

SY3CT-7 elevation: -305 to -309 cm

	grain B pit-01	grain B pit-02	grain B pit-03	grain B pit-06	grain B pit-07	grain D pit-01	grain D pit-02	grain D pit-03	grain D pit-04	grain D pit-05	grain E pit-01
(wt.%)											
SiO ₂	73.84	69.85	69.10	71.47	73.70	72.68	71.33	69.88	69.78	71.66	69.84
Na ₂ O	4.08	4.26	4.46	4.33	3.99	4.24	4.56	4.28	4.09	4.24	3.90
MgO	0.53	1.01	0.53	0.34	0.71	0.45	0.44	1.12	1.04	0.50	1.66
Al ₂ O ₃	12.35	14.91	14.88	14.58	11.87	12.98	14.07	13.51	14.14	13.82	12.08
K ₂ O	3.10	2.16	2.59	2.86	3.18	2.92	2.94	2.83	2.58	2.84	2.76
CaO	1.52	3.13	2.84	2.41	1.47	2.33	2.11	2.64	3.20	2.44	4.44
TiO ₂	0.60	0.41	0.71	0.54	0.62	0.58	0.54	0.58	0.54	0.58	0.51
MnO	0.10	0.13	0.10	0.09	0.12	0.09	0.10	0.14	0.15	0.11	0.14
FeO	3.72	3.98	4.61	3.22	4.14	3.56	3.74	4.84	4.31	3.66	4.51
(ppm)											
Li	36.21	24.74	31.35	29.44	42.65	27.93	38.00	31.99	31.00	32.88	25.38
Be			4.80	1.95	3.65			6.52	1.96	1.97	
B	35.04	22.96	24.36	12.38	33.70	28.75	24.66	33.20	34.94	14.83	25.76
P	365.65	427.75	412.83	512.44	569.76	410.44	510.95	469.81	400.61	408.68	420.68
Sc	27.13	21.12	19.13	17.41	22.68	16.55	25.62	18.54	27.64	23.50	35.14
V	17.49	14.37	38.38	11.87	24.78	18.03	18.70	30.05	28.41	20.18	33.69
Cr		14.97		12.09	45.85		13.38	31.80			16.99
Co	1.66	4.32	4.68	2.97	1.40	2.44	4.21	4.76	4.44	2.88	6.69
Ni	3.62		5.21					1.29	1.92	3.18	
Cu	3.96	3.36	3.67	26.82	18.00	8.91	3.83	7.78	3.04	2.82	7.77
Zn	77.30	71.40	102.33	76.87	89.42	101.70	84.00	46.88	86.02	62.96	76.21
Ga	13.66	15.28	14.99	15.74	12.38	16.71	14.11	13.57	16.68	15.37	14.34
Ge	5.18	1.81	5.77		6.61		3.36		3.49		8.03
As			3.95			6.58	16.91	8.69	4.76	13.06	
Rb	111.27	83.60	87.85	101.94	108.49	94.50	90.95	96.47	94.10	102.22	92.24
Sr	93.63	197.85	199.03	151.90	80.24	140.43	130.29	117.75	151.79	141.33	125.23
Y	34.60	27.51	27.56	32.01	37.36	32.76	31.68	43.06	36.29	31.53	34.35
Zr	207.50	136.88	149.53	170.46	197.86	170.57	175.53	186.42	185.48	179.70	154.32
Nb	7.90	5.71	8.39	10.40	8.63	9.97	8.23	10.19	7.25	9.18	7.21
Mo	6.37	1.35	1.48			3.99	4.35	2.15	1.51	1.52	1.32
Ag	0.25	0.19	0.33	0.31	0.62		0.46		0.42	0.21	0.33
Cd	0.98			0.86	0.43	1.47		1.65		0.70	2.12
In	0.19	0.12		0.19	0.15		0.18	0.11	0.27	0.19	0.21
Sn	1.83	2.17	2.72	0.94	7.32	1.75		1.12	5.13	4.86	3.81
Sb	0.93	0.69	1.01	0.50	0.95	1.54	0.57	0.38	0.59	0.80	0.67
Cs	5.95	5.10	6.28	5.52	5.89	6.50	7.11	5.26	5.69	5.00	4.87
Ba	394.56	362.98	386.21	402.29	409.65	401.27	391.82	364.82	355.47	392.05	330.61
La	22.93	18.81	22.70	23.66	27.31	23.98	25.96	24.20	20.84	23.33	22.33
Ce	54.53	39.38	44.00	51.16	59.70	50.18	53.66	47.29	46.90	50.26	44.88
Pr	5.35	4.06	5.51	5.48	5.39	5.55	5.84	5.73	5.17	5.68	5.33
Nd	26.79	16.67	21.01	23.70	28.62	25.16	24.93	23.05	27.56	17.29	26.73
Sm	6.91	4.81	3.32	5.35	1.40	2.99	3.81	7.52	4.80	3.98	6.91
Eu	1.23	1.54	1.48	1.22	1.15	1.26	1.43	1.13	1.10	1.23	1.24
Gd	5.75	5.23	4.64	4.16	5.17	7.06	6.42	6.08	5.84	3.91	7.53
Tb	1.42	0.83	1.04	0.79	0.55	0.56	0.81	1.18	0.75	0.94	0.77
Dy	4.61	6.28	3.61	7.16	7.39	4.82	6.74	5.49	3.68	4.93	3.82
Ho	1.46	0.94	0.81	1.41	1.47	1.31	1.58	1.04	0.55	1.15	1.32
Er	5.97	3.08	2.72	5.00	4.59	3.08	4.58	3.64	3.57	3.32	4.16
Tm	0.59	0.38	0.45	0.33	0.68	0.58	0.69	0.68	0.59	0.46	0.15
Yb	2.88	3.11	3.00	1.22	5.82	2.81	5.50	5.43	4.90	4.11	3.56
Lu	0.56	0.41	0.81	0.69	0.74	0.78	0.31	0.66	0.78	0.37	0.36
Hf	6.06	2.89	6.63	5.45	3.99	3.41	4.65	6.12	5.48	1.94	3.66
Ta	0.65	0.30	0.60	0.43	0.78	0.65	0.48	0.44	0.48	0.49	0.36
W	0.81	1.05	1.53	1.16	1.54	2.06	2.55	1.70	1.79	1.64	1.63
Tl	1.08	0.53	0.71	1.05	1.04	0.98	1.27	0.88	0.99	1.13	0.58
Pb	18.00	13.01	17.48	20.88	25.38	17.98	17.00	18.66	18.32	18.75	14.99
Bi	0.26	0.10	0.18	0.27	0.13	0.18	0.22	0.17	0.09	0.26	0.17
Th	8.28	6.07	8.30	10.12	11.90	9.55	9.67	9.97	7.34	8.74	7.98
U	2.29	1.82	1.75	1.86	2.11	2.57	2.50	1.46	2.11	2.28	1.63

