	0.613		0.025	U
04-Oct-10	1145	2-VR-SS-9	0.144	J	0.025	U	0.020	J-	4.523	J+	0.025	UJ	0.057		0.074		0.737		0.025	U
15-Jun-10	304	VR 1,2/Slimey Sculpin	0.079		0.025	U	0.100		4.705		0.025	U	0.025	U	0.113	J-	1.611		0.025	UJ
15-Jun-10	304	VR 1,2/Slimey Sculpin	0.081		0.025	U	0.100		4.696		0.025	U	0.026		0.123		0.781	J	0.025	U
15-Jun-10	304	VR 1,2/Slimey Sculpin									0.025	U					1.496			
15-Jun-10	304	VR 1,2/Slimey Sculpin									0.025	U					0.520			
15-Jun-10	312	VR 10/Slimey Sculpin	0.111		0.025	U	0.040		3.899		0.025	U	0.059		0.101		1.149	J-	0.026	
15-Jun-10	311	VR 11/Slimey Sculpin	0.092		0.025	U	0.070		5.282		0.025	U	0.025	U	0.025		0.457	J-	0.025	U
15-Jun-10	302	VR 12/Slimey Sculpin	0.100		0.025	U	0.030		3.936		0.025	U	0.031		0.265	J-	0.665	J	0.025	UJ
15-Jun-10	303	VR 3/Slimey Sculpin	0.074		0.025	U	0.110		7.264		0.025	U	0.025	U	0.122	J-	0.429	J	0.025	UJ
15-Jun-10	310	VR 4/Slimey Sculpin	0.100		0.025	U	0.120		5.642		0.025	U	0.025	U	0.080		0.834	J-	0.025	U
15-Jun-10	307	VR 5/Slimey Sculpin	0.151		0.025	U	0.120		5.474		0.025	U	0.063		0.101	J-	0.458	J	0.025	UJ
15-Jun-10	305	VR 6/Slimey Sculpin	0.081		0.077		0.150		4.907		0.025	U	0.025	U	0.067	J-	0.569	J	0.025	UJ
15-Jun-10	306	VR 7/Slimey Sculpin	0.127		0.025	U	0.050		3.486		0.025	U	0.025	U	0.045	J-	0.418	J	0.025	UJ
15-Jun-10	308	VR 8/Slimey Sculpin	0.123		0.025	U	0.050		2.365		0.025	U	0.032		0.028		0.679	J-	0.025	U
15-Jun-10	309	VR 9/Slimey Sculpin	0.092		0.025	U	0.050		2.400		0.025	U	0.059		0.031		0.560	J-	0.025	U

Table M-1. Slimy Sculpin Metals Data (June, August, and October 2010) for Reference Creeks in the Middle Kuskokwim River Region. Alaska.

