

Table 1s Major and trace element (REE, Pb, Th & U) of chemical composition
of typical schorlomite investigated in this study

Samples	15MC	13FS02	15HA	15OZ	NE-2	WS20
	n=10	n=10	n=10	n=10	n=10	n=10
Na ₂ O	0.04	0.16	0.09	0.10	0.04	0.06
SiO ₂	34.24	29.44	29.33	28.51	33.96	34.29
TiO ₂	5.04	10.92	11.89	13.50	7.03	2.43
P ₂ O ₅	0.02	0.03	0.03	0.03	0.02	0.02
MgO	0.30	0.82	0.36	0.40	0.31	0.08
Cr ₂ O ₃	0.02	0.01	0.02	0.01	0.02	0.02
K ₂ O	0.01	0.02	0.01	0.01	0.01	0.04
Al ₂ O ₃	0.73	2.45	3.18	2.25	1.05	1.84
MnO	0.33	0.37	0.30	0.32	0.49	0.44
CaO	32.98	31.58	31.55	32.11	33.14	32.10
FeO	23.84	20.54	21.50	21.24	23.39	26.36
Total	97.55	96.34	98.25	98.49	99.46	97.68

	n=13	n=15	n=19	n=18	n=10	n=54
La	15	86	51	39	67	25
Ce	79	566	336	219	297	212
Pr	16	107	74	44	61	54
Nd	87	582	505	276	355	364
Sm	25	135	199	112	94	116
Eu	9.13	39	73	46	31	38
Gd	29	100	248	157	77	103
Tb	4.27	11	40	27	9.0	12
Dy	28	57	254	190	45	61
Ho	5.4	8.85	48	38	6.8	9.3
Er	16	21	127	106	15	21
Tm	2.31	2.75	17	14	1.6	2.4
Yb	16	19	101	88	8.7	13
Lu	2.44	2.78	11.2	11	1.02	1.63
Pb	0.30	1.66	3.48	0.94	6.58	5.69
Th	13	47	36	12	7.03	11
U	15	26	23	11	28	23

Table 2s Individual REE data of typical schorlomites investigated using LA-ICP-MS in this study

Sample spot No.	La (ppm)	Ce (ppm)	Pr (ppm)	Nd (ppm)	Sm (ppm)	Eu (ppm)	Gd (ppm)	Tb (ppm)	Dy (ppm)	Ho (ppm)	Er (ppm)	Tm (ppm)	Yb (ppm)	Lu (ppm)
15MC 01	17.9	82	17	98	30	11	34	5	33	6.4	19	2.7	21	2.9
15MC 02	12.9	71	14	84	26	10	30	5	29	5.9	17	2.6	20	2.9
15MC 03	18.0	98	19	103	28	10	29	4	26	5.1	14	2.1	14	2.2
15MC 04	17.4	98	19	103	28	10	29	4	26	5.2	15	2.2	15	2.3
15MC 05	17.8	100	19	106	29	10	30	4	26	5.0	14	2.0	14	2.1
15MC 06	13.8	70	14	77	23	9	30	5	33	6.9	21	3.2	22	3.5
15MC 07	14.6	78	16	86	25	9	27	4	25	5.1	15	2.1	15	2.3
15MC 08	14.7	78	16	88	26	9	30	5	30	6.1	18	2.8	20	3.0
15MC 09	10.8	51	9	51	16	6	20	3	20	3.8	10	1.4	8.8	1.3
15MC 10	14.1	76	15	79	23	9	25	4	24	4.7	14	2.0	14	2.2
15MC 11	15.0	83	17	100	32	12	38	6	38	7.8	22	3.4	24	3.8
15MC 12	17.3	94	19	105	30	10	32	4	27	5.2	15	2.1	14	2.2
15MC 13	9.9	47	9	47	15	6	18	3	19	3.6	10	1.3	8	1.2
13FS02 01	106	660	119	611	137	40	101	11	56	8.7	20	2.6	18	2.9
13FS02 02	36	274	67	495	172	55	145	18	90	14.4	37	5.0	34	4.9
13FS02 03	75	499	92	465	91	25	61	6.5	31	4.5	10	1.2	8	1.4
13FS02 04	79	516	95	484	95	26	64	6.8	32	4.5	10	1.2	9	1.4
13FS02 05	81	526	97	498	98	26	65	7.0	32.4	4.8	10.7	1.4	9.3	1.5
13FS02 06	82	542	101	508	98	26	63	6.6	30	4.3	10	1.2	8	1.3
13FS02 07	99	566	100	506	107	31	75	8.2	39	5.6	12	1.6	11	1.8
13FS02 08	115	706	127	673	158	45	124	15	73	11.4	27	3.5	24	3.6
13FS02 09	83	545	100	499	96	26	63	6.7	31	4.6	10	1.3	8	1.4
13FS02 10	15	181	50	366	112	33	91	10	51	7.8	18	2.2	15	2.5
13FS02 11	94	593	108	541	104	27	67	7.2	33	4.8	11	1.3	9	1.3
13FS02 12	99	719	158	1033	335	107	301	40	219	37.3	96	13	84	11
13FS02 13	125	860	164	863	165	49	93	9.2	40	5.6	12	1.7	12	1.8
13FS02 14	106	684	121	609	124	34	85	9.2	43	6.5	14	1.8	13	2.0

