111.7 - Soils, Sediments, and Sludges (powder form)

SRMs 2586, 2587, 2700 2701, 2706, 2709a, 2710a, 2711a, 2781, 2782 also have noncertified leach data. See certificate for details and leach methods used.

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

Description >>	1646a Estuarine Sediment	2586 Trace Elements in Soil Containing Lead From Paint (Nominal Mass Fraction of 500 mg/kg Lead)	2587 Trace Elements in Soil Containing Lead from Paint (Nominal Mass Fraction of 3000 mg/kg Lead)	2700 Hexavalent Chromium in Contaminated Soil (Low Level)	2701 Hexavalent Chromium in Contaminated Soil (High Level)	2702 Inorganics in Marine Sediment	2703 Sediment for Solid Sampling (Small Sample) Analytical Techniques	2706 New Jersey Soil, Organics and Trace Elements	2709a San Joaquin Soil Baseline Trace Element Concentrations	2710a Montana I Soil Highly Elevated Trace Element Concentrations	2711a Montana II Soil Moderately Elevated Trace Element Concentrations	2780a Hard Rock Mine Waste	2781 Domestic Sludge	2782 Industrial Sludge	8704 Buffalo River Sediment
Unit of Issue >>	**70 g**	**55 g**	**55 g**	**75 g**	**75 g**	**50 g**	**5 g**	**50 g**	**50 g**	**50 g**	**50 g**	**50 g**	**40 g**	**70 g**	**50 g**
(Concentrations are in mass fractions, in mg/kg, unless noted as %)															
Aluminum	*2.297 %*	*6.652 %*	*5.86 %*	*0.3058 %*	*5.05 %*	8.41 %	8.33 %	*2.70 %*	*7.37 %*	5.95 %	6.72 %	8.43 %	*1.6 %*	*1.37 %*	*6.10 %*
Antimony	(0.3)					5.60	5.62	149	1.55	52.5	23.8	18.3		(2.0)	*3.07*
Arsenic	6.23	8.7	13.7			45.3	45.5	*30.3*	*10.5*	0.154 %	107	65.9	7.81	166	(17)
Barium	(2.10)	*413*	*568*			397.4	416	319	979	792	730	0.093 %		*254*	*413*
Beryllium	(<1)	(1.4)	(9.2)			(3.0)		*0.84*				*1.1*	*0.6133*		
Bismuth								*0.159*				*45*			
Boron									(74)	(20)	(50)	(27)			
Bromine															
Cadmium	0.148	2.71	1.92			0.817	0.811	*0.31*	0.371	12.3	54.1	*4.8*	12.78	4.17	*2.94*
Calcium	0.519 %	*2.218 %*	*0.927 %*	0.1985 %	*7.47 %*	*0.343 %*	*0.31 %*	0.588 %	1.91 %	0.964 %	2.42 %	0.247 %	*3.9 %*	*0.67 %*	*2.641 %*
Carbon												*0.19 %*			
Carbon (organic)						(3.27 %)									
Carbon (total)						(3.36 %)								(2.1 %)	*3.351 %*
Cerium	(34)	*57.1*	(57)			123.4	125.5	*34.5*	*42*	(60)	(70)	67.7		*1240*	*66.5*
Cesium						(7.1)	*7.7*	*1.35*	*5.0*	*8.25*	*6.7*	8.3			*5.83*
Chlorine															
Chromium	40.9	301	92	0.1055 %	4.26 %	352		60.1	130	*23*	52.3	205	202	109	*121.9*
Cobalt	(5)	(35)	(14)			27.76	27.70	5.99	12.8	5.99	9.89	16.5		*66.3*	*13.57*
Copper	10.01	(81)	(160)			*117.7*	*120*	88.1	*33.9*	0.342 %	140	240	627.8	2594	
Dysprosium		*4.69*						*2.41*	(3)	(3)	(5)	*3.1*			
Erbium		(3.3)						*1.45*				*2.0*			
Europium		*1.33*						*0.602*	*0.83*	*0.82*	*1.1*	*0.9*		(0.34)	*1.31*
Gadolinium		*6.04*						*2.63*	*3.0*	*3.0*	(5)	*3.2*			
Gallium	(5)	(14)	(13)			*24.3*		*6.78*				*21*		*35*	
Germanium												(<6)			
Gold										(0.2)		6.6		(2.2)	
Hafnium						(12.6)	*11.8*		(4)	(7)	*9.2*	*5.5*		(0.77)	*8.4*
Hexavalent Cr				14.9	551.2										
Holmium		(1.1)						*0.488*				*0.7*			
Indium										(7)	(1)	*1.65*		*238*	
Iron						(7.4 %)		2.22 %							
