

## **APPENDIX D – ADDITIONAL SEDIMENT RELEVANT DATA COLLECTED IN THE BEAVERHEAD TPA**

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**Table D-1 USGS SSC Data 2009-2010**

Sample Date/time	Agency	Temp., water, deg C	Temp., air, deg C	Instantaneous discharge, ft <sup>3</sup> /s	Gage height, feet	Specific conductance, wat unf uS/cm@25 degC	Gage height, above datum, meters	Instantaneous discharge, m <sup>3</sup> /s	Suspended sediment, sieve diameter, percent smaller than 0.0625 millimeters	Suspended sediment concentration, milligrams per liter	Suspended sediment discharge, tons per day	Sampling method, code	Sampler type, code
4/30/2009 12:00	USGS-WRD	6.5	6	442	2.87	586	0.87	13					
6/2/2009 11:30	USGS-WRD	11	12.5	568	3.15	539	0.96	16					
7/15/2009 13:20	USGS-WRD	17	26	658	3.43	548	1.05	19					
8/24/2009 16:10	USGS-WRD	20	24.5	336	3.03	660	0.92	9.5					
10/7/2009 8:12	USGS-WRD	6.5			3.83	658	1.17						
3/16/2010 16:45	USGS-WRD	8			3.08	466	0.94						
5/26/2010 9:32	USGS-WRD	11			3.41	605	1.04						
6/8/2010 17:40	USGS-WRD	16.5			4.62	550	1.41						
6/8/2010 18:45	USGS-WRD	16.4	18	2030	4.61	550	1.41	57	52	133	729		
6/18/2010 9:12	USGS-WRD	10			5.45	540	1.66						
6/23/2010 12:25	USGS-WRD	14.4	20	2190	4.83	487	1.47	62	71	53	313	20	3001
7/8/2010 10:00	USGS-WRD	14.3	10.5	1980	4.58	468	1.4	56	75	57	305	10	3009
7/20/2010 14:32	USGS-WRD	20.5			3.35	520	1.02						
7/20/2010 15:05	USGS-WRD	20.5	37	674	3.35	520	1.02	19	76	39	71	10	3001
8/4/2010 14:10	USGS-WRD	19	30	376	2.98	588	0.91	11	61	31	31		
8/4/2010 14:27	USGS-WRD	19			2.98	588	0.91						
8/16/2010 11:00	USGS-WRD	16	25.7	653	3.56	635	1.09	18	69	74	130	10	3001
9/8/2010 10:02	USGS-WRD	12			3.82	607	1.16						
9/8/2010 10:35	USGS-WRD	12.2	15.2	830	3.82	607	1.16	24	63	53	119	10	3001
9/28/2010 9:20	USGS-WRD	12.5	12.8	648	3.55	625	1.08	18	57	39	68		
10/12/2010 15:25	USGS-WRD	10.5			3.63	625	1.11						
10/12/2010 16:00	USGS-WRD	10.4	16.8	690	3.63	625	1.11	20	82	48	89	10	3001
10/27/2010 13:35	USGS-WRD	5.4	8.4	896	3.89	625	1.19	25	40	70	169	10	3001
10/27/2010 14:10	USGS-WRD	5.5			3.89	625	1.19						
12/1/2010 9:30	USGS-WRD	0.2	3	833	3.6	650	1.1	24	67	47	106	10	3001

**Table D-2 USGS SSC Data 2009-2010**

Date	Temperature, water, deg C (Max.)	Temperature, water, deg C (Min.)	Temperature, water, deg C (Mean)	Gage height, feet (mean)	Turbidity, IR LED light, det ang 90deg, FNU (mean)	Discharge, ft <sup>3</sup> /s (mean)
6/5/2010	P	P	P	4.78 <sup>A</sup>	24 <sup>A 1</sup>	358 <sup>A</sup>

**Table D-2 USGS SSC Data 2009-2010**

Date	Temperature, water, deg C (Max.)	Temperature, water, deg C (Min.)	Temperature, water, deg C (Mean)	Gage height, feet (mean)	Turbidity, IR LED light, det ang 90deg, FNU (mean)	Discharge, ft <sup>3</sup> /s (mean)
6/6/2010	P	P	P	4.81 <sup>A</sup>	21 <sup>A 1</sup>	364 <sup>A</sup>
6/7/2010	P	P	P	4.83 <sup>A</sup>	18 <sup>A 1</sup>	366 <sup>A</sup>
6/8/2010	P	P	P	4.58 <sup>A</sup>	19 <sup>A 1</sup>	294 <sup>A</sup>
6/9/2010	P	P	P	4.49 <sup>A</sup>	20 <sup>A 1</sup>	267 <sup>A</sup>
6/10/2010	P	P	P	4.23 <sup>A</sup>	19 <sup>A 1</sup>	204 <sup>A</sup>
6/11/2010	P	P	P	4.30 <sup>A</sup>	23 <sup>A 1</sup>	220 <sup>A</sup>
6/12/2010	P	P	P	4.45 <sup>A</sup>	29 <sup>A 1</sup>	253 <sup>A</sup>
6/13/2010	P	P	P	4.42 <sup>A</sup>	23 <sup>A 1</sup>	247 <sup>A</sup>
6/14/2010	P	P	P	4.25 <sup>A</sup>	16 <sup>A 1</sup>	209 <sup>A</sup>
6/15/2010	P	P	P	4.04 <sup>A</sup>	11 <sup>A 1</sup>	165 <sup>A</sup>
6/16/2010	P	P	P	4.44 <sup>A</sup>	48 <sup>A 1</sup>	257 <sup>A</sup>
6/17/2010	P	P	P	5.37 <sup>A</sup>	P	515 <sup>A</sup>
6/18/2010	P	P	P	5.67 <sup>A</sup>	P	616 <sup>A</sup>
6/19/2010	P	P	P	5.79 <sup>A</sup>	P	662 <sup>A</sup>
6/20/2010	P	P	P	5.44 <sup>A</sup>	57 <sup>A 1</sup>	534 <sup>A</sup>
6/21/2010	P	P	P	5.26 <sup>A</sup>	42 <sup>A 1</sup>	477 <sup>A</sup>
6/22/2010	P	P	P	5.30 <sup>A</sup>	35 <sup>A 1</sup>	488 <sup>A</sup>
6/23/2010	P	P	P	5.21 <sup>A</sup>	30 <sup>A 1</sup>	462 <sup>A</sup>
6/24/2010	P	P	P	5.10 <sup>A</sup>	35 <sup>A 1</sup>	427 <sup>A</sup>
6/25/2010	P	P	P	5.01 <sup>A</sup>	28 <sup>A 1</sup>	402 <sup>A</sup>
6/26/2010	P	P	P	5.07 <sup>A</sup>	31 <sup>A 1</sup>	418 <sup>A</sup>
6/27/2010	P	P	P	5.15 <sup>A</sup>	30 <sup>A 1</sup>	444 <sup>A</sup>
6/28/2010	P	P	P	5.12 <sup>A</sup>	27 <sup>A 1</sup>	434 <sup>A</sup>
6/29/2010	P	P	P	4.87 <sup>A</sup>	25 <sup>A 1</sup>	363 <sup>A</sup>
6/30/2010	P	P	P	4.90 <sup>A</sup>	25 <sup>A 1</sup>	370 <sup>A</sup>
7/1/2010	P	P	P	5.16 <sup>A</sup>	22 <sup>A 1</sup>	446 <sup>A</sup>
7/2/2010	P	P	P	5.31 <sup>A</sup>	20 <sup>A 1</sup>	491 <sup>A</sup>
7/3/2010	P	P	P	5.43 <sup>A</sup>	22 <sup>A 1</sup>	532 <sup>A</sup>
7/4/2010	P	P	P	5.58 <sup>A</sup>	21 <sup>A 1</sup>	583 <sup>A</sup>
7/5/2010	P	P	P	5.68 <sup>A</sup>	21 <sup>A 1</sup>	622 <sup>A</sup>
7/6/2010	P	P	P	5.64 <sup>A</sup>	20 <sup>A 1</sup>	605 <sup>A</sup>
7/7/2010	P	P	P	5.55 <sup>A</sup>	18 <sup>A 1</sup>	573 <sup>A</sup>
7/8/2010	P	P	P	5.51 <sup>A</sup>	19 <sup>A 1</sup>	558 <sup>A</sup>

