

APPENDIX F – NUTRIENT AND METALS WATER QUALITY DATA FOR IMPAIRED STREAMS IN THE KOOTENAI-FISHER TMDL PLANNING AREA

This appendix contains water quality data for nutrients and metals in the Kootenai Fisher TMDL Project Area. **Table F-1** contains streamflow, water column nutrient data, and available chlorophyll-*a*/ash free dry mass results for streams of concern in the Kootenai - Fisher TMDL Project Area. **Table F-2** contains surface water flow and water column metals concentration data for stream sampling locations in the Kootenai - Fisher TMDL Project Area. **Table F-3** contains stream channel sediment metals concentration data. **Table F-4** contains background metals water quality data used for load allocations to background sources for streams in the Kootenai - Fisher TMDL Project Area.

Table F-1. Nutrient Water Quality Data for the Kootenai-Fisher TMDL Project Area

Org ID	Station (Site) Name	Site ID	Activity Date	Latitude	Longitude	Flow (cfs)	Chlor- <i>a</i> (corrected) (uncorrected)	Total N per Sulfate Method (mg/L)	NO ₂ + NO ₃ as N (mg/L)	Total P (mg/L)	Ash Free Dry Weight	COMMENTS or UNKNOWN
Troy Mine Data	Lake Creek	LC01	4/15/2003			307			0.06			
Troy Mine Data	Lake Creek	LC01	8/25/2003			70			0.12			
Troy Mine Data	Lake Creek	LC01	4/6/2004			196			0.04			
Troy Mine Data	Lake Creek	LC01	8/30/2004			172			0.03			
Troy Mine Data	Lake Creek	LC01	1/11/2005						0.05			
Troy Mine Data	Lake Creek	LC01	4/4/2005						0.06	0.012		
Troy Mine Data	Lake Creek	LC01	8/19/2005			75			0.059	0.008		
Troy Mine Data	Lake Creek	LC01	10/4/2005			79			0.04	0.011		
Troy Mine Data	Lake Creek	LC01	4/10/2006						0.04	0.012		
Troy Mine Data	Lake Creek	LC01	7/17/2006			132.8			0.05	0.014		
Troy Mine Data	Lake Creek	LC01	10/3/2006						0.06	0.01		
Troy Mine Data	Lake Creek	LC01	5/3/2007						0.04	0.009		
Troy Mine Data	Lake Creek	LC01	8/1/2007			136.6			0.06	0.007		
Troy Mine Data	Lake Creek	LC01	10/2/2007			129			0.06	0.013		
Troy Mine Data	Lake Creek	LC01	3/18/2008						0.07	< 0.005		
Troy Mine Data	Lake Creek	LC01	8/20/2008			139.7						
Troy Mine Data	Lake Creek	LC01	10/10/2008						0.06	0.013		
Troy Mine Data	Lake Creek	LC01	11/4/2008			134.3			0.08	0.009		
Troy Mine Data	Lake Creek	LC01	4/22/2009			130.8			0.06	0.012		
Troy Mine Data	Lake Creek	LC01	7/30/2009			141.3			0.07	0.006		
Troy Mine Data	Lake Creek	LC01	11/4/2009			135.3			0.07	0.01		
Troy Mine Data	Lake Creek	LC01	3/30/2010			138.6			0.08	0.013		
Troy Mine Data	Lake Creek	LC01	8/16/2010			176.5			0.07	< 0.005		
Troy Mine Data	Lake Creek	LC01	10/11/2010			155.6			0.07	0.006		
Troy Mine Data	Lake Creek	LC01	4/20/2011			145.6			0.07	0.01		
Troy Mine Data	Lake Creek	LC01	8/17/2011			147.2			0.04	0.007		
Troy Mine Data	Lake Creek	LC01	10/18/2011			148.2			0.1	0.006		
Troy Mine Data	Lake Creek	LC02	4/15/2003						< 0.05			
Troy Mine Data	Lake Creek	LC02	8/25/2003			84			< 0.1			
Troy Mine Data	Lake Creek	LC02	4/6/2004			170			0.04			
Troy Mine Data	Lake Creek	LC02	8/30/2004			129			0.03			
Troy Mine Data	Lake Creek	LC02	4/4/2005						0.03	0.012		
Troy Mine Data	Lake Creek	LC02	8/19/2005			90.09			0.09	0.008		
Troy Mine Data	Lake Creek	LC02	10/4/2005			76			0.04	0.01		
Troy Mine Data	Lake Creek	LC02	4/10/2006						0.06	0.012		
Troy Mine Data	Lake Creek	LC02	7/17/2006			144.2			0.03	0.015		
Troy Mine Data	Lake Creek	LC02	10/3/2006						0.05	0.009		
Troy Mine Data	Lake Creek	LC02	5/3/2007						0.05	0.012		
Troy Mine Data	Lake Creek	LC02	8/1/2007			149.2			0.06	0.005		
Troy Mine Data	Lake Creek	LC02	10/2/2007			139.8			0.06	0.012		
Troy Mine Data	Lake Creek	LC02	8/20/2008			152.3						
Troy Mine Data	Lake Creek	LC02	10/10/2008						0.06	0.016		
Troy Mine Data	Lake Creek	LC02	11/4/2008			143.8			0.08	0.009		
Troy Mine Data	Lake Creek	LC02	4/22/2009			137.7			0.06	0.019		
Troy Mine Data	Lake Creek	LC02	7/30/2009			154.5			0.06	0.006		
Troy Mine Data	Lake Creek	LC02	11/4/2009			144.4			0.07	0.009		

