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Geochemical characterization of groundwater evolution south of Grand Canyon, Arizona (USA)

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Table S1. Water chemistry data for groundwater sites in the Redwall-Muav aquifer south of Grand Canyon. Data downloaded from USGS (2019) from 2000 to 2001 also published in Monroe et al. (2005) and data from 2002 published in Bills et al. (2007). Abbreviations: ºC, degrees Celsius; µS/cm, microsiemens per centimeter; mg/L, milligrams per liter; µg/L, micrograms per liter; pCi/L, picocuries per liter; <, less than laboratory reporting level; R, less than radiochemistry laboratory reporting level; NA indicates data are not available, values represent filtered (0.45 µm) concentrations unless otherwise noted.

Site Number	USGS Station ID	Site Name	Sample Date	Sample Time	Temperature, ºC	Specific conductance, µS/cm at 25ºC	Dissolved oxygen, mg/L	pH, standard units
1	360700111413701	Blue Spring	11/14/2017	12:20	19.3	4790	5.3	6.4
2	360020111560401	Red Canyon Spring	9/26/2001	15:20	17	293	7.2	8.2
3	360025111571501	JT Spring	5/11/2001	12:45	18.3	420	8.2	8.2
4	360100111582001	Miners Spring	5/24/2000	16:40	15.8	402	11.4	8.8
5	360040112000901	Grapevine Spring	5/19/2018	14:00	14.6	357	8.8	7.8
6	360400112025001	Lonetree Spring	4/11/2001	16:20	9	659	10	7.8
7	360410112055700	Pipe Spring	9/26/2016	14:00	18.3	551	6.4	6.6
8	355308112054101	Canyon Mine Well	6/28/2016	12:00	26.5	451	5.1	7.4
9	360439112073901	Indian Gardens Spring	9/27/2016	14:30	19.5	430	5.8	6.9
10	360443112083300	Horn Spring	9/27/2016	9:30	17.5	679	6	6.9
11	360439112094101	Salt Creek Spring	12/6/2000	NA	7.2	656	9.8	8.2
12	360356112103201	Monument Spring	12/5/2000	15:30	18	533	8.1	7.5
13	360347112133001	Hermit Spring	4/9/2017	14:30	19.4	421	8.7	7
14	360411112141701	Boucher East	4/8/2017	17:30	NA	406	7.5	7.3
15	360658112170701	Slate Spring	4/24/2002	10:00	NA	NA	NA	NA
16	360711112184601	Sapphire Spring	4/23/2002	12:00	NA	NA	NA	NA
17	360952112203501	Ruby Spring	4/21/2002	16:00	NA	NA	NA	NA
18	361141112211101	Serpentine Spring	4/21/2002	11:00	10.3	492	11	8.3
19	361119112271501	Royal Arch Spring	5/24/2018	9:00	19.6	873	7.2	7.7
