

Swamp Angel Study Plot Dust Mass Loading Data - WY 2012

From 0.5m2 samples collected by CSAS, processed by USGS Denver

Dust Event	Date	Visually Estimated Organic Content	Gross Weight 0.5 m2 Sample (grams)	Estimated Mass Loading Grams/m2	Notes
D1	November 5, 2011	<10%	0.2684	0.537	Discrete sample
D2	November 13, 2011	"lots"	0.4599	0.920	Discrete sample, 0.2931 grams of pine needles and seed pods removed before 'gross weight'
D3	December 31, 2011	"mostly"	0.0670	0.134	Discrete samples, lots of dark, large, dark (black) organic particles
D4	March 6, 2012	not char	0.1687	0.337	Discrete sample of typical brown dust; began dry on slick m/f crust overnight and w/snow next day
D5	March 18, 2012	not char	1.6387	3.277	Discrete sample of 'wet' event, 'iced tea' color
D6	March 26, 2012	na	na	na	Very minor dust-on-dust event at SBB; discrete sampling infeasible
D7	April 1, 2012	na	na	na	Dust-on-dust at SBB; discrete sampling infeasible
D8	April 6, 2012	na	na	na	Significant dust-on-dust at SBB; skiff new snow onto D8; discrete sampling infeasible
D9	May 18, 2012	na	na	na	Snow all gone at SASP - sampling infeasible, but was very minor dry event
D10	May 23, 2012	na	na	na	Snow all gone at SASP - sampling infeasible, but was very minor dry event
D11	May 25, 2012	na	na	na	Snow all gone at SASP - sampling infeasible, but was very minor dry event
D12	May 26, 2012	na	na	na	Snow all gone at SASP - sampling infeasible, but was major dry event, perhaps largest of season
D4-D8 merged <i>Estimated D6,7,8</i>	Sampled May 4	na	3.5336	7.067 <i>3.4524</i>	Merged sample of D8-D4 collected May 4; some infiltration losses already incurred <i>Inferred mass, by subtracting measured D4 and D5 events from merged D8-D4 sample</i>
Measured D1-D8 Estimated D9-12				8.6578 2.4 - 3.4	Sum of discretely sampled D1, D2, D3, plus merged D4-D8 sample Range of plausible totals for D9-D12, predominately from event D12
Estimated D1-D12				11 to 12	Estimated total mass loading, in grams per square meter