Table F-1. Nutrient Water Quality Data for the Kootenai-Fisher TMDL Project Area

Org ID	Station (Site) Name	Site ID	Activity Date	Latitude	Longitude	Flow (cfs)	Chlor- <i>a</i> (corrected) (uncorrected)	Total N per Sulfate Method (mg/L)	NO ₂ + NO ₃ as N (mg/L)	Total P (mg/L)	Ash Free Dry Weight	COMMENTS or UNKNOWN
Troy Mine Data	Lake Creek	LC02	3/29/2010			142.4			0.06	0.013		
Troy Mine Data	Lake Creek	LC02	8/16/2010			174.1			0.07	< 0.005		
Troy Mine Data	Lake Creek	LC02	10/11/2010			157.3			0.07	0.007		
Troy Mine Data	Lake Creek	LC02	4/20/2011			161.3			0.06	0.011		
Troy Mine Data	Lake Creek	LC02	8/17/2011						0.05	0.006		
Troy Mine Data	Lake Creek	LC02	10/18/2011			164.3			0.1	< 0.0025		
Troy Mine Data	Lake Creek	LC04	4/15/2003						0.09			
Troy Mine Data	Lake Creek	LC04	5/15/2003						0.09			
Troy Mine Data	Lake Creek	LC04	8/25/2003			94			< 0.1			
Troy Mine Data	Lake Creek	LC04	4/6/2004			410			0.07			
Troy Mine Data	Lake Creek	LC04	8/30/2004			342			0.06			
Troy Mine Data	Lake Creek	LC04	1/11/2005						0.08			
Troy Mine Data	Lake Creek	LC04	4/4/2005						0.06	0.013		
Troy Mine Data	Lake Creek	LC04	8/19/2005			81.4			0.14	0.008		
Troy Mine Data	Lake Creek	LC04	10/4/2005			115			0.09	0.01		
Troy Mine Data	Lake Creek	LC04	4/10/2006						0.06	0.014		
Troy Mine Data	Lake Creek	LC04	7/17/2006			158.7			0.07	0.015		
Troy Mine Data	Lake Creek	LC04	10/3/2006						0.11	0.011		
Troy Mine Data	Lake Creek	LC04	5/3/2007						0.06	0.017		
Troy Mine Data	Lake Creek	LC04	8/1/2007			161.3			0.1	0.006		
Troy Mine Data	Lake Creek	LC04	10/2/2007			149.7			0.12	0.01		
Troy Mine Data	Lake Creek	LC04	3/18/2008						0.13	0.007		
Troy Mine Data	Lake Creek	LC04	8/20/2008			164.6						
Troy Mine Data	Lake Creek	LC04	10/10/2008						0.07	0.014		
Troy Mine Data	Lake Creek	LC04	11/4/2008			154.9			0.14	0.01		
Troy Mine Data	Lake Creek	LC04	4/22/2009			147.4			0.08	0.02		
Troy Mine Data	Lake Creek	LC04	7/30/2009			167.7			0.11	0.006		
Troy Mine Data	Lake Creek	LC04	11/4/2009			155.6			0.17	0.01		
Troy Mine Data	Lake Creek	LC04	3/29/2010			160.3			0.14	0.105		
Troy Mine Data	Lake Creek	LC04	8/16/2010						0.12	0.006		
Troy Mine Data	Lake Creek	LC04	10/11/2010			159.7			0.15	< 0.005		
Troy Mine Data	Lake Creek	LC04	4/20/2011			178.2			0.11	0.009		
Troy Mine Data	Lake Creek	LC04	8/17/2011						0.11	0.008		
Troy Mine Data	Lake Creek	LC04	10/18/2011			163.8			0.23	0.007		
R8MONTWQ	Lake Creek above Falls Creek	LKC-278	8/16/2011 14:30	48.39893	-115.846	285.67						
R8MONTWQ	Lake Creek above Falls Creek	LKC-278	8/16/2011 14:30	48.39893	-115.846			0.1	0.06	< 0.005		
R8MONTWQ	Lake Creek above Falls Creek	LKC-278	8/16/2011 14:30	48.39893	-115.846		21.3 mg/m2				18.5 g/m2	
R8MONTWQ	Lake Creek above Falls Creek	LKC-278	8/16/2011 14:30	48.39893	-115.846		C 21.3 mg/m2					Weighted average of 11 templates.
MDEQ_WQ_WQX	Lake Creek above Hwy 2 crossing	K01LAKEC01	8/7/2012 9:15	48.4485	-115.879	312.56						
MDEQ_WQ_WQX	Lake Creek above Hwy 2 crossing	K01LAKEC01	8/7/2012 9:15	48.4485	-115.879			0.06	0.04	< 0.005		

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MDEQ_WQ_WQX	Lake Creek above Hwy 2 crossing	K01LAKEC01	8/7/2012 9:15	48.4485	-115.879		7.3 mg/m2				69.5 g/m2	Only Transect F. - 10 template samples composited at lab.
MDEQ_WQ_WQX	Lake Creek above Hwy 2 crossing	K01LAKEC01	9/18/2012 10:00	48.4485	-115.879	160.95						
MDEQ_WQ_WQX	Lake Creek above Hwy 2 crossing	K01LAKEC01	9/18/2012 10:00	48.4485	-115.879			0.12	0.08	< 0.005		
R8MONTWQ	Lake Creek at Chase Cutoff crossing	LKC-279	8/17/2011 8:45	48.38121	-115.859	260.73						
R8MONTWQ	Lake Creek at Chase Cutoff crossing	LKC-279	8/17/2011 8:45	48.38121	-115.859			0.12	0.09	< 0.005		
R8MONTWQ	Lake Creek at Chase Cutoff crossing	LKC-279	8/17/2011 8:45	48.38121	-115.859		38.9 mg/m2				37.3 g/m2	
R8MONTWQ	Lake Creek at Chase Cutoff crossing	LKC-279	8/17/2011 8:45	48.38121	-115.859		C 38.9 mg/m2					Weighted average of 11 templates.
R8MONTWQ	Lake Creek at Cotten residence	LKCA	8/17/2011 11:00	48.33305	-115.859	174.88						
R8MONTWQ	Lake Creek at Cotten residence	LKCA	8/17/2011 11:00	48.33305	-115.859			0.08	0.05	< 0.005		
R8MONTWQ	Lake Creek at Cotten residence	LKCA	8/17/2011 11:00	48.33305	-115.859		5.5 mg/m2				13.5 g/m2	
R8MONTWQ	Lake Creek at Cotten residence	LKCA	8/17/2011 11:00	48.33305	-115.859		C 5.5 mg/m2					Weighted average of 11 templates.
MDEQ_WQ_WQX	Lake Creek at Lake Creek Road crossing above Falls Creek	K01LAKEC07	8/7/2012 12:15	48.40037	-115.845	304.13						
MDEQ_WQ_WQX	Lake Creek at Lake Creek Road crossing above Falls Creek	K01LAKEC07	8/7/2012 12:15	48.40037	-115.845			0.07	0.04	< 0.005		
MDEQ_WQ_WQX	Lake Creek at Lake Creek Road crossing above Falls Creek	K01LAKEC07	9/17/2012 19:00	48.40037	-115.845	167.3						
MDEQ_WQ_WQX	Lake Creek at Lake Creek Road crossing above Falls Creek	K01LAKEC07	9/17/2012 19:00	48.40037	-115.845			0.1	0.06	< 0.005		
MDEQ_WQ_WQX	Lake Creek at private residence at end of Shining Mountain Trail	K01LAKEC06	8/7/2012 15:45	48.33307	-115.86	157.74						
MDEQ_WQ_WQX	Lake Creek at private residence at end of Shining Mountain Trail	K01LAKEC06	8/7/2012 15:45	48.33307	-115.86			0.1	0.02	< 0.005		
MDEQ_WQ_WQX	Lake Creek at private residence at end of Shining Mountain Trail	K01LAKEC06	9/17/2012 16:00	48.33307	-115.86	81.52						
MDEQ_WQ_WQX	Lake Creek at private residence at end of Shining Mountain Trail	K01LAKEC06	9/17/2012 16:00	48.33307	-115.86			0.08	0.03	< 0.005		