20	361648112315101	Fossil Canyon Spring	5/18/2002	16:50	NA	NA	NA	NA
21	362353112340301	140 Mile Spring	2/23/2018	11:30	10	1020	9.5	7.7
22	361928112393201	Matkatamiba Spring	5/5/2002	11:20	19.5	1300	6.9	7.2
23	360823112394802	Bar 4 Well	10/1/2015	15:00	21.4	1650	0.7	7.4
24	361303112411200	Havasu Spring	10/11/2016	15:15	21.4	1030	5.7	6.4
25	361352112413201	Supai Well 3	10/12/2016	14:00	21.3	1080	3	6.4
26	361524112420400	Fern Spring	10/12/2016	9:00	20.4	986	3.1	6.5
27	361518112523901	National Canyon	2/27/2018	10:30	14	1840	5.7	7.4
28	361148113045900	Warm Springs	5/20/2002	9:15	NA	NA	NA	NA

Site Number	Ca, mg/L	Mg, mg/L	Na, mg/L	K, mg/L	Cl, mg/L	SO4, mg/L	F, mg/L	Si, mg/L as SiO2	As, µg/L	Ba, µg/L	Be, µg/L	Bi, µg/L	B, µg/L	Cd, µg/L
1	218	68	790	5.8	1295	167	0.19	15	6	69	0.04	0.02	255	0.09
2	27	22	6.1	2.1	13	17	NA	8.8	17	343	< 0.006	< 0.001	70	< 0.002
3	34	25	10	4.1	15	45	NA	8.4	14	118	< 0.008	< 0.001	100	< 0.001
4	22	27	12	3.6	19	35	NA	9.6	17	127	< 0.005	< 0.002	100	0.002
5	36	24	3.5	1.4	4.8	6	0.13	8.2	5.8	358	0.0017	< 0.002	25	0.001
6	57	41	25	10	20	170	NA	8.5	1	37	< 0.008	< 0.001	120	< 0.001
7	53	35	9.3	3.8	15.8	NA	0.17	11	0.94	64	< 0.0007	< 0.02	52	0.019
8	41	28	7.8	2.5	6.7	18	0.3	9.6	0.5	99	0.001	< 0.100	39	< 0.0020
9	42	29	5.4	1.4	9.7	14	0.12	9.7	2.2	313	0.001	< 0.02	26	0.004
10	53	44	22	7.2	33	101.8	0.25	12	2.8	48	0.0018	< 0.020	108	0.021
11	55	43	15	4.1	18	177	NA	8.9	2.3	28	0.008	< 0.003	90	< 0.003
12	43	30	18	1.6	43	20	NA	9.6	4	275	0.005	< 0.003	40	< 0.003
13	44	27	5.6	1.6	11.6	14.2	0.15	9.3	1.6	227	0.004	0.07	26	< 0.0030
14	43	26	4.7	1.4	9.4	16.7	0.16	9.5	1.5	161	0.0034	0.05	24	< 0.003
15	42	46	21	6.3	34	130	0.4	11	4.8	48	< 0.020	< 0.0010	170	0.003
16	72	52	16	5.8	21	190	0.3	9.8	1.4	32	< 0.020	< 0.0010	110	< 0.002
17	230	96	25	12	28	750	0.7	12	0.46	21	< 0.020	< 0.0010	130	0.005
18	41	36	12	5.8	15	100	0.3	9	2.2	30	< 0.007	< 0.0009	90	< 0.002
19	90	40	13	3.9	22	193	0.3	11	3	28	0.0026	< 0.002	72	0.001
20	180	93	32	11	40	720	1.1	13	1.1	13	< 0.020	< 0.0010	230	< 0.002
21	79	52	35	10	34.3	301	0.41	12	0.47	22	0.0021	0.0032	201	0.011
22	180	89	17	6	18	680	0.8	11	0.89	13	< 0.020	0.003	130	0.006
