APPENDIX B – SURFACE WATER ALUMINUM DATA FOR THE SHEEP CREEK TMDL PROJECT AREA

LIST OF TABLES

Table B-1. Sheep Creek TMDL Project Area Aluminum Water Quality Data B-3

This appendix contains a table of the data used by the Montana Department of Environmental Quality (DEQ) to conduct aluminum water quality and total maximum daily load source assessments of Sheep Creek. DEQ used data submitted by Tintina Montana Inc. in the assessments, and their data is also included in the below table.

The table includes:

- surface water flow in cubic feet per second (cfs)
- water column pH in standard units (su)
- analytical laboratory results of:
    - total dissolved aluminum (Al) in micrograms per liter (µg/L)
    - total suspended solids (TSS) in µg/L
    - total dissolved solids (TDS) in milligrams per liter (mg/L)
- specific conductivity (SC) readings in micromhos per centimeter (µmhos/cm)

Note that where no value is given, no data was collected. Figure 5-1 in Section 5.2 of the TMDL document contains a corresponding map of the sample site locations.

The following codes appear in the table:

- "<" symbol: Indicates non-detectable samples where the detection limit is populated as the value
- E: Estimated flow measurement
- ICE: No flow measurement taken as the sampling location was covered with ice
- NF-ICE: No flow measurement taken as the sampling location was covered with ice
- NM: No measurement taken
- NM-ICE: No flow measurement taken because the sampling location was covered with ice
- NO MEAS: No flow measurement taken

Table B-1. Sheep Creek TMDL Project Area Aluminum Water Quality Data

Data Source	Sampling Site Name	Site ID	Sampling Date	Flow (cfs)	pH (su)	Al Total Dissolved (µg/L)	TSS (µg/L)	TDS (mg/L)	SC (µmhos/cm)
DEQ	Sheep Creek at headwaters, at Showdown ski area	M10SHEPC11	5/14/15	E 1.5	7.78	< 9.0	< 4000		
DEQ	Sheep Creek at headwaters	M10SHEPC03	9/13/05	5.28	8.27	< 30.0	1000		
DEQ	Sheep Creek upstream of Deadman Creek	M10SHEPC10	5/13/15	19.85	8.3	< 9.0	5000		
DEQ	Sheep Creek upstream of Deadman Creek	M10SHEPC10	7/22/15	4.93	8.52	< 9.0	4000		
DEQ	Sheep Creek upstream of Deadman Creek	M10SHEPC10	8/20/15	4.23	8.69	< 9.0	4000		
DEQ	Sheep Creek about 3/4 mile downstream of Nugget Creek	M10SHEPC09	5/13/15	48.46	8.3	19.0	4000		
DEQ	Sheep Creek about 3/4 mile downstream of Nugget Creek	M10SHEPC09	7/22/15	13.17	8.58	< 9.0	4000		
DEQ	Sheep Creek about 3/4 mile downstream of Nugget Creek	M10SHEPC09	8/20/15	12.07	8.81	< 9.0	4000		
DEQ	Sheep Creek near the USFS campground	M10SHEPC08	5/13/15	69.44	8.4	21.0	8000		
DEQ	Sheep Creek near the USFS campground	M10SHEPC08	7/22/15	22.16	8.57	< 9.0	4000		
DEQ	Sheep Creek near the USFS campground	M10SHEPC08	8/20/15	15.2	8.75	< 9.0	4000		
Tintina Montana Inc.	USGS-SC1	BBC-1403-112	3/24/14	NO MEAS	8.45	< 9.0	< 10000	203	364
Tintina Montana Inc.	USGS-SC1	BBC-1404-102	4/17/14	NO MEAS	7.8	< 9.0	< 10000	204	373
Tintina Montana Inc.	USGS-SC1	BBC-1405-203	5/16/14	70.55	7.86	132.0	38000	149	250

