

Table 15. Change in rare element content in parts per million in ash in bulk tundra

clumps with respect to corresponding soil samples, Lost River valley

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Lab. No. <sup>2/</sup>	Field No.	<sup>3/</sup> Al/Ai	Ag	As	B	Be	Cu	Li <sup>4/</sup>	Nb	Pb	Sn <sup>8/</sup>	Zn	9/
D115371	64-ASn-357A	1	+1	+500	+100	-100	-100	± <sup>6/</sup>	0	+100	0	+1500	
D115377	64-ASn-358A	1	-1	X <sup>7/</sup>	+100	-30	0 <sup>5/</sup>	±	-20	0	-80	+1000	
D115403	64-ASn-359A	1.4	0	-1500	+50	-80	+50	±	-20	+200	-200	0	
D115375	64-ASn-360A	>1	+1	-1500	0	-80	+50	I	0	+200	-50	+1000	
D115370	64-ASn-361A	1	-2	-1500	+50	-50	+50	±	-10	+100	0	+500	
D115382	64-ASn-362A	1	+2	+500	+150	0	+100	±	-30	+200	-100	+1000	
D115395	64-ASn-363A	>1	+3	0	+100	-50	0	±	-10	0	-200	+3000	
D115373	64-ASn-364A	>1	+2	0	0	-150	0	±	-30	+300	-400	+3000	
D115396	64-ASn-365A	>1	0	-1500	0	-130	0	±	-30	0	0	+500	
D115401	64-ASn-366A	1	0	0	+80	-20	0	-	0	0	-50	0	
D115384	64-ASn-367A	1	X	X	+80	-10	+30	-	0	+200	-1450	+800	
D115381	64-ASn-368A	1	+5	X	+50	-5	+50	-	-20	0	-50	+500	
D115339 <sup>10/</sup>	64-ASn-369A	.5	+20	X	+170	+55	+100	-	+20	+1800	+80	+500	
D115393	64-ASn-371A	.7	+3	X	+50	-30	0	±	-20	0	0	+500	
D115402	64-ASn-372A	.5	+1	X	+100	+10	+200	±	+20	+200	+300	+1000	
D115372	64-ASn-373A	1	+3	X	+50	-10	+80	-	X	+200	-100	+1300	
D115400	64-ASn-374A	1	+3	X	+100	0	+50	±	X	+200	-50	+1000	
D115379	64-ASn-375A	.66	+4	X	+120	0	+40	±	-20	0	0	+700	
D115383	64-ASn-376A	1.5	+5	X	+70	+10	+50	-	X	0	0	+1000	
D115331	64-ASn-377A	2.0	+1	X	+100	0	+40	-	-15	+50	+20	+400	
D115368	64-ASn-378A	2.3	X	X	+130	-5	+20	-	-30	0	+20	-200	
D115387	64-ASn-379A	1.4	-1	X	-100	-5	+40	±	-130	0	+40	-300	
D115394	64-ASn-380A	1.5	X	X	+50	0	+40	±	-20	0	+50	X	
D115356 <sup>11/</sup>	64-ASn-381A	1	+4	X	+150	0	+50	-	-20	0	+100	-400	
D115392	64-ASn-382A	1.4	+2	X	+100	0	+70	±	-20	+50	0	-200	
D115359 <sup>11/</sup>	64-ASn-384A	1	+5	X	+150	+5	+80	±	X	+40	X	+700	B
D115397	64-ASn-385A	.7	X	X	+100	0	0	±	0	+70	-10	X	B
D115390	64-ASn-386A	2.3	X	X	+130	-2	+40	-	-20	+10	X	X	B
D115386	64-ASn-387A	2.3	+2	X	+100	-4	+40	±	-20	+30	+15	-150	
D115366 <sup>10/</sup>	64-ASn-388A	1.4	+3	X	0	-20	0	-	-20	0	0	-270	
D115374	64-ASn-393A	3.5	-2	X	0	-15	+30	-	-20	0	0	+700	
D115376	64-ASn-394A	1	+7	X	+100	0	+50	-	X	+400	0	+300	
D115326	64-ASn-395A	1.5	+7	X	+100	0	+50	±	X	+1200	0	+1300	
D115350 <sup>11/</sup>	64-ASn-397A	1	+3	X	+100	+50	+50	±	0	+200	0	+300	
D115385	64-ASn-398A	2.5	+1	X	0	-55	+20	±	-10	0	-20	+1000	
D115367 <sup>10/</sup>	64-ASn-399A	2.3	+3	X	+50	0	+40	-	-15	+30	+10	X	
D115398	64-ASn-400A	2.3	X	X	0	-10	+20	±	-10	+20	-10	X	
D115404	64-ASn-401A	2.3	X	X	+130	+23	+40	-	-20	+30	+80	-140	
D115391	64-ASn-402A	1	X	X	+100	+3	+30	-	+5	+30	-10	-220	
Percent that gained			61.5	5.13	79.3	18	77		7.7	61.6	25.6	61.5	
Percent that lost			10.3	10.2	3.2	54.8	3	38.5 <sup>4/</sup>	61.6	3	38.5	20.5	
Percent unchanged			7.7	7.7	17.5	27.2	20		15.3	35.4	30.8	5.2	
Percent without element <sup>12/</sup>			20.5	77.0	0	0	0		15.4	0	5.1	12.8	
Average gain (PPM)			3.9	500	97	22	53		15	244	71	978	
Average loss (PPM)			1.5	1500	100	41	100		24	200	18.5	235	
Net gain or loss (PPM)			+84	-5000	+2910	-705	+1500	loss	-535	+5660	-2070	+22,120	

<sup>1/</sup> Semiquantitative spectrographic analyses.

<sup>2/</sup> For plant ash sample analyses.

<sup>3/</sup> Ratio of aluminum in soil over aluminum in plant ash.

<sup>4/</sup> For lithium, value is reported in analyses only as present or absent; a minus symbol means that lithium decreased to below the detection limit from an unknown concentration.

<sup>5/</sup> 0 means that element was unchanged in concentration.

<sup>6/</sup> ± means that element was present in both soil and plant ash, but that amount of change cannot be determined.

<sup>7/</sup> X means that element was below the detection limit in both soil and plant ash.

<sup>8/</sup> For discussion of the special behavior of tin, see text.

<sup>9/</sup> B signifies that sample is a background sample.

<sup>10/</sup> Tundra clump is essentially pure *Arenaria arctica*.

<sup>11/</sup> Tundra was essentially grass.

<sup>12/</sup> Average gain or loss using only those samples in which values changed.