Iron (total)	2.008 %	*5.161 %*	*2.183 %*	*0.595 %*	23.73 %		7.38 %		3.36 %	4.32 %	2.82 %	8.75 %	*2.8 %*	*26.9 %*	*3.97 %*
Lanthanum	(17)	*27.0*	(29)			73.5	75.9	*15.50*	*21.7*	30.6	*38*	34.4		*58.1*	
Lead	11.7	432	3242			132.8	130	653	17.3	0.552 %	0.140 %	0.665 %	200.8	574	*150*
Lithium	(18)	(25)	(32)			(78.2)		*16.4*				*14*		(5.0)	
Loss on Ignition (950 °C)												*11.1 %*			
Lutetium								*0.219*	(0.3)	*0.31*	(0.5)	*0.33*			
Magnesium	0.388 %	*1.707 %*	*0.669 %*	*0.1937 %*	*7.47 %*	*0.990 %*	(1.0 %)	0.289 %	1.46 %	0.734 %	1.07 %	0.465 %	*0.59 %*	*0.26 %*	*1.200 %*
Manganese	234.5	*1000*	*651*	0.0060 %	0.2137 %	1757	1734	244	529	0.214 %	675	490		(300)	*544*
Mercury	(0.04)	*0.367*	*0.290*			0.4474	0.474	0.1329	*0.9*	9.88	7.42	(0.2)	3.68	1.10	
Molybdenum	(1.8)					*10.8*	(11)	*1.211*				25.0	46.6	10.07	
Neodymium	(15)	*27.2*	(25)			(56)	(72)	*14.82*	(17)	*22*	*29*	28.3			
Nickel	(23)	(75)	(36)			75.4	(75)	22.8	*85*	*8*	21.7	95	80.2	154.1	*42.9*
Niobium		(6)	(14)			(63)	(63)	*7.18*				*20*			
Nitrogen													4.78 %		
Phosphorus	0.027 %	*1001*	*970*			0.1552 %	(0.16 %)	407	0.0688 %	0.105 %	842	286	*2.43 %*	*0.50 %*	
Potassium	0.864 %	*0.976 %*	*1.583 %*	*0.0368 %*	*0.174 %*	2.054 %	2.08 %	0.946 %	2.11 %	2.17 %	2.53 %	3.99 %	*0.49 %*	*0.32 %*	*2.001 %*
Praseodymium		*6.78*						*3.99*				*8*			
Rhenium												(0.003)			
Rubidium	(38)					127.7	130	37.6	*99*	*117*	*120*	220		(23)	
Samarium		6.02				(10.8)	*10.8*	*2.93*	(4)	*4*	5.93	*4.7*		(1.3)	
Scandium	(5)	(24)	(11)			25.9	25.95	*4.3*	*11.1*	*9.9*	*8.5*	15.6		(3.4)	*11.26*
Selenium	0.193	(0.6)				*4.95*	(4.9)	(0.3)	(1.5)	(1)	(2)	(6)	16.0	0.44	
Silicon	40.0 %	*29.15 %*	*33.13 %*	*45.8 %*	*4.17 %*			39.17 %	30.3 %	31.1 %	31.4 %	24.1 %	*5.1 %*	(20.3 %)	
Silver	(<0.3)					*0.622*	*0.59*	(<1)		(40)	(6)	72.5	97.6	*30.6*	
Sodium	0.741 %	*0.468 %*	*1.127 %*	*0.0086 %*	*0.255 %*	0.681 %	0.693 %	0.268 %	1.22 %	0.894 %	1.20 %	0.108 %	*0.21 %*	*1.30 %*	*0.553 %*
Strontium	(68)	*84.1*	*126*			119.7	118	60.3	239	255	242	121			
Sulfur	0.352 %					(1.5 %)		*0.217 %*				8.85 %		(0.2 %)	
Tantalum									(0.7)	(0.9)	(1)	*1.2*		(0.73)	
Tellurium												*22*			
Terbium		*0.79*						*0.390*	(0.5)	(0.5)	(0.8)	*0.5*		(0.48)	
Thallium	(<0.5)					0.8267	(0.83)	*0.24*	*0.58*	*1.52*	(3)	*5.5*			
Thorium	(5.8)	(7)	(7.5)			20.51	20.22	*4.37*	*10.9*	*18.1*	*15*	12.0		(2.4)	*9.07*
Thulium		(0.5)						*0.216*				*0.31*			
Tin						*31.6*		*36*				*7.2*			
Titanium	0.456 %	*0.605 %*	*3920*	*0.0338 %*	*0.547 %*	0.884 %	0.880 %	0.290 %	0.336 %	0.311 %	0.317 %	0.643 %	*0.31 %*	*880*	*0.457 %*
Tungsten						(6.2)	*6.4*	*0.90*		(190)		*17.4*			
Uranium	(2.0)					(10.4)	8.99	*1.38*	*3.15*	9.11	3.01	4.0		(8.3)	*3.09*
Vanadium	44.84	(160)	(78)	*0.0063*	*0.236 %*	357.6	360	51.9	110	*82*	80.7	152		*80*	*94.6*
Ytterbium		*2.06*	(1.6)						(2)	(2)	(3)	*2*		(0.74)	
Yttrium		*20.5*	(15)					(11)				*18*		(10)	
Zinc	48.9	*352*	*335.8*	*0.00269 %*		485.3	480	135.4	*103*	0.418 %	414	0.102 %	1273	1254	*408*
Zirconium								303	195	(200)		206			

- Certified values are normal font
- Non-certified or reference values are italicized
- Non-certified values in parentheses are for information only