

Table S2: Check points surveyed from Horseshoe Lake flux grid. Coordinate system: NAD83 / UTM Zone 11N, GRS80 ellipsoidal height.

Check point	Northing (m)	Easting (m)	Lidar ground elevation (m)	SFM ground elevation (MCC) (m)	SFM ground elevation (MCCRGB) (m)	Elevation of GPS antenna (m)	Lidar vertical translation (m)	SFM vertical translation (MCC) (m)	SFM vertical translation (MCCRGB) (m)	Horizontal precision of GPS (m)
bp_1	4164896.8	321781.0	2711.3	2711.5	2711.5	2712.6	-1.4	-1.2	-1.2	1.0
bp_2	4164893.3	321817.0	2711.3	2711.3	2711.3	2712.0	-0.8	-0.7	-0.7	0.9
bp_3	4164977.3	321861.2	2708.0	2706.9	2706.9	2707.2	0.8	-0.3	-0.3	0.8
bp_4	4164996.1	321913.3	2703.9	2704.0	2704.0	2706.6	-2.7	-2.6	-2.6	0.5
bp_5	4165022.5	321947.5	2702.6	2697.2	2697.2	2705.4	-2.7	-8.2	-8.2	0.7
bp_6	4165070.6	321991.4	2702.9	2703.5	2703.5	2704.4	-1.5	-0.9	-0.9	0.6
bp_7	4165111.2	321992.3	2700.5	2700.5	2700.5	2701.5	-1.0	-1.0	-1.0	0.8
bp_8	4165147.3	321976.9	2700.0	2700.1	2700.1	2701.3	-1.3	-1.3	-1.3	0.8
bp_9	4165172.1	321944.0	2704.2	2704.2	2704.2	2706.3	-2.1	-2.1	-2.1	0.8
bp_10	4165198.2	321915.4	2708.5	2708.2	2708.2	2711.6	-3.1	-3.4	-3.4	0.6
bp_11	4165198.1	321914.7	2712.6	2712.3	2712.3	2713.5	-0.9	-1.2	-1.2	0.8
bp_12	4165196.7	321872.8	2722.8	2722.6	2722.6	2723.6	-0.8	-1.0	-1.0	0.7
bp_13	4165175.5	321839.6	2727.5	2727.2	2727.2	2728.3	-0.8	-1.1	-1.1	0.7
bp_14	4165140.2	321811.7	2727.1	2726.6	2726.6	2727.7	-0.6	-1.1	-1.1	0.7
bp_15	4165121.7	321825.4	2719.0	2718.6	2718.6	2718.9	0.1	-0.2	-0.2	0.4
bp_16	4165143.0	321860.6	2714.4	2714.2	2714.2	2714.6	-0.2	-0.4	-0.4	0.3
bp_17	4165152.1	321885.7	2712.3	2711.9	2711.9	2712.1	0.2	-0.1	-0.1	0.4
bp_18	4165128.4	321918.0	2704.0	2703.9	2703.9	2703.4	0.6	0.5	0.5	0.2
bp_19	4165120.2	321924.8	2702.4	2702.4	2702.4	2701.8	0.6	0.5	0.5	0.2
bp_20	4165114.1	321872.7	2707.2	2707.2	2707.2	2706.9	0.4	0.3	0.3	0.2
bp_21	4165093.9	321865.2	2702.9	2702.9	2702.9	2702.3	0.6	0.6	0.6	0.2
bp_22	4165067.5	321852.7	2706.1	2705.9	2705.9	2705.4	0.7	0.5	0.5	0.2
bp_23	4165079.0	321840.5	2708.2	2708.0	2708.0	2707.7	0.5	0.3	0.3	0.2
bp_24	4165090.8	321805.6	2717.2	2717.2	2717.2	2716.9	0.3	0.3	0.3	0.6
bp_25	4165103.3	321766.4	2728.6	2728.3	2728.3	2729.2	-0.5	-0.8	-0.8	0.4