23	219	99	22	5.2	7.8	851	0.99	9.7	6.7	9.6	0.014	< 0.05	150	0.01
24	128	42	33	4.6	46	34.2	0.16	18	14	154	0.02	< 0.020	259	0.02
25	134	43	33	4.6	45	40.5	0.16	18	5.2	152	0.0041	< 0.020	257	0.026
26	108	45	35	5	47.8	42.2	0.16	20	7.1	146	0.003	< 0.020	274	0.014
27	259	89	23	5.8	17.6	991	0.33	13	1.3	16	0.0025	< 0.0009	118	0.011
28	150	60	85	7.2	86	33	0.5	17	12	200	0.02	< 0.0010	1000	0.013

Site Number	Cr, µg/L	Co, µg/L	Cu, µg/L	Fe, µg/L	Pb, µg/L	Mn, µg/L	Tl, µg/L	Mo, µg/L	Ni, µg/L	Sr, µg/L	V, µg/L	Zn, µg/L	Sb, µg/L	Sn, µg/L
1	< 0.4	NA	1.5	24	0.22	7.7	0.15	1.7	NA	1080	1.5	15	0.1	0.2
2	0.9	< 0.003	< 0.02	1.4	0.012	0.12	0.025	2	< 0.1	110	1.4	2.6	0.013	NA
3	0.5	< 0.008	0.02	< 0.2	0.017	0.06	0.029	2	< 0.2	170	1.8	3.7	0.02	NA
4	0.2	< 0.008	< 0.06	0.7	0.003	0.05	0.028	2	1	170	2	3.8	0.016	NA
5	0.87	0.008	0.31	< 2.00	0.067	< 0.3	0.021	0.36	0.6	76	1.1	1.3	0.081	NA
6	< 0.2	< 0.008	< 0.01	< 0.2	0.007	0.05	0.013	2	< 0.2	310	0.9	0.4	0.008	NA
7	0.53	< 0.10	0.2	< 0.7	< 0.009	0.1	0.022	0.9	< 0.4	156	0.86	0.9	0.01	< 0.10
8	< 0.08	< 0.100	1.2	14	0.28	4.2	0.04	1.2	0.7	260	< 0.10	7.4	0.072	< 0.10
9	0.57	< 0.10	0.23	< 0.7	< 0.009	< 0.05	0.025	0.5	< 0.4	106	1	1.6	0.02	< 0.10
10	0.35	< 0.10	0.15	< 0.7	< 0.009	0.12	0.026	3	< 0.4	251	1.3	1.1	0.02	< 0.10
11	< 0.1	< 0.008	< 0.04	< 0.5	0.014	0.05	0.019	2	< 0.1	240	0.6	1.3	0.01	NA
12	0.2	< 0.008	0.55	< 0.5	0.26	< 0.03	0.1	0.9	0.1	130	0.7	6.4	0.014	NA
13	0.51	0.072	0.41	2	< 0.002	0.07	0.021	0.61	0.13	139	0.9	2.4	0.058	0.11
14	0.61	0.14	0.43	0.7	< 0.002	0.28	0.014	1.1	0.19	169	0.7	1.3	0.12	< 0.03
15	0.4	0.071	0.4	0.4	0.054	0.12	0.011	5.4	< 0.01	310	2.4	13	0.029	NA
16	0.4	0.054	0.45	< 0.3	0.008	0.03	0.02	3.2	< 0.01	430	0.9	11	0.014	NA
17	0.1	0.082	1	1.5	0.016	0.14	< 0.006	2.5	< 0.01	1900	0.6	9.2	0.024	NA
18	0.5	0.019	0.3	0.7	0.011	0.09	0.017	3	0.23	240	< 0.40	5.8	0.006	NA
19	0.38	0.2	0.31	< 2.0	0.019	0.3	0.032	2.8	0.1	640	2	1.4	0.013	NA
20	0.6	0.072	0.73	0.5	0.063	0.09	0.027	5.4	< 0.01	2300	1.5	13	0.014	NA
21	< 0.10	< 0.10	0.4	< 2.0	0.022	0.6	0.0042	3	< 2.00	1182	0.23	1.8	0.043	NA
22	0.5	0.08	0.82	< 0.30	0.27	0.04	0.047	4.8	< 0.01	2400	< 0.40	43	0.02	NA
23	< 0.2	< 2	0.38	5010	0.068	83	0.049	8.8	< 4	2455	0.12	14	0.27	0.08