Table B-1. Sheep Creek TMDL Project Area Aluminum Water Quality Data

Data Source	Sampling Site Name	Site ID	Sampling Date	Flow (cfs)	pH (su)	Al Total Dissolved (µg/L)	TSS (µg/L)	TDS (mg/L)	SC (µmhos/cm)
Tintina Montana Inc.	USGS-SC1	BBC-1406-111	6/11/14	87.09	8.15	21.0	11000	163	293
Tintina Montana Inc.	USGS-SC1	BBC-1407-202	7/8/14	55.8	8.38	3.0	< 10000	186	339
Tintina Montana Inc.	USGS-SC1	BBC-1410-102	10/29/14	17.95	7.38	< 9.0	< 10000	204	340
Tintina Montana Inc.	USGS-SC1	BBC-1411-103	11/12/14	NO MEAS	8.26	< 9.0	< 10000	230	408
Tintina Montana Inc.	USGS-SC1	BBC-1412-101	12/23/14	NO MEAS	7.29	< 9.0	11000	193	363
Tintina Montana Inc.	USGS-SC1	BBC-1501-101	1/29/15	NO MEAS	8.18	< 9.0	< 10000	208	333
Tintina Montana Inc.	USGS-SC1	BBC-1502-103	2/10/15	NO MEAS	8.24	< 9.0	< 10000	197	358
Tintina Montana Inc.	USGS-SC1	BBC-1503-111	3/26/15	19.56	8.37	13.0	< 10000	198	347
Tintina Montana Inc.	USGS-SC1	BBC-1504-103	4/29/15	56.8	8.29	40.0	< 10000	159	269
Tintina Montana Inc.	USGS-SC1	BBC-1505-102	5/13/15	64.4	8.26	28.0	8000	167	281
Tintina Montana Inc.	USGS-SC1	BBC-1505-203	5/27/15	103.5	8	33.0	16000	138	260.7
Tintina Montana Inc.	USGS-SC1	BBC-1506-112	6/25/15	46.7	8.45	< 9.0	< 4000	193	322
Tintina Montana Inc.	USGS-SC1	BBC-1508-203	8/26/15	14.3	8.53	< 9.0	< 4000	204	360
Tintina Montana Inc.	USGS-SC1	BBC-1509-103	9/21/15	13.11	8.67	< 9.0	< 4000	208	365.2

Table B-1. Sheep Creek TMDL Project Area Aluminum Water Quality Data

Data Source	Sampling Site Name	Site ID	Sampling Date	Flow (cfs)	pH (su)	Al Total Dissolved (µg/L)	TSS (µg/L)	TDS (mg/L)	SC (µmhos/cm)
Tintina Montana Inc.	USGS-SC1	BBC-1510-102	10/9/15	11.41	8.53	< 9.0	< 4000	204	365
Tintina Montana Inc.	USGS-SC1	BBC-1511-102	11/17/15	9.27	8.24	< 9.0	< 4000	221	380
Tintina Montana Inc.	USGS-SC1	BBC-1512-100	12/22/15	NM-ICE	7.43	< 9.0	< 4000	203	375
Tintina Montana Inc.	USGS-SC1	BBC-1601-101	1/14/16	NM-ICE	6.97	< 9.0	< 4000	204	369
Tintina Montana Inc.	USGS-SC1	BBC-1602-102	2/25/16	NM-ICE	8.32	< 9.0	< 4000	211	380
Tintina Montana Inc.	USGS-SC1	BBC-1603-103	3/3/16	NM-ICE	7.47	< 9.0	< 4000	203	369
Tintina Montana Inc.	USGS-SC1	BBC-1604-203	4/27/16	38.58	7.38	55.0	8000	155	263
Tintina Montana Inc.	USGS-SC1	BBC-1605-203	5/26/16	111.32	8.45	40.0	25000	134	247.6
Tintina Montana Inc.	USGS-SC1	BBC-1606-137	6/23/16	37.63	8.4	14.0	< 4000	179	328
Tintina Montana Inc.	USGS-SC1	BBC-1607-102	7/7/16	20.91	8.27	< 9.0	< 4000	189	342
Tintina Montana Inc.	USGS-SC1	BBC-1608-203	8/22/16	14.04	8	< 9.0	< 4000	207	375
Tintina Montana Inc.	USGS-SC1	BBC-1609-121	9/21/16	13.27	8.07	< 9.0	< 4000	191	352
Tintina Montana Inc.	USGS-SC1	BBC-1610-202	10/21/16	13.53	8.23	< 9.0	< 4000	204	345
Tintina Montana Inc.	USGS-SC1	BBC-1611-211	11/10/16	12.81	7.86	< 9.0	< 4000	193	345