**Table D-2 USGS SSC Data 2009-2010**

Date	Temperature, water, deg C (Max.)	Temperature, water, deg C (Min.)	Temperature, water, deg C (Mean)	Gage height, feet (mean)	Turbidity, IR LED light, det ang 90deg, FNU (mean)	Discharge, ft <sup>3</sup> /s (mean)
7/9/2010	P	P	P	5.40 <sup>A</sup>	15 <sup>A 1</sup>	521 <sup>A</sup>
7/10/2010	P	P	P	5.26 <sup>A</sup>	13 <sup>A 1</sup>	478 <sup>A</sup>
7/11/2010	P	P	P	5.26 <sup>A</sup>	15 <sup>A 1</sup>	478 <sup>A</sup>
7/12/2010	P	P	P	5.30 <sup>A</sup>	15 <sup>A 1</sup>	489 <sup>A</sup>
7/13/2010	P	P	P	5.17 <sup>A</sup>	13 <sup>A 1</sup>	447 <sup>A</sup>
7/14/2010	P	P	P	5.05 <sup>A</sup>	12 <sup>A 1</sup>	414 <sup>A</sup>
7/15/2010	P	P	P	4.99 <sup>A</sup>	7.0 <sup>A 1</sup>	395 <sup>A</sup>
7/16/2010	P	P	P	4.80 <sup>A</sup>	3.5 <sup>A 1</sup>	340 <sup>A</sup>
7/17/2010	P	P	P	4.62 <sup>A</sup>	3.0 <sup>A 1</sup>	292 <sup>A</sup>
7/18/2010	P	P	P	4.50 <sup>A</sup>	2.0 <sup>A 1</sup>	261 <sup>A</sup>
7/19/2010	P	P	P	4.50 <sup>A</sup>	2.0 <sup>A 1</sup>	261 <sup>A</sup>
7/20/2010	P	P	P	4.37 <sup>A</sup>	2.0 <sup>A 1</sup>	229 <sup>A</sup>
7/21/2010	P	P	P	4.34 <sup>A</sup>	2.5 <sup>A 1</sup>	221 <sup>A</sup>
7/22/2010	P	P	P	4.22 <sup>A</sup>	1.5 <sup>A 1</sup>	193 <sup>A</sup>
7/23/2010	P	P	P	4.05 <sup>A</sup>	1.5 <sup>A 1</sup>	159 <sup>A</sup>
7/24/2010	P	P	P	4.04 <sup>A</sup>	2.5 <sup>A 1</sup>	154 <sup>A</sup>
7/25/2010	P	P	P	4.11 <sup>A</sup>	2.0 <sup>A 1</sup>	168 <sup>A</sup>
7/26/2010	P	P	P	4.17 <sup>A</sup>	P	180 <sup>A</sup>
7/27/2010	P	P	P	4.09 <sup>A</sup>	P	164 <sup>A</sup>
7/28/2010	P	P	P	4.03 <sup>A</sup>	P	152 <sup>A</sup>
7/29/2010	P	P	P	4.13 <sup>A</sup>	P	171 <sup>A</sup>
7/30/2010	P	P	P	4.09 <sup>A</sup>	P	162 <sup>A</sup>
7/31/2010	P	P	P	4.12 <sup>A</sup>	P	166 <sup>A</sup>
8/1/2010	P	P	P	4.25 <sup>A</sup>	P	193 <sup>A</sup>
8/2/2010	P	P	P	4.33 <sup>A</sup>	P	211 <sup>A</sup>
8/3/2010	P	P	P	4.29 <sup>A</sup>	P	202 <sup>A</sup>
8/4/2010	P	P	P	4.24 <sup>A</sup>	2.0 <sup>A 1</sup>	190 <sup>A</sup>
8/5/2010	P	P	P	4.20 <sup>A</sup>	3.5 <sup>A 1</sup>	181 <sup>A</sup>
8/6/2010	P	P	P	4.21 <sup>A</sup>	4.0 <sup>A 1</sup>	183 <sup>A</sup>
8/7/2010	P	P	P	4.33 <sup>A</sup>	6.0 <sup>A 1</sup>	212 <sup>A</sup>
8/8/2010	P	P	P	4.37 <sup>A</sup>	7.0 <sup>A 1</sup>	221 <sup>A</sup>
8/9/2010	P	P	P	4.42 <sup>A</sup>	8.5 <sup>A 1</sup>	234 <sup>A</sup>
8/10/2010	P	P	P	4.52 <sup>A</sup>	13 <sup>A 1</sup>	260 <sup>A</sup>

**Table D-2 USGS SSC Data 2009-2010**

Date	Temperature, water, deg C (Max.)	Temperature, water, deg C (Min.)	Temperature, water, deg C (Mean)	Gage height, feet (mean)	Turbidity, IR LED light, det ang 90deg, FNU (mean)	Discharge, ft <sup>3</sup> /s (mean)
8/11/2010	P	P	P	4.64 <sup>A</sup>	19 <sup>A 1</sup>	291 <sup>A</sup>
8/12/2010	P	P	P	4.75 <sup>A</sup>	19 <sup>A 1</sup>	321 <sup>A</sup>
8/13/2010	P	P	P	4.75 <sup>A</sup>	18 <sup>A 1</sup>	319 <sup>A</sup>
8/14/2010	P	P	P	4.89 <sup>A</sup>	18 <sup>A 1</sup>	361 <sup>A</sup>
8/15/2010	P	P	P	4.90 <sup>A</sup>	18 <sup>A 1</sup>	362 <sup>A</sup>
8/16/2010	P	P	P	4.99 <sup>A</sup>	21 <sup>A 1</sup>	390 <sup>A</sup>
8/17/2010	P	P	P	4.91 <sup>A</sup>	23 <sup>A 1</sup>	367 <sup>A</sup>
8/18/2010	P	P	P	4.70 <sup>A</sup>	24 <sup>A 1</sup>	308 <sup>A</sup>
8/19/2010	P	P	P	4.54 <sup>A</sup>	17 <sup>A 1</sup>	269 <sup>A</sup>
8/20/2010	P	P	P	4.51 <sup>A</sup>	P	260 <sup>A</sup>
8/21/2010	P	P	P	4.57 <sup>A</sup>	P	276 <sup>A</sup>
8/22/2010	P	P	P	4.55 <sup>A</sup>	16 <sup>A 1</sup>	271 <sup>A</sup>
8/23/2010	P	P	P	4.71 <sup>A</sup>	14 <sup>A 1</sup>	312 <sup>A</sup>
8/24/2010	P	P	P	4.72 <sup>A</sup>	14 <sup>A 1</sup>	315 <sup>A</sup>
8/25/2010	P	P	P	4.66 <sup>A</sup>	13 <sup>A 1</sup>	299 <sup>A</sup>
8/26/2010	P	P	P	4.63 <sup>A</sup>	13 <sup>A 1</sup>	293 <sup>A</sup>
8/27/2010	P	P	P	4.64 <sup>A</sup>	11 <sup>A 1</sup>	295 <sup>A</sup>
8/28/2010	P	P	P	4.66 <sup>A</sup>	10 <sup>A 1</sup>	301 <sup>A</sup>
8/29/2010	P	P	P	4.80 <sup>A</sup>	10 <sup>A 1</sup>	336 <sup>A</sup>
8/30/2010	P	P	P	4.99 <sup>A</sup>	12 <sup>A 1</sup>	391 <sup>A</sup>
8/31/2010	P	P	P	5.08 <sup>A</sup>	11 <sup>A 1</sup>	418 <sup>A</sup>
9/1/2010	P	P	P	5.18 <sup>A</sup>	12 <sup>A 1</sup>	450 <sup>A</sup>
9/2/2010	P	P	P	5.22 <sup>A</sup>	13 <sup>A 1</sup>	463 <sup>A</sup>
9/3/2010	P	P	P	5.13 <sup>A</sup>	11 <sup>A 1</sup>	432 <sup>A</sup>
9/4/2010	P	P	P	5.00 <sup>A</sup>	9.0 <sup>A 1</sup>	395 <sup>A</sup>
9/5/2010	P	P	P	4.93 <sup>A</sup>	9.0 <sup>A 1</sup>	372 <sup>A</sup>
9/6/2010	P	P	P	4.96 <sup>A</sup>	8.0 <sup>A 1</sup>	382 <sup>A</sup>
9/7/2010	P	P	P	4.97 <sup>A</sup>	8.5 <sup>A 1</sup>	384 <sup>A</sup>
9/8/2010	P	P	P	4.91 <sup>A</sup>	7.0 <sup>A 1</sup>	368 <sup>A</sup>
9/9/2010	P	P	P	5.01 <sup>A</sup>	6.5 <sup>A 1</sup>	395 <sup>A</sup>
9/10/2010	P	P	P	5.23 <sup>A</sup>	7.5 <sup>A 1</sup>	467 <sup>A</sup>
9/11/2010	P	P	P	5.30 <sup>A</sup>	7.5 <sup>A 1</sup>	489 <sup>A</sup>
9/12/2010	P	P	P	5.31 <sup>A</sup>	7.0 <sup>A 1</sup>	494 <sup>A</sup>

