ERRATUM

Erratum to: Quality control in geochemistry from a comparison of four central tendency and five dispersion estimators and example of a geochemical reference material

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A few minor but serious errors occurred in the published article. Please note that throughout the text the symbol $\hat{\sigma}_n$ was erroneously replaced by σ_n . Also note at some places, the standard deviation symbol should be s (and not S).

More importantly, the headings of Table 2 were misplaced. The correct headings should read as follows:

The online version of the original article can be found under at <http://dx.doi.org/10.1007/s12517-016-2764-4>.

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Table 2 Finite sample correction factors* for several dispersion estimators

n	s	MAD					S_n		Q_n		$\hat{\sigma}_n$
		Bolch (1968)	this work	CR92**	Williams (2011)	Hayes (2014)	this work	CR92**	this work	CR92**	this work
5	1.06385	1.0640	1.788	1.805	1.8038	1.8055	1.611	1.6095	1.875	1.3656	1.3762
6	1.05094	1.0513	1.779	1.763	1.7637	1.7643	1.184	1.3834	1.358	1.3592	1.2855
7	1.04235	1.0426	1.690	1.688	1.6872	1.6877	1.429	1.4299	1.904	1.6146	1.2587
8	1.03624	1.0365	1.674	1.671	1.6714	1.6716	1.199	1.3371	1.486	1.4874	1.2167
9	1.03166	1.0319	1.641	1.633	1.6327	1.6336	1.349	1.3501	1.937	1.6018	1.2019
10	1.02811	1.0284	1.612	1.628	1.6247	1.6252	1.193	1.3076	1.610	1.5988	1.1781
11	1.02527	1.0255	1.599	1.612	1.6013	1.6018	1.299	1.3075	1.971	1.7323	1.1685
12	1.02296	1.0232	1.589	1.599	1.5962	1.5969	1.193	1.2862	1.688	1.6814	1.1529
13	1.02103	1.0213	1.580	1.589	1.5805	1.5810	1.281	1.2817	2.006	1.7425	1.1464
14	1.01940	1.0197	1.572	1.580	1.5773	1.5777	1.193	1.2703	1.748	1.7434	1.1355
15	1.01800	1.0184	1.566	1.573	1.5662	1.5665	1.269	1.2647	2.032	1.8223	1.1310
16	1.01679	1.0171	1.561	1.567	1.5637	1.5640	1.193	1.2585	1.795	1.7931	1.1229
17	1.01574	1.0161	1.556	1.561	1.5555	1.5561	1.259	1.2531	2.053	1.8325	1.1194
18	1.01481	1.0152	1.552	1.556	1.5535	1.5542	1.193	1.2494	1.835	1.8339	1.1132
19	1.01398	1.0143	1.548	1.552	1.5470	1.5479	1.252	1.2444	2.069	1.8859	1.1104
20	1.01324	1.0135	1.544	1.548	1.5458	1.5465	1.193	1.2424	1.867	1.8671	1.1056
21	1.01257	1.0129	1.541	1.545	1.5406	1.5409	1.246	1.2377	2.083	1.8941	1.1032