Sample Date (Day-Month-Year)	Lab ID	Client Sample ID	Arsenic	QA Qual.	Antimony	QA Qual.	Mercury	QA Qual.	Barium	QA Qual.	Beryllium	QA Qual.	Cadmium	QA Qual.	Chromium	QA Qual.	Copper	QA Qual.	Lead	QA Qual.
			(ug/ wet g)		(ug/wet g)		(ug/wet g)		(ug/ wet g)		(ug/wet g)		(ug/wet g)		(ug/wet g)		(ug/wet g)		(ug/wet g)	
California Creek																				
05-Oct-10	1099	2-CC-SS-1	0.137		0.025	U	0.024		3.038		0.025	UJ	0.030		0.167		0.649		0.029	J
05-Oct-10	1108	2-CC-SS-10	0.183		0.025	U	0.029		3.005		0.025	UJ	0.041		0.057		0.738		0.027	J
05-Oct-10	1109	2-CC-SS-11	0.172		0.025	U	0.016		2.701		0.025	UJ	0.025	U	0.089		0.629		0.031	J
05-Oct-10	1110	2-CC-SS-12	0.208		0.025	U	0.047		3.966		0.025	UJ	0.118		0.097		0.777		0.040	J
05-Oct-10	1100	2-CC-SS-2	0.170		0.025	U	0.018		4.025		0.025	UJ	0.047		0.073		0.624		0.025	UJ
05-Oct-10	1101	2-CC-SS-3	0.171		0.025	U	0.021		2.339		0.025	UJ	0.025	U	0.074		0.616		0.025	UJ
05-Oct-10	1102	2-CC-SS-4	0.129		0.025	U	0.060		3.345		0.025	UJ	0.028		0.128		0.647		0.025	UJ
05-Oct-10	1103	2-CC-SS-5	0.136		0.025	U	0.051		4.816		0.025	UJ	0.031		0.091		0.705		0.025	UJ
05-Oct-10	1104	2-CC-SS-6	0.225		0.025	U	0.059		6.136		0.025	UJ	0.047		0.221		0.729		0.043	J
05-Oct-10	1105	2-CC-SS-7	0.137		0.025	U	0.078		3.292		0.025	UJ	0.030		0.088		0.533		0.025	UJ
05-Oct-10	1106	2-CC-SS-8	0.180		0.025	U	0.031		2.875		0.025	UJ	0.040		0.094		0.692		0.030	J
05-Oct-10	1107	2-CC-SS-9	0.158		0.025	U	0.039		3.726		0.025	UJ	0.051		0.047		0.606		0.025	UJ
15-Jun-10	352	CA 10/Slimey Sculpin	1.583		0.418		0.070		3.205		0.025	U	0.095		0.151	J-	1.834	J+	0.038	J-
15-Jun-10	353	CA 11/Slimey Sculpin	0.134		0.025	U	0.050		2.545		0.025	U	0.025	U	0.070	J-	0.952	J-	0.025	UJ
15-Jun-10	351	CA 12/Slimey Sculpin	0.198		0.025	U	0.030		2.840		0.025	U	0.088		0.099	J-	1.512	J+	0.032	J-
15-Jun-10	361	CA 2,1/Slimey Sculpin	0.138		0.025	U	0.090		3.148		0.025	U	0.035		0.135		2.214		0.025	UJ
15-Jun-10	361	CA 2,1/Slimey Sculpin	0.120		0.025	U	0.090		3.779		0.025	U	0.034		0.120		0.674		0.025	U
15-Jun-10	361	CA 2,1/Slimey Sculpin									0.025	U					1.988			
15-Jun-10	361	CA 2,1/Slimey Sculpin									0.025	U					0.658			
15-Jun-10	360	CA 3/Slimey Sculpin	0.119		0.025	U	0.040		2.534		0.025	U	0.051		0.127		0.609		0.025	UJ
15-Jun-10	358	CA 4/Slimey Sculpin	0.119		0.025	U	0.070		2.296		0.025	U	0.029		0.079	J-	1.560		0.025	UJ
15-Jun-10	358	CA 4/Slimey Sculpin	0.139		0.025	U	0.080		1.871		0.025	U	0.025	U	0.118		0.493	J-	0.025	U
15-Jun-10	358	CA 4/Slimey Sculpin									0.025	U					1.899			
15-Jun-10	358	CA 4/Slimey Sculpin									0.025	U					0.497			
15-Jun-10	359	CA 5/Slimey Sculpin	0.145		0.025	U	0.060		2.774		0.025	U	0.030		0.096		3.125		0.040	J-