24	0.95	< 0.10	0.48	21	0.02	1.9	0.028	0.9	< 0.4	344	6.2	6.6	0.025	< 0.10
25	0.53	0.2	5.4	< 0.7	0.16	0.19	0.018	0.9	< 0.4	372	3.3	20	0.034	< 0.10
26	0.47	0.2	0.6	< 0.7	0.13	0.16	0.014	0.9	< 0.4	422	4	9.1	0.04	< 0.10
27	< 0.10	0.4	0.49	< 2	0.015	0.3	0.02	5.3	< 2.0	2800	1.3	16	0.12	NA
28	0.6	0.097	0.49	0.4	0.055	0.02	0.018	0.23	< 0.01	470	6.7	8.2	0.012	NA

Site Number	Al, µg/L	Ce, µg/L	Cs, µg/L	Ga, µg/L	Li, µg/L	Rb, µg/L	Se, µg/L	Ti, µg/L	W, µg/L	Zr, µg/L	La, µg/L	Sc, µg/L	Yb, µg/L	Y, µg/L
1	19	0.13	NA	0.014	131	16	NA	< 0.1	NA	0.36	0.086	NA	0.018	0.41
2	< 0.1	0.0003	0.89	NA	5.6	5	3	NA	0.01	0.002	0.0026	NA	< 0.0007	0.01
3	0.2	0.001	2	NA	10	8	5	NA	0.02	0.005	0.0013	NA	< 0.0002	0.004
4	< 0.1	0.0014	0.82	NA	9.3	8	2	NA	0.02	< 0.004	0.0039	NA	0.0003	0.01
5	0.9	0.0007	NA	0.002	2.5	2.9	1.6	NA	NA	NA	0.0059	NA	< 0.0003	0.007
6	0.1	0.0016	0.68	NA	40	12	6	NA	0.01	0.007	0.02	NA	0.0036	0.07
7	NA	0.0023	NA	0.001	12	4.6	4.9	< 0.05	NA	0.007	0.0086	NA	0.0011	0.025
8	0.7	< 0.0004	NA	0.002	8.8	8.3	5.1	< 0.07	NA	0.002	0.0018	NA	< 0.0004	0.005
9	< 0.30	< 0.0004	NA	0.002	4.8	3.1	3.4	< 0.05	NA	0.006	0.008	NA	0.0003	0.01
10	1.4	0.0025	NA	0.001	24	8.1	6.7	< 0.05	NA	0.021	0.0048	NA	0.0013	0.024
11	< 0.3	0.0018	0.51	NA	20	7	11	NA	0.01	< 0.003	0.0004	NA	< 0.0003	0.003
12	< 0.3	0.0007	0.72	NA	5.5	4	3	NA	0.01	0.005	0.0024	NA	< 0.0003	0.004
13	0.7	< 0.0005	NA	0.002	5.2	3.5	3.3	0.07	NA	0.003	0.0043	NA	< 0.0004	0.006
14	0.7	< 0.0005	NA	0.002	4.8	3.4	3.4	0.09	NA	0.012	0.0025	NA	< 0.0004	0.004
15	0.7	0.002	0.94	NA	21	11	13	NA	NA	0.014	0.0018	< 0.10	0.0004	0.012
16	0.2	0.0008	0.67	NA	20	7.9	8.2	NA	NA	0.0082	0.0016	< 0.10	0.0004	0.018
17	1.1	0.0023	0.15	NA	30	7.4	14	NA	NA	0.016	0.0084	0.2	0.0012	0.032
18	0.23	0.001	0.096	NA	22	7.7	17	NA	NA	0.007	0.0019	< 0.10	0.0006	0.018
19	0.4	0.0005	NA	0.002	14	4.1	7.9	NA	NA	NA	0.0051	NA	0.0013	0.028
20	0.5	0.0021	0.3	NA	45	11	13	NA	NA	0.012	0.003	< 0.10	0.0008	0.026
21	2.7	0.0062	NA	0.002	53	10	8.5	NA	NA	NA	0.0059	NA	0.0009	0.031
22	0.6	0.0025	0.46	NA	25	6.7	11	NA	NA	0.02	0.0016	< 0.10	0.0009	0.03
23	0.9	0.0008	NA	0.014	42	9.6	2.6	< 1	NA	10	0.0009	NA	< 0.0004	0.027
24	0.7	0.0006	NA	0.002	121	13	2.3	< 0.05	NA	0.042	0.0062	NA	0.0036	0.097