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MDEQ_WQ_WQX	Lake Creek at Troy Mine Road crossing	K01LAKEC05	8/7/2012 17:00	48.30422	-115.866	162.93						
MDEQ_WQ_WQX	Lake Creek at Troy Mine Road crossing	K01LAKEC05	8/7/2012 17:00	48.30422	-115.866			< 0.04	0.03	< 0.005		
MDEQ_WQ_WQX	Lake Creek at Troy Mine Road crossing	K01LAKEC05	9/17/2012 15:00	48.30422	-115.866	85.07						
MDEQ_WQ_WQX	Lake Creek at Troy Mine Road crossing	K01LAKEC05	9/17/2012 15:00	48.30422	-115.866			0.11	0.04	< 0.005		
R8MONTWQ	Lake Creek at Troy Mine Road crossing	LKC-280	8/17/2011 14:00	48.3042	-115.866	152.27						
R8MONTWQ	Lake Creek at Troy Mine Road crossing	LKC-280	8/17/2011 14:00	48.3042	-115.866			0.09	0.04	< 0.005		
R8MONTWQ	Lake Creek at Troy Mine Road crossing	LKC-280	8/17/2011 14:00	48.3042	-115.866		14 mg/m2				27.5 g/m2	
R8MONTWQ	Lake Creek at Troy Mine Road crossing	LKC-280	8/17/2011 14:00	48.3042	-115.866		C 14 mg/m2					Weighted average of 11 templates.
MDEQ_WQ_WQX	Lake Creek downstream of the Chase Cutoff Road Bridge	K01LAKEC02	8/9/2007 11:00	48.3811	-115.859			< 0.01	0.091	0.005		
MDEQ_WQ_WQX	Lake Creek downstream of the Chase Cutoff Road Bridge	K01LAKEC02	8/7/2012 13:30	48.3811	-115.859	275.41						
MDEQ_WQ_WQX	Lake Creek downstream of the Chase Cutoff Road Bridge	K01LAKEC02	8/7/2012 13:30	48.3811	-115.859			0.08	0.05	< 0.005		
MDEQ_WQ_WQX	Lake Creek downstream of the Chase Cutoff Road Bridge	K01LAKEC02	8/7/2012 13:30	48.3811	-115.859		11.5 mg/m2				52.4 g/m2	Only Transect F. - 10 template samples composited at lab.
MDEQ_WQ_WQX	Lake Creek downstream of the Chase Cutoff Road Bridge	K01LAKEC02	9/17/2012 17:00	48.3811	-115.859	143.77						
MDEQ_WQ_WQX	Lake Creek downstream of the Chase Cutoff Road Bridge	K01LAKEC02	9/17/2012 17:00	48.3811	-115.859			0.12	0.08	< 0.005		
R8MONTWQ	Lake Creek near mouth (Kootenai River)	LKC-276	8/16/2011 9:30	48.44694	-115.877	287.64						
R8MONTWQ	Lake Creek near mouth (Kootenai River)	LKC-276	8/16/2011 9:30	48.44694	-115.877			0.08	0.06	< 0.005		
R8MONTWQ	Lake Creek near mouth (Kootenai River)	LKC-276	8/16/2011 9:30	48.44694	-115.877		32.4 mg/m2				59.5 g/m2	
R8MONTWQ	Lake Creek near mouth (Kootenai River)	LKC-276	8/16/2011 9:30	48.44694	-115.877		C 32.4 mg/m2					Weighted average of 11 templates.
MDEQ_WQ_WQX	Raven Creek 40 yards d/s of Raven & East Raven Cr confluence	K02RAVNC01	8/3/2004	48.04844	-115.29	E 1						

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MDEQ_WQ_WQX	Raven Creek 40 yards d/s of Raven & East Raven Cr confluence	K02RAVNC01	8/3/2004 11:00	48.04844	-115.29				0.04	0.055		
MDEQ_WQ_WQX	Raven Creek 40 yards d/s of Raven & East Raven Cr confluence	K02RAVNC01	8/3/2004 11:00	48.04844	-115.29							C0587-CR - 6 rocks - Rainy day.
R8MONTWQ	Raven Creek at power line corridor crossing	RAVN-02	8/18/2011 18:30	48.05217	-115.293	0.73						
R8MONTWQ	Raven Creek at power line corridor crossing	RAVN-02	8/18/2011 18:30	48.05217	-115.293			< 0.05	0.03	0.017		
R8MONTWQ	Raven Creek at power line corridor crossing	RAVN-02	8/18/2011 18:30	48.05217	-115.293		E 20 mg/m2					Visual estimation; photos taken.
MDEQ_WQ_WQX	Raven Creek at upper road crossing	K02RAVNC05	7/10/2012 18:41	48.0603	-115.304	E 0						
R8MONTWQ	Raven Creek at upper road crossing	RAVN-01	8/18/2011 18:00	48.0605	-115.304	E 0						
R8MONTWQ	Raven Creek near mouth (Pleasant Valley Fisher R.)	RAVN-03	8/18/2011 19:30	48.04395	-115.285	0.93						
R8MONTWQ	Raven Creek near mouth (Pleasant Valley Fisher R.)	RAVN-03	8/18/2011 19:30	48.04395	-115.285			< 0.05	0.02	0.018		
R8MONTWQ	Raven Creek near mouth (Pleasant Valley Fisher R.)	RAVN-03	8/18/2011 19:30	48.04395	-115.285		E 20 mg/m2					Visual estimation; photos taken.
MDEQ_WQ_WQX	Raven Creek near mouth, downstream Hwy 2 crossing	K02RAVNC03	7/11/2012 10:10	48.0439	-115.287	1.27						
MDEQ_WQ_WQX	Raven Creek near mouth, downstream Hwy 2 crossing	K02RAVNC03	7/11/2012 10:10	48.0439	-115.287			0.05	0.06	0.018		
MDEQ_WQ_WQX	Raven Creek near mouth, downstream Hwy 2 crossing	K02RAVNC03	7/11/2012 10:10	48.0439	-115.287		7.7 mg/m2				4.27 g/m2	Total Site Length - 150m; Average Wetted Width - 1.5m; Transect Length - 15m. - 3 template samples composited at lab.
MDEQ_WQ_WQX	Raven Creek near mouth, downstream Hwy 2 crossing	K02RAVNC03	7/11/2012 10:10	48.0439	-115.287		6.8 mg/m2					Total Site Length - 150m; Average Wetted Width - 1.5m; Transect Length - 15m. - 8 core samples composited at lab.
MDEQ_WQ_WQX	Raven Creek near mouth, downstream Hwy 2 crossing	K02RAVNC03	8/9/2012 12:00	48.0439	-115.287	0.75						
MDEQ_WQ_WQX	Raven Creek near mouth, downstream Hwy 2 crossing	K02RAVNC03	8/9/2012 12:00	48.0439	-115.287			0.21	0.02	0.015		
MDEQ_WQ_WQX	Raven Creek near mouth, downstream Hwy 2 crossing	K02RAVNC03	8/9/2012 12:00	48.0439	-115.287		22.4 mg/m2				6.49 g/m2	Creek is low and clear. Sampled just above county road crossing culverts. - 10 template samples composited at lab.
MDEQ_WQ_WQX	Raven Creek near mouth, downstream Hwy 2 crossing	K02RAVNC03	8/9/2012 12:00	48.0439	-115.287		5.7 mg/m2					Creek is low and clear. Sampled just above county road crossing culverts. - 1 core sample collected.