22	1.01197	1.0122	1.539	1.542	1.5394	1.5400	1.193	1.2366	1.895	1.8952	1.0992
23	1.01142	1.0117	1.536	1.539	1.5352	1.5358	1.241	1.2326	2.094	1.9319	1.0973
24	1.01093	1.0111	1.534	1.537	1.5342	1.5344	1.193	1.2318	1.918	1.9188	1.0939
25	1.01047	1.0106	1.532	1.534	1.5307	1.5310	1.237	1.2281	2.104	1.9384	1.0924
26	1.01005	1.0102	1.530	1.532	1.5300	1.5304	1.193	1.2281	1.939	1.9395	1.0896
27	1.00965	1.0098	1.528	1.530	1.5270	1.5273	1.234	1.2249	2.112	1.9670	1.0882
28	1.00931	1.0094	1.526	1.528	1.5260	1.5264	1.193	1.2249	1.956	1.9574	1.0858
29	1.00897	1.0090	1.525	1.527	1.5239	1.5240	1.231	1.2220	2.120	1.9723	1.0846
30	1.00866	1.0087	1.523	1.525	1.5230	1.5232	1.193	1.2222	1.972	1.9731	1.0826
31	1.00836	1.0085	1.522	1.524	1.5209	1.5212	1.228	1.2197	2.126	1.9946	1.0817
32	1.00810	1.0082	1.521	1.522	1.5205	1.5208	1.193	1.2200	1.986	1.9871	1.0799
33	1.00784	1.0079	1.519	1.521	1.5186	1.5187	1.226	1.2177	2.131	1.9990	1.0790
34	1.00760	1.0077	1.518	1.520	1.5181	1.5184	1.193	1.2180	1.999	1.9996	1.0775
35	1.00738	1.0074	1.517	1.519	1.5163	1.5165	1.224	1.2159	2.136	2.0167	1.0767
36	1.00717	1.0072	1.516	1.518	1.5161	1.5163	1.193	1.2164	2.010	2.0109	1.0753
37	1.00697	1.0070	1.515	1.517	1.5147	1.5146	1.222	1.2145	2.141	2.0205	1.0746
38	1.00678	1.0068	1.514	1.516	1.5142	1.5144	1.193	1.2150	2.020	2.0210	1.0734
39	1.00660	1.0067	1.514	1.515	1.5129	1.5131	1.221	1.2132	2.145	2.0350	1.0728
40	1.00643	1.0066	1.513	1.514	1.5124	1.5128	1.193	1.2137	2.029	2.0303	1.0717
41	1.00627	1.0064	1.512	1.513	1.5110	1.5114	1.219	1.2122	2.149	2.0381	1.0712
42	1.00612	1.0063	1.511	1.513	1.5110	1.5112	1.193	1.2124	2.038	2.0387	1.0702
43	1.00597	1.0061	1.511	1.512	1.5099	1.5101	1.218	1.2111	2.152	2.0505	1.0697
44	1.00583	1.0060	1.510	1.511	1.5097	1.5099	1.193	1.2115	2.045	2.0465	1.0688
45	1.00570	1.0059	1.509	1.510	1.5088	1.5088	1.217	1.2102	2.155	2.0532	1.0683
46	1.00557	1.0057	1.509	1.510	1.5083	1.5085	1.193	1.2106	2.052	2.0534	1.0675
47	1.00545	1.0056	1.508	1.509	1.5074	1.5076	1.216	1.2093	2.158	2.0633	1.0671
48	1.00533	1.0055	1.508	1.509	1.5072	1.5076	1.193	1.2098	2.059	2.0600	1.0664
49	1.00522	1.0054	1.507	1.508	1.5063	1.5066	1.215	1.2086	2.160	2.0657	1.0659
50	1.00511	1.0052	1.507	1.508	1.5060	1.5062	1.193	1.2089	2.065	2.0659	1.0652
51	---	1.0051	1.506	1.507	1.5053	1.5057	1.214	1.2080	2.163	2.0744	1.0649