15-Jun-10	357	CA 6/Slimey Sculpin	0.180		0.025	U	0.060		2.598		0.025	U	0.040		0.092	J-	0.856	J-	0.031	J-
15-Jun-10	356	CA 7/Slimey Sculpin	0.190		0.025	U	0.040		2.041		0.025	U	0.040		0.094	J-	0.624	J-	0.025	UJ
15-Jun-10	355	CA 8/Slimey Sculpin	0.101		0.025	U	0.060		2.483		0.025	U	0.043		0.036	J-	0.541	J-	0.025	UJ
15-Jun-10	354	CA 9/Slimey Sculpin	0.155		0.025	U	0.060		2.100		0.025	U	0.048		0.069	J-	0.559	J-	0.030	J-
Fuller Creek																				
06-Oct-10	1084	2-FuL-SS-1	0.131	J-	0.025	U	0.02421	J	3.206		0.025	U	0.042		0.036		0.636		0.025	U
06-Oct-10	1093	2-FuL-SS-10	0.088		0.025	U	0.0968		8.137		0.025	UJ	0.025	U	0.044		0.470		0.025	UJ
06-Oct-10	1094	2-FuL-SS-11	0.139		0.025	U	0.04577		7.286		0.025	UJ	0.025	U	0.245		0.694		0.025	UJ
06-Oct-10	1095	2-FuL-SS-12	0.129		0.025	U	0.02399		6.973		0.025	UJ	0.025	U	0.028		0.467		0.025	UJ
06-Oct-10	1085	2-FuL-SS-2	0.128	J-	0.025	U	0.0382	J	3.863		0.025	U	0.033		0.066		0.646		0.025	U
06-Oct-10	1086	2-FuL-SS-3	0.163	J-	0.025	U	0.02	J	3.829		0.025	U	0.042		0.062		0.684		0.025	U
06-Oct-10	1087	2-FuL-SS-4	0.116	J-	0.025	U	0.05546	J	7.063		0.025	U	0.028		0.025	U	0.690		0.025	U
06-Oct-10	1088	2-FuL-SS-5	0.130	J-	0.025	U	0.05679	J	4.869		0.025	U	0.025	U	0.143		0.610		0.054	
06-Oct-10	1089	2-FuL-SS-6	0.216	J-	0.025	U	0.01522	J	6.371		0.025	U	0.034		0.175		0.530		0.030	
06-Oct-10	1090	2-FuL-SS-7	0.104	J-	0.025	U	0.02519	J	5.060		0.025	U	0.025	U	0.025	U	0.528		0.025	U
06-Oct-10	1091	2-FuL-SS-8	0.118	J-	0.025	U	0.02063	J	5.289		0.025	U	0.036		0.026		0.558		0.025	U
06-Oct-10	1092	2-FuL-SS-9	0.143		0.025	U	0.08107		7.795		0.025	UJ	0.025	U	0.033		0.630		0.025	UJ
15-Jun-10	266	FUL 1,2,3/Slimey Sculpin	0.113		0.025	U	0.06		5.125		0.025	U	0.029		0.098		0.760	J-	0.025	U
15-Jun-10	266	FUL 1,2,3/Slimey Sculpin	0.119		0.025	U	0.05		5.614		0.025	U	0.029		0.086		0.702		0.025	U
15-Jun-10	273	FUL 10/Slimey Sculpin	0.125		0.025	U	0.04		5.860		0.025	U	0.026		0.057		0.666	J-	0.025	U
15-Jun-10	274	FUL 11/Slimey Sculpin	0.096		0.025	U	0.04		5.616		0.025	U	0.043		0.070		1.562		0.025	U
15-Jun-10	275	FUL 12/Slimey Sculpin	0.176		0.025	U	0.05		5.690		0.025	U	0.042		0.103		1.720		0.027	
15-Jun-10	267	FUL 4/Slimey Sculpin	0.100		0.025	U	0.07		8.110		0.025	U	0.025	U	0.059		0.714	J-	0.025	U
15-Jun-10	268	FUL 5/Slimey Sculpin	0.140		0.025	U	0.07		10.050		0.025	U	0.030		0.094		1.358	J-	0.027	
15-Jun-10	269	FUL 6/Slimey Sculpin	0.093		0.025	U	0.03		3.539		0.025	U	0.032		0.059		0.702	J-	0.025	U
15-Jun-10	270	FUL 7/Slimey Sculpin	0.129		0.025	U	0.06		11.787		0.025	U	0.025	U	0.093		0.779	J-	0.027	
15-Jun-10	271	FUL 8/Slimey Sculpin	0.111		0.025	U	0.08		4.091		0.025	U	0.074		0.052		0.698	J-	0.025	U
15-Jun-10	272	FUL 9/Slimey Sculpin	0.151		0.025	U	0.03		3.321		0.025	U	0.087		0.530		1.020	J-	0.030	