Table B-1. Sheep Creek TMDL Project Area Aluminum Water Quality Data

Data Source	Sampling Site Name	Site ID	Sampling Date	Flow (cfs)	pH (su)	Al Total Dissolved (µg/L)	TSS (µg/L)	TDS (mg/L)	SC (µmhos/cm)
Tintina Montana Inc.	USGS-SC1	BBC-1612-101	12/19/16	NM-ICE	7.74	< 9.0	< 4000	202	292
Tintina Montana Inc.	USGS-SC1	BBC-1701-103	1/10/17	NM-ICE	7.58	< 9.0	< 4000	186	335
Tintina Montana Inc.	USGS-SC1	BBC-1702-100	2/16/17	NM-ICE	6.91	< 9.0	< 4000	187	374
Tintina Montana Inc.	USGS-SC1	BBC-1703-105	3/20/17	NM-ICE	7.92	19	21000	190	327
Tintina Montana Inc.	USGS-SC1	BBC-1704-104	4/20/17	18.65	7.48	13	5000	178	327
Tintina Montana Inc.	USGS-SC1	BBC-1705-103	5/10/17	53.5	7.4	198	22000	145	234
Tintina Montana Inc.	USGS-SC1	BBC-1706-103	6/12/17	50.4	8.24	52	6000	170	299.6
Tintina Montana Inc.	USGS-SC1	BBC-1707-103	7/27/17	18.8	8.29	< 9.0	< 4000	195	344
Tintina Montana Inc.	USGS-SC1	BBC-1708-103	8/28/17	12	8.29	< 9.0	< 4000	198	346
Tintina Montana Inc.	USGS-SC1	BBC-1709-103	9/11/17	10.03	8.27	< 9.0	< 4000	192	340
Tintina Montana Inc.	USGS-SC1	BBC-1710-104	10/17/17	9.77	7.33	< 9.0	< 4000	201	339
Tintina Montana Inc.	USGS-SC1	BBC-1711-101	11/27/17	ICE	8.27	11	< 4000	181	334
Tintina Montana Inc.	USGS-SC1	BBC-1712-101	12/28/17	NF-ICE	8.17	17	< 4000	200	374
Tintina Montana Inc.	SW-2	TSC-1105-100	5/24/11	250	7.09	390.0		117	156

Table B-1. Sheep Creek TMDL Project Area Aluminum Water Quality Data

Data Source	Sampling Site Name	Site ID	Sampling Date	Flow (cfs)	pH (su)	Al Total Dissolved (µg/L)	TSS (µg/L)	TDS (mg/L)	SC (µmhos/cm)
Tintina Montana Inc.	SW-2	TSC-1108-110	8/26/11	29.77	8.39	< 30.0		182	322
Tintina Montana Inc.	SW-2	BBC-1111-102	11/2/11	20.7	8.54	< 30.0		192	340
Tintina Montana Inc.	SW-2	BBC-1203-101	3/23/12	NO MEAS	7.78	< 30.0		162	258
Tintina Montana Inc.	SW-2	BBC-1205-105	5/30/12	103	7.93	50.0	< 10000	123	222
Tintina Montana Inc.	SW-2	BBC-1208-101	8/21/12	9.74	8.51	< 30.0	< 10000	145	265
Tintina Montana Inc.	SW-2	BBC-1211-117	11/28/12	NO MEAS	7.23	< 9.0	< 10000	194	345
Tintina Montana Inc.	SW-2	BBC-1303-110	3/20/13	NO MEAS	8.31	44.0	< 10000	162	311
Tintina Montana Inc.	SW-2	BBC-1306-110	6/4/13	156.4	7.66	114.0	47000	112	185
Tintina Montana Inc.	SW-2	BBC-1308-100	8/27/13	7.01	8.16	13.0	< 10000	165	266
Tintina Montana Inc.	SW-2	BBC-1311-101	11/6/13	NO MEAS	8.04	< 9.0	< 10000	175	320
Tintina Montana Inc.	SW-2	BBC-1403-110	3/24/14	NO MEAS	8.33	< 9.0	< 10000	171	324
Tintina Montana Inc.	SW-2	BBC-1404-101	4/17/14	NO MEAS	7.03	68.0	< 10000	176	317
Tintina Montana Inc.	SW-2	BBC-1405-202	5/16/14	106.99	6.87	299.0	24000	118	189
Tintina Montana Inc.	SW-2	BBC-1406-110	6/11/14	98.32	8.22	29.0	< 10000	144	2.55