25	0.4	0.001	NA	0.001	122	12	1.6	< 0.05	NA	0.029	0.0032	NA	0.0004	0.008
26	1	0.0036	NA	0.001	124	10	2	< 0.05	NA	0.015	0.0043	NA	< 0.0003	0.007
27	0.9	0.0005	NA	0.003	31	2.2	9.1	NA	NA	NA	0.0022	NA	< 0.0002	0.027
28	0.3	0.0009	3.1	NA	230	17	1.1	NA	NA	0.086	0.0081	0.2	0.0046	0.089

Site Number	Er, µg/L	Eu, µg/L	Gd, µg/L	Ho, µg/L	Nd, µg/L	Pr, µg/L	Re, µg/L	Te, µg/L	Tb, µg/L	Tm, µg/L
1	0.026	0.0056	0.033	0.0077	0.11	0.024	NA	< 0.020	0.0061	0.0033
2	< 0.0004	0.0009	< 0.0004	< 0.0001	0.0019	0.0002	0.01	< 0.01	< 0.0001	< 0.0001
3	0.0006	0.0004	< 0.0004	< 0.0001	0.016	0.0003	0.02	< 0.01	0.0001	< 0.0001
4	< 0.0003	0.02	0.0007	0.0001	0.0029	0.0002	0.01	0.01	0.0001	< 0.0001
5	< 0.0004	< 0.0002	< 0.0003	0.0001	0.0037	< 0.0001	NA	< 0.04	< 0.00010	< 0.00006
6	0.0003	0.0023	0.01	0.0016	0.03	0.01	0.03	0.01	0.0012	0.0005
7	0.0014	0.001	0.0018	0.00048	0.0089	0.0017	NA	< 0.0030	0.00039	0.0002
8	< 0.0008	< 0.0002	< 0.0006	< 0.00010	0.0009	< 0.0001	NA	< 0.003	< 0.00020	< 0.00010
9	< 0.0003	< 0.0002	0.0006	0.00013	0.0056	0.00048	NA	< 0.003	0.00006	< 0.00008
10	0.0014	0.0006	0.0012	0.00041	0.005	0.00083	NA	< 0.0030	0.00025	0.00012
11	< 0.0002	0.0009	0.0003	0.0001	0.0011	< 0.0002	0.14	< 0.01	< 0.0001	< 0.0001
12	< 0.0002	0.01	0.0002	< 0.0001	0.0026	< 0.0002	0.03	< 0.01	< 0.0001	< 0.0001
13	< 0.0005	0.006	< 0.0006	< 0.00009	0.0036	< 0.0001	NA	< 0.0050	< 0.00010	< 0.00010
14	< 0.0005	0.0017	< 0.0006	< 0.00009	0.0021	< 0.0001	NA	< 0.005	< 0.00010	< 0.00010
15	0.0008	0.0015	0.0006	0.0002	0.0019	0.0002	0.071	0.023	< 0.00010	< 0.00010
16	0.0005	0.0015	0.0013	0.0003	0.0022	0.0002	0.053	0.041	0.0002	0.0001
17	0.0009	0.0006	0.0025	0.0006	0.007	0.0012	0.19	0.03	0.0005	0.0002
18	0.0007	< 0.0002	0.0013	0.0003	0.0013	0.0005	0.11	0.019	0.0001	0.0002
19	0.0013	0.0004	0.0016	0.0004	0.0068	0.0014	NA	< 0.04	0.00027	0.0002
20	0.0014	< 0.0003	0.001	0.0003	0.0027	0.0005	0.1	0.02	0.0005	0.0001
21	0.0013	< 0.0002	0.0016	0.0003	0.0061	0.0014	NA	< 0.004	0.0003	0.00023
22	0.0013	0.0005	0.0017	0.0004	0.0027	0.0004	0.15	0.037	0.0007	0.0001
23	< 0.0005	< 0.0001	< 0.0005	< 0.00010	< 0.0010	0.0005	NA	< 0.010	< 0.00009	< 0.00010
24	0.0046	0.0036	0.0024	0.0011	0.0064	0.00076	NA	< 0.003	0.00042	0.00054