Table M-1. Slimy Sculpin Metals Data (June, August, and October 2010) for Reference Creeks in the Middle Kuskokwim River Region. Alaska.

Sample Date (Day-Month-Year)	Lab ID	Client Sample ID	Manganese (ug/wet g)	QA Qual.	Nickel (ug/ wet g)	QA Qual.	Selenium (ug/wet g)	QA Qual.	Vanadium ug/ wet g)	QA Qual.	Zinc (ug/wet g)	QA Qual.
No Name Creek												
18-Aug-10	563	2-NN-13-SC	8.232		0.123	J	3.447	J+	0.293		20.876	
18-Aug-10	564	2-NN-14-SC	7.345		0.112	J	2.188	J+	0.291		36.058	
18-Aug-10	565	2-NN-15-SC	11.628		0.149	J	1.837	J+	0.343		24.578	
18-Aug-10	566	2-NN-16-SC	6.899		0.098	J	1.923	J+	0.258		23.212	
18-Aug-10	567	2-NN-17-SC	3.974		0.042	J	3.346	J+	0.113		19.173	
18-Aug-10	568	2-NN-18-SC	8.356		0.112	J	1.578	J+	0.229		22.827	
18-Aug-10	569	2-NN-19-SC	11.048		0.278	J	1.603	J+	0.592		26.597	
18-Aug-10	570	2-NN-20-SC	8.659		0.1	J	2.583	J+	0.208		24.731	
18-Aug-10	571	2-NN-21-SC	5.931		0.077	J	2.494	J+	0.228		25.503	
18-Aug-10	572	2-NN-22-SC	9.611		0.154	J	2.415	J+	0.328		25.422	
18-Aug-10	573	2-NN-23-SC	7.764		0.146		2.03	J+	0.296		19.601	
18-Aug-10	574	2-NN-24-SC	6.684		0.473		2.193	J+	0.348		27.446	
15-Jun-10	185	NONA 1,2,3/Slimey Sculpin	8.728	J	0.123	J	2.174	J	0.32	J	26.433	J
15-Jun-10	185	NONA 1,2,3/Slimey Sculpin	9.38		0.133		2.346		0.318		26.726	
15-Jun-10	192	NONA 10/Slimey Sculpin	10.577		0.046		1.58		0.156		27.255	J-
15-Jun-10	193	NONA 11/Slimey Sculpin	8.485		0.062		1.749		0.15		23.159	J-
15-Jun-10	194	NONA 12/Slimey Sculpin	8.181		0.054		1.36		0.171		21.629	J-
15-Jun-10	186	NONA 4/Slimey Sculpin	5.078		0.051		1.413		0.109		24.92	J-
15-Jun-10	187	NONA 5/Slimey Sculpin	15.274		0.067		1.558		0.144		24.796	J-
15-Jun-10	188	NONA 6/Slimey Sculpin	8.816		0.113		2.107		0.228		21.261	J-
15-Jun-10	189	NONA 7/Slimey Sculpin	14.489		0.048		1.191		0.139		23.917	J-
15-Jun-10	190	NONA 8/Slimey Sculpin	7.419		0.11		2.008		0.296		21.223	J-
15-Jun-10	191	NONA 9/Slimey Sculpin	6.984		0.091		2.257		0.2		19.669	J-
Downey Creek												
05-Oct-10	1154	2-DOW-SS-1	11.409		0.025	UJ	1.675	J+	0.141		22.047	
05-Oct-10	1162	2-DOW-SS-10	8.765		0.039	J-	1.057	J+	0.162		20.094	
25-Oct-10	1163	2-DOW-SS-11	10.65		0.025	UJ	1.922	J+	0.255		26.047	
25-Oct-10	1164	2-DOW-SS-12	9.017		0.055	J-	2.554	J+	0.2		26.186	
05-Oct-10	1155	2-DOW-SS-3	15.725		0.028	J-	1.609	J+	0.195		25.17	
05-Oct-10	1156	2-DOW-SS-4	7.888		0.072	J-	1.529	J+	0.22		20.34	
05-Oct-10	1157	2-DOW-SS-5	9.618		0.027	J-	1.825	J+	0.192		22.001	
05-Oct-10	1158	2-DOW-SS-6	6.134		0.025	UJ	1.874	J+	0.185		21.141	
05-Oct-10	1159	2-DOW-SS-7	20.155		0.137	J-	1.499	J+	0.266		19.861	
05-Oct-10	1160	2-DOW-SS-8	11.858		0.025	UJ	1.939	J+	0.139		23.166	
05-Oct-10	1161	2-DOW-SS-9	10.563		0.025	UJ	1.884	J+	0.231		21.659	
15-Jun-10	198	DOW 1/Slimey Sculpin	16.889		0.061		1.518		0.295		25.096	J-
15-Jun-10	204	DOW 10/Slimey Sculpin	12.072		0.071		0.902		0.104		21.017	
15-Jun-10	205	DOW 11/Slimey Sculpin	9.523		0.038		1.048		0.238		20.632	
15-Jun-10	206	DOW 12/Slimey Sculpin	16.092		0.103		1.229		0.184		24.047	
15-Jun-10	199	DOW 2/Slimey Sculpin	9.393		0.065		0.868		0.205		24.694	J-
15-Jun-10	200	DOW 3/Slimey Sculpin	12.304		0.043		0.999		0.168		19.088	J-
15-Jun-10	201	DOW 4/Slimey Sculpin	12.106		0.045		0.876		0.129		20.627	J-
15-Jun-10	202	DOW 5,6,7,9/Slimey Sculpin	10.054		0.070		1.103		0.124		22.526	
15-Jun-10	202	DOW 5,6,7,9/Slimey Sculpin	11.83		0.073		1.156		0.139		22.997	
15-Jun-10	202	DOW 5,6,7,9/Slimey Sculpin										
15-Jun-10	202	DOW 5,6,7,9/Slimey Sculpin										
15-Jun-10	203	DOW 8/Slimey Sculpin	14.884		0.053		1.205		0.216		25.732	

Table M-1. Slimy Sculpin Metals Data (June, August, and October 2010) for Reference Creeks in the Middle Kuskokwim River Region. Alaska.