Table B-1. Sheep Creek TMDL Project Area Aluminum Water Quality Data

Data Source	Sampling Site Name	Site ID	Sampling Date	Flow (cfs)	pH (su)	Al Total Dissolved (µg/L)	TSS (µg/L)	TDS (mg/L)	SC (µmhos/cm)
Tintina Montana Inc.	SW-2	BBC-1407-201	7/8/14	46.78	8.35	30.0	< 10000	185	327
Tintina Montana Inc.	SW-2	BBC-1408-135	8/21/14	19.27	8.22	< 9.0	< 10000	168	277
Tintina Montana Inc.	SW-2	BBC-1410-101	10/29/14	20.83	7.2	< 9.0	< 10000	200	327
Tintina Montana Inc.	SW-2	BBC-1411-101	11/12/14	NO MEAS	6.88	< 9.0	< 10000	223	388
Tintina Montana Inc.	SW-2	BBC-1412-103	12/23/14	NO MEAS	7.63	< 9.0	< 10000	162	323
Tintina Montana Inc.	SW-2	BBC-1501-102	1/29/15	NO MEAS	8.1	< 9.0	< 10000	192	314
Tintina Montana Inc.	SW-2	BBC-1502-101	2/10/15	NO MEAS	8.14	16.0	< 10000	175	317
Tintina Montana Inc.	SW-2	BBC-1503-110	3/26/15	31.17	8.43	143.0	< 10000	162	264
Tintina Montana Inc.	SW-2	BBC-1504-102	4/29/15	82.16	7.59	142.0	< 10000	121	203
Tintina Montana Inc.	SW-2	BBC-1505-101	5/13/15	109.2	8.2	66.0	7000	136	214
Tintina Montana Inc.	SW-2	BBC-1505-201	5/27/15	121.5	7.94	68.0	13000	128	234.7
Tintina Montana Inc.	SW-2	BBC-1506-110	6/25/15	30	8.43	< 9.0	< 4000	186	306
Tintina Montana Inc.	SW-2	BBC-1508-202	8/26/15	8.3	8.73	< 9.0	< 4000	181	316
Tintina Montana Inc.	SW-2	BBC-1509-101	9/21/15	14.89	8.71	< 9.0	< 4000	194	342.9

Table B-1. Sheep Creek TMDL Project Area Aluminum Water Quality Data

Data Source	Sampling Site Name	Site ID	Sampling Date	Flow (cfs)	pH (su)	Al Total Dissolved (µg/L)	TSS (µg/L)	TDS (mg/L)	SC (µmhos/cm)
Tintina Montana Inc.	SW-2	BBC-1510-101	10/9/15	14.17	8.52	< 9.0	< 4000	189	336
Tintina Montana Inc.	SW-2	BBC-1511-101	11/17/15	8.5	8.31	< 9.0	< 4000	193	336
Tintina Montana Inc.	SW-2	BBC-1512-101	12/22/15	NM-ICE	7.07	< 9.0	< 4000	187	275
Tintina Montana Inc.	SW-2	BBC-1601-100	1/14/16	NM-ICE	6.45	20.0	105000	192	318
Tintina Montana Inc.	SW-2	BBC-1602-100	2/25/16	NM-ICE	8.18	< 9.0	< 4000	192	351
Tintina Montana Inc.	SW-2	BBC-1603-102	3/3/16	NM-ICE	NO MEAS	24.0	22000	184	334
Tintina Montana Inc.	SW-2	BBC-1604-202	4/27/16	69.81	7.85	298.0	13000	112	175
Tintina Montana Inc.	SW-2	BBC-1605-201	5/26/16	121.06	8.4	59.0	17000	120	222
Tintina Montana Inc.	SW-2	BBC-1606-136	6/23/16	13.69	8.23	< 9.0	< 4000	167	287
Tintina Montana Inc.	SW-2	BBC-1607-101	7/7/16	4.95	8.24	< 9.0	5000	178	306
Tintina Montana Inc.	SW-2	BBC-1608-201	8/22/16	4.01	8.22	< 9.0	< 4000	178	284
Tintina Montana Inc.	SW-2	BBC-1609-120	9/21/16	16.98	7.97	< 9.0	5000	164	308
Tintina Montana Inc.	SW-2	BBC-1610-201	10/21/16	18.55	8.24	< 9.0	< 4000	178	308
Tintina Montana Inc.	SW-2	BBC-1611-210	11/10/16	19.11	7.89	< 9.0	< 4000	159	282