13FS02 15	95	614	113	583	129	36	95	11	53	8.0	18	2.5	16	2.6
15OZ 01	37.8	213	43	274	115	47	164	29	201	41	113	15.6	94	11.8
15OZ 02	42.9	241	48	304	126	53	185	34	242	50	141	18.9	114	14.0
15OZ 03	40.8	232	46	292	117	47	162	28	192	38	106	14.4	88	11.1
15OZ 04	36.6	195	39	254	117	51	186	35	251	52	146	19.8	120	15.0
15OZ 05	39.4	217	44	273	106	41	135	22	147	29	78	10.7	67	8.6
15OZ 06	38.4	220	44	275	106	43	145	25	169	33	91	12.5	78	9.9
15OZ 07	39.4	204	40	259	117	52	188	35	253	53	148	20.1	121	15.0
15OZ 08	36.3	196	40	253	105	42	146	25	176	36	99	13.7	84	10.8
15OZ 09	40.1	222	45	279	113	46	159	27	188	38	104	14.1	86	10.9
15OZ 10	43.5	258	52	326	125	50	172	30	210	42	116	15.3	92	11.6
15OZ 11	39.1	215	42	267	106	43	146	25	168	33	91	12.5	77	10.0
15OZ 12	36.7	201	41	261	106	43	148	25	174	35	97	13.5	82	10.7
15OZ 13	38.3	209	41	253	100	41	138	24	161	32	88	12.2	74	9.7
15OZ 14	39.0	229	47	294	112	44	148	25	169	34	93	12.7	78	9.9
15OZ 15	40.6	237	48	300	120	48	161	28	184	37	101	13.7	85	10.9
15OZ 16	39.8	220	43	267	103	42	140	24	160	32	86	11.8	73	9.3
15OZ 17	40.7	227	45	289	120	51	179	32	234	48	135	18.3	111	13.7
15OZ 18	35.1	199	40	248	98	39	130	21	143	28	77	10.6	67	8.6
15HA 01	39.4	300	67	421	131	43	128	18	104	18.2	46	6.0	37	5.0
15HA 02	46.9	319	73	507	208	77	265	43	281	53.9	142	18.7	113	14.2
15HA 03	45.2	310	73	529	231	85	289	46	291	55	142	19	112	14
15HA 04	39.7	277	67	513	239	90	313	51	327	62	162	21	129	16
15HA 05	49.0	333	75	518	209	77	265	42	274	52	136	18	108	14
15HA 06	85.9	559	111	634	179	59	178	25	152	27.4	70	9.2	57	7.4
15HA 07	46.7	324	73	516	211	78	268	43	276	52.6	138	18.1	110	13.9
15HA 08	52.8	345	76	515	205	76	260	42	276	52.9	139	18.5	112	13.9
15HA 09	51.3	347	77	520	205	75	259	41	264	50.1	131	17.4	105	13.2
15HA 10	48.1	321	70	481	203	77	267	44	284	54.5	143	18.9	116	14.4
15HA 11	20.2	165	46	377	191	74	260	42	274	52.4	139	18.5	112	14.4
15HA 12	79.2	519	103	594	172	57	177	25	152	27.5	71	9.5	57	7.6