Sample Date (Day-Month-Year)	Lab ID	Client Sample ID	Manganese		Nickel		Selenium		Vanadium		Zinc	
			(ug/wet g)	QA Qual.	(ug/ wet g)	QA Qual.	(ug/wet g)	QA Qual.	ug/ wet g)	QA Qual.	(ug/wet g)	QA Qual.
Ice Creek												
18-Aug-10	504	2-ICE-13-SC	8.404		0.045		1.804		0.286		33.721	
18-Aug-10	505	2-ICE-14-SC	9.268		0.129		1.905		0.425		24.996	
18-Aug-10	506	2-ICE-15-SC	8.972		0.166		2.190		0.628		21.173	
18-Aug-10	507	2-ICE-16-SC	4.892		0.067		2.122	J+	0.198		21.854	
18-Aug-10	508	2-ICE-17-SC	8.656		0.077		1.617		0.290		21.107	
18-Aug-10	509	2-ICE-18-SC	11.198		0.157		1.786		0.478		23.631	
18-Aug-10	510	2-ICE-19-SC	4.585		0.111		1.967		0.276		21.562	
18-Aug-10	511	2-ICE-20-SC	6.148		0.114		1.775		0.261		19.639	
18-Aug-10	512	2-ICE-21-SC	8.559		0.077		1.674		0.207		23.741	
18-Aug-10	513	2-ICE-22-SC	9.376		0.082		1.772		0.265		21.058	
18-Aug-10	514	2-ICE-23-SC	10.621		0.771		1.902		0.353		26.896	
17-Aug-10	515	2-ICE-24-SC	7.650		0.178		1.889		0.613		19.789	
15-Jun-10	218	ICE 1/Slimey Sculpin	5.216		0.047		1.109		0.128		18.891	
15-Jun-10	227	ICE 10/Slimey Sculpin	5.996		0.030		1.372		0.073		23.844	J-
15-Jun-10	228	ICE 11/Slimey Sculpin	17.701		0.057		1.105		0.219		22.420	J-
15-Jun-10	243	ICE 19/Slimey Sculpin	8.288		0.031		1.087		0.077		15.840	J-
15-Jun-10	219	ICE 2/Slimey Sculpin	13.627		0.095		1.254		0.237		20.365	
15-Jun-10	220	ICE 3/Slimey Sculpin	6.855		0.057		1.338		0.200		18.050	
15-Jun-10	221	ICE 4/Slimey Sculpin	9.008		0.067		0.976		0.220		21.186	
15-Jun-10	222	ICE 5/Slimey Sculpin	12.829		0.151		1.752		0.424		22.031	
15-Jun-10	223	ICE 6/Slimey Sculpin	9.912		0.076		1.663		0.164		19.333	
15-Jun-10	224	ICE 7/Slimey Sculpin	11.212		0.083		0.992		0.254		19.629	
15-Jun-10	225	ICE 8/Slimey Sculpin	12.434		0.048		1.076		0.153		22.776	
15-Jun-10	226	ICE 9/Slimey Sculpin	12.499		0.046		1.397		0.142		23.994	J-
Vreeland Creek												
04-Oct-10	1137	2-VR-SS-1	9.915		0.066	J	1.614	J+	0.165	J	20.681	
04-Oct-10	1146	2-VR-SS-10	5.31		0.025	UJ	1.63	J+	0.095	J	18.169	
04-Oct-10	1147	2-VR-SS-11	15.575		0.049	J	1.156	J+	0.179	J	26.329	
04-Oct-10	1148	2-VR-SS-12	8.821		0.058	J	1.553	J+	0.139	J	26.821	
04-Oct-10	1138	2-VR-SS-2	18.132		0.061	J	1.335	J+	0.214	J	22.773	
04-Oct-10	1139	2-VR-SS-3	15.164		0.100	J	1.655	J+	0.402	J	23.083	
04-Oct-10	1140	2-VR-SS-4	6.113		0.050	J	1.619	J+	0.142	J	23.852	
04-Oct-10	1141	2-VR-SS-5	14.466		0.061	J	1.47	J+	0.232	J	29.397	
04-Oct-10	1142	2-VR-SS-6	11.392		0.069	J	1.828	J+	0.144	J	22.472	
04-Oct-10	1143	2-VR-SS-7	7.572		0.056	J	2.059	J+	0.17	J	22.111	
04-Oct-10	1144	2-VR-SS-8	9.136		0.039	J	1.678	J+	0.115	J	19.160	
04-Oct-10	1145	2-VR-SS-9	10.594		0.087	J	1.809	J+	0.277	J	21.685	
15-Jun-10	304	VR 1,2/Slimey Sculpin	13.398		0.065		1.432		0.131		22.860	
15-Jun-10	304	VR 1,2/Slimey Sculpin	15.434		0.067		1.41		0.142		22.220	
15-Jun-10	304	VR 1,2/Slimey Sculpin										
15-Jun-10	304	VR 1,2/Slimey Sculpin										
15-Jun-10	312	VR 10/Slimey Sculpin	12.349		0.079		0.961		0.251		24.275	
15-Jun-10	311	VR 11/Slimey Sculpin	15.525		0.026		1.039		0.107		23.012	
15-Jun-10	302	VR 12/Slimey Sculpin	13.066		0.042		0.979		0.227		22.156	
15-Jun-10	303	VR 3/Slimey Sculpin	10.671		0.027		0.978		0.132		27.274	
15-Jun-10	310	VR 4/Slimey Sculpin	6.563		0.070		1.603		0.183		24.373	
15-Jun-10	307	VR 5/Slimey Sculpin	16.145		0.083		2.462		0.282		30.850	
15-Jun-10	305	VR 6/Slimey Sculpin	6.746		0.048		1.075		0.177		15.419	
15-Jun-10	306	VR 7/Slimey Sculpin	14.829		0.041		1.162		0.083		18.251	
15-Jun-10	308	VR 8/Slimey Sculpin	13.605		0.027		0.844		0.118		22.176	
15-Jun-10	309	VR 9/Slimey Sculpin	6.838		0.028		1.184		0.119		18.088	