Table 2 (continued)

n	s	MAD					S_n		Q_n		$\hat{\sigma}_n$	
		Bolch (1968)	this work	CR92**	Williams (2011)	Hayes (2014)	this work	CR92**	this work	CR92**	this work	this work
52	---	1.0051	1.506	1.507		1.5051	1.5053	1.193	1.2082	2.071	2.0716	1.0642
53	---	1.0050	1.505	1.506		1.5047	1.5048	1.213	1.2074	2.165	2.0764	1.0639
54	---	1.0049	1.505	1.506		1.5044	1.5047	1.193	1.2077	2.076	2.0769	1.0634
55	---	1.0048	1.504	1.505		1.5038	1.5041	1.212	1.2069	2.167	2.0840	1.0630
56	---	1.0047	1.504	1.505		1.5035	1.5038	1.193	1.2071	2.081	2.0816	1.0625
57	---	1.0046	1.504	1.505		1.5029	1.5032	1.212	1.2063	2.169	2.0857	1.0622
58	---	1.0046	1.503	1.504		1.5029	1.5031	1.193	1.2066	2.085	2.0861	1.0617
59	---	1.0045	1.503	1.504		1.5024	1.5025	1.211	1.2058	2.170	2.0925	1.0614
60	1.00425	1.0044	1.503	1.503		1.5024	1.5023	1.193	1.2061	2.090	2.0904	1.0609
61	---	1.0043	1.502	1.503		1.5015	1.5018	1.210	1.2054	2.172	2.0940	1.0607
62	---	1.0043	1.502	1.503		1.5015	1.5016	1.193	1.2056	2.094	2.0942	1.0603
63	---	1.0042	1.502	1.502		1.5011	1.5011	1.210	1.2049	2.174	2.0999	1.0600
64	---	1.0041	1.501	1.502		1.5008	1.5010	1.193	1.2052	2.097	2.0980	1.0596
65	---	1.0041	1.501	1.502		1.5004	1.5005	1.209	1.2045	2.175	2.1013	1.0594
66	---	1.0040	1.501	1.502		1.5002	1.5005	1.193	1.2048	2.101	2.1015	1.0590
67	---	1.0040	1.501	1.501		1.4999	1.5001	1.209	1.2043	2.176	2.1066	1.0589
68	---	1.0039	1.500	1.501		1.4997	1.5000	1.193	1.2045	2.104	2.1048	1.0585
69	---	1.0039	1.500	1.501		1.4995	1.4996	1.208	1.2039	2.178	2.1078	1.0583
70	1.00363	1.0038	1.500	1.500		1.4993	1.4994	1.193	1.2042	2.107	2.1080	1.0579
71	1.0037	1.499	1.500	1.4988		1.4991	1.208	1.2036	2.179	2.1124	1.0577	
72	---	1.0037	1.499	1.500		1.4988	1.4990	1.193	1.2038	2.111	2.1110	1.0574
73	---	1.0036	1.499	1.500		1.4984	1.4985	1.207	1.2033	2.180	2.1135	1.0572
74	---	1.0035	1.499	1.499		1.4984	1.4985	1.193	1.2034	2.113	2.1136	1.0569
75	---	1.0035	1.499	1.499		1.4981	1.4981	1.207	1.2029	2.181	2.1177	1.0567
76	---	1.0034	1.498	1.499		1.4979	1.4980	1.193	1.2032	2.116	2.1163	1.0564
77	---	1.0034	1.498	1.499		1.4977	1.4976	1.207	1.2027	2.182	2.1187	1.0563
78	---	1.0034	1.498	1.499		1.4975	1.4976	1.193	1.2029	2.119	2.1188	1.0560
79	---	1.0033	1.498	1.498		1.4972	1.4973	1.206	1.2024	2.183	2.1225	1.0559
80	1.00317	1.0033	1.498	1.498		1.4970	1.4972	1.193	1.2026	2.121	2.1213	1.0556
81	---	1.0032	1.497	1.498		1.4968	1.4969	1.206	1.2022	2.184	2.1234	1.0554
82	---	1.0032	1.497	1.498		1.4968	1.4968	1.193	1.2024	2.123	2.1236	1.0552
83	---	1.0032	1.497	1.498		1.4963	1.4966	1.206	1.2020	2.185	2.1269	1.0551
84	---	1.0031	1.497	1.497		1.4963	1.4966	1.193	1.2021	2.126	2.1259	1.0549
85	---	1.0031	1.497	1.497		1.4961	1.4963	1.205	1.2019	2.186	2.1278	1.0548
86	---	1.0031	1.497	1.497		1.4961	1.4962	1.193	1.2020	2.128	2.1280	1.0545
87	---	1.0030	1.496	1.497		1.4959	1.4960	1.205	1.2016	2.187	2.1310	1.0544
88	---	1.0030	1.496	1.497		1.4959	1.4959	1.193	1.2017	2.130	2.1299	1.0542
89	---	1.0030	1.496	1.497		1.4954	1.4956	1.205	1.2014	2.187	2.1317	1.0541
90	1.00281	1.0029	1.496	1.496		1.4954	1.4956	1.193	1.2015	2.132	2.1317	1.0538
95	---	1.0027	1.495	1.496		1.4948	1.4948	1.204	1.2008	2.190	2.1378	1.0531
100	1.00253	1.0026	1.495	1.496		1.4941	1.4943	1.193	1.2006	2.141	2.1402	1.0524

*Correction factors reported in some papers had to be recalculated to make them consistent with their definition as “factors,” i.e., the values should be multiplication factors; CR92** Croux and Rousseeuw (1992)