15HA 13	49.1	333	74	506	200	75	254	41	268	51.8	136	18.0	109	13.7
15HA 14	53.5	314	69	466	180	66	225	36	234	44.3	116	15.1	90	11.3
15HA 15	44.9	302	69	497	221	84	298	49	325	62.4	167	22.2	133	16.7
15HA 16	44.2	295	67	489	219	84	300	50	328	63.6	169	22.1	135	16.8
15HA 17	74.8	377	78	518	204	74	248	39	251	47.7	126	16.6	99	12.4
15HA 18	41.1	296	69	463	168	59	197	31	195	37.2	97	12.9	78	10.0
15HA 19	52.8	346	77	527	208	76	262	42	274	52.4	137	18.1	108	13.6

NE2 01	362	701	84	347	70	22	56	6	33	5.0	10.4	1.1	6.0	0.78
NE2 02	54.7	326	69	404	106	35	83	10	46	6.7	13.8	1.4	7.1	0.79
NE2 03	27.5	231	57	372	106	33	87	10	46	7.2	15.5	1.8	9.8	1.16
NE2 04	28.6	237	59	379	107	33	87	9	47	7.0	15.4	1.7	10.1	1.17
NE2 05	28.4	241	59	381	110	35	91	10	49	7.5	16.6	1.9	10.3	1.24
NE2 06	29.4	249	60	352	84	27	64	7	34	4.9	10.7	1.1	5.5	0.61
NE2 07	32.7	256	59	346	79	23	56	6	28	4.1	8.6	0.8	4.4	0.48
NE2 08	28.1	231	53	316	75	23	55	6	29	4.2	8.9	0.9	4.7	0.58
NE2 09	35.5	274	63	421	156	61	160	22	118	18.9	42.8	4.8	27	3.16
NE2 10	45.7	226	44	235	51	15	35	4	17	2.5	4.8	0.5	2.4	0.21

WS20 01	16.7	159	46	339	134	48	137	17	87	13.6	31	3.6	20	2.44
WS20 02	19.0	156	44	330	133	47	135	17	88	13.7	31	3.6	20	2.54
WS20 03	19.5	193	54	387	145	50	140	18	90	13.9	31	3.5	19	2.28
WS20 04	27.4	223	56	353	96	29	75	8	38	5.7	13	1.4	8	1.01
WS20 05	17.1	170	47	342	116	39	103	12	61	9.1	21	2.3	13	1.54
WS20 06	15.3	154	45	338	130	46	128	16	83	13.1	29	3.3	18	2.13
WS20 07	29.8	188	48	330	107	34	93	11	52	7.9	18	2.1	11	1.35
WS20 08	17.4	164	46	345	131	46	132	16	83	12.9	29	3.3	18	2.34
WS20 09	17.2	166	43	278	70	22	50	5	27	4.0	10	1.2	7	0.96
WS20 10	30.4	256	62	391	111	35	89	10	49	7.5	16	1.9	10	1.31
WS20 11	31.5	269	64	392	104	32	82	9	42	6.5	14	1.6	9	1.11
WS20 12	25.2	219	58	412	141	47	129	15	75	11.3	24	2.7	15	1.76
WS20 13	26.2	224	56	362	99	31	79	9	42	6.2	13	1.6	9	1.11
WS20 14	20.6	193	54	387	136	46	126	15	75	11.4	25	2.9	16	1.87