**Table D-2 USGS SSC Data 2009-2010**

Date	Temperature, water, deg C (Max.)	Temperature, water, deg C (Min.)	Temperature, water, deg C (Mean)	Gage height, feet (mean)	Turbidity, IR LED light, det ang 90deg, FNU (mean)	Discharge, ft <sup>3</sup> /s (mean)
9/13/2010	P	P	P	5.25 <sup>A</sup>	6.5 <sup>A 1</sup>	474 <sup>A</sup>
9/14/2010	P	P	P	5.18 <sup>A</sup>	6.5 <sup>A 1</sup>	451 <sup>A</sup>
9/15/2010	P	P	P	5.30 <sup>A</sup>	7.0 <sup>A 1</sup>	491 <sup>A</sup>
9/16/2010	P	P	P	5.29 <sup>A</sup>	6.0 <sup>A 1</sup>	488 <sup>A</sup>
9/17/2010	P	P	P	5.26 <sup>A</sup>	6.0 <sup>A 1</sup>	476 <sup>A</sup>
9/18/2010	P	P	P	5.37 <sup>A</sup>	6.5 <sup>A 1</sup>	514 <sup>A</sup>
9/19/2010	P	P	P	5.51 <sup>A</sup>	6.5 <sup>A 1</sup>	562 <sup>A</sup>
9/20/2010	P	P	P	5.43 <sup>A</sup>	6.5 <sup>A 1</sup>	536 <sup>A</sup>
9/21/2010	P	P	P	5.36 <sup>A</sup>	6.0 <sup>A 1</sup>	511 <sup>A</sup>
9/22/2010	P	P	P	5.28 <sup>A</sup>	5.5 <sup>A 1</sup>	487 <sup>A</sup>
9/23/2010	P	P	P	5.25 <sup>A</sup>	6.0 <sup>A 1</sup>	477 <sup>A</sup>
9/24/2010	P	P	P	5.17 <sup>A</sup>	6.0 <sup>A 1</sup>	449 <sup>A</sup>
9/25/2010	P	P	P	5.05 <sup>A</sup>	6.5 <sup>A 1</sup>	414 <sup>A</sup>
9/26/2010	P	P	P	5.02 <sup>A</sup>	7.0 <sup>A 1</sup>	403 <sup>A</sup>
9/27/2010	P	P	P	4.96 <sup>A</sup>	7.0 <sup>A 1</sup>	388 <sup>A</sup>
9/28/2010	P	P	P	4.73 <sup>A</sup>	6.5 <sup>A 1</sup>	326 <sup>A</sup>
9/29/2010	P	P	P	4.64 <sup>A</sup>	7.0 <sup>A 1</sup>	303 <sup>A</sup>
9/30/2010	P	P	P	4.62 <sup>A</sup>	7.0 <sup>A 1</sup>	297 <sup>A</sup>
10/1/2010	P	P	P	4.65 <sup>A</sup>	7.5 <sup>P 1</sup>	306 <sup>A</sup>
10/2/2010	P	P	P	4.61 <sup>A</sup>	7.0 <sup>P 1</sup>	295 <sup>A</sup>
10/3/2010	P	P	P	4.61 <sup>A</sup>	7.0 <sup>P 1</sup>	295 <sup>A</sup>
10/4/2010	P	P	P	4.59 <sup>A</sup>	7.5 <sup>P 1</sup>	290 <sup>A</sup>
10/5/2010	P	P	P	4.60 <sup>A</sup>	8.0 <sup>P 1</sup>	291 <sup>A</sup>
10/6/2010	P	P	P	4.63 <sup>A</sup>	8.5 <sup>P 1</sup>	300 <sup>A</sup>
10/7/2010	P	P	P	4.66 <sup>A</sup>	9.0 <sup>P 1</sup>	308 <sup>A</sup>
10/8/2010	P	P	P	4.59 <sup>A</sup>	10 <sup>P 1</sup>	292 <sup>A</sup>
10/9/2010	P	P	P	4.56 <sup>A</sup>	10 <sup>P 1</sup>	284 <sup>A</sup>
10/10/2010	P	P	P	4.60 <sup>A</sup>	10 <sup>P 1</sup>	294 <sup>A</sup>
10/11/2010	P	P	P	4.61 <sup>A</sup>	12 <sup>P 1</sup>	298 <sup>A</sup>
10/12/2010	P	P	P	4.69 <sup>A</sup>	13 <sup>P 1</sup>	319 <sup>A</sup>
10/13/2010	P	P	P	4.88 <sup>A</sup>	12 <sup>P 1</sup>	369 <sup>A</sup>
10/14/2010	P	P	P	4.83 <sup>A</sup>	12 <sup>P 1</sup>	354 <sup>A</sup>
10/15/2010	P	P	P	4.79 <sup>A</sup>	12 <sup>P 1</sup>	346 <sup>A</sup>

**Table D-2 USGS SSC Data 2009-2010**

Date	Temperature, water, deg C (Max.)	Temperature, water, deg C (Min.)	Temperature, water, deg C (Mean)	Gage height, feet (mean)	Turbidity, IR LED light, det ang 90deg, FNU (mean)	Discharge, ft <sup>3</sup> /s (mean)
10/16/2010	P	P	P	4.98 <sup>A</sup>	14 <sup>P 1</sup>	399 <sup>A</sup>
10/17/2010	P	P	P	5.21 <sup>A</sup>	14 <sup>P 1</sup>	471 <sup>A</sup>
10/18/2010	P	P	P	5.20 <sup>A</sup>	12 <sup>P 1</sup>	466 <sup>A</sup>
10/19/2010	P	P	P	5.09 <sup>A</sup>	11 <sup>P 1</sup>	434 <sup>A</sup>
10/20/2010	P	P	P	5.18 <sup>A</sup>	12 <sup>P 1</sup>	465 <sup>A</sup>
10/21/2010	P	P	P	5.33 <sup>A</sup>	13 <sup>P 1</sup>	514 <sup>A</sup>
10/22/2010	P	P	P	5.37 <sup>A</sup>	13 <sup>P 1</sup>	528 <sup>A</sup>
10/23/2010	P	P	P	5.39 <sup>A</sup>	12 <sup>P 1</sup>	534 <sup>A</sup>
10/24/2010	P	P	P	5.40 <sup>A</sup>	12 <sup>P 1</sup>	539 <sup>A</sup>
10/25/2010	P	P	P	5.43 <sup>A</sup>	13 <sup>P 1</sup>	551 <sup>A</sup>
10/26/2010	P	P	P	5.43 <sup>A</sup>	12 <sup>P 1</sup>	550 <sup>A</sup>
10/27/2010	P	P	P	5.44 <sup>A</sup>	12 <sup>P 1</sup>	555 <sup>A</sup>
10/28/2010	P	P	P	5.47 <sup>A</sup>	13 <sup>P 1</sup>	567 <sup>A</sup>
10/29/2010	P	P	P	5.47 <sup>A</sup>	13 <sup>P 1</sup>	567 <sup>A</sup>
10/30/2010	P	P	P	5.46 <sup>A</sup>	14 <sup>P 1</sup>	565 <sup>A</sup>
10/31/2010	P	P	P	5.47 <sup>A</sup>	14 <sup>P 1</sup>	569 <sup>A</sup>