bp_26	4165103.0	321753.8	2731.0	2730.7	2730.7	2730.3	0.6	0.4	0.4	0.8
bp_27	4165068.3	321737.8	2720.0	2719.8	2719.8	2719.0	1.0	0.8	0.8	0.4
bp_28	4165053.3	321701.5	2721.0	2720.6	2720.6	2721.0	0.0	-0.4	-0.4	0.4
bp_29	4165069.3	321685.1	2730.6	2730.0	2730.0	2727.9	2.6	2.1	2.1	0.8
bp_30	4165023.0	321745.4	2711.4	2711.4	2711.4	2706.6	4.8	5.1	5.1	1.8
bp_31	4165051.1	321776.7	2710.2	2710.2	2710.2	2709.9	0.3	0.3	0.3	0.6
bp_32	4165037.3	321822.4	2706.3	2706.3	2706.3	2702.9	3.4	3.3	3.3	0.9
bp_34	4165028.3	321868.7	2703.4	2703.5	2703.5	2702.7	0.6	0.8	0.8	0.2
bp_35	4165101.1	321958.9	2701.8	2701.9	2701.9	2700.7	1.1	1.2	1.2	0.2
bp_36	4164987.4	321763.9	2707.3	2707.4	2707.4	2706.9	0.4	0.5	0.5	0.2
bp_37	4164983.0	321743.9	2712.5	2712.5	2712.5	2712.1	0.4	0.3	0.3	0.2
bp_38	4165096.7	321650.1	2750.2	2749.9	2749.9	2752.2	-2.0	-2.3	-2.3	0.9
bp_40	4165139.7	321725.4	2748.6	2745.1	2745.1	2751.2	-2.6	-6.1	-6.1	0.8
bp_41	4165163.4	321772.1	2745.8	2745.6	2745.7	2748.8	-3.0	-3.3	-3.3	0.9
bp_42	4165197.9	321799.9	2744.4	2744.1	2744.1	2746.8	-2.4	-2.7	-2.7	1.0
bp_43	4165227.1	321836.7	2734.8	2734.8	2734.8	2734.8	0.0	0.7	0.7	0.4
bp_44	4165142.5	321687.9	2757.0	2756.5	2756.5	2762.9	-5.9	-6.4	-6.4	0.7
bp_45	4165118.2	321615.6	2766.5	2766.3	2766.3	2766.7	-0.1	-0.3	-0.3	0.7
hs_2	4164825.1	321739.0	2713.0	2712.8	2712.9	2712.2	0.8	0.6	0.7	1.0
hs_3	4164849.3	321745.1	2711.5	2711.6	2711.6	2713.3	-1.8	-1.7	-1.7	0.4
hs_4	4164810.2	321730.3	2710.7	2710.7	2710.7	2711.4	-0.7	-0.7	-0.7	0.4
hs_14	4164471.5	321594.4	2710.7	2710.2	2710.2	2712.9	-2.2	-2.7	-2.7	0.6
hs_15	4164424.2	321539.0	2713.3	2713.1	2713.1	2721.0	-7.8	-7.9	-7.9	0.7
hs_16	4164433.8	321497.9	2719.6	2719.4	2719.4	2721.2	-1.8	-1.8	-1.8	0.6
hs_17	4164420.0	321467.8	2724.0	2723.7	2723.7	2715.2	8.8	8.5	8.5	0.7
hs_18	4164133.6	321395.3	2734.0	2733.6	2733.6	2736.2	-2.6	-2.6	-2.6	0.6
hs_19	4164453.6	321419.7	2731.3	2731.3	2731.3	2731.2	0.0	0.1	0.1	0.5
hs_20	4164494.7	321386.9	2738.5	2738.4	2738.4	2744.3	-5.8	-5.9	-6.0	0.7
hs_21	4164529.8	321395.4	2739.9	2739.8	2739.8	2738.7	1.2	1.1	1.1	0.6
hs_22	4164584.2	321402.1	2739.0	2739.2	2739.2	2739.6	-0.6	-0.5	-0.5	0.5
hs_23	4164585.5	321356.0	2740.9	2741.2	2741.2	2740.1	0.8	1.1	1.1	0.7