Table B-1. Sheep Creek TMDL Project Area Aluminum Water Quality Data

Data Source	Sampling Site Name	Site ID	Sampling Date	Flow (cfs)	pH (su)	Al Total Dissolved (µg/L)	TSS (µg/L)	TDS (mg/L)	SC (µmhos/cm)
Tintina Montana Inc.	SW-2	BBC-1612-100	12/19/16	NM-ICE	7.76	13.0	< 4000	180	306
Tintina Montana Inc.	SW-2	BBC-1701-102	1/10/17	NM-ICE	8	21	< 4000	168	300
Tintina Montana Inc.	SW-2	BBC-1702-101	2/16/17	NM-ICE	7.07	27	< 4000	161	331
Tintina Montana Inc.	SW-2	BBC-1703-104	3/20/17	NM-ICE	7.87	192	19000	165	260
Tintina Montana Inc.	SW-2	BBC-1704-103	4/20/17	35.48	7.38	166	< 4000	142	238
Tintina Montana Inc.	SW-2	BBC-1705-102	5/10/17	92.5	7.04	60	19000	117	172
Tintina Montana Inc.	SW-2	BBC-1706-101	6/12/17	39.9	8.18	62	6000	155	273.2
Tintina Montana Inc.	SW-2	BBC-1707-102	7/27/17	10.5	8.35	< 9.0	< 4000	167	294
Tintina Montana Inc.	SW-2	BBC-1708-102	8/28/17	9.5	8.36	< 9.0	< 4000	186	313
Tintina Montana Inc.	SW-2	BBC-1709-102	9/11/17	6.84	8.41	< 9.0	< 4000	191	315
Tintina Montana Inc.	SW-2	BBC-1710-103	10/17/17	13.7	7.32	< 9.0	< 4000	187	227
Tintina Montana Inc.	SW-2	BBC-1711-100	11/27/17	ICE	8.14	< 9.0	< 4000	163	295
Tintina Montana Inc.	SW-2	BBC-1712-100	12/28/17	NF-ICE	8.06	< 9.0	< 4000	186	343
DEQ	Sheep Creek downstream of Little Sheep Creek	M10SHEPC07	5/13/15	142	8.4	76.0	< 10000		

Table B-1. Sheep Creek TMDL Project Area Aluminum Water Quality Data

Data Source	Sampling Site Name	Site ID	Sampling Date	Flow (cfs)	pH (su)	Al Total Dissolved (µg/L)	TSS (µg/L)	TDS (mg/L)	SC (µmhos/cm)
DEQ	Sheep Creek downstream of Little Sheep Creek	M10SHEPC07	7/22/15	20.99	8.4	< 9.0	< 4000		
DEQ	Sheep Creek downstream of Little Sheep Creek	M10SHEPC07	8/19/15	16.64	8.82	< 9.0	< 4000		
DEQ	Sheep Creek about 1 mile upstream of Moose Creek	M10SHEPC06	5/13/15	160	8.4	79.0	< 10000		
DEQ	Sheep Creek about 1 mile upstream of Moose Creek	M10SHEPC06	7/21/15	18.52	8.7	< 9.0	< 4000		
DEQ	Sheep Creek about 1 mile upstream of Moose Creek	M10SHEPC06	8/19/15	15.86	8.92	< 9.0	< 4000		
Tintina Montana Inc.	SW-1	TSC-1105-101	5/24/11	613	7.59	320.0		118	181
Tintina Montana Inc.	SW-1	TSC-1108-109	8/26/11	34.36	8.43	< 30.0		182	317
Tintina Montana Inc.	SW-1	BBC-1111-103	11/2/11	20.7	8.56	< 30.0		182	321
Tintina Montana Inc.	SW-1	BBC-1203-103	3/23/12	30.24	8.28	< 30.0		158	239
Tintina Montana Inc.	SW-1	BBC-1205-104	5/30/12	111	8.21	60.0	16000	126	228
Tintina Montana Inc.	SW-1	BBC-1208-100	8/21/12	15.24	8.21	< 30.0	< 10000	165	301
Tintina Montana Inc.	SW-1	BBC-1211-118	11/28/12	18	7.51	< 9.0	< 10000	189	347
Tintina Montana Inc.	SW-1	BBC-1303-100	3/20/13	NO MEAS	8.4	33.0	< 10000	186	312
Tintina Montana Inc.	SW-1	BBC-1306-118	6/4/13	196	8.07	138.0	43000	107	189