25	< 0.0003	< 0.0002	0.0003	< 0.00007	0.0023	< 0.0001	NA	< 0.0030	< 0.00004	< 0.00008
26	< 0.0003	< 0.0002	< 0.00020	< 0.00007	0.0036	0.00046	NA	< 0.0030	< 0.00004	< 0.00008
27	< 0.0006	< 0.0002	0.0006	< 0.00010	0.0016	0.0004	NA	0.01	< 0.00006	< 0.00009
28	0.005	0.0018	0.0082	0.0012	0.012	0.0015	0.0086	0.035	0.0007	0.0005

Site Number	Lu, µg/L	Sm, µg/L	Dy, µg/L	Th, µg/L	U, µg/L	U-238, pCi/L	U-234, pCi/L	U-235, pCi/L	Sr-87/Sr-86 ratio	$\delta^{13}C$, unfilt, per mil	$\delta^{2}H$, unfilt, per mil	$\delta^{18}O$, unfilt, per mil
1	0.0027	0.027	0.036	0.0056	4.6	1.48	4.2	0.07	0.70956	-2.81	-82.4	-11.43
2	< 0.0002	0.0016	< 0.0006	< 0.001	1.7	NA	NA	NA	0.71164	-8.59	-94.2	-12.7
3	< 0.0001	< 0.0007	0.0004	0.0011	4.1	NA	NA	NA	0.7125	-8.05	-91.4	-12.2
4	< 0.0001	0.0008	0.0004	0.001	3.1	NA	NA	NA	0.71196	-7.69	-93.1	-12.26
5	< 0.0001	0.0014	< 0.0003	< 0.0004	1	0.32	1.6	0.05	NA	-9.18	-93.7	-12.9
6	0.0004	0.01	0.01	0.0003	6	NA	NA	NA	NA	NA	-89.1	-11.9
7	0.00015	0.0023	0.0029	0.0008	2.2	NA	NA	NA	NA	-10.68	-90.8	-12.4
8	< 0.0002	< 0.0007	< 0.00040	< 0.0020	13	4.8	10	0.24	0.71008	-7.69	-89	-12.16
9	< 0.00007	0.0026	0.0005	0.0006	1.7	NA	NA	NA	NA	-9.07	-92.2	-12.38
10	0.00016	0.0013	0.0012	0.005	7.2	NA	NA	NA	NA	-11.9	-87.8	-11.7
11	< 0.0001	0.0006	0.0005	0.0004	31	NA	NA	NA	NA	NA	-90.2	-12.1
12	< 0.0001	0.0015	< 0.0003	< 0.0002	7.1	NA	NA	NA	0.7107	-7.96	-91.1	-12.2
13	< 0.0001	0.0016	< 0.0005	0.0012	2	0.63	2.06	0.06	0.71014	-8.75	-89.5	-11.91
14	< 0.00010	0.0007	< 0.0005	0.0025	1.4	0.63	1.59	0.09	0.70944	-8.25	-89.8	-11.93
15	< 0.00010	< 0.0008	< 0.0004	0.003	10	NA	NA	NA	NA	NA	-82.78	-10.33
16	0.0001	< 0.0008	0.001	0.0015	8.7	NA	NA	NA	NA	NA	-89.03	-11.92
17	< 0.0001	0.0022	0.0022	0.0057	14	NA	NA	NA	NA	NA	-81.36	-10.78
18	0.0002	0.0008	0.0009	0.0021	4.4	NA	NA	NA	NA	-6.9	-91.09	-12.09
19	0.00015	0.0021	0.0026	0.0005	2.7	1.15	2.3	0.06	NA	-9.76	-84.5	-11.41
20	< 0.0001	< 0.0008	0.0009	0.0046	7.5	NA	NA	NA	NA	NA	-80.83	-10.99
21	0.0002	0.0011	0.002	0.00039	5.8	2.3	3	0.11	NA	-10.84	-80.1	-10.64
22	0.0002	< 0.0008	0.0012	0.014	6.6	NA	NA	NA	NA	-5	-87.78	-11.74
23	< 0.0001	< 0.0008	0.0006	0.023	1.2	0.37	1.1	0.037	0.70801	NA	-111	-14.54