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MDEQ_WQ_WQX	Raven Creek near mouth, downstream Hwy 2 crossing	K02RAVNC03	9/21/2012 11:30	48.0439	-115.287	0.51						
MDEQ_WQ_WQX	Raven Creek near mouth, downstream Hwy 2 crossing	K02RAVNC03	9/21/2012 11:30	48.0439	-115.287			0.11	0.01	0.019		
MDEQ_WQ_WQX	Raven Creek near power line corridor crossing	K02RAVNC04	7/10/2012 17:44	48.05262	-115.293	0.6						
MDEQ_WQ_WQX	Raven Creek near power line corridor crossing	K02RAVNC04	7/10/2012 17:44	48.05262	-115.293			0.09	0.07	0.017		
MDEQ_WQ_WQX	Raven Creek near power line corridor crossing	K02RAVNC04	8/9/2012 9:00	48.05262	-115.293	0.58						
MDEQ_WQ_WQX	Raven Creek near power line corridor crossing	K02RAVNC04	8/9/2012 9:00	48.05262	-115.293			0.11	0.03	0.018		
MDEQ_WQ_WQX	Raven Creek near power line corridor crossing	K02RAVNC04	8/9/2012 9:00	48.05262	-115.293		13.5 mg/m2				5.79 g/m2	Creek is low and clear. Sampled upstream of powerline road crossing. - 11 template samples composited at lab.
MDEQ_WQ_WQX	Raven Creek near power line corridor crossing	K02RAVNC04	9/21/2012 11:00	48.05262	-115.293	0.3						
MDEQ_WQ_WQX	Raven Creek near power line corridor crossing	K02RAVNC04	9/21/2012 11:00	48.05262	-115.293			0.12	0.02	0.02		
Troy Mine Data	Stanley Creek	SC02	4/15/2003			97			0.091			
Troy Mine Data	Stanley Creek	SC02	8/25/2003			74						
Troy Mine Data	Stanley Creek	SC02	4/5/2004			65.09			0.08			
Troy Mine Data	Stanley Creek	SC02	8/30/2004			80			0.09			
Troy Mine Data	Stanley Creek	SC02	4/4/2005						0.1	0.013		
Troy Mine Data	Stanley Creek	SC02	8/19/2005			51			0.09	0.009		
Troy Mine Data	Stanley Creek	SC02	10/5/2005			35			0.1	0.007		
Troy Mine Data	Stanley Creek	SC02	4/10/2006						0.08	0.008		
Troy Mine Data	Stanley Creek	SC02	7/17/2006			90			0.07	0.014		
Troy Mine Data	Stanley Creek	SC02	10/4/2006						0.09	0.011		
Troy Mine Data	Stanley Creek	SC02	5/4/2007						0.1	0.009		
Troy Mine Data	Stanley Creek	SC02	8/2/2007			105			0.09	0.006		
Troy Mine Data	Stanley Creek	SC02	10/3/2007			89			0.09	0.019		
Troy Mine Data	Stanley Creek	SC02	3/19/2008						0.13	0.009		
Troy Mine Data	Stanley Creek	SC02	8/20/2008			100						
Troy Mine Data	Stanley Creek	SC02	10/9/2008						0.11	0.009		
Troy Mine Data	Stanley Creek	SC02	11/5/2008			92.2			0.12	0.009		
Troy Mine Data	Stanley Creek	SC02	4/23/2009			91.4			0.12	0.008		
Troy Mine Data	Stanley Creek	SC02	7/31/2009			101.1			0.11	0.006		
Troy Mine Data	Stanley Creek	SC02	11/5/2009			94.3			0.12	0.008		
Troy Mine Data	Stanley Creek	SC02	3/31/2010			97.4			0.11	0.008		
Troy Mine Data	Stanley Creek	SC02	8/17/2010			110.3			0.12	< 0.005		
Troy Mine Data	Stanley Creek	SC02	10/13/2010			92.9			0.12	< 0.005		
Troy Mine Data	Stanley Creek	SC02	4/21/2011			102.9			0.1	0.008		
Troy Mine Data	Stanley Creek	SC02	8/18/2011			110.6			0.07	< 0.005		

Table F-1. Nutrient Water Quality Data for the Kootenai-Fisher TMDL Project Area

Org ID	Station (Site) Name	Site ID	Activity Date	Latitude	Longitude	Flow (cfs)	Chlor- <i>a</i> (corrected) (uncorrected)	Total N per Sulfate Method (mg/L)	NO ₂ + NO ₃ as N (mg/L)	Total P (mg/L)	Ash Free Dry Weight	COMMENTS or UNKNOWN
Troy Mine Data	Stanley Creek	SC02	10/19/2011			103.8			0.14	0.005		
Troy Mine Data	Stanley Creek	SC-15	4/15/2003						0.063			
Troy Mine Data	Stanley Creek	SC-15	8/25/2003						0.11			
Troy Mine Data	Stanley Creek	SC-15	8/30/2004						0.079			
Troy Mine Data	Stanley Creek	SC-15	4/4/2005						0.2	0.02		
Troy Mine Data	Stanley Creek	SC-15	8/19/2005						0.06	0.013		
Troy Mine Data	Stanley Creek	SC-15	10/7/2005						0.705	0.04		
Troy Mine Data	Stanley Creek	SC-15B	11/9/2005						0.47 H	H 0.01		
Troy Mine Data	Stanley Creek	SC-15B	8/12/2010			DRY						
Troy Mine Data	Stanley Creek	SC-17A	4/15/2003						0.099			
Troy Mine Data	Stanley Creek	SC-17A	4/4/2005						0.11	0.017		
Troy Mine Data	Stanley Creek	SC-17A	8/22/2005			Dry						
Troy Mine Data	Stanley Creek	SC-17A	5/1/2006						0.09	0.026		
Troy Mine Data	Stanley Creek	SC-17A	8/1/2007						0.08	0.005		
Troy Mine Data	Stanley Creek	SC-17A	6/16/2009						0.13	0.011		
Troy Mine Data	Stanley Creek	SC-17A	9/14/2010			DRY						
MDEQ_WQ_WQX	Stanley Creek about 1 mile upstream from mouth	K01STNLC04	7/11/2012 16:00	48.29017	-115.874			< 0.05	0.06	< 0.003		
MDEQ_WQ_WQX	Stanley Creek about 1 mile upstream from mouth	K01STNLC04	8/6/2012 16:45	48.29017	-115.874	122.06						
MDEQ_WQ_WQX	Stanley Creek about 1 mile upstream from mouth	K01STNLC04	8/6/2012 16:45	48.29017	-115.874			0.09	0.06	< 0.005		
MDEQ_WQ_WQX	Stanley Creek about 1 mile upstream from mouth	K01STNLC04	9/17/2012 13:00	48.29017	-115.874	69.67						
MDEQ_WQ_WQX	Stanley Creek about 1 mile upstream from mouth	K01STNLC04	9/17/2012 13:00	48.29017	-115.874			0.11	0.07	< 0.005		
R8MONTWQ	Stanley Creek below Fairway Creek	SC-02	8/15/2011 16:45	48.28109	-115.893	106.87						
R8MONTWQ	Stanley Creek below Fairway Creek	SC-02	8/15/2011 16:45	48.28109	-115.893			0.1	0.07	< 0.005		
MDEQ_WQ_WQX	Stanley Creek below Troy Mine	K01STNLC02	5/21/2012 11:15	48.25981	-115.896	20.9						
MDEQ_WQ_WQX	Stanley Creek below Troy Mine	K01STNLC02	8/6/2012 9:30	48.25981	-115.896	E 0						
MDEQ_WQ_WQX	Stanley Creek below Troy Mine	K01STNLC05	7/12/2012 9:40	48.26638	-115.893	0.32						
MDEQ_WQ_WQX	Stanley Creek below Troy Mine	K01STNLC05	7/12/2012 9:40	48.26638	-115.893			0.14	0.09	< 0.003		
R8MONTWQ	Stanley Creek below Troy Mine	SC-01	8/15/2011 18:00	48.2578	-115.892	E 0						
MDEQ_WQ_WQX	Stanley Creek downstream of Fairway Creek at Troy Mine Road	K01STNLC01	5/21/2012 15:00	48.28117	-115.893	133.66						
MDEQ_WQ_WQX	Stanley Creek downstream of Fairway Creek at Troy Mine Road	K01STNLC01	7/11/2012 16:50	48.28117	-115.893			0.08	0.09	< 0.003		