hs_24	4164638.2	321359.7	2741.2	2741.6	2741.6	2742.9	-1.7	-1.3	-1.3	0.6
hs_25	4164613.3	321400.7	2738.3	2738.6	2738.6	2739.8	-1.5	-1.2	-1.2	0.5
hs_26	4164676.7	321394.3	2740.4	2740.6	2740.6	2743.8	-3.4	-3.2	-3.2	0.7
hs_27	4164722.3	321405.5	2741.0	2741.3	2741.3	2742.3	-1.3	-1.0	-1.0	0.6
hs_28	4164771.0	321382.4	2745.8	2745.8	2745.8	2745.5	0.3	0.3	0.3	1.5
hs_29	4164817.1	321383.0	2749.8	2749.8	2749.8	2749.9	0.0	-0.1	-0.1	1.1
hs_30	4164897.8	321392.0	2757.3	2757.2	2757.2	2741.5	15.7	15.6	15.6	1.7
hs_31	4164917.8	321405.2	2756.7	2756.9	2756.9	2759.9	-3.2	-3.1	-3.1	0.7
hs_32	4164964.4	321414.4	2754.9	2755.0	2755.0	2751.9	3.0	3.0	3.0	0.6
hs_33	4165026.1	321444.8	2756.0	2756.4	2756.4	2754.7	1.3	1.7	1.7	0.3
hs_34	4165074.9	321448.3	2761.5	2761.5	2761.5	2760.5	0.9	1.0	1.0	0.6
hs_35	4165100.7	321492.6	2756.9	2757.0	2757.0	2758.2	-1.3	-1.2	-1.2	0.6
hs_36	4165083.8	321553.6	2751.6	2751.5	2751.5	2748.4	3.2	3.0	3.0	0.6
hs_37	4165067.9	321591.9	2743.7	2743.7	2743.7	2744.3	-0.6	-0.5	-0.6	0.9
hs_38	4165062.9	321647.5	2735.8	2735.5	2735.5	2734.9	0.9	0.6	0.6	0.7
hs_39	4165024.5	321704.0	2716.4	2716.2	2716.2	2715.9	0.5	0.2	0.2	0.7
hs_40	4164972.6	321700.1	2716.4	2716.3	2716.3	2715.4	1.0	1.0	1.0	0.6
hs_41	4164929.0	321708.6	2714.6	2714.5	2714.5	2713.8	0.8	0.7	0.7	0.7
hs_42	4164870.8	321704.8	2713.1	2712.9	2712.9	2712.6	0.4	0.2	0.2	0.4
hs_43	4164834.4	321695.9	2711.9	2711.7	2711.7	2712.7	-0.8	-0.9	-0.9	0.7
hs_44	4164761.0	321697.1	2709.6	2709.4	2709.4	2709.0	0.5	0.4	0.4	0.5
hs_45	4164731.6	321655.3	2710.1	2709.9	2709.9	2709.8	0.3	0.1	0.1	0.2
hs_46	4164705.1	321652.2	2708.1	2707.9	2707.9	2708.3	-0.2	-0.5	-0.5	0.2
hs_47	4164666.2	321636.6	2708.3	2707.9	2707.9	2708.8	-0.5	-0.9	-0.9	0.2
hs_48	4164644.8	321623.3	2710.5	2710.4	2710.4	2710.9	-0.4	-0.6	-0.6	0.3
hs_49	4164610.1	321639.0	2710.8	2710.3	2710.3	2712.4	-1.6	-2.0	-2.0	0.6
hs_50	4164583.7	321646.5	2708.6	2708.6	2708.6	2711.2	-2.4	-2.6	-2.6	0.5
hs_51	4164557.4	321601.5	2712.6	2712.3	2712.3	2713.1	-0.5	-0.8	-0.8	0.3
hs_52	4164557.3	321575.0	2715.9	2715.7	2715.7	2716.4	-0.5	-0.7	-0.7	0.3
hs_53	4164517.7	321561.2	2716.3	2716.3	2716.3	2719.1	-2.7	-2.8	-2.8	0.5
hs_54	4164468.8	321533.3	2715.7	2715.5	2715.5	2712.9	2.8	2.6	2.6	0.7
hs_55	4164468.1	321508.9	2719.2	2719.1	2719.1	2721.8	-2.6	-2.7	-2.7	0.6