24	0.00061	0.0017	0.004	0.0031	3.6	1.39	3.8	0.09	0.71062	-3.73	-86.2	-11.82
25	0.00008	< 0.0006	< 0.0002	0.0013	3.7	1.28	3.1	0.057	0.71047	-3.87	-85.9	-11.76
26	< 0.00007	0.0009	< 0.0002	0.0023	3.1	0.98	2.2	0.08	0.71064	-3.53	-85.2	-11.74
27	< 0.0001	< 0.0005	< 0.0005	0.00039	6.9	2	6	0.17	NA	-8.19	-85.5	-11.29
28	0.0006	0.0042	0.0051	0.0013	4.6	NA	NA	NA	NA	NA	-80.76	-10.96

Site Number	Alkalinity, field, mg/L as $CaCO_3$	Alkalinity, laboratory, mg/L as $CaCO_3$	Bicarbonate, field, mg/L	Carbonate, field, mg/L	Bromide, µg/L	Ammonia, mg/L as N	Nitrite, mg/L as N	Nitrate, mg/L as N	^{14}C, percent modern	^{14}C counting error, percent modern	Tritium, unfilt, pCi/L
1	640	NA	780	0.3	NA	NA	NA	0.28	3.49	0.07	NA
2	130	NA	156	1	33	0.01	0.001	0.76	49.23	0.47	2.2
3	141	NA	171	2	31	< 0.020	< 0.002	0.8	55.11	0.4	3.5
4	130	NA	142	8	50	< 0.010	0.002	1.2	71.07	0.46	2.2
5	191	NA	231	0.6	NA	< 0.01	0.004	0.25	51.33	0.13	1.5
6	155	NA	187	0	42	< 0.040	< 0.001	0.3	NA	NA	5.1
7	231	NA	281	0.4	NA	< 0.01	0.012	0.2	50.18	0.16	1
8	201	NA	244	0.4	NA	< 0.01	< 0.001	0.19	16.8	0.15	R -0.5
9	212	NA	258	0.3	NA	< 0.01	< 0.001	0.39	42.66	0.14	R -0.1
10	216	NA	263	0.2	NA	< 0.01	< 0.001	1.24	74.82	0.21	2.8
11	153	NA	184	1	32	< 0.030	< 0.001	0.58	NA	NA	NA
12	201	NA	244	0	43	< 0.100	< 0.001	5.7	41.54	0.35	1.9
13	176	NA	213	0.5	NA	< 0.01	< 0.001	0.92	31.93	0.14	0.6
14	170	NA	206	0.7	NA	0.02	< 0.001	0.78	27.72	0.12	0.6
15	NA	177	NA	NA	56	0.027	0.003	0.71	NA	NA	NA
16	NA	215	NA	NA	30	0.059	< 0.0010	0.22	NA	NA	NA
17	NA	222	NA	NA	22	0.23	< 0.0010	< 0.02	NA	NA	NA
18	147	167	175	NA	29	0.026	< 0.0010	0.51	54.8	0.41	1.6
19	200	NA	243	0.3	NA	< 0.01	< 0.001	0.64	44.34	0.12	1.7
20	132	NA	NA	NA	53	0.19	< 0.0040	1.4	NA	NA	NA
21	228	NA	277	0.4	NA	< 0.01	< 0.001	0.02	59.72	0.17	7.4
22	164	158	199	NA	26	0.18	0.004	0.76	20.19	0.22	2.2
23	126	NA	154	0.1	NA	< 0.02	< 0.001	< 0.002	NA	NA	R 0.2
24	493	NA	601	0.1	NA	0.01	< 0.001	0.32	5.2	0.06	R -0.2
25	494	NA	602	0.1	NA	0.01	< 0.001	0.2	8.39	0.07	R -0.1
26	443	NA	540	0.2	NA	< 0.01	< 0.001	0.34	11.44	0.07	R 0.1
27	123	NA	150	0.1	NA	< 0.01	< 0.001	0.067	55.99	0.17	2.9
28	NA	695	NA	NA	50	0.18	< 0.0040	0.79	NA	NA	NA

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