**Table D-3. HSI - Beaverhead TPA - Turbidity- 2008/2009**

Activity ID	Characteristic ID	Result Value	Date	Time	Time Zone
BVD-BTDC-1_06022009_FM	RBP-TURB	Slight Turb.	6/2/2009	19:20:00	MDT
BVD-BTDC-1_09092008_FM	RBP-TURB	Clear	9/9/2008	14:10:00	MDT
BVD-BTDC-1_09152009_FM	RBP-TURB	Clear	9/15/2009	19:20:00	MDT
BVD-BTDC-2_09122008_FM	RBP-TURB	Slight Turb.	9/12/2008	11:00:00	MDT
BVD-BTDC-2_09152009_FM	RBP-TURB	Clear	9/15/2009	13:40:00	MDT
BVD-BTDC-3_06042009_FM	RBP-TURB	Slight Turb.	6/4/2009	14:45:00	MDT
BVD-BTDC-3_09152009_FM	RBP-TURB	Slight Turb.	9/15/2009	17:00:00	MDT
BVD-BTDC-3_09172008_FM	RBP-TURB	Clear	9/17/2008	08:30:00	MDT
BVD-BVHR-1_06032009_FM	RBP-TURB	Clear	6/3/2009	18:15:00	MDT
BVD-BVHR-1_09172008_FM	RBP-TURB	Clear	9/17/2008	11:30:00	MDT
BVD-BVHR-1_09242009_FM	RBP-TURB	Clear	9/24/2009	09:15:00	MDT
BVD-BVHR-2_06032009_FM	RBP-TURB	Clear	6/3/2009	19:30:00	MDT
BVD-BVHR-2_09172008_FM	RBP-TURB	Clear	9/17/2008	14:00:00	MDT
BVD-BVHR-2_09242009_FM	RBP-TURB	Clear	9/24/2009	10:30:00	MDT



**Table D-3. HSI - Beaverhead TPA - Turbidity- 2008/2009**

Activity ID	Characteristic ID	Result Value	Date	Time	Time Zone
BVD-BVHR-3_06032009_FM	RBP-TURB	Turbid	6/3/2009	20:45:00	MDT
BVD-BVHR-3_09162008_FM	RBP-TURB	Clear	9/16/2008	18:00:00	MDT
BVD-BVHR-3_09212009_FM	RBP-TURB	Clear	9/21/2009	13:45:00	MDT
BVD-BVHR-3A_09212009_FM	RBP-TURB	Clear	9/21/2009	15:30:00	MDT
BVD-BVHR-4_06042009_FM	RBP-TURB	Turbid	6/4/2009	13:50:00	MDT
BVD-BVHR-4_09122008_FM	RBP-TURB	Clear	9/12/2008	09:30:00	MDT
BVD-BVHR-4_09152009_FM	RBP-TURB	Clear	9/15/2009	14:30:00	MDT
BVD-BVHR-5_06042009_FM	RBP-TURB	Turbid	6/4/2009	16:00:00	MDT
BVD-BVHR-5_09122008_FM	RBP-TURB	Clear	9/12/2008	13:00:00	MDT
BVD-BVHR-5_09152009_FM	RBP-TURB	Clear	9/15/2009	15:45:00	MDT
BVD-BVHR-5A_09232009_FM	RBP-TURB	Clear	9/23/2009	14:40:00	MDT
BVD-BVHR-6_06042009_FM	RBP-TURB	Turbid	6/4/2009	13:00:00	MDT
BVD-BVHR-6_09172008_FM	RBP-TURB	Clear	9/17/2008	16:00:00	MDT
BVD-BVHR-6_09232009_FM	RBP-TURB	Clear	9/23/2009	16:00:00	MDT
BVD-BVHR-6A_09232009_FM	RBP-TURB	Clear	9/23/2009	08:20:00	MDT
BVD-BVHR-7_06042009_FM	RBP-TURB	Turbid	6/4/2009	16:55:00	MDT
BVD-BVHR-7_09182008_FM	RBP-TURB	Clear	9/18/2008	11:00:00	MDT
BVD-BVHR-7_09182009_FM	RBP-TURB	Slight Turb.	9/18/2009	08:40:00	MDT
BVD-BVHR-8_06042009_FM	RBP-TURB	Turbid	6/4/2009	17:45:00	MDT
BVD-BVHR-8_09182008_FM	RBP-TURB	Clear	9/18/2008	09:00:00	MDT
BVD-BVHR-8_09182009_FM	RBP-TURB	Slight Turb.	9/18/2009	10:45:00	MDT
BVD-CCC-1_06032009_FM	RBP-TURB	Slight Turb.	6/3/2009	18:45:00	MDT
BVD-CCC-1_09242009_FM	RBP-TURB	Clear	9/24/2009	10:00:00	MDT
BVD-DYC-1_06022009_FM	RBP-TURB	Clear	6/2/2009	17:40:00	MDT
BVD-DYC-1_09222009_FM	RBP-TURB	Slight Turb.	9/22/2009	12:45:00	MDT
BVD-DYC-1A_09222009_FM	RBP-TURB	Clear	9/22/2009	15:50:00	MDT
BVD-EFBTDC-1_06012009_FM	RBP-TURB	Slight Turb.	6/1/2009	18:45:00	MDT
BVD-EFBTDC-1_09092008_FM	RBP-TURB	Clear	9/9/2008	16:00:00	MDT
BVD-EFBTDC-1_09152009_FM	RBP-TURB	Clear	9/15/2009	10:15:00	MDT
BVD-EFDC-1_06022009_FM	RBP-TURB	Clear	6/2/2009	16:45:00	MDT
BVD-EFDC-1_09162008_FM	RBP-TURB	Clear	9/16/2008	09:00:00	MDT
BVD-EFDC-1_09222009_FM	RBP-TURB	Clear	9/22/2009	13:50:00	MDT
BVD-FRL-1_06032009_FM	RBP-TURB	Clear	6/3/2009	10:05:00	MDT
BVD-FRL-1_09112008_FM	RBP-TURB	Clear	9/11/2008	10:00:00	MDT