hs_56	4164476.8	321488.9	2723.4	2723.2	2723.2	2723.8	-0.5	-0.6	-0.6	0.7
hs_57	4164468.6	321459.9	2726.6	2726.5	2726.5	2727.1	-0.5	-0.6	-0.6	0.5
hs_58	4164476.1	321442.0	2730.0	2730.0	2730.0	2730.1	-0.2	-0.1	-0.1	0.4
hs_59	4164515.3	321454.8	2730.2	2730.1	2730.1	2729.0	1.3	1.2	1.2	0.8
hs_60	4164536.1	321435.4	2733.6	2733.7	2733.7	2734.5	-0.9	-0.9	-0.9	0.5
hs_61	4164573.0	321434.4	2734.8	2735.0	2735.0	2735.2	-0.5	-0.2	-0.2	0.4
hs_62	4164612.1	321451.5	2735.6	2735.7	2735.7	2737.0	-1.4	-1.4	-1.4	0.8
hs_63	4164671.5	321446.2	2735.1	2735.4	2735.4	2736.0	-0.9	-0.6	-0.6	0.5
hs_64	4164716.2	321460.3	2734.8	2735.2	2735.2	2733.3	1.5	2.0	2.0	0.7
hs_65	4164769.5	321440.0	2738.2	2738.5	2738.5	2738.4	-0.2	0.1	0.1	0.6
hs_66	4164834.2	321445.8	2736.0	2736.1	2736.1	2736.1	0.0	0.0	0.0	0.3
hs_67	4164866.3	321445.0	2740.0	2740.0	2740.0	2739.9	0.0	0.0	0.1	0.3
hs_68	4164824.1	321452.8	2746.3	2746.5	2746.5	2746.1	0.2	0.4	0.4	0.2
hs_69	4164999.9	321444.2	2750.6	2750.7	2750.7	2751.4	-0.8	-0.7	-0.7	0.6
hs_70	4165050.0	321509.9	2745.0	2744.8	2744.8	2746.8	-1.7	-1.8	-1.8	0.8
hs_71	4165065.0	321526.9	2742.7	2742.9	2742.9	2743.3	-0.6	-0.4	-0.4	0.4
hs_72	4165028.5	321545.0	2738.6	2738.6	2738.6	2738.5	0.1	0.1	0.1	

hs_89	4164669.4	321492.3	2730.3	2730.4	2730.4	2730.5	-0.1	-0.1	-0.1	0.4
hs_90	4164717.3	321483.9	2731.1	2731.3	2731.3	2732.0	-0.9	-0.7	-0.7	0.2
hs_91	4164774.6	321505.9	2728.3	2728.4	2728.4	2729.0	-0.7	-0.6	-0.6	0.1
hs_92	4164831.2	321495.3	2727.4	2727.7	2727.7	2728.0	-0.6	-0.3	-0.3	0.1
hs_93	4164877.3	321489.6	2728.4	2729.7	2729.7	2730.0	-0.6	-0.3	-0.3	0.1
hs_94	4164923.3	321501.2	2740.2	2740.4	2740.4	2740.0	0.2	0.4	0.4	0.2
hs_95	4164981.1	321496.3	2744.5	2744.7	2744.7	2746.0	-1.5	-1.3	-1.3	0.6
hs_96	4165022.2	321513.7	2743.2	2743.1	2743.1	2745.0	-1.8	-2.0	-2.0	0.6
hs_97	4164985.8	321546.0	2738.4	2738.4	2738.4	2739.1	-0.6	-0.7	-0.7	0.2
hs_98	4164968.0	321589.5	2731.4	2731.4	2731.4	2732.2	-0.8	-0.9	-0.9	0.2
hs_99	4164933.1	321587.9	2730.8	2730.7	2730.7	2731.3	-0.6	-0.7	-0.7	0.2
hs_100	4164904.9	321618.9	2719.3	2719.1	2719.1	2719.5	-0.2	-0.3	-0.3	0.1
hs_101	4164881.2	321631.6	2714.7	2714.7	2714.7	2715.6	-0.9	-0.9	-0.9	0.1