Table F-1. Nutrient Water Quality Data for the Kootenai-Fisher TMDL Project Area

Org ID	Station (Site) Name	Site ID	Activity Date	Latitude	Longitude	Flow (cfs)	Chlor- <i>a</i> (corrected) (uncorrected)	Total N per Sulfate Method (mg/L)	NO ₂ + NO ₃ as N (mg/L)	Total P (mg/L)	Ash Free Dry Weight	COMMENTS or UNKNOWN
MDEQ_WQ_WQX	Stanley Creek downstream of Fairway Creek at Troy Mine Road	K01STNLC01	8/6/2012 12:00	48.28117	-115.893	110.01						
MDEQ_WQ_WQX	Stanley Creek downstream of Fairway Creek at Troy Mine Road	K01STNLC01	8/6/2012 12:00	48.28117	-115.893			0.09	0.06	< 0.005		
MDEQ_WQ_WQX	Stanley Creek downstream of Fairway Creek at Troy Mine Road	K01STNLC01	9/17/2012 12:00	48.28117	-115.893	68.55						
MDEQ_WQ_WQX	Stanley Creek downstream of Fairway Creek at Troy Mine Road	K01STNLC01	9/17/2012 12:00	48.28117	-115.893			0.12	0.08	< 0.005		
MDEQ_WQ_WQX	Stanley Creek upstream of Fairway Creek at Troy Mine Road	K01STNLC03	5/21/2012 13:30	48.2724	-115.893	24.42						
MDEQ_WQ_WQX	Stanley Creek upstream of Fairway Creek at Troy Mine Road	K01STNLC03	8/6/2012 9:45	48.2724	-115.893	E 0						

Table F-2 Metals Surface Water Quality Data

Data Collection Entity	Site Location & Description	Site ID	Activity Date	Hardness	Flow (cfs)	pH	Al (ug/L)	As (ug/L)	Cd (ug/L)	Cu (ug/L)	Fe (ug/L)	Pb (ug/L)	Hg (ug/L)	Ag (ug/L)	Zn (ug/L)
DEQ	Big Cherry Creek below Granite Creek	BCC-284	8/20/2011	25	73.93	7.56	< 30	< 3	0.57	< 1	< 30	< .5	-	< 5	30
DEQ	Big Cherry Creek below Smearl Creek	BCC-285	8/20/2011	25	37.79	7.7	< 30	< 3	0.74	< 1	< 30	0.7	-	< 5	50
DEQ	Big Cherry Creek below Snowshoe Creek	BCC-287	8/20/2011	25	36.83	7.73	< 30	< 3	0.78	< 1	< 30	0.8	-	< 5	60
DEQ	Big Cherry Creek at Hwy 2 crossing	BCCA	8/20/2011	25	65.64	7.78	< 30	< 3	0.41	< 1	< 30	< .5	-	< 5	20
DEQ	Big Cherry Creek at Forest Road 867 crossing	K01BCHRC01	9/28/2006	40.3	-	-	< 10	3	1.12	< 1	< 10	0.7	< .05	< 1	61.7
DEQ	Big Cherry Creek at Forest Road 867 crossing	K01BCHRC01	9/19/2012	34	8.57	7.81	< 30	< 3	0.83	< 1	< 30	< .5	-	< .2	50
DEQ	Big Cherry Creek at Forest Road 867 crossing	K01BCHRC01	5/30/2012	25	-	-	< 30	< 3	0.71	< 1	< 30	3.6	-	< 5	60
DEQ	Big Cherry Creek at Hwy 2 crossing just south of Libby	K01BCHRC02	9/28/2006	30.5	-	-	< 10	1	0.36	< 1	10	< .5	< .05	< 1	12.8
DEQ	Big Cherry Creek at Hwy 2 crossing just south of Libby	K01BCHRC02	9/21/2012	28	14.06	7.31	< 30	< 3	0.29	< 1	< 30	< .5	-	< .2	20
DEQ	Big Cherry Creek at Hwy 2 crossing just south of Libby	K01BCHRC02	5/24/2012	25		7.55	< 30	< 3	0.39	1	230	2.3	-	< .5	20
DEQ	Big Cherry Creek downstream from Granite Creek	K01BCHRC03	9/19/2012	26	14.12	7.56	< 30	< 3	0.58	< 1	< 30	< .5	-	< .2	30
DEQ	Big Cherry Creek downstream from Granite Creek	K01BCHRC03	5/30/2012	25		7.7	< 30	< 3	0.42	< 1	< 30	1	-	< 5	30

Table F-2 Metals Surface Water Quality Data

Data Collection Entity	Site Location & Description	Site ID	Activity Date	Hardness	Flow (cfs)	pH	Al (ug/L)	As (ug/L)	Cd (ug/L)	Cu (ug/L)	Fe (ug/L)	Pb (ug/L)	Hg (ug/L)	Ag (ug/L)	Zn (ug/L)
DEQ	Big Cherry Creek below Snowshoe Creek	K01BCHRC04	9/19/2012	33	8.3*	8.05	< 30	< 3	0.84	< 1	< 30	0.7	–	< .2	50
DEQ	Big Cherry Creek below Snowshoe Creek	K01BCHRC04	5/30/2012	25	E 75*	7.65	< 30	< 3	0.79	< 1	< 30	4.2	–	< 5	60
DEQ	Snowshoe Creek above Big Cherry Creek	K01SNOWC01	5/30/2012	25	E 40*	7.5	< 30	3	2.93	1	50	27.9	–	< 5	230
DEQ	Snowshoe Creek above Big Cherry Creek	K01SNOWC01	9/19/2012	31	0.37	7.79	< 30	13	7.03	1	< 30	7.6	–	< .2	480
DEQ	Snowshoe Creek above Snowshoe Mine	SNSCA	8/19/2011	25	3.27	7.64	< 30	< 3	< .08	< 1	< 30	< .5	–	< 5	< 10
DEQ	Snowshoe Creek below Snowshoe Mine	SNSCB	8/19/2011	25	2.65	7.66	< 30	< 3	2.02	< 1	< 30	9.5	–	< 5	130
DEQ	Snowshoe Creek near mouth (Libby Creek)	SNSCC	8/19/2011	25	3.53	7.6	< 30	8	6.58	1	< 30	12.4	–	< 5	410
DEQ	Snowshoe Creek upstream from Snowshoe Mine	BKK134	5/30/2012	25	22.57	7.4	< 30	< 3	1.18	< 1	< 30	2.9	–	< 5	110
DEQ	Snowshoe Creek upstream from Snowshoe Mine	BKK134	9/18/2012	43	0.11*	8	< 30	< 3	< .08	< 1	< 30	1.6	–	< .2	< 10
DEQ	Snowshoe Creek downstream from Snowshoe Mine	BKK135	5/30/2012	25	28.21	7.46	< 30	< 3	2.47	< 1	< 30	21.6	–	< 5	210
DEQ	Snowshoe Creek downstream from Snowshoe Mine	BKK135	9/18/2012	40	0.2	7.68	< 30	6	5.73	1	< 30	18.3	–	< .2	400
DEQ	Stanley Creek downstream of Fairway Creek at Troy Mine Road	K01STNLC01	5/21/2012	29	133.66*	7.43	< 30	< 3	< .08	< 1	< 30	< .5	–	< .5	< 10
DEQ	Stanley Creek downstream of Fairway Creek at Troy Mine Road	K01STNLC01	7/11/2012	32		8.1	< 30	< 3	< .08	< 1	< 50	< .5	–	< .5	< 10
DEQ	Stanley Creek downstream of Fairway Creek at Troy Mine Road	K01STNLC01	9/17/2012	30	68.55	7.94	< 30	< 3	< .08	< 1	< 30	< .5	–	< .2	< 10
DEQ	Stanley Creek below Troy Mine	K01STNLC02	5/21/2012	25	20.9	7.68	< 30	< 3	< .08	8	40	0.7	–	< .5	< 10
DEQ	Stanley Creek upstream of Fairway Creek at Troy Mine Road	K01STNLC03	5/21/2012	25	24.42	7.07	< 30	< 3	< .08	9	50	0.9	–	< .5	< 10
DEQ	Stanley Creek about 1 mile upstream from mouth	K01STNLC04	7/11/2012	36	–	–	< 30	< 3	< .08	25	< 50	< .5	–	< .5	20
DEQ	Stanley Creek about 1 mile upstream from mouth	K01STNLC04	9/17/2012	31	69.67	8	< 30	< 3	< .08	< 1	< 30	< .5	–	< .2	< 10
DEQ	Stanley Creek below Troy Mine	K01STNLC05	7/12/2012	25	0.32*	7.8	< 30	< 3	< .08	5	< 50	< .5	–	< .5	< 10
DEQ	Stanley Creek below Fairway Creek	SC-02	8/15/2011	33	106.87	7.68	< 30	< 3	< .08	< 1	< 30	< .5	–	< 5	< 10
Troy Mine	Stanley Creek	SC02	4/4/2005	27	–	7.4	–	–	–	<1	10	<3	< 3	<3	–
Troy Mine	Stanley Creek	SC02	8/19/2005	36	51	7.6	–	< 3	–	< 1	< 10	< 3	–	< 3	< 10