WS20 15	31.2	246	63	424	125	38	100	11	51	7.6	17	2.1	12	1.48
WS20 16	17.8	173	47	331	111	37	99	12	59	9.1	20	2.3	12	1.50
WS20 17	26.0	193	52	377	143	50	146	18	97	15.3	34	3.9	20	2.44
WS20 18	26.7	237	56	347	94	30	70	7	34	5.0	11	1.3	8	1.01
WS20 19	30.2	280	63	384	103	32	80	9	42	6.3	14	1.6	9	1.09
WS20 20	39.2	249	61	414	138	46	127	15	74	11.1	24	2.7	14	1.78
WS20 21	18.2	191	53	376	140	51	141	18	97	15.7	36	4.1	22	2.57
WS20 22	19.4	188	53	384	140	48	131	16	82	12.9	28	3.1	17	1.98
WS20 23	26.6	218	56	364	102	31	82	9	44	6.6	15	1.7	10	1.16
WS20 24	29.2	239	60	388	108	33	87	10	47	7.0	16	1.8	10	1.32
WS20 25	28.6	237	57	356	91	27	69	8	37	5.7	13	1.5	8	1.04
WS20 26	22.1	202	56	401	141	48	135	16	78	11.9	26	2.9	16	1.94
WS20 27	29.5	244	58	346	83	25	63	7	32	4.8	11	1.3	7	0.90
WS20 28	22.5	214	55	371	123	41	113	13	68	10.6	24	2.7	15	1.78
WS20 29	21.5	209	53	349	115	40	106	12	64	9.8	22	2.4	14	1.66
WS20 30	35.1	286	69	435	117	35	89	9	44	6.5	14	1.6	9	1.20
WS20 31	25.5	218	55	355	106	34	90	10	50	7.6	17	1.9	11	1.34
WS20 32	18.6	178	50	362	127	42	112	13	65	10.1	22	2.5	14	1.68
WS20 33	26.9	223	56	364	104	32	83	9	44	6.6	14	1.6	10	1.18
WS20 34	19.3	168	44	300	92	29	81	9	48	7.4	16	1.9	10	1.29
WS20 35	18.3	174	49	365	145	51	146	18	94	14.4	31	3.6	19	2.39
WS20 36	29.4	238	59	386	111	35	94	11	52	7.9	18	2.0	11	1.39
WS20 37	18.2	163	42	262	67	21	50	5	26	3.9	9	1.1	7	0.87
WS20 38	29.3	221	55	365	114	38	99	11	54	8.3	18	2.1	11	1.40
WS20 39	26.9	231	55	335	84	26	65	7	32	4.8	11	1.2	7	0.98
WS20 40	31.1	261	63	393	105	31	80	8	40	5.8	13	1.5	8	1.08
WS20 41	23.9	210	52	338	96	31	76	8	38	5.6	12	1.5	9	1.03
WS20 42	24.2	198	51	330	92	28	69	7	33	4.9	11	1.3	8	0.99
WS20 43	24.3	182	48	340	123	41	119	15	80	12.9	29	3.5	19	2.35
WS20 44	27.7	230	57	376	112	36	96	11	54	8.2	18	2.0	11	1.41
WS20 45	16.8	169	47	344	134	47	135	17	90	14.2	31	3.5	19	2.22
WS20 46	37.7	292	66	402	109	34	88	10	46	6.9	15	1.8	10	1.19
WS20 47	31.5	254	62	407	127	41	112	13	64	9.8	22	2.5	14	1.82

WS20 48	15.6	159	46	353	134	47	132	17	85	13.2	30	3.3	18	2.14
WS20 49	22.1	192	53	386	156	55	162	21	111	17.4	40	4.7	26	3.15
WS20 50	37.2	189	44	297	110	39	115	15	84	13.9	33	4.0	22	2.71
WS20 51	28.0	235	59	385	115	36	99	11	55	8.3	18	2.1	12	1.50
WS20 52	18.2	199	53	367	135	48	131	16	84	13.0	29	3.3	18	2.11
WS20 53	32.7	274	65	408	112	35	91	10	49	7.3	16	1.8	10	1.32
WS20 54	31.2	261	63	410	126	40	106	12	60	9.0	20	2.4	13	1.75

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Table 3s U-Th-Pb isotopic data and $^{206}\text{Pb}/^{238}\text{U}$ ($^{207}\text{Pb}/^{206}\text{Pb}$) age of typical schorlomites investigated using LA-ICP-MS in this study