hs_102	4164821.4	321633.3	2712.3	2712.4	2712.4	2713.1	-0.8	-0.8	-0.8	0.1
hs_103	4164776.9	321616.1	2712.7	2712.8	2712.8	2712.4	0.4	0.4	0.4	0.1
hs_104	4164739.7	321621.6	2713.3	2713.3	2713.3	2713.0	0.2	0.3	0.3	0.1
hs_105	4164725.8	321598.6	2716.1	2716.0	2716.0	2715.8	0.3	0.2	0.2	0.1
hs_106	4164708.3	321570.7	2719.9	2720.0	2720.0	2720.7	-0.8	-0.8	-0.8	0.2
hs_107	4164645.4	321562.3	2721.6	2721.6	2721.6	2721.6	-0.1	-0.1	-0.1	0.5
hs_108	4164613.6	321541.1	2723.6	2723.8	2723.8	2723.8	-0.2	0.0	0.0	0.4
hs_109	4164649.4	321522.1	2726.9	2727.0	2727.0	2727.3	-0.4	-0.4	-0.4	0.4
hs_110	4164704.6	321514.2	2725.5	2725.6	2725.6	2726.2	-0.7	-0.6	-0.6	0.2
hs_111	4164757.9	321518.0	2726.0	2726.2	2726.2	2726.3	-0.4	-0.2	-0.2	0.1
hs_112	4164781.7	321520.8	2726.2	2726.4	2726.4	2726.9	-0.7	-0.6	-0.6	0.1
hs_113	4164846.3	321529.9	2721.2	2721.7	2721.7	2722.5	-1.3	-0.8	-0.8	0.4
hs_114	4164897.1	321523.0	2732.0	2732.1	2732.1	2732.6	-0.6	-0.5	-0.5	0.1
hs_115	4164927.8	321540.9	2735.2	2735.3	2735.3	2736.1	-0.9	-0.8	-0.8	0.3
hs_116	4164898.4	321560.8	2729.4	2729.4	2729.4	2729.6	-0.2	-0.2	-0.2	0.2
hs_117	4164848.3	321618.0	2713.0	2713.1	2713.1	2713.9	-0.8	-0.8	-0.8	0.1
hs_118	4164821.2	321601.7	2713.7	2713.7	2713.7	2714.5	-0.8	-0.8	-0.8	0.1
hs_119	4164760.9	321587.7	2715.9	2715.9	2715.9	2716.4	-0.6	-0.6	-0.6	0.2
hs_120	4164750.6	321575.3	2718.1	2718.3	2718.3	2718.7	-0.6	-0.4	-0.4	0.2
hs_121	4164672.9	321541.9	2724.0	2724.0	2724.0	2723.1	0.9	0.9	0.9	0.5
hs_122	4164720.0	321545.2	2722.6	2722.7	2722.7	2723.3	-0.7	-0.6	-0.6	0.2
hs_123	4164758.7	321544.2	2723.1	2723.1	2723.1	2723.8	-0.7	-0.7	-0.7	0.2
hs_124	4164841.1	321541.3	2720.6	2720.6	2720.6	2721.1	-0.5	-0.5	-0.5	0.4
hs_125	4164889.4	321538.4	2728.9	2729.1	2729.1	2729.6	-0.7	-0.5	-0.5	0.3
hs_126	4164869.0	321568.7	2722.1	2722.0	2722.0	2722.4	-0.3	-0.3	-0.3	0.3
hsw_2	4164599.0	321306.0	2747.2	2746.0	2746.1	2750.9	-3.7	-4.8	-4.8	0.7
hsw_3	4164661.4	321326.4	2746.6	2747.0	2747.0	2750.0	-3.4	-3.0	-3.0	0.7
hsw_4	4164742.1	321340.1	2747.3	2747.5	2747.5	2746.4	0.8	1.1	1.1	0.8
hsw_5	4164821.6	321339.5	2755.0	2755.4	2755.4	2752.3	2.7	3.1	3.1	1.0
hsw_6	4164879.9	321355.2	2763.7	2763.7	2763.7	2765.4	-1.6	-1.7	-1.7	0.6
hsw_7	4164941.2	321380.0	2762.9	2762.9	2762.9	2761.9	1.0	1.0	1.0	0.5