Table F-2 Metals Surface Water Quality Data

Data Collection Entity	Site Location & Description	Site ID	Activity Date	Hardness	Flow (cfs)	pH	Al (ug/L)	As (ug/L)	Cd (ug/L)	Cu (ug/L)	Fe (ug/L)	Pb (ug/L)	Hg (ug/L)	Ag (ug/L)	Zn (ug/L)
Troy Mine	Stanley Creek	SC02	10/5/2005	30	35	7.66	–	< 3	–	< 1	< 10	< 3	–	< 3	< 10
Troy Mine	Stanley Creek	SC02	4/10/2006	33	–	7.59	–	< 1	–	< 1	< 10	< 3	–	< 3	< 10
Troy Mine	Stanley Creek	SC02	7/17/2006	35	90	7.4	–	< 3	–	< 1	10	< 3	–	< 3	< 10
Troy Mine	Stanley Creek	SC02	10/4/2006	33	–	7.5	–	< 3	–	< 1	< 10	< 3	–	< 3	< 10
Troy Mine	Stanley Creek	SC02	5/4/2007	31	–	6.94	–	< 3	–	< 1	< 10	< 3	–	< 5	< 10
Troy Mine	Stanley Creek	SC02	8/2/2007	29	105	6.97	–	< 3	–	< 1	< 10	< 3	–	< 3	< 10
Troy Mine	Stanley Creek	SC02	10/3/2007	29	89	7.21	–	< 3	–	< 1	< 10	< 3	–	< 3	< 10
Troy Mine	Stanley Creek	SC02	3/19/2008	31	–	7.75	–	< 3	–	< 1	< 10	< 3	–	< 3	< 10
Troy Mine	Stanley Creek	SC02	10/9/2008	38	–	6.59	–	< 3	–	< 1	70	< 3	–	< 3	< 10
Troy Mine	Stanley Creek	SC02	11/5/2008	27	92.2	7.3	–	< 3	–	< 1	< 10	< 3	–	< 3	< 10
Troy Mine	Stanley Creek	SC02	4/23/2009	27	91.4	7.03	–	< 3	–	< 1	< 10	<0.5	–	< 0.5	< 10
Troy Mine	Stanley Creek	SC02	7/31/2009	31	101.1	6.92	–	< 3	–	< 1	< 10	<0.5	–	< 0.5	< 10
Troy Mine	Stanley Creek	SC02	11/5/2009	30	94.3	7.43	–	< 3	–	< 1	< 10	<0.5	–	< 0.5	< 10
Troy Mine	Stanley Creek	SC02	3/31/2010	28	97.4	7.24	–	< 3	< 0.1	< 1	< 10	<0.5	–	< 3	< 10
Troy Mine	Stanley Creek	SC02	8/17/2010	30	110.3	7.5	–	< 3	< 0.1	< 1	< 10	<0.5	–	< 0.5	< 10
Troy Mine	Stanley Creek	SC02	10/13/2010	30	92.9	7.7	–	< 3	< 0.1	< 1	90	<0.5	–	< 0.5	< 10
Troy Mine	Stanley Creek	SC02	4/21/2011	31	102.9	7.3	–	< 3	–	< 1	< 50	<0.5	–	< 0.5	< 10
Troy Mine	Stanley Creek	SC02	8/18/2011	33	110.6	7.6	–	< 3	–	< 1	< 10	<0.5	–	< 0.5	< 10
Troy Mine	Stanley Creek	SC02	10/19/2011	30	103.8	7.4	–	< 2	–	< 0.5	< 5	< 0.3	–	< 0.3	< 5
Troy Mine	Stanley Creek	SC-15	4/4/2005	12	–	7.3	–	–	–	4	20	<3	< 3	<3	–
Troy Mine	Stanley Creek	SC-15	8/19/2005	24	–	7.14	–	–	–	2	30	<3	< 3	<4	–
Troy Mine	Stanley Creek	SC-15	10/7/2005	–	–	7.3	–	–	0.8	< 3	–	10	–	< 1	230
Troy Mine	Stanley Creek	SC-15B	11/9/2005	–	–	–	<	< 1	< 0.1	20	< 5	< 2	–	< 0.5	2
Troy Mine	Stanley Creek	SC-17A	4/4/2005	16	–	7.2	–	–	–	11	10	<3	< 3	<3	–
Troy Mine	Stanley Creek	SC-17A	5/1/2006	11	–	6.98	–	< 3	–	2	20	< 3	–	< 3	< 10
Troy Mine	Stanley Creek	SC-17A	8/1/2007	21	–	6.49	–	< 3	–	4	< 10	< 3	–	< 3	200
Troy Mine	Stanley Creek	SC-17A	6/16/2009	15	–	7.07	–	< 3	–	4	< 10	<0.5	–	< 0.5	< 10
DEQ	Lake Creek near mouth (Kootenai River)	LKC-276	8/16/2011	40	287.64*	7.87	< 30	< 3	< .08	< 1	40	< .5	–	< 5	< 10
DEQ	Lake Creek above Falls Creek	LKC-278	8/16/2011	38	285.67	7.81	< 30	< 3	< .08	< 1	50	< .5	–	< 5	< 10
DEQ	Lake Creek at Chase Cutoff crossing	LKC-279	8/17/2011	37	260.73	7.72	< 30	< 3	< .08	< 1	40	< .5	–	< 5	< 10
DEQ	Lake Creek at Troy Mine Road crossing	LKC-280	8/17/2011	33	152.27	7.79	< 30	< 3	< .08	< 1	30	< .5	–	< 5	< 10
DEQ	Lake Creek at Cotten residence	LKCA	8/17/2011	34	174.88	7.88	< 30	< 3	< .08	< 1	< 30	< .5	–	< 5	< 10
DEQ	Lake Creek above Hwy 2 crossing	K01LAKEC01	5/22/2012	25	–	7.63	< 30	< 3	< .08	3	1610	1.4	–	< .5	< 10
DEQ	Lake Creek above Hwy 2 crossing	K01LAKEC01	9/18/2012	48	160.95	7.97	< 30	< 3	< .08	< 1	< 30	< .5	–	< .2	10
DEQ	Lake Creek downstream of the Chase Cutoff Road Bridge	K01LAKEC02	5/22/2012	25	–	7.61	< 30	< 3	< .08	2	990	0.9	–	< .5	< 10
DEQ	Lake Creek downstream of the Chase Cutoff Road Bridge	K01LAKEC02	9/17/2012	41	143.77	8.58	< 30	< 3	< .08	< 1	< 30	< .5	–	< .2	< 10
DEQ	Lake Creek at Troy Mine Road crossing	K01LAKEC05	5/21/2012	25	–	7.45	< 30	< 3	< .08	< 1	30	< .5	–	< .5	< 10

