

ESI Table 1 Result of repeated analyses of the Fluka Aldrich standard solution

Date	$\delta^{137/134}\text{Ba}$	2SE	$^{130}\text{Ba}/^{137}\text{Ba}$ (not corrected)	Scans
08/21/2012	-0.011	0.013	0.3551	100
08/21/2012	0.010	0.012	0.3550	100
08/21/2012	0.000	0.013	0.3550	100
08/21/2012	-0.007	0.013	0.3552	100
08/21/2012	-0.016	0.013	0.3551	100
08/21/2012	0.017	0.015	0.3540	100
08/21/2012	0.007	0.013	0.3539	100
08/21/2012	-0.002	0.013	0.3538	100
08/21/2012	0.039	0.013	0.3540	100
08/21/2012	-0.040	0.012	0.3551	100
08/21/2012	0.013	0.012	0.3552	100
08/21/2012	-0.007	0.011	0.3553	100
08/21/2012	-0.005	0.012	0.3553	100
08/21/2012	0.009	0.011	0.3554	100
08/21/2012	-0.015	0.013	0.3554	100
08/22/2012	-0.005	0.013	0.3549	100
11/29/2012	-0.003	0.014	0.3529	100
11/30/2012	0.027	0.014	0.3536	100
12/03/2012	-0.021	0.014	0.3526	100
12/03/2012	0.011	0.014	0.3525	100
12/03/2012	0.001	0.014	0.3524	100
12/03/2012	-0.002	0.014	0.3524	100
12/03/2012	-0.009	0.014	0.3523	100
12/03/2012	0.005	0.014	0.3519	100
12/03/2012	0.048	0.014	0.3521	100
12/03/2012	-0.015	0.015	0.3523	100
12/03/2012	-0.019	0.016	0.3521	100
12/03/2012	-0.015	0.019	0.3521	100
12/03/2012	0.019	0.016	0.3523	100
02/06/2013	-0.020	0.018	0.3521	100
02/07/2013	0.005	0.017	0.3530	100
08/05/2013	-0.018	0.015	0.3535	100
08/05/2013	0.007	0.014	0.3536	100
08/05/2013	-0.001	0.016	0.3536	100
08/05/2013	0.007	0.016	0.3537	100
08/05/2013	-0.006	0.016	0.3537	100
08/05/2013	-0.002	0.017	0.3537	100
08/05/2013	0.011	0.016	0.3537	100
08/06/2013	-0.004	0.016	0.3538	100
08/07/2013	-0.003	0.016	0.3539	100
08/08/2013	0.012	0.019	0.3532	100
08/09/2013	0.001	0.017	0.3535	100
Average	0.000		0.3537	
2SD (n = 42)	0.032		0.0023	

SE: standard error; SD: standard deviation; n: number of measurements.

ESI Table 2 Result of IAEA-CO-9

	$\delta^{137/134}\text{Ba}$	2SE	$^{130}\text{Ba}/^{137}\text{Ba}$ (not corrected)	Scans
Spike/sample = 0.11 - 0.33				
	-0.034	0.012	0.6404	100
	0.024	0.010	0.4971	100
	0.019	0.012	0.5009	100
	0.016	0.012	0.4141	100
	0.044	0.013	0.3715	100
	0.042	0.018	0.3493	100
	-0.005	0.015	0.3054	100
	0.002	0.015	0.2731	100
	0.061	0.015	0.2495	100
Average	0.019		0.4001	
2SD (n = 9)	0.058		0.2537	
Spike/sample = 0.175				
	0.048	0.016	0.3645	100
	0.017	0.016	0.3648	100
	0.043	0.016	0.3639	100
	0.034	0.015	0.3639	100
	0.032	0.018	0.3642	100
	0.032	0.017	0.3675	100
Average	0.034		0.3648	
2SD (n = 6)	0.021		0.0027	
Spiked after column separation, spike/sample = 0.175				
	0.013	0.012	0.4146	100
	0.027	0.012	0.4143	100
	0.020	0.013	0.4021	100
	0.020	0.015	0.4141	100
	0.030	0.014	0.3769	100
Average	0.022		0.4044	
2SD (n = 5)	0.014		0.0325	
Spiked before column separation, spike/sample = 0.175				
	0.041	0.013	0.3732	100
	0.024	0.012	0.3719	100
	0.038	0.015	0.3597	100
	0.035	0.014	0.3597	100
	0.021	0.017	0.3594	100
Average	0.032		0.3648	
2SD (n = 5)	0.018		0.0142	

SE: standard error; SD: standard deviation; n: number of measurements.

ESI Table 3 Result of GSJ and USGS rock standards

	$\delta^{137/134}\text{Ba}$	2SE	$^{130}\text{Ba}/^{137}\text{Ba}$ (not corrected)	Scans
JB-2				
	0.085	0.013	0.3607	100
	0.081	0.014	0.3655	100
	0.083	0.014	0.3588	100
	0.101	0.015	0.3606	100
	0.087	0.017	0.3618	100
	0.078	0.016	0.3662	100
Average	0.086		0.3623	
2SD (n = 6)	0.016		0.0059	
JA-2				
	-0.001	0.016	0.3704	100
	0.003	0.017	0.3706	100
	0.045	0.015	0.3768	100
	0.010	0.016	0.3741	100
	0.017	0.016	0.3746	100
	0.006	0.018	0.3784	100
	0.034	0.017	0.3709	100
Average	0.016		0.3737	
2SD (n = 7)	0.034		0.0063	
BHVO2				
	0.057	0.014	0.3535	100
	0.046	0.015	0.3616	100
	0.069	0.014	0.3557	100
	0.050	0.016	0.3574	100
	0.066	0.016	0.3571	100
Average	0.058		0.3571	
2SD (n = 5)	0.019		0.0060	

SE: standard error; SD: standard deviation; n: number of measurements.