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Sample Date (Day-Month-Year)	Lab ID	Client Sample ID	Manganese		Nickel		Selenium		Vanadium		Zinc	
			(ug/wet g)	QA Qual.	(ug/ wet g)	QA Qual.	(ug/wet g)	QA Qual.	ug/ wet g)	QA Qual.	(ug/wet g)	QA Qual.
California Creek												
05-Oct-10	1099	2-CC-SS-1	7.431		0.104	J-	1.499	J+	0.335		20.916	
05-Oct-10	1108	2-CC-SS-10	8.609		0.084	J-	1.765	J+	0.175		20.948	
05-Oct-10	1109	2-CC-SS-11	6.623		0.098	J-	1.446	J+	0.205		17.976	
05-Oct-10	1110	2-CC-SS-12	14.487		0.125	J-	2.195	J+	0.340		30.981	
05-Oct-10	1100	2-CC-SS-2	6.511		0.078	J-	1.557	J+	0.239		19.201	
05-Oct-10	1101	2-CC-SS-3	5.070		0.073	J-	1.632	J+	0.207		19.496	
05-Oct-10	1102	2-CC-SS-4	13.067		0.070	J-	1.350	J+	0.213		27.732	
05-Oct-10	1103	2-CC-SS-5	12.158		0.070	J-	1.324	J+	0.261		29.352	
05-Oct-10	1104	2-CC-SS-6	19.398		0.130	J-	1.515	J+	0.470		29.627	
05-Oct-10	1105	2-CC-SS-7	8.243		0.036	J-	1.338	J+	0.204		30.001	
05-Oct-10	1106	2-CC-SS-8	8.821		0.099	J-	2.298	J+	0.248		25.110	
05-Oct-10	1107	2-CC-SS-9	11.144		0.070	J-	1.539	J+	0.202		23.025	
15-Jun-10	352	CA 10/Slimey Sculpin	11.019		0.110		1.149		0.319		30.959	
15-Jun-10	353	CA 11/Slimey Sculpin	12.828		0.075		1.366		0.237		21.782	
15-Jun-10	351	CA 12/Slimey Sculpin	10.230		0.090		1.431		0.282		23.464	
15-Jun-10	361	CA 2,1/Slimey Sculpin	13.035		0.062		1.193		0.170		24.613	
15-Jun-10	361	CA 2,1/Slimey Sculpin	16.069		0.060		1.219		0.187		25.521	
15-Jun-10	361	CA 2,1/Slimey Sculpin									32.488	
15-Jun-10	361	CA 2,1/Slimey Sculpin									29.146	
15-Jun-10	360	CA 3/Slimey Sculpin	7.908		0.062		1.167		0.179		32.488	
15-Jun-10	358	CA 4/Slimey Sculpin	9.078		0.060		1.394		0.196		29.146	
15-Jun-10	358	CA 4/Slimey Sculpin	7.797		0.102		1.377		0.163		31.313	
15-Jun-10	358	CA 4/Slimey Sculpin										
15-Jun-10	358	CA 4/Slimey Sculpin										
15-Jun-10	359	CA 5/Slimey Sculpin	10.972		0.093		1.256		0.251		27.706	
