

Supplemental Table B: Accuracy of APXS data

	Na	Mg	Al	Si	P	S	Cl	K	Ca	Ti	Cr	Mn	Fe	Ni	Zn	Br
Accuracy (Relative %)	8.5	17.3	7.2	3.5	16.8	14.1	12.5	14.4	7.7	20.4	20	7.9	5.8	10.1	11.7	10
Number of samples	31	31	42	41	27	19	8	34	33	31	8	35	34	17	31	6

These values represent the accuracy that can be achieved with certified standards in a controlled laboratory environment (fixed geometry, known chamber pressure, uniform sample properties, etc.). Accuracies of Ti and K in martian analyses are degraded due to a background from backscattered x-rays that varies with distance to the sample. The values for Na are known to depend heavily upon the atmospheric pressure and distance to the sample, and thus, the accuracy of the Na data from Spirit and Opportunity may be a factor of two larger than the value listed here.