**Table D-3. HSI - Beaverhead TPA - Turbidity- 2008/2009**

Activity ID	Characteristic ID	Result Value	Date	Time	Time Zone
BVD-FRL-1_09162009_FM	RBP-TURB	Clear	9/16/2009	11:30:00	MDT
BVD-FRNC-1_09232009_FM	RBP-TURB	Clear	9/23/2009	11:30:00	MDT
BVD-FRNC-106032009_FM	RBP-TURB	Clear	6/3/2009	16:15:00	MDT
BVD-GHC-1_06032009_FM	RBP-TURB	Slight Turb.	6/3/2009	09:10:00	MDT
BVD-GHC-1_09112008_FM	RBP-TURB	Clear	9/11/2008	09:10:00	MDT
BVD-GHC-1_09162009_FM	RBP-TURB	Clear	9/16/2009	09:00:00	MDT
BVD-GHC-2_06032009_FM	RBP-TURB	Slight Turb.	6/3/2009	13:15:00	MDT
BVD-GHC-2_09112008_FM	RBP-TURB	Clear	9/11/2008	14:15:00	MDT
BVD-GHC-2_09162009_FM	RBP-TURB	Clear	9/16/2009	13:55:00	MDT
BVD-GHC-3_06022009_FM	RBP-TURB	Slight Turb.	6/2/2009	12:20:00	MDT
BVD-GHC-3_09102008_FM	RBP-TURB	Clear	9/10/2008	12:30:00	MDT
BVD-GHC-3_09162009_FM	RBP-TURB	Clear	9/16/2009	16:15:00	MDT
BVD-GHC-4_06022009_FM	RBP-TURB	Turbid	6/2/2009	13:40:00	MDT
BVD-GHC-4_09102008_FM	RBP-TURB	Clear	9/10/2008	15:00:00	MDT
BVD-GHC-5_06032009_FM	RBP-TURB	Turbid	6/3/2009	20:00:00	MDT
BVD-GHC-5_09162008_FM	RBP-TURB	Clear	9/16/2008	16:30:00	MDT
BVD-GHC-5_09212009_FM	RBP-TURB	Clear	9/21/2009	15:00:00	MDT
BVD-RSC-1_06032009_FM	RBP-TURB	Clear	6/3/2009	15:25:00	MDT
BVD-RSC-1_09232009_FM	RBP-TURB	Clear	9/23/2009	10:30:00	MDT
BVD-RSC-2_06032009_FM	RBP-TURB	Clear	6/3/2009	17:00:00	MDT
BVD-RSC-2_09162008_FM	RBP-TURB	Clear	9/16/2008	13:00:00	MDT
BVD-RSC-2A_09232009_FM	RBP-TURB	Clear	9/23/2009	13:10:00	MDT
BVD-RSC-2B_09232009_FM	RBP-TURB	Clear	9/23/2009	12:30:00	MDT
BVD-RSC-3_06022009_FM	RBP-TURB	Slight Turb.	6/2/2009	18:30:00	MDT
BVD-RSC-3_09162008_FM	RBP-TURB	Clear	9/16/2008	14:30:00	MDT
BVD-RSC-3_09232009_FM	RBP-TURB	Clear	9/23/2009	13:50:00	MDT
BVD-RSVRC-1_09102008_FM	RBP-TURB	Clear	9/10/2008	11:00:00	MDT
BVD-RSVRC1_09162009_FM	RBP-TURB	Clear	9/16/2009	15:00:00	MDT
BVD-RSVRC-2_06022009_FM	RBP-TURB	Clear	6/2/2009	11:20:00	MDT
BVD-SCDR-1_09112008_FM	RBP-TURB	Clear	9/11/2008	11:30:00	MDT
BVD-SCDR-1A_09162009_FM	RBP-TURB	Clear	9/16/2009	12:40:00	MDT
BVD-SCDR-2_06032009_FM	RBP-TURB	Slight Turb.	6/3/2009	12:45:00	MDT
BVD-SCDR-2_09162009_FM	RBP-TURB	Clear	9/16/2009	13:25:00	MDT
BVD-SPRGC-1_09172009_FM	RBP-TURB	Clear	9/17/2009	16:15:00	MDT

**Table D-3. HSI - Beaverhead TPA - Turbidity- 2008/2009**

Activity ID	Characteristic ID	Result Value	Date	Time	Time Zone
BVD-SPRGC-2_06042009_FM	RBP-TURB	Slight Turb.	6/4/2009	09:30:00	MDT
BVD-SPRGC-2_09172009_FM	RBP-TURB	Clear	9/17/2009	15:30:00	MDT
BVD-SPRGC-2_09182008_FM	RBP-TURB	Clear	9/18/2008	18:15:00	MDT
BVD-SPRGC-3_09172009_FM	RBP-TURB	Slight Turb.	9/17/2009	14:20:00	MDT
BVD-SPRGC-3_09182008_FM	RBP-TURB	Slight Turb.	9/18/2008	17:15:00	MDT
BVD-SPRGC-4_06042009_FM	RBP-TURB	Slight Turb.	6/4/2009	07:30:00	MDT
BVD-SPRGC-4_09172009_FM	RBP-TURB	Clear	9/17/2009	08:30:00	MDT
BVD-SPRGC-4_09182008_FM	RBP-TURB	Clear	9/18/2008	13:00:00	MDT
BVD-STNC-1_06042009_FM	RBP-TURB	Clear	6/4/2009	12:15:00	MDT
BVD-STNC-1_09172009_FM	RBP-TURB	Slight Turb.	9/17/2009	13:20:00	MDT
BVD-STNC-1_09182008_FM	RBP-TURB	Turbid	9/18/2008	16:15:00	MDT
BVD-STNC-1A_09172009_FM	RBP-TURB	Turbid	9/17/2009	13:20:00	MDT
BVD-STNC-2_06042009_FM	RBP-TURB	Slight Turb.	6/4/2009	11:15:00	MDT
BVD-STNC-2_09182008_FM	RBP-TURB	Clear	9/18/2008	15:15:00	MDT
BVD-STNC-4_06042009_FM	RBP-TURB	Clear	6/4/2009	08:20:00	MDT
BVD-STNC-4_09172008_FM	RBP-TURB	Clear	9/17/2008	17:45:00	MDT
BVD-STNC-4_09172009_FM	RBP-TURB	Clear	9/17/2009	10:30:00	MDT
BVD-TYLC-1_09102008_FM	RBP-TURB	Clear	9/10/2008	16:00:00	MDT
BVD-TYLC-1_09222009_FM	RBP-TURB	Clear	9/22/2009	10:15:00	MDT
BVD-TYLC-1A_09222009_FM	RBP-TURB	Clear	9/22/2009	11:45:00	MDT
BVD-TYLC-2_06022009_FM	RBP-TURB	Clear	6/2/2009	09:55:00	MDT
BVD-TYLC-2_09102008_FM	RBP-TURB	Clear	9/10/2008	08:45:00	MDT
BVD-TYLC-2_09222009_FM	RBP-TURB	Clear	9/22/2009	08:45:00	MDT
BVD-WFBTDC-1_06012009_FM	RBP-TURB	Turbid	6/1/2009	16:45:00	MDT
BVD-WFBTDC-1_09152008_FM	RBP-TURB	Clear	9/15/2008	14:20:00	MDT
BVD-WFBTDC-1_09152009_FM	RBP-TURB	Clear	9/15/2009	08:50:00	MDT
BVD-WFBTDC-2_06012009_FM	RBP-TURB	Turbid	6/1/2009	17:45:00	MDT
BVD-WFBTDC-2_09152008_FM	RBP-TURB	Clear	9/15/2008	16:00:00	MDT
BVD-WFBTDC-2_09152009_FM	RBP-TURB	Clear	9/15/2009	09:30:00	MDT
BVD-WFDC-1_06022009_FM	RBP-TURB	Clear	6/2/2009	15:15:00	MDT
BVD-WFDC-1_09222009_FM	RBP-TURB	Clear	9/22/2009	14:35:00	MDT
BVD-WFDC-2_06022009_FM	RBP-TURB	Clear	6/2/2009	16:00:00	MDT
BVD-WFDC-2_09112008_FM	RBP-TURB	Slight Turb.	9/11/2008	16:30:00	MDT
BVD-WFDC-2_09222009_FM	RBP-TURB	Clear	9/22/2009	15:20:00	MDT

Table D-4. HSI - Beaverhead TPA - TSS - 2008/2009

Activity ID	Characteristic ID	Result Detection Condition	Result Value	Result Value Unit	Result Qualifier	Date	Time	Time Zone
BVD-BTDC-1_09092008_WS	TSS		6	mg/l		9/16/2008		
BVD-BTDC-1_09152009_WS	TSS		5	mg/l		9/21/2009	11:30:00	MDT
BVD-BTDC-2_06022009_WS	TSS		12.7	mg/l		6/9/2009	10:18:00	MST
BVD-BTDC-2_09122008_WS	TSS		17	mg/l		9/16/2008		
BVD-BTDC-2_09152009_WS	TSS		7	mg/l		9/21/2009	13:40:00	MDT
BVD-BTDC-3_06042009_WS	TSS		19.8	mg/l		6/11/2009	17:50:00	MST
BVD-BTDC-3_09122008_QCFB	TSS	ND				9/22/2008		
BVD-BTDC-3_09122008_QCFR	TSS		5	mg/l		9/23/2008		
BVD-BTDC-3_09152009_WS	TSS		7	mg/l		9/21/2009	17:00:00	MDT
BVD-BTDC-3_09172008_WS	TSS	ND				9/23/2008		
BVD-BVHR-1_06032009_WS	TSS		1.6	mg/l		6/9/2009	10:18:00	MST
BVD-BVHR-1_09172008_WS	TSS	ND				9/22/2008		
BVD-BVHR-1_09242009_QCFB	TSS	ND				9/25/2009	09:15:00	MDT
BVD-BVHR-1_09242009_QCFR	TSS		3	mg/l		9/25/2009	09:15:00	MDT
BVD-BVHR-1_09242009_WS	TSS		1	mg/l		9/25/2009	09:15:00	MDT
BVD-BVHR-2_06032009_WS	TSS		3	mg/l		6/10/2009	12:26:00	MST
BVD-BVHR-2_09172008_WS	TSS	ND				9/23/2008		
BVD-BVHR-2_09242009_QCFB	TSS		1	mg/l	B	9/25/2009	10:30:00	MDT
BVD-BVHR-2_09242009_QCFR	TSS		4	mg/l		9/25/2009	10:30:00	MDT
BVD-BVHR-2_09242009_WS	TSS		3	mg/l		9/25/2009	10:30:00	MDT
BVD-BVHR-3_06032009_WS	TSS		26	mg/l		6/10/2009	12:26:00	MST
BVD-BVHR-3_09162008_WS	TSS		4	mg/l		9/22/2008		
BVD-BVHR-3_09212009_WS	TSS		3	mg/l		9/25/2009	13:45:00	MDT
BVD-BVHR-3A_09212009_WS	TSS		5	mg/l		9/25/2009	15:30:00	MDT
BVD-BVHR-4_06042009_WS	TSS		39	mg/l		6/11/2009	17:50:00	MST
BVD-BVHR-4_09122008_WS	TSS	ND				9/16/2008		
BVD-BVHR-4_09152009_WS	TSS		3	mg/l		9/21/2009	14:30:00	MDT
BVD-BVHR-5_06042009_WS	TSS		31	mg/l		6/11/2009	17:50:00	MST
BVD-BVHR-5_09122008_WS	TSS	ND				9/16/2008		