15-Jun-10	357	CA 6/Slimey Sculpin	10.471		0.095		1.340		0.245		26.496	
15-Jun-10	356	CA 7/Slimey Sculpin	9.378		0.078		1.649		0.194		25.812	
15-Jun-10	355	CA 8/Slimey Sculpin	16.283		0.047		1.437		0.262		20.968	
15-Jun-10	354	CA 9/Slimey Sculpin	9.446		0.085		1.434		0.225		18.911	
Fuller Creek												
06-Oct-10	1084	2-FuL-SS-1	9.060		0.051		2.142	J+	0.203		19.730	
06-Oct-10	1093	2-FuL-SS-10	10.000		0.046	J-	1.405	J+	0.222		34.706	
06-Oct-10	1094	2-FuL-SS-11	8.962		0.08	J-	1.234	J+	0.305		19.677	
06-Oct-10	1095	2-FuL-SS-12	7.744		0.03	J-	1.335	J+	0.188		20.627	
06-Oct-10	1085	2-FuL-SS-2	8.350		0.069		1.275	J+	0.312		23.884	
06-Oct-10	1086	2-FuL-SS-3	8.593		0.085		1.322	J+	0.245		20.521	
06-Oct-10	1087	2-FuL-SS-4	9.672		0.037		1.211	J+	0.190		26.902	
06-Oct-10	1088	2-FuL-SS-5	9.965		0.05		1.501	J+	0.139		21.381	
06-Oct-10	1089	2-FuL-SS-6	13.351		0.205		1.085	J+	0.413		16.021	
06-Oct-10	1090	2-FuL-SS-7	11.091		0.051		1.481	J+	0.185		21.615	
06-Oct-10	1091	2-FuL-SS-8	9.922		0.044		1.436	J+	0.263		22.522	
06-Oct-10	1092	2-FuL-SS-9	9.383		0.057	J-	1.478	J+	0.260		37.458	
15-Jun-10	266	FUL 1,2,3/Slimey Sculpin	9.660		0.05		0.853		0.183		23.077	J-
15-Jun-10	266	FUL 1,2,3/Slimey Sculpin	10.704		0.06		0.912		0.202		24.964	
15-Jun-10	273	FUL 10/Slimey Sculpin	9.026		0.045		0.932		0.162		23.866	J-
15-Jun-10	274	FUL 11/Slimey Sculpin	10.675		0.031		0.808		0.154		21.754	J-
15-Jun-10	275	FUL 12/Slimey Sculpin	11.579		0.086		1.123		0.243		23.033	J-
15-Jun-10	267	FUL 4/Slimey Sculpin	11.318		0.037		1.015		0.192		25.158	J-
15-Jun-10	268	FUL 5/Slimey Sculpin	15.719		0.081		0.972		0.334		24.511	J-
15-Jun-10	269	FUL 6/Slimey Sculpin	8.971		0.047		0.991		0.162		21.446	J-
15-Jun-10	270	FUL 7/Slimey Sculpin	22.099		0.095		1.307		0.270		26.633	J-
15-Jun-10	271	FUL 8/Slimey Sculpin	7.278		0.043		0.928		0.213		20.297	J-
15-Jun-10	272	FUL 9/Slimey Sculpin	13.977		0.079		1.089		0.299		18.813	J-