Table B-1. Sheep Creek TMDL Project Area Aluminum Water Quality Data

Data Source	Sampling Site Name	Site ID	Sampling Date	Flow (cfs)	pH (su)	Al Total Dissolved (µg/L)	TSS (µg/L)	TDS (mg/L)	SC (µmhos/cm)
Tintina Montana Inc.	SW-1	BBC-1308-101	8/27/13	10.67	8.3	< 9.0	< 10000	154	291
Tintina Montana Inc.	SW-1	BBC-1311-102	11/6/13	21.92	8.3	< 9.0	< 10000	182	323
Tintina Montana Inc.	SW-1	BBC-1403-109	3/24/14	NO MEAS	8.63	< 9.0	< 10000	171	320
Tintina Montana Inc.	SW-1	BBC-1404-100	4/17/14	18.91	6.4	21.0	< 10000	186	329
Tintina Montana Inc.	SW-1	BBC-1405-200	5/16/14	135.02	6.76	333.0	28000	130	192
Tintina Montana Inc.	SW-1	BBC-1406-109	6/11/14	115.29	8.13	25.0	11000	145	254
Tintina Montana Inc.	SW-1	BBC-1407-200	7/8/14	63.69	8.01	30.0	< 10000	184	313
Tintina Montana Inc.	SW-1	BBC-1408-134	8/21/14	25.48	8.38	< 9.0	< 10000	177	286
Tintina Montana Inc.	SW-1	BBC-1410-100	10/29/14	20.8	5.45	< 9.0	< 10000	191	311
Tintina Montana Inc.	SW-1	BBC-1411-100	11/12/14	NO MEAS	7.44	< 9.0	< 10000	227	360
Tintina Montana Inc.	SW-1	BBC-1412-100	12/23/14	NO MEAS	5.3	< 9.0	< 10000	174	332
Tintina Montana Inc.	SW-1	BBC-1501-100	1/29/15	NO MEAS	8.17	< 9.0	< 10000	186	310
Tintina Montana Inc.	SW-1	BBC-1502-100	2/10/15	NO MEAS	8.04	33.0	20000	153	244
Tintina Montana Inc.	SW-1	BBC-1503-109	3/26/15	40.99	8.32	152.0	< 10000	165	257

Table B-1. Sheep Creek TMDL Project Area Aluminum Water Quality Data

Data Source	Sampling Site Name	Site ID	Sampling Date	Flow (cfs)	pH (su)	Al Total Dissolved (µg/L)	TSS (µg/L)	TDS (mg/L)	SC (µmhos/cm)
Tintina Montana Inc.	SW-1	BBC-1504-100	4/29/15	103.33	7.17	197.0	15000	125	204
Tintina Montana Inc.	SW-1	BBC-1505-200	5/27/15	90.1	7.75	28.0	13000	130	238
Tintina Montana Inc.	SW-1	BBC-1506-109	6/25/15	47.8	8.34	< 9.0	5000	190	301
Tintina Montana Inc.	SW-1	BBC-1508-200	8/26/15	11.1	7.72	< 9.0		186	318
Tintina Montana Inc.	SW-1	BBC-1509-100	9/21/15	20.03	8.71	< 9.0		199	342.5
Tintina Montana Inc.	SW-1	BBC-1510-100	10/8/15	19.46	8.49	< 9.0		194	341
Tintina Montana Inc.	SW-1	BBC-1511-100	11/17/15	8.83	8.32	< 9.0		203	351
Tintina Montana Inc.	SW-1	BBC-1512-107	12/22/15	NM-ICE	7.54	< 9.0		185	338
Tintina Montana Inc.	SW-1	BBC-1601-106	1/14/16	NM-ICE	7.71	< 9.0		189	336
Tintina Montana Inc.	SW-1	BBC-1602-103	2/25/16	NM-ICE	8.33	< 9.0		206	363
Tintina Montana Inc.	SW-1	BBC-1603-104	3/3/16	NM-ICE	8.16	< 9.0		183	338
Tintina Montana Inc.	SW-1	BBC-1604-200	4/27/16	84.2	7.68	17.0	< 4000	116	183
Tintina Montana Inc.	SW-1	BBC-1605-200	5/26/16	150.48	8.3	65.0	17000	143	237.7
Tintina Montana Inc.	SW-1	BBC-1606-135	6/23/16	32.58	8.38	12.0		182	310