Table D-4. HSI - Beaverhead TPA - TSS - 2008/2009

Activity ID	Characteristic ID	Result Detection Condition	Result Value	Result Value Unit	Result Qualifier	Date	Time	Time Zone
BVD-BVHR-5_09152009_WS	TSS		3	mg/l		9/21/2009	15:45:00	MDT
BVD-BVHR-5A_09232009_WS	TSS		2	mg/l		9/25/2009	14:40:00	MDT
BVD-BVHR-6_06042009_QCFB	TSS		1	mg/l	B	6/11/2009	10:43:00	MST
BVD-BVHR-6_06042009_QCFR	TSS		38	mg/l		6/11/2009	10:43:00	MST
BVD-BVHR-6_06042009_WS	TSS		35	mg/l		6/11/2009	10:43:00	MST
BVD-BVHR-6_09172008_WS	TSS	ND				9/23/2008		
BVD-BVHR-6_09232009_QCFB	TSS	ND				9/25/2009	16:00:00	MDT
BVD-BVHR-6_09232009_QCFR	TSS	ND				9/25/2009	16:00:00	MDT
BVD-BVHR-6_09232009_WS	TSS		2	mg/l		9/25/2009	16:00:00	MDT
BVD-BVHR-6A_09232009_WS	TSS	ND				9/25/2009	08:20:00	MDT
BVD-BVHR-7_06042009_WS	TSS		9	mg/l	B	6/11/2009	17:50:00	MST
BVD-BVHR-7_09182008_WS	TSS	ND				9/23/2008		
BVD-BVHR-7_09182009_WS	TSS		7	mg/l		9/21/2009	08:40:00	MDT
BVD-BVHR-8_06112009_WS	TSS		12.1	mg/l		6/17/2009	16:22:00	MST
BVD-BVHR-8_09182008_QCFB	TSS	ND				9/23/2008		
BVD-BVHR-8_09182008_QCFR	TSS	ND				9/23/2008		
BVD-BVHR-8_09182008_WS	TSS	ND				9/22/2008		
BVD-BVHR-8_09182009_WS	TSS		9	mg/l		9/21/2009	10:45:00	MDT
BVD-CCC-1_06032009_WS	TSS		14	mg/l		6/10/2009	12:26:00	MST
BVD-CCC-1_09172008_WS	TSS	ND				9/23/2008		
BVD-CCC-1_09242009_WS	TSS		9	mg/l		9/25/2009	10:00:00	MDT
BVD-DYC-1_06022009_WS	TSS		12	mg/l		6/9/2009	10:18:00	MST
BVD-DYC-1_09112008_WS	TSS		13	mg/l		9/16/2008		
BVD-DYC-1_09222009_WS	TSS		46	mg/l		9/25/2009	12:45:00	MDT
BVD-DYC-1A_09222009_QCFB	TSS	ND				9/25/2009	15:50:00	MDT
BVD-DYC-1A_09222009_QCFR	TSS		4	mg/l		9/25/2009	15:50:00	MDT
BVD-DYC-1A_09222009_WS	TSS		6	mg/l		9/25/2009	15:50:00	MDT
BVD-EFBTDC-1_06012009_WS	TSS		13	mg/l		6/8/2009	13:27:00	MST
BVD-EFBTDC-1_09092008_WS	TSS	ND				9/16/2008		
BVD-EFBTDC-1_09152009_WS	TSS		1	mg/l		9/21/2009	10:15:00	MDT

**Table D-4. HSI - Beaverhead TPA - TSS - 2008/2009**

Activity ID	Characteristic ID	Result Detection Condition	Result Value	Result Value Unit	Result Qualifier	Date	Time	Time Zone
BVD-EFDC-1_06022009_WS	TSS		23	mg/l		6/8/2009	18:29:00	MST
BVD-EFDC-1_09162008_QCFB	TSS	ND				9/22/2008		
BVD-EFDC-1_09162008_QCFR	TSS	ND				9/22/2008		
BVD-EFDC-1_09162008_WS	TSS	ND				9/22/2008		
BVD-EFDC-1_09222009_WS	TSS		4	mg/l		9/25/2009	13:50:00	MDT
BVD-FRL-1_06032009_WS	TSS		15	mg/l		6/9/2009	10:18:00	MST
BVD-FRL-1_09112008_WS	TSS		7	mg/l		9/16/2008		
BVD-FRL-1_09162009_WS	TSS		5	mg/l		9/21/2009	11:30:00	MDT
BVD-FRNC-1_06032009_WS	TSS		8	mg/l		6/9/2009	10:18:00	MST
BVD-FRNC-1_09232009_WS	TSS		1	mg/l		9/25/2009	11:30:00	MDT
BVD-GHC-1_06032009_WS	TSS		6	mg/l		6/9/2009	10:18:00	MST
BVD-GHC-1_09112008_WS	TSS	ND				9/16/2008		
BVD-GHC-1_09162009_WS	TSS	ND				9/21/2009	09:00:00	MDT
BVD-GHC-2_06032009_WS	TSS		6	mg/l		6/9/2009	10:18:00	MST
BVD-GHC-2_09112008_WS	TSS	ND				9/16/2008		
BVD-GHC-2_09162009_WS	TSS		1	mg/l		9/21/2009	13:55:00	MDT
BVD-GHC-3_06022009_QCFB	TSS	ND				6/8/2009	18:29:00	MST
BVD-GHC-3_06022009_QCFR	TSS		24	mg/l		6/8/2009	18:29:00	MST
BVD-GHC-3_06022009_WS	TSS		24	mg/l		6/8/2009	18:29:00	MST
BVD-GHC-3_09102008_WS	TSS	ND				9/16/2008		
BVD-GHC-3_09162009_WS	TSS		6	mg/l		9/21/2009	16:15:00	MDT
BVD-GHC-4_06022009_WS	TSS		35	mg/l		6/8/2009	18:29:00	MST
BVD-GHC-4_09102008_WS	TSS	ND				9/16/2008		
BVD-GHC-5_06032009_WS	TSS		87.9	mg/l		6/10/2009	12:26:00	MST
BVD-GHC-5_09162008_WS	TSS	ND				9/23/2008		
BVD-GHC-5_09212009_WS	TSS		4	mg/l		9/25/2009	15:00:00	MDT
BVD-RSC-1_06032009_QCFB	TSS	ND				6/9/2009	10:18:00	MST
BVD-RSC-1_06032009_QCFR	TSS		3	mg/l		6/9/2009	10:18:00	MST
BVD-RSC-1_06032009_WS	TSS		2.8	mg/l		6/9/2009	10:18:00	MST
BVD-RSC-1_09162008_WS	TSS	ND				9/23/2008		