Sample spot No.	Pb (ppm)	Th (ppm)	U (ppm)	Th/U	$^{238}\text{U}/^{206}\text{Pb}$ ratio	1σ	$^{207}\text{Pb}/^{206}\text{Pb}$ ratio	1σ	$^{207}\text{Pb}/^{235}\text{U}$ ratio	1σ	$^{206}\text{Pb}/^{238}\text{U}$ ratio	1σ	$^{208}\text{Pb}/^{232}\text{Th}$ ratio	1σ	$^{206}\text{Pb}/^{238}\text{U}$ age (Ma)	1σ (Ma)
15MC 01	0.16	17	16	1.0	67.48	2.87	0.049	0.013	0.101	0.027	0.0148	0.0006	0.0052	0.0005	94.9	4.0
15MC 02	0.15	15	11	1.4	67.75	3.08	0.041	0.017	0.084	0.035	0.0148	0.0007	0.0052	0.0004	94.5	4.2
15MC 03	0.23	14	19	0.8	63.73	1.95	0.047	0.010	0.101	0.021	0.0157	0.0005	0.0077	0.0004	100.4	3.1
15MC 04	0.17	15	18	0.8	65.96	1.91	0.047	0.009	0.098	0.020	0.0152	0.0004	0.0055	0.0004	97.0	2.8
15MC 05	0.20	15	18	0.9	67.66	1.83	0.051	0.009	0.104	0.019	0.0148	0.0004	0.0064	0.0003	94.6	2.6
15MC 06	0.13	15	16	0.9	66.45	2.03	0.052	0.011	0.108	0.023	0.0151	0.0005	0.0044	0.0004	96.3	2.9
15MC 07	0.12	11	13	0.8	65.53	2.15	0.052	0.013	0.109	0.027	0.0153	0.0005	0.0055	0.0005	97.6	3.2
15MC 08	0.14	14	15	1.0	68.26	2.28	0.041	0.013	0.083	0.026	0.0147	0.0005	0.0046	0.0004	93.7	3.1
15MC 09	0.04	3	11	0.3	68.73	2.98	0.042	0.017	0.085	0.034	0.0146	0.0006	0.0063	0.0017	93.1	4.0
15MC 10	0.05	7	11	0.6	62.62	2.39	0.054	0.015	0.119	0.033	0.0160	0.0006	0.0040	0.0008	102.1	3.9
15MC 11	0.20	19	14	1.4	66.31	2.42	0.055	0.014	0.114	0.028	0.0151	0.0006	0.0054	0.0003	96.5	3.5
15MC 12	0.16	14	16	0.9	66.45	2.08	0.049	0.012	0.102	0.025	0.0151	0.0005	0.0059	0.0004	96.3	3.0
15MC 13	0.06	3	10	0.3	66.89	3.00	0.031	0.020	0.064	0.041	0.0150	0.0007	0.0116	0.0021	95.7	4.3
13FS02 01	1.9	61	32	1.9	27.12	0.43	0.062	0.003	0.312	0.012	0.0369	0.0006	0.0121	0.0002	233.4	3.7
13FS02 02	1.6	40	28	1.4	27.84	0.57	0.070	0.003	0.347	0.016	0.0359	0.0007	0.0128	0.0003	227.5	4.5
13FS02 03	1.3	38	21	1.8	28.16	0.52	0.053	0.004	0.260	0.017	0.0355	0.0007	0.0122	0.0002	224.9	4.1
13FS02 04	1.3	40	23	1.8	27.33	0.47	0.053	0.003	0.266	0.016	0.0366	0.0006	0.0119	0.0002	231.7	3.9
13FS02 05	1.3	41	23	1.8	27.14	0.47	0.061	0.003	0.307	0.016	0.0368	0.0006	0.0111	0.0002	233.2	4.0
13FS02 06	1.4	40	23	1.7	27.62	0.49	0.066	0.004	0.329	0.017	0.0362	0.0006	0.0129	0.0002	229.3	4.0
13FS02 07	3.4	41	25	1.7	27.40	0.60	0.072	0.004	0.360	0.020	0.0365	0.0008	0.0177	0.0004	231.1	5.0
13FS02 08	1.8	62	28	2.2	28.08	0.47	0.063	0.003	0.310	0.014	0.0356	0.0006	0.0111	0.0002	225.6	3.7
13FS02 09	1.3	40	22	1.8	27.06	0.48	0.050	0.003	0.252	0.017	0.0370	0.0007	0.0115	0.0002	233.9	4.0
13FS02 10	1.4	34	26	1.3	27.63	0.46	0.058	0.003	0.288	0.014	0.0362	0.0006	0.0121	0.0002	229.2	3.7
13FS02 11	1.4	46	23	2.0	27.93	0.48	0.064	0.003	0.314	0.016	0.0358	0.0006	0.0106	0.0002	226.7	3.9
13FS02 12	1.3	46	20	2.3	27.93	0.51	0.068	0.004	0.337	0.019	0.0358	0.0007	0.0105	0.0002	226.8	4.1
13FS02 13	1.9	69	32	2.2	28.15	0.46	0.052	0.003	0.256	0.013	0.0355	0.0006	0.0106	0.0002	225.1	3.6