Table F-2 Metals Surface Water Quality Data

Data Collection Entity	Site Location & Description	Site ID	Activity Date	Hardness	Flow (cfs)	pH	Al (ug/L)	As (ug/L)	Cd (ug/L)	Cu (ug/L)	Fe (ug/L)	Pb (ug/L)	Hg (ug/L)	Ag (ug/L)	Zn (ug/L)
DEQ	Lake Creek at Troy Mine Road crossing	K01LAKEC05	9/17/2012	32	85.07	8.37	< 30	< 3	< .08	< 1	< 30	< .5	-	< .2	< 10
DEQ	Lake Creek at private residence at end of Shining Mountain Trail	K01LAKEC06	5/22/2012	25		7.43	< 30	< 3	< .08	2	420	< .5	-	< .5	< 10
DEQ	Lake Creek at private residence at end of Shining Mountain Trail	K01LAKEC06	9/17/2012	33	81.52	8.28	< 30	< 3	< .08	< 1	30	< .5	-	< .2	< 10
DEQ	Lake Creek at Lake Creek Road crossing above Falls Creek	K01LAKEC07	5/22/2012	25	-	7.59	< 30	< 3	< .08	2	1470	1.3	-	< .5	< 10
DEQ	Lake Creek at Lake Creek Road crossing above Falls Creek	K01LAKEC07	9/17/2012	44	167.3	8.38	< 30	< 3	< .08	< 1	50	< .5	-	< .2	< 10
Troy Mine	Lake Creek	LC01	4/4/2005	31	-	7.5	-	-	-	6	40	<3	< 3	<3	-
Troy Mine	Lake Creek	LC01	8/19/2005	40	75*	7.65	-	-	-	<1	39	<3	< 3	<3	-
Troy Mine	Lake Creek	LC01	10/4/2005	36	79	7.65	-	<3	-	<1	50	<3	-	<3	< 10
Troy Mine	Lake Creek	LC01	4/10/2006	37	-	7.51	-	<1	-	<1	50	<3	-	<3	< 10
Troy Mine	Lake Creek	LC01	7/17/2006	33	132.8	7.52	-	<3	-	<1	30	<3	-	<3	< 10
Troy Mine	Lake Creek	LC01	10/3/2006	38	-	7.61	-	<3	-	<1	20	<3	-	<3	< 10
Troy Mine	Lake Creek	LC01	5/3/2007	28	-	7.07	-	<3	-	<1	40	<3	-	<0.5	< 10
Troy Mine	Lake Creek	LC01	8/1/2007	31	136.6	7.43	-	<3	-	<1	20	<3	-	<3	< 10
Troy Mine	Lake Creek	LC01	10/2/2007	32	129	7.17	-	<3	-	<1	30	<3	-	<3	< 10
Troy Mine	Lake Creek	LC01	3/18/2008	31	-	6.53	-	<3	-	<1	40	<3	-	<3	< 10
Troy Mine	Lake Creek	LC01	10/10/2008	30	-	6.85	-	<3	-	<1	50	<3	-	<3	< 10
Troy Mine	Lake Creek	LC01	11/4/2008	30	134.3	7.07	-	<3	-	<1	30	<3	-	<3	< 10
Troy Mine	Lake Creek	LC01	4/22/2009	29	130.8	7.25	-	<3	-	1	140	<0.5	-	<0.5	< 10
Troy Mine	Lake Creek	LC01	7/30/2009	33	141.3	6.88	-	<3	-	<1	50	<0.5	-	<0.5	< 10
Troy Mine	Lake Creek	LC01	11/4/2009	33	135.3	7.38	-	<3	-	<1	20	<0.5	-	<0.5	< 10
Troy Mine	Lake Creek	LC01	3/30/2010	31	138.6	6.75	-	<3	<0.1	<1	60	<0.5	-	<3	< 10
Troy Mine	Lake Creek	LC01	8/16/2010	31	176.5	7.7	-	<3	<0.1	<1	20	<0.5	-	<0.5	< 10
Troy Mine	Lake Creek	LC01	10/11/2010	33	155.6	7.8	-	<3	<0.1	<1	30	<0.5	-	<0.5	< 10
Troy Mine	Lake Creek	LC01	4/20/2011	32	145.6	7.4	-	<3	-	<1	<50	<0.5	-	<0.5	< 10
Troy Mine	Lake Creek	LC01	8/17/2011	32	147.2	7.6	-	<3	-	<1	20	<0.5	-	<0.5	< 10
Troy Mine	Lake Creek	LC01	10/18/2011	32	148.2	7.3	-	<2	-	<.5	30	<0.3	-	<0.3	<0.005
Troy Mine	Lake Creek	LC02	4/4/2005	32	-	7.6	-	-	-	<1	60	<3	< 3	<3	-
Troy Mine	Lake Creek	LC02	8/19/2005	53	90.09	7.83	-	-	-	<1	50	<3	< 3	<3	-
Troy Mine	Lake Creek	LC02	10/4/2005	36	76	7.13	-	<3	-	<1	50	<3	-	<3	< 10
Troy Mine	Lake Creek	LC02	4/10/2006	40	-	7.79	-	<1	-	<1	130	<3	-	<3	< 10
Troy Mine	Lake Creek	LC02	7/17/2006	36	144.2	6.92	-	<3	-	1	230	<3	-	<3	< 10
Troy Mine	Lake Creek	LC02	10/3/2006	39	-	7.21	-	<3	-	<1	30	<3	-	<3	< 10
Troy Mine	Lake Creek	LC02	5/3/2007	26	-	7.07	-	<3	-	<1	30	<3	-	<5	< 10
Troy Mine	Lake Creek	LC02	8/1/2007	33	149.2	7.44	-	<3	-	<1	20	<3	-	<3	< 10
Troy Mine	Lake Creek	LC02	10/2/2007	34	139.8	7.33	-	<3	-	<1	20	<3	-	<3	< 10
Troy Mine	Lake Creek	LC02	10/10/2008	30	-	6.43	-	<3	-	49	70	6	-	<3	< 10
Troy Mine	Lake Creek	LC02	11/4/2008	31	143.8	6.84	-	<3	-	<1	40	<3	-	<3	< 10
Troy Mine	Lake Creek	LC02	4/22/2009	27	137.7	7.35	-	<3	-	1	50	0.7	-	<0.5	< 10
Troy Mine	Lake Creek	LC02	7/30/2009	35	154.5	7.37	-	<3	-	<1	40	<0.5	-	<0.5	< 10