**Table D-4. HSI - Beaverhead TPA - TSS - 2008/2009**

Activity ID	Characteristic ID	Result Detection Condition	Result Value	Result Value Unit	Result Qualifier	Date	Time	Time Zone
BVD-RSC-1_09232009_QCFB	TSS	ND				9/25/2009	10:30:00	MDT
BVD-RSC-1_09232009_QCFR	TSS	ND				9/25/2009	10:30:00	MDT
BVD-RSC-1_09232009_WS	TSS	ND				9/25/2009	10:30:00	MDT
BVD-RSC-2_06022009_WS	TSS		7	mg/l		6/9/2009	10:18:00	MST
BVD-RSC-2_09162008_WS	TSS	ND				9/22/2008		
BVD-RSC-2A_09232009_WS	TSS		3	mg/l		9/25/2009	13:10:00	MDT
BVD-RSC-2B_09232009_WS	TSS		2	mg/l		9/25/2009	12:30:00	MDT
BVD-RSC-3_06022009_WS	TSS		22	mg/l		6/9/2009	10:18:00	MST
BVD-RSC-3_09162008_WS	TSS		12	mg/l		9/22/2008		
BVD-RSC-3_09232009_WS	TSS		1	mg/l		9/25/2009	13:50:00	MDT
BVD-RSVRC-1_09102008_WS	TSS	ND				9/16/2008		
BVD-RSVRC1_09162009_WS	TSS		6	mg/l		9/21/2009	15:00:00	MDT
BVD-RSVRC-2_06022009_WS	TSS		2	mg/l		6/8/2009	18:29:00	MST
BVD-SCDR-1_09112008_WS	TSS		21	mg/l		9/16/2008		
BVD-SCDR-1A_09162009_WS	TSS		45	mg/l		9/21/2009	12:40:00	MDT
BVD-SCDR-2_06022009_WS	TSS		86.6	mg/l		6/9/2009	10:18:00	MST
BVD-SCDR-2_09162009_WS	TSS		51	mg/l		9/21/2009	13:25:00	MDT
BVD-SPRGC-1_09172009_WS	TSS		12	mg/l		9/21/2009	16:15:00	MDT
BVD-SPRGC-1_09182008_WS	TSS		9	mg/l		9/23/2008		
BVD-SPRGC-2_06042009_WS	TSS		109	mg/l		6/11/2009	10:43:00	MST
BVD-SPRGC-2_09172009_WS	TSS		20	mg/l		9/21/2009	15:30:00	MDT
BVD-SPRGC-2_09182008_QCFB	TSS	ND				9/23/2008		
BVD-SPRGC-2_09182008_QCFR	TSS		7	mg/l		9/23/2008		
BVD-SPRGC-2_09182008_WS	TSS		6	mg/l		9/23/2008		
BVD-SPRGC-3_09172009_WS	TSS		21	mg/l		9/21/2009	14:20:00	MDT
BVD-SPRGC-3_09182008_WS	TSS		27	mg/l		9/23/2008		
BVD-SPRGC-4_06042009_WS	TSS		33	mg/l		6/11/2009	10:43:00	MST
BVD-SPRGC-4_09172009_WS	TSS		14	mg/l		9/21/2009	08:30:00	MDT
BVD-SPRGC-4_09182008_WS	TSS		6	mg/l		9/23/2008		
BVD-STL-1_06042009_WS	TSS		38.2	mg/l		6/9/2009	10:18:00	MST

Table D-4. HSI - Beaverhead TPA - TSS - 2008/2009

Activity ID	Characteristic ID	Result Detection Condition	Result Value	Result Value Unit	Result Qualifier	Date	Time	Time Zone
BVD-STNC-1_06042009_WS	TSS		22	mg/l		6/11/2009	10:43:00	MST
BVD-STNC-1_09172009_WS	TSS		31	mg/l		9/21/2009	13:20:00	MDT
BVD-STNC-1_09182008_WS	TSS		50	mg/l		9/23/2008		
BVD-STNC-1A_09172009_WS	TSS		80	mg/l		9/21/2009	12:30:00	MDT
BVD-STNC-2_06042009_WS	TSS		48	mg/l		6/11/2009	10:43:00	MST
BVD-STNC-2_09182008_WS	TSS	ND				9/23/2008		
BVD-STNC-4_06042009_WS	TSS		9	mg/l	B	6/11/2009	10:43:00	MST
BVD-STNC-4_09172008_WS	TSS	ND				9/23/2008		
BVD-STNC-4_09172009_WS	TSS		3	mg/l		9/21/2009	10:30:00	MDT
BVD-TYLC-1_09102008_WS	TSS		7	mg/l		9/16/2008		
BVD-TYLC-1_09222009_WS	TSS	ND				9/25/2009	10:15:00	MDT
BVD-TYLC-1A_09222009_WS	TSS	ND				9/25/2009	11:45:00	MDT
BVD-TYLC-2_06022009_WS	TSS		4	mg/l		6/8/2009	18:29:00	MST
BVD-TYLC-2_09102008_WS	TSS	ND				9/16/2008		
BVD-TYLC-2_09222009_QCFB	TSS	ND				9/25/2009	08:45:00	MDT
BVD-TYLC-2_09222009_QCFR	TSS		4	mg/l		9/25/2009	08:45:00	MDT
BVD-TYLC-2_09222009_WS	TSS		5	mg/l		9/25/2009	08:45:00	MDT
BVD-WFBTDC-1_06012009_WS	TSS		51	mg/l		6/8/2009	13:27:00	MST
BVD-WFBTDC-1_09152008_WS	TSS	ND				9/22/2008		
BVD-WFBTDC-1_09152009_WS	TSS		6	mg/l		9/21/2009	08:50:00	MDT
BVD-WFBTDC-2_06012009_WS	TSS		88.5	mg/l		6/8/2009	13:27:00	MST
BVD-WFBTDC-2_09152008_WS	TSS	ND				9/22/2008		
BVD-WFBTDC-2_09152009_WS	TSS		4	mg/l		9/21/2009	09:30:00	MDT
BVD-WFDC-1_06022009_WS	TSS		10	mg/l		6/8/2009	18:29:00	MST
BVD-WFDC-1_09112008_WS	TSS		5	mg/l		9/16/2008		
BVD-WFDC-1_09222009_WS	TSS		2	mg/l		9/25/2009	14:35:00	MDT
BVD-WFDC-2_06022009_WS	TSS		17	mg/l		6/8/2009	18:29:00	MST
BVD-WFDC-2_09112008_WS	TSS		19	mg/l		9/16/2008		
BVD-WFDC-2_09222009_WS	TSS		107	mg/l		9/25/2009	15:20:00	MDT



Table D-5. KirK Morphology Assessment 2003

Site Name/Reach	Mainstem BDC (03-U384)	Upper Spring Creek (03-U375)	Lower Spring Creek (03-U376)	Upper Stone Creek (03-U378)	Lower Stone Creek (03-U377)	Lower West Fork BDC (03-U382)	Upper West Fork BDC (03-U379)
Party	SD/SM	SD,SM, DK	SD,SM, SP,RH	SD/SM/SP/RH	SD/SM/SP/RH	SD/SM	SD/SM
Date	9/11/2003	9/8/2003	9/9/2003	9/9/2003	9/9/2003	9/11/2003	9/10/2003
State	MT	MT	MT	MT	MT	MT	MT
County	Beaverhead	Madison	Madison	Beaverhead	Beaverhead	Beaverhead	Beaverhead
Stream Name	Blacktail Deer Creek	Spring Creek	Spring Creek	Stone Creek	Stone Creek	West Fork Blacktail Deer Creek	West Fork Blacktail Deer Creek
UTM Easting	372781	389492	386773	393979	380338	393238	396277
UTM Northing	4999245	5016236	5026053	5007237	5019971	4968879	4959724
Bankfull Width	16.5	8.7	7.9	4.7	11	15.5	10.1
Bankfull Depth	1.45	2.02	1.8	1.6	1.5	1.19	1.9
W/D ratio	11.4	4.3	4.4	2.9	7.3	13	5.2
Stream Length	325	99	324	164	324	376	288
Valley Slope	0.6	2.6	0.3	4.8	0.3	1.5	2.3
Valley Length	291	84	302		302	320	200
Sinuosity (SL/VL)	1.1	1.18	1.07		1.07	1.18	1.1
Sinuosity (VS/CS)	1	1.6	0.75	1.17	0.75	1.9	2.88
Bankfull Width	16.5	8.7	7.9	4.7	11	15.5	10.1
Floodprone Width	20.2	20.5	23	10	16	35.3	41.7
Entrenchment Ratio	1.2	2.3	2.9	2.1	1.45	2.3	4.1
Bed Material	gravel/ cobbles	80% sand w/some cobbles	Fine Sand, silt, gravel, few cobbles	Boulders/cobbles/some gravel and sand	Sand/gravel/ some large rocks	Gravel/cobbles/ some sand	Mostly cobbles in sandy matrix, some boulders
Left Bank Ids	silt/sand/ gravel	sand	sand & silt	boulders/cobbles	vegetated	sand	sand/cobble
Right Bank Ids	sand/gravel/cobbles	sand	sand & silt	boulders/cobbles	vegetated	sand/cobbles	sand/cobbles
Left Bank Slope	12.8	16.19%	18.90%	32.2	32.2	67%	68%
Right Bank Slope	13.7	11.16%	5.40%	84.35	84.33	22%	2.50%
Pebble d50	33	1.8	1.5	35	10	21	16
Pebble d10	silt	1	0.4	2	silt	0.36	silt
Pebble d90	105	90	89	260	40	90	120
Rootwad Upper Reach		13		1		none	4
Rootwad Lower Reach		32		1		none	4
Logs 10-30cm Upper Reach	2	1	1	4	1	1	4
Logs 10-30cm Lower Reach	3	0		3		0	0