Table B-1. Sheep Creek TMDL Project Area Aluminum Water Quality Data

Data Source	Sampling Site Name	Site ID	Sampling Date	Flow (cfs)	pH (su)	Al Total Dissolved (µg/L)	TSS (µg/L)	TDS (mg/L)	SC (µmhos/cm)
Tintina Montana Inc.	SW-1	BBC-1607-100	7/7/16	17.29	7.96	< 9.0	5000	187	318
Tintina Montana Inc.	SW-1	BBC-1608-200	8/22/16	10.15	8.16	14.0	10000	200	311
Tintina Montana Inc.	SW-1	BBC-1609-119	9/21/16	19.65	7.83	< 9.0	19000	167	318
Tintina Montana Inc.	SW-1	BBC-1610-200	10/21/16	22.16	8.03	< 9.0		186	314
Tintina Montana Inc.	SW-1	BBC-1611-208	11/10/16	21.19	8.02	< 9.0		165	290
Tintina Montana Inc.	SW-1	BBC-1612-111	12/20/16	NM-ICE	7.36	< 9.0	< 4000	186	300
Tintina Montana Inc.	SW-1	BBC-1701-100	1/10/17	NM-ICE	7.82	10	< 4000	176	328
Tintina Montana Inc.	SW-1	BBC-1702-103	2/16/17	NM-ICE	7.84	10	< 4000	169	338
Tintina Montana Inc.	SW-1	BBC-1703-100	3/20/17	30.4	8.03	221	9000	158	249
Tintina Montana Inc.	SW-1	BBC-1704-100	4/20/17	40.26	7.13	331	8000	142	236
Tintina Montana Inc.	SW-1	BBC-1705-100	5/10/17	102.2	6.37	105	27000	112	176
Tintina Montana Inc.	SW-1	BBC-1706-100	6/12/17	43.6	8.15	106	8000	163	281.8
Tintina Montana Inc.	SW-1	BBC-1707-100	7/27/17	18.9	8.35	< 9.0	< 4000	176	302
Tintina Montana Inc.	SW-1	BBC-1708-100	8/28/17	13.6	8.25	< 9.0	< 4000	184	313

Table B-1. Sheep Creek TMDL Project Area Aluminum Water Quality Data

Data Source	Sampling Site Name	Site ID	Sampling Date	Flow (cfs)	pH (su)	Al Total Dissolved (µg/L)	TSS (µg/L)	TDS (mg/L)	SC (µmhos/cm)
Tintina Montana Inc.	SW-1	BBC-1709-100	9/11/17	10.69	8.43	< 9.0	< 4000	175	305
Tintina Montana Inc.	SW-1	BBC-1710-100	10/17/17	17.55	MM	0.05	< 4000	188	315
Tintina Montana Inc.	SW-1	BBC-1711-105	11/27/17	ICE	8.46	< 9.0	< 4000	163	296
Tintina Montana Inc.	SW-1	BBC-1712-104	12/28/17	NF-ICE	8.21	< 9.0	< 4000	192	349
DEQ	Sheep Creek at the Sheep Creek Campground	M10SHEPC05	5/12/15	250	8.19	154.0	8000		
DEQ	Sheep Creek at the Sheep Creek Campground	M10SHEPC05	7/21/15	34.12	8.59	< 9.0	< 4000		
DEQ	Sheep Creek at the Sheep Creek Campground	M10SHEPC05	8/19/15	21.69	8.73	< 9.0	< 4000		
DEQ	Sheep Creek downstream of Sheep Creek Campground	M10SHEPC02	9/13/05	34.28	8.48	< 30.0	1000		
DEQ	Sheep Creek upstream of Calf Creek	M10SHEPC04	5/11/15	201.36	8.26	180.0	9000		
DEQ	Sheep Creek upstream of Calf Creek	M10SHEPC04	7/20/15	35.4	8.8	< 9.0	< 4000		
DEQ	Sheep Creek upstream of Calf Creek	M10SHEPC04	8/19/15	26.05	8.89	< 9.0	< 4000		
DEQ	Sheep Creek near mouth	M10SHEPC01	9/13/05	40.07	8.44	30.0	5000		
DEQ	Sheep Creek near mouth	M10SHEPC01	5/11/15	255.57	8.16	165.0	8000		
DEQ	Sheep Creek near mouth	M10SHEPC01	7/20/15	32.19	8.9	< 9.0	< 4000		
DEQ	Sheep Creek near mouth	M10SHEPC01	8/18/15	22.84	9.18	< 9.0	< 4000		