13FS02 14	1.6	53	27	2.0	27.78	0.47	0.064	0.003	0.319	0.015	0.0360	0.0006	0.0106	0.0002	228.0	3.8
13FS02 15	1.8	53	30	1.8	27.84	0.45	0.071	0.003	0.354	0.013	0.0359	0.0006	0.0106	0.0002	227.5	3.6
15OZ 01	0.8	11	10	1.1	16.29	0.44	0.045	0.010	0.378	0.088	0.0614	0.0017	0.020	0.001	384.0	10.0
15OZ 02	1.1	15	12	1.3	16.25	0.38	0.046	0.008	0.387	0.068	0.0615	0.0014	0.018	0.001	384.9	8.8
15OZ 03	1.0	15	12	1.2	16.67	0.46	0.064	0.009	0.528	0.075	0.0600	0.0016	0.018	0.001	375.5	10.0
15OZ 04	0.8	8	10	0.8	15.97	0.40	0.043	0.009	0.370	0.073	0.0626	0.0016	0.020	0.001	391.5	9.6
15OZ 05	0.9	11	11	0.9	16.11	0.42	0.056	0.009	0.477	0.076	0.0621	0.0016	0.017	0.001	388.2	9.7
15OZ 06	1.1	14	12	1.2	15.98	0.40	0.059	0.008	0.510	0.072	0.0626	0.0016	0.018	0.001	391.2	9.5
15OZ 07	0.8	8	10	0.8	16.00	0.43	0.055	0.010	0.470	0.088	0.0625	0.0017	0.018	0.001	390.7	10.1
15OZ 08	0.8	8	9	0.9	16.07	0.54	0.055	0.013	0.475	0.110	0.0622	0.0021	0.024	0.002	389.1	12.6
15OZ 09	0.9	12	10	1.2	16.17	0.43	0.068	0.011	0.579	0.090	0.0619	0.0016	0.019	0.001	386.9	9.9
15OZ 10	1.1	17	12	1.5	16.11	0.41	0.053	0.009	0.453	0.077	0.0621	0.0016	0.018	0.001	388.3	9.5
15OZ 11	1.0	12	11	1.1	16.46	0.45	0.057	0.009	0.474	0.075	0.0608	0.0017	0.018	0.001	380.2	10.0
15OZ 12	0.8	9	9	1.0	16.16	0.48	0.043	0.012	0.369	0.101	0.0619	0.0018	0.019	0.001	387.0	11.2
15OZ 13	1.4	14	18	0.8	16.28	0.33	0.066	0.006	0.558	0.047	0.0614	0.0013	0.021	0.001	384.3	7.6
15OZ 14	0.9	11	10	1.1	16.49	0.55	0.065	0.013	0.547	0.110	0.0607	0.0020	0.022	0.001	379.6	12.3
15OZ 15	1.0	13	11	1.3	16.40	0.44	0.068	0.010	0.568	0.085	0.0610	0.0016	0.020	0.001	381.6	10.0
15OZ 16	0.9	12	10	1.2	16.40	0.55	0.057	0.013	0.482	0.108	0.0610	0.0021	0.020	0.001	381.5	12.4
15OZ 17	0.9	12	10	1.2	15.79	0.42	0.050	0.010	0.434	0.090	0.0633	0.0017	0.018	0.001	395.9	10.2
15OZ 18	0.8	8	8	0.9	16.14	0.54	0.045	0.014	0.387	0.119	0.0619	0.0021	0.033	0.002	387.4	12.5
15HA 01	4.3	40	30	1.3	10.51	0.17	0.063	0.003	0.822	0.035	0.0951	0.0016	0.029	0.001	585.8	9.3
15HA 02	2.7	31	17	1.8	10.48	0.19	0.061	0.004	0.803	0.056	0.0954	0.0018	0.028	0.001	587.4	10.3
15HA 03	2.8	29	19	1.6	10.48	0.20	0.063	0.004	0.832	0.056	0.0954	0.0018	0.028	0.001	587.3	10.7
15HA 04	3.4	33	22	1.5	10.32	0.24	0.060	0.005	0.808	0.070	0.0969	0.0022	0.031	0.001	596.4	13.1
15HA 05	2.9	33	19	1.8	10.46	0.20	0.058	0.004	0.759	0.054	0.0956	0.0018	0.027	0.001	588.8	10.6
15HA 06	7.0	69	43	1.6	10.51	0.16	0.065	0.002	0.858	0.025	0.0952	0.0015	0.029	0.000	586.1	8.8
15HA 07	2.9	33	18	1.8	10.47	0.23	0.060	0.005	0.792	0.065	0.0955	0.0021	0.028	0.001	588.2	12.3
15HA 08	3.0	36	19	1.9	10.48	0.22	0.063	0.005	0.824	0.058	0.0954	0.0020	0.027	0.001	587.5	11.8
15HA 09	3.1	35	19	1.8	10.48	0.18	0.064	0.004	0.840	0.049	0.0954	0.0017	0.029	0.001	587.6	9.9
15HA 10	2.8	30	18	1.6	10.53	0.20	0.069	0.004	0.903	0.053	0.0950	0.0018	0.028	0.001	584.8	10.5
15HA 11	5.6	44	42	1.0	10.54	0.16	0.065	0.002	0.849	0.024	0.0949	0.0015	0.029	0.000	584.6	8.6