Table F-2 Metals Surface Water Quality Data

Data Collection Entity	Site Location & Description	Site ID	Activity Date	Hardness	Flow (cfs)	pH	Al (ug/L)	As (ug/L)	Cd (ug/L)	Cu (ug/L)	Fe (ug/L)	Pb (ug/L)	Hg (ug/L)	Ag (ug/L)	Zn (ug/L)
Troy Mine	Lake Creek	LC02	11/4/2009	33	144.4	7.4	-	< 3	-	< 1	20	< 0.5	-	< 0.5	< 10
Troy Mine	Lake Creek	LC02	3/29/2010	33	142.4	7.29	-	< 3	< 0.1	< 1	120	< 0.5	-	< 3	< 10
Troy Mine	Lake Creek	LC02	8/16/2010	32	174.1	7.8	-	< 3	< 0.1	< 1	20	< 0.5	-	< 0.5	< 10
Troy Mine	Lake Creek	LC02	10/11/2010	34	157.3	7.7	-	< 3	< 0.1	< 1	30	< 0.5	-	< 0.5	< 10
Troy Mine	Lake Creek	LC02	4/20/2011	34	161.3	7.6	-	< 3	-	1	<50	< 0.5	-	< 0.5	< 10
Troy Mine	Lake Creek	LC02	8/17/2011	34	-	7.6	-	< 3	-	<1	20	< 0.5	-	< 0.5	< 10
Troy Mine	Lake Creek	LC02	10/18/2011	34	164.3	7.4	-	<2	-	<0.5	20	< 0.3	-	< 0.3	< 5
Troy Mine	Lake Creek	LC04	4/4/2005	36	-	7.6	-	-	-	<1	90	<3	< 3	<3	-
Troy Mine	Lake Creek	LC04	8/19/2005	49	81.4	7.41	-	-	-	<1	50	<3	< 3	<3	-
Troy Mine	Lake Creek	LC04	10/4/2005	41	115	7.2	-	< 3	-	< 1	70	< 3	-	< 3	< 10
Troy Mine	Lake Creek	LC04	4/10/2006	40	-	7.51	-	< 1	-	< 1	60	< 3	-	< 3	< 10
Troy Mine	Lake Creek	LC04	7/17/2006	38	158.7	7.46	-	< 3	-	< 1	60	< 3	-	< 3	< 10
Troy Mine	Lake Creek	LC04	10/3/2006	46	-	7.34	-	< 3	-	< 1	20	< 3	-	< 3	< 10
Troy Mine	Lake Creek	LC04	5/3/2007	28	-	6.8	-	< 3	-	< 1	240	< 3	-	< 5	< 10
Troy Mine	Lake Creek	LC04	8/1/2007	39	161.3	7.26	-	< 3	-	< 1	30	< 3	-	< 3	< 10
Troy Mine	Lake Creek	LC04	10/2/2007	42	149.7	7.27	-	< 3	-	< 1	50	< 3	-	< 3	< 10
Troy Mine	Lake Creek	LC04	3/18/2008	41	-	7.03	-	< 3	-	< 1	190	< 3	-	< 3	< 10
Troy Mine	Lake Creek	LC04	10/10/2008	36	-	6.28	-	< 3	-	< 1	210	< 3	-	< 3	< 10
Troy Mine	Lake Creek	LC04	11/4/2008	39	154.9	7.05	-	< 3	-	< 1	30	< 3	-	< 3	< 10
Troy Mine	Lake Creek	LC04	4/22/2009	31	147.4	7.29	-	< 3	-	2	730	0.9	-	< 0.5	< 10
Troy Mine	Lake Creek	LC04	7/30/2009	39	167.7	6.8	-	< 3	-	3	50	< 0.5	-	< 0.5	< 10
Troy Mine	Lake Creek	LC04	11/4/2009	40	155.6	7.81	-	< 3	-	< 1	20	< 0.5	-	< 0.5	< 10
Troy Mine	Lake Creek	LC04	3/29/2010	41	160.3	7.35	-	< 3	< 0.1	6	3.6	2.9	-	< 3	10
Troy Mine	Lake Creek	LC04	8/16/2010	39	-	7.7	-	< 3	< 0.1	2	30	< 0.5	-	< 0.5	< 10
Troy Mine	Lake Creek	LC04	10/11/2010	41	159.7	7.7	-	< 3	< 0.1	< 1	40	< 0.5	-	< 0.5	< 10
Troy Mine	Lake Creek	LC04	4/20/2011	38	178.2	7.5	-	< 3	-	< 1	60	< 0.5	-	< 0.5	< 10
Troy Mine	Lake Creek	LC04	8/17/2011	38	-	7.6	-	< 3	-	< 1	30	< 0.5	-	< 0.5	< 10
Troy Mine	Lake Creek	LC04	10/18/2011	42	163.8	7.4	-	<2	-	<0.5	30	< 0.3	-	< 0.3	< 5

Bold = values used in % reduction calculations

* = values used in TMDL calculations

Grey = values used in existing load calculations

Table F-3. Metals Stream Channel Sediment Quality Data for the Kootenai-Fisher TMDL Project Area

Data Collection Entity	Site Location & Description	Site ID	Activity Date	Al (ug/g)	As (ug/g)	Cd (ug/g)	Cu (ug/g)	Fe (ug/g)	Pb (ug/g)	Hg (ug/g)	Zn (ug/g)
DEQ	Big Cherry Creek at Forest Road 867 crossing	K01BCHRC01	9/28/2006	6460	151	17.8	37.5	14200	903		1280
DEQ	Big Cherry Creek at Hwy 2 crossing just south of Libby	K01BCHRC02	9/28/2006	4690	11.6	2.03	11.4	7750	78.9		173
DEQ	Lake Creek at private residence at end of Shining Mountain Trail	K01LAKEC06	9/17/2012	7480	4	< 0.2	20	13700	19	< 0.05	42
DEQ	Lake Creek at Lake Creek Road crossing above Falls Creek	K01LAKEC07	9/17/2012	4550	3	< 0.2	< 20	8800	8	< 0.05	26
DEQ	Lake Creek at Lake Creek Road crossing above Falls Creek	K01LAKEC07	9/17/2012	8980	6	< 0.2	21	17600	17	< 0.05	52
DEQ	Libby Creek below Ramsey Creek	K01LIBYC05	9/18/2012	9020	30	1	21	17100	34	0.068	71
DEQ	Stanley Creek about 1 mile upstream from mouth	K01STNLC04	9/17/2012	7000	4	0.3	215	8940	75	< 0.05	69

Table F-4. Background Metals Water Quality Data for the Kootenai-Fisher TMDL Project Area

Flow Regime	Data Collection Entity	Site Location & Description	Site ID	Activity Date	Flow (cfs)	pH	As (ug/L) TR	Cd (ug/L) TR	Cu (ug/L) TR	Pb (ug/L) TR	Hg (ug/L) T	Zn (ug/L) TR
High Flow	DEQ	Snowshoe Creek upstream from Snowshoe Mine	BKK134	5/30/2012	22.57	7.4	<3	1.18	<1	2.9	-	110
	DEQ	Libby Creek upstream of Howard Creek	K01LIBYC03	5/23/2012	-	6.76	<3	0.08	<1	<0.5	<0.005	<10
	DEQ	Libby Creek below Ramsey Creek	K01LIBYC05	5/23/2012	-	6.95	<3	<0.08	1	<0.5	<0.005	<10
Low Flow	DEQ	Bear Creek about 1.5 miles upstream from mouth	K01BEARC01	9/19/2012	-	-	<3	<0.08	<1	<0.5	<0.005	<10
	DEQ	Bear Creek at trailhead at end of FS Road 4784	K01BEARC02	9/19/2012	-	-	<3	<0.08	<1	<0.5	<0.005	<10
	DEQ	Bear Creek upstream Cable Creek confluence	K01BEARC03	9/19/2012	-	-	<3	<0.08	<1	<0.5	<0.005	<10
	DEQ	Bear Creek downstream Cable Creek at FS Road 278 crossing	K01BEARC04	9/19/2012	-	-	<3	<0.08	<1	<0.5	<0.005	<10
	DEQ	Snowshoe Creek above Snowshoe Mine	SNSCA	8/19/2011	3.27	7.64	<3	<0.08	<1	<0.5	-	<10
	DEQ	Snowshoe Creek upstream from Snowshoe Mine	BKK134	9/18/2012	0.11	8	<3	<0.08	<1	1.6	-	<10
	DEQ	Libby Creek upstream of Howard Creek	K01LIBYC03	9/18/2012	1.49	7.52	<3	<0.08	<1	<0.5	-	<10

