

**G&G Data Depository: Details of the LA-ICP-MS analyses of three Byrud emeralds.**

From B. Rondeau et al. (2007) Characterization of emeralds from a historical deposit: Byrud (Eidsvoll), Norway, *Gems & Gemology*, Vol. 44, No. 2, pp. 108–122.

Sample	203.18					195.174					106.718			DL (ppm)	
<b>Li</b>	23	20	26	22	28	23	24	15	21	19	17	17	19	18	0.8
<b>Mg</b>	388	394	277	441	302	474	444	314	486	438	306	349	348	488	3.8
<b>K</b>	23	34	47	76	53	92	60	47	684	26	38	63	98	84	23
<b>Sc</b>	284	126	175	302	313	332	327	192	178	278	160	183	195	146	0.2
<b>Ti</b>	67	23	25	255	134	248	270	12	16	14	12	18	14	21	0.2
<b>V</b>	8743	4965	10021	6610	8210	6495	6451	5355	4496	6895	5193	1745	3339	4211	1.1
<b>Cr</b>	1208	821	741	310	338	293	343	1457	1006	1654	1179	162	661	932	1.8
<b>Mn</b>	16	5	12	17	17	22	25	25	23	18	22	58	109	33	0.7
<b>Fe</b>	834	700	573	838	693	1024	952	467	698	633	507	570	705	881	5.8
<b>Ni</b>	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl	0.6	0.5
<b>Zn</b>	9	12	13	9	15	10	10	20	23	15	15	45	40	13	1.1
<b>Ga</b>	14	27	9	12	11	14	13	24	25	19	21	38	31	21	0.3
<b>Rb</b>	29	32	33	50	34	61	45	27	54	26	21	26	31	33	0.4
<b>Sr</b>	bdl	bdl	bdl	bdl	bdl	bdl	bdl	1.3	0.7	1.5	7	4	8	1	1.9
<b>Zr</b>	1.1	bdl	bdl	bdl	bdl	bdl	bdl	bdl	bdl	0.7	bdl	bdl	bdl	0.7	0.4
<b>Cs</b>	54	57	50	111	85	127	112	35	44	35	36	86	99	69	0.4
<b>Pb</b>	2.2	2.0	2.1	1.8	2.8	2.2	2.2	4.6	2.9	4.2	4.6	7.4	14	5.3	0.01
V/Cr	7.2	6.0	13.5	21.3	24.3	22.2	18.8	3.7	4.5	4.2	4.4	10.8	5.1	4.5	
V/(V+Cr)	0.9	0.9	0.9	1.0	1.0	1.0	0.9	0.8	0.8	0.8	0.8	0.9	0.8	0.8	
Fe/(Fe+Cr)	0.4	0.5	0.4	0.7	0.7	0.8	0.7	0.2	0.4	0.3	0.3	0.8	0.5	0.5	

DL = detection limits. bdl = below detection limits. sat = saturated

Note on analytical conditions: Co, Cu, La, Ce, Gd, Th, and U have been analyzed but not detected and are not presented for the sake of brevity. Na, Cl, P, and Ca could not be analyzed correctly by this technique. Si is taken as the reference at 650000.