Table M-2. Slimy Sculpin Methylmercury Data for Reference Creeks in Middle Kuskokwim River Region. Alaska.

Date Collected	Lab ID	Reference Stream	Client Sample ID	MeHg (ng/wet g)	QA Qual.
Jul-12	1007189-58	California Creek	CA 5/Slimey Sculpin California CK - Whole Fish	65.2	J+
Jul-10	1007189-27RE1	Downey Creek	DOW 5,6,7,9/Slimey Sculpin Downey CK (Composite)	39.8	
Jul-10	1007189-44	Fuller Creek	FUL 1,2,3/Slimey Sculpin Fuller CK (Composite)	74.6	
Jul-10	1007189-32	Ice Creek	Ice 1/Slimey Sculpin Ice CK - Whole Fish	33.4	
Jul-10	1007189-33	Ice Creek	Ice 2/Slimey Sculpin Ice CK - Whole Fish	24.6	
Jul-10	1007189-34	Ice Creek	Ice 3/Slimey Sculpin Ice CK - Whole Fish	28.7	
Aug-10	1009071-02RE1	Ice Creek	2-ICE-19-SC ICE CK-whole	38.2	
Jul-10	1007189-25	No Name Creek	NONA 1,2,3/Slimey Sculpin NoName CK#2 Composite	53.8	
Aug-10	1009071-07	No Name Creek	2-NN-18-SC NONAME CK #2-whole	34.1	
Jul-10	1007189-48	Vreeland Creek	VR 1,2/Slimey Sculpin Vreeland CK (Composite)	120	

Table M-3. ProUCL Output Summary for Slimy Sculpin Metals Data from Reference Creeks Used in Red Devil Mine BERA Supplement.

Analyte	Units	Number of Observations	Number of Detections	Mean of Detected	SD of Detected	Maximum Detected	Distribution (detects only)	UCL Statistic	95% UCL	EPC	EPC Source
Arsenic [a]	mg/kg wet	140	139	0.139	0.0382	0.298	Gamma	95% Student's-t UCL	0.145	0.145	95% UCL
Antimony	mg/kg wet	140	11	0.0775	0.114	0.418	Not Discernable	95% KM (Chebyshev) UCL	0.0421	0.0421	95% UCL
Mercury	mg/kg wet	140	140	0.0463	0.0262	0.15	Not Discernable	95% Student's-t UCL	0.05	0.05	95% UCL
Barium	mg/kg wet	140	140	4.034	1.636	11.79	Not Discernable	95% Student's-t UCL	4.263	4.263	95% UCL
Beryllium	mg/kg wet	147	0	--	--	--	--	--	--	0.0125	1/2 MDL
Cadmium	mg/kg wet	140	113	0.0508	0.0194	0.118	Approx. Lognormal	KM Student's t	0.046	0.046	95% UCL
Chromium	mg/kg wet	140	130	0.115	0.151	1.518	Approx. Lognormal	KM H-UCL	0.115	0.115	95% UCL
Copper	mg/kg wet	147	147	0.855	0.477	3.443	Not Discernable	95% Student's-t UCL	0.92	0.92	95% UCL
Lead	mg/kg wet	140	53	0.035	0.0106	0.089	Not Discernable	95% KM (t) UCL	0.0288	0.0288	95% UCL
Manganese	mg/kg wet	140	140	10.44	3.394	22.1	Gamma	95% Approximate Gamma UCL	10.92	10.92	95% UCL
Nickel	mg/kg wet	140	134	0.0845	0.079	0.771	Approx. Lognormal	KM H-UCL	0.0865	0.0865	95% UCL
Selenium	mg/kg wet	140	140	1.532	0.472	3.447	Gamma	95% Approximate Gamma UCL	1.597	1.597	95% UCL
Vanadium	mg/kg wet	140	140	0.228	0.0968	0.628	Gamma	95% Approximate Gamma UCL	0.241	0.241	95% UCL
Zinc	mg/kg wet	140	140	23.42	3.912	37.46	Approx. Gamma	95% Approximate Gamma UCL	23.96	23.96	95% UCL
Methylmercury	µg/kg wet	10	10	51.24	29.07	120	Approx. Normal	95% Student's-t UCL	68.09	68.09	95% UCL

Key:

-- (dash) = Insufficient detected values to calculate statistic
BERA = Baseline ecological risk assessment
CLT = Central limit theorem
EPC = Exposure point concentration
KM = Kaplan-Meier
MDL = Method detection limit
SD = Standard deviation
UCL = Upper confidence level

Note:

a = One outlier (1.54 mg/kg from California Creek) removed to calculate UCL.