**Table D-5. KirK Morphology Assessment 2003**

Site Name/Reach	Mainstem BDC (03-U384)	Upper Spring Creek (03-U375)	Lower Spring Creek (03-U376)	Upper Stone Creek (03-U378)	Lower Stone Creek (03-U377)	Lower West Fork BDC (03-U382)	Upper West Fork BDC (03-U379)
Logs 30-50cm Upper Reach				2			
Distance					100 m		
LWD Importance	low	low	Fairly high	Fairly high for habitat but less so than substrate	relatively low	low	low- most root wads where stream is further from road
Debris Jam 1		1		17			1
Debris Jam 2				15			
Beaver Activity	none	none	none		none	none	none
Riparian % Cover	85	95	90	90	100	60	90
Riparian % Shade	60	50	10	20		25	10
Left Bank Veg	willows/ cottonwood/red osier dogwood/ grasses/ sedges	willows/grass	willows/grass	grass/woodies/ shrubs	grass	bare/grasses/some willows	grass w/ 20% willow, some sedges
Right Bank Veg	cottonwood/willow / grasses/ rushes	willows/grass	grass/weeds	grass/some woodies/shrubs	grass	willows/sedges/ grasses	grass w/ 5% willow
Mid-channel Bar Veg	none	NA	NA	NA	NA	NA	NA
Channel Class							
% Pool	10	15	10	10	5		0
% Riffle	70	70	20	80	40	20	25
% Pocket Water		<1		10			5
% Run	20	15	70		55	80	70
# Pools	3	15	2	3	1		
# Riffles	9		3		5	2	2
Distance			100	100 m	100 m		25
Total Length Pools	20 m		10 meters	10 m	2 m		
Total Length Riffles	120 m		20 meters	80 m	40 m		25

**Table D-5. KirK Morphology Assessment 2003**

Site Name/Reach	Mainstem BDC (03-U384)	Upper Spring Creek (03-U375)	Lower Spring Creek (03-U376)	Upper Stone Creek (03-U378)	Lower Stone Creek (03-U377)	Lower West Fork BDC (03-U382)	Upper West Fork BDC (03-U379)
Distance	140 m		100 meters	100 m	100 m		
% Reach Pools			10	10	5		
% Reach Riffles			20	80	40	20	25
Max Depth Pool #1	3 ft	All 15 pools max. depth of 8" and residual depth of 2"	25-50	<25	25-50		25-50
Max Depth Pool #2	3 ft		25-50	<25			25-50
Max Depth Pool #3	2 ft						
Out Dpth Pool #1	6 in		<25	<25	<25		<25
Out Dpth Pool #2	6 in		<25	<25			<25
Out Dpth Pool #3	6 in						
Max Dpth <25cm				2			
Max Dpth 25-50cm			2		1		
Res Dpth <25cm			2	2	1		
% Pocket LWD			0	25	1		
% Pocket Rocks			0	5	0		
Ave Pocket Dpth			NA	20 cm	20 cm		
Dep Features	side bars, lots of silt deposition in pools	side bars	mid bars, side bars and diagonal bars	mid bars/diagonal bars	mid bars/ diagonal bars/ side bars	mid bars/side bars	Minimal deposition on sides and in heavy algal areas.
Channel Stability	stable/static	stable/static	Fairly stable	stable/static	stable/static	stable	
Percent undercut	5	15	0	10	0	<2	5
Sediment Supply	silt/sand/ grave/ cobble	sand	silt/sand	silt/sand/grave/ cobble	sand/grave/cobble	silt/sand/gravel/ cobble	san
Sediment Source	immediate banks	immediate banks	upstream	immediate banks and upstream	upstream (natural)	immediate banks and upstream	immediate banks
Magnitude	low		Fairly high			failing high banks during flood years	

**Table D-6. Cross Section Data from the BDNF Integrated Riparian Monitoring Hydrology Report 2010**

<b>USFS French Creek Stream Morphology 2010</b>	<b>X-Sec. 1 2010</b>	<b>X-Sec. 2 2010</b>	<b>X-Sec. 3 2010</b>
Calculated Floodprone Width	39.61	52.70	49.38
Entrenchment Ratio (Floodprone)	5.87	9.18	6.76
Geomorphic Floodplain Width	9.70	8.40	48.60
Entrenchment Ratio (Floodplain)	1.43	1.50	6.65
Bankfull Width	6.75	5.74	7.30
Mean Bankfull Depth at X-Section	0.88	0.83	0.80
Width/Depth Ratio (W/D)	7.67	6.92	9.13
Bank Erosion Hazard Index Avg	27.70	27.70	27.70
Stream Type	E4a	E4a	E4a
D50 – Mean Particle Size (mm)	38.50	38.50	38.50
Valley Bottom Width (VBW) (feet)	240.00	240.00	240.00
Valley Bottom Gradient (%)	5.04	5.04	5.04
Sinuosity	1.2	1.20	1.20
Stream Slope (%)	4.2	4.20	4.20

**Table D-7. Cross Section Data from the BDNF Integrated Riparian Monitoring Hydrology Report 2010**

<b>Grasshopper Creek Stream Morphology 2010</b>	<b>X-Sec. 1 2010</b>	<b>X-Sec. 2 2010</b>	<b>X-Sec. 3 2010</b>
Calculated Floodprone Width	76.37	17.05	32.09
Entrenchment Ratio (Floodprone)	15.82	2.55	4.23
Geomorphic Floodplain Width	15.40	12.80	27.10
Entrenchment Ratio (Floodplain)	3.18	1.91	3.57
Bankfull Width	4.83	6.69	7.59
Mean Bankfull Depth at X-Section	1.59	1.08	1.13
Width/Depth Ratio (W/D)	3.04	6.19	6.72
Bank Erosion Hazard Index Avg	33.30	33.30	33.30
Stream Type	E4	E4	E4
D50 – Mean Particle Size (mm)	48.80	48.80	48.80
Valley Bottom Width (VBW) (feet)	110.00	110.00	110.00
Valley Bottom Gradient (%)	2.62	2.62	2.62
Sinuosity	1.40	1.40	1.40
Stream Slope (%)	1.87	1.87	1.87

**Table D-8. DEQ Reference Site Data 2004/2005**

<b>Site ID</b>	<b>Stream</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Date</b>	<b>Mean Bkfw (ft)</b>	<b>Channel Type</b>	<b>PBLCnt %&lt;6m</b>	<b>PBLCnt %&lt;2m</b>	<b>Grid Pool %&lt;6 mm</b>	<b>Residual Pool Depth (ft)</b>
MO2CTWD01	Cottonwood Creek	44.5633	-112.2546	9/13/04	8.5	C	9	6		
EFKBlack_298_C	East Fork Blacktail Deer Creek	44.86584	-112.2188	7/14/05	40.7	C	6	4	3	1.9