15HA 12	6.1	59	41	1.4	10.52	0.17	0.063	0.002	0.819	0.028	0.0950	0.0016	0.029	0.000	585.3	9.1
15HA 13	2.7	33	18	1.9	10.47	0.20	0.073	0.004	0.956	0.056	0.0956	0.0019	0.027	0.001	588.3	10.9
15HA 14	2.2	26	14	1.9	10.53	0.19	0.076	0.004	1.000	0.058	0.0950	0.0017	0.028	0.001	585.0	9.9
15HA 15	2.7	26	17	1.5	10.40	0.22	0.074	0.005	0.983	0.066	0.0961	0.0021	0.029	0.001	591.6	12.1
15HA 16	2.6	26	17	1.5	10.50	0.19	0.064	0.004	0.846	0.054	0.0952	0.0017	0.028	0.001	586.4	10.1
15HA 17	2.7	32	17	1.9	10.49	0.22	0.076	0.005	1.000	0.063	0.0953	0.0020	0.029	0.001	586.8	11.9
15HA 18	3.8	38	26	1.5	10.54	0.19	0.069	0.003	0.900	0.041	0.0949	0.0017	0.029	0.001	584.4	10.2
15HA 19	2.9	34	18	1.9	10.50	0.20	0.073	0.004	0.963	0.054	0.0952	0.0018	0.030	0.001	586.5	10.5

Sample spot No.	Pb (ppm)	Th (ppm)	U (ppm)	Th/U	²³⁸ U/ ²⁰⁶ Pb ratio	1σ	²⁰⁷ Pb/ ²⁰⁶ Pb ratio	1σ	²⁰⁷ Pb/ ²³⁵ U ratio	1σ	²⁰⁶ Pb/ ²³⁸ U ratio	1σ	²⁰⁸ Pb/ ²³² Th ratio	1σ	²⁰⁷ Pb/ ²⁰⁶ Pb age (Ma)	1σ (Ma)
NE2 01	21	8	21	0.4	5.03	0.13	0.079	0.003	2.175	0.078	0.199	0.005	0.063	0.004	1181	75
NE2 02	41	5	41	0.1	5.11	0.10	0.079	0.002	2.134	0.051	0.196	0.004	0.086	0.006	1175	51
NE2 03	24	12	24	0.5	5.04	0.09	0.079	0.002	2.159	0.052	0.199	0.004	0.058	0.002	1167	51
NE2 04	27	14	27	0.5	5.14	0.10	0.080	0.002	2.144	0.050	0.195	0.004	0.059	0.002	1192	50
NE2 05	28	14	28	0.5	5.02	0.12	0.079	0.003	2.166	0.077	0.199	0.005	0.058	0.003	1168	74
NE2 06	28	4	28	0.1	5.07	0.11	0.080	0.002	2.168	0.059	0.197	0.004	0.075	0.006	1186	57
NE2 07	25	4	25	0.2	4.99	0.10	0.079	0.002	2.194	0.055	0.200	0.004	0.076	0.004	1181	53
NE2 08	23	4	23	0.2	4.96	0.12	0.077	0.003	2.139	0.075	0.202	0.005	0.070	0.005	1118	73
NE2 09	39	3	39	0.1	5.07	0.09	0.077	0.002	2.104	0.043	0.197	0.004	0.072	0.005	1126	44
NE2 10	20	3	20	0.1	5.13	0.12	0.081	0.003	2.192	0.077	0.195	0.005	0.086	0.008	1233	72