

GSA Data Repository Item **2016105** accompanies Slotznick, S.P., Winston, D., Webb, S.W., Kirschvink, J.L., and Fischer, W.W., 2016, Iron mineralogy and redox conditions during deposition of the mid-Proterozoic Appekunny Formation, Belt Supergroup, Glacier National Park, *in* MacLean, J.S., and Sears, J.W., eds., Belt Basin: Window to Mesoproterozoic Earth: Geological Society of America Special Paper 522, p. 221–242, [https://doi.org/10.1130/2016.2522\(09\)](https://doi.org/10.1130/2016.2522(09)).

TABLE DR1. DETAILED SAMPLE DATA FOR GLACIER NATIONAL PARK SAMPLES

Sample	GPS location		Formation	Side of park	Descriptive location	Lithology
	Lat (°N)	Long (°W)				
GP14-8	48.69420	113.54347	Appekunny Member 1	East	Going-to-the-Sun Road, St. Mary Lake	Red claystone and siltstone in even microlaminae
GP14-10	48.69485	113.54699	Appekunny Member 1	East	Going-to-the-Sun Road, St. Mary Lake	Green siltstone from tabular-weathering siltstone with even couplets, near ripple cross-stratification
GP12-1	48.68959	113.55764	Appekunny Member 2	East	Going-to-the-Sun Road, St. Mary Lake	Massive-weathering green siltstone with concoidal fractures, near wavy laminations and soft-sediment deformation
GP14-11	48.68952	113.55772	Appekunny Member 2	East	Going-to-the-Sun Road, St. Mary Lake	Massive-weathering green siltstone near faint wavy laminations and soft-sediment deformation
GP14-34	48.68609	113.56375	Appekunny Member 3	East	Going-to-the-Sun Road, St. Mary Lake	Green siltstone with wavy laminations and silt-clay couplets, large meter-scale hummocks
GP14-35	48.68449	113.56968	Appekunny Member 3	East	Going-to-the-Sun Road, St. Mary Lake	Green siltstone in large meter-scale hummock, wavy laminations and silt-clay couplets
GP14-29	48.67574	113.57782	Appekunny Member 4	East	Sun Point, St. Mary Lake	Grayish green interbedded siltstone and claystone with shaly parting and microlaminae, oxidized bedding planes and fractures
GP14-30	48.67524	113.57734	Appekunny Member 4	East	Sun Point, St. Mary Lake	Gray siltstone and claystone in microlaminae, even couplets, and lenticular couplets with soft-sediment deformation and oxidized bedding planes
GP14-32	48.67810	113.58099	Appekunny Member 5	East	Sun Point, St. Mary Lake	Green claystone and siltstone in even and wavy microlaminae with mud cracks and mud chips with a few orangish laminations, near lenses of quartz sandstone
GP14-33	48.67961	113.58194	Appekunny Member 5	East	Sun Point, St. Mary Lake	Green claystone and siltstone in even microlaminae with mud cracks, mud chips, and other soft-sediment deformation features, oxidized fractures
GP12-2	48.67411	113.61337	Grinnell	East	Going-to-the-Sun Road, St. Mary Lake	Red clay-rich siltstone with euhedral rhombohedral and cubic millimeter-sized pseudomorphs in siltstone-claystone even couplets with mud cracks and mud chips
GP12-3	48.67374	113.61325	Grinnell	East	Going-to-the-Sun Road, St. Mary Lake	Red interbedded claystone and siltstone microlaminae with mud cracks, mud chips, and other soft-sediment deformation, euhedral rhombohedral and cubic millimeter-sized pseudomorphs
GP12-8	48.64159	113.85725	Prichard or Appekunny Member 4	West	McDonald Creek	Dark-gray siltstone and claystone in even couplets and microlaminae with continuous laminae of millimeter-scale oxidizing iron sulfides
GP14-6	48.64593	113.83690	Prichard or Appekunny Member 4	West	West Mount Brown	Dark-gray siltstone and claystone in even couplets and microlaminae with continuous laminae of millimeter-scale oxidizing iron sulfides
GP14-1	48.61807	113.83498	Appekunny Member 4	West	East Mount Brown	Green siltstone and gray claystone in even and pinch-and-swell couplets, oxidized iron sulfides
GP14-55	48.61634	113.84432	Appekunny Member 4	West	East Mount Brown	Greenish gray siltstone and claystone wavy laminations with mud cracks and soft-sediment deformation and oxidized bedding planes and millimeter-sized grains, vertical millimeter-wide quartz veins
GP14-27	48.65734	113.83917	Appekunny Member 5	West	McDonald Creek	Green mud chip breccia in orangish green siltstone, near even and wavy microlaminae of claystone and siltstone with mud cracks and mud chips
GP14-28	48.65857	113.83808	Appekunny Member 5	West	McDonald Creek	Green claystone and siltstone in even microlaminae with mud cracks, mud chips, and other soft-sediment deformation, oxidization along fractures
GP14-4	48.61971	113.83451	Appekunny Member 5	West	East Mount Brown	Massive-weathering green siltstone with microlaminae, mud cracks, mud chips, and soft-sediment deformation
GP14-54	48.62255	113.83518	Appekunny Member 5	West	East Mount Brown	Green siltstone and claystone microlaminae with mud chips, mud cracks, and other soft-sediment deformation, vertical centimeter-wide quartz veins