SY3CT-7 elevation: -305 to -309 cm (continued)

	grain E pit-03	grain F pit-01	grain F pit-02	grain G pit-01	grain G pit-02	grain G pit-03	grain H pit-01	grain H pit-02	grain H pit-03	grain H pit-05	grain I pit-02
(wt.%)											
SiO ₂	74.90	69.79	72.38	68.95	72.11	71.45	70.44	72.62	71.33	72.65	70.76
Na ₂ O	3.70	4.64	3.77	4.76	4.30	4.22	4.14	3.99	4.29	4.01	3.96
MgO	0.46	0.60	0.45	0.45	0.39	0.46	0.73	0.42	0.55	0.53	0.57
Al ₂ O ₃	12.77	14.73	14.03	15.79	13.76	14.11	14.47	13.45	13.88	13.41	14.55
K ₂ O	2.58	3.14	2.62	2.35	2.69	3.15	3.07	3.12	3.06	2.69	2.78
CaO	1.67	2.22	2.54	3.62	2.62	2.23	2.52	1.90	2.28	2.32	3.10
TiO ₂	0.49	0.62	0.50	0.46	0.54	0.56	0.49	0.56	0.55	0.55	0.53
MnO	0.10	0.10	0.11	0.09	0.09	0.09	0.12	0.09	0.10	0.10	0.10
FeO	3.18	3.95	3.41	3.36	3.34	3.57	3.86	3.68	3.80	3.57	3.48
(ppm)											
Li	41.68	40.72	31.67	31.68	28.14	41.05	32.99	37.54	35.64	36.97	30.67
Be		8.62	2.44	5.74	4.22	5.60	4.94				8.00
B	23.91	29.59	25.14	30.32	28.06	21.44	31.98	31.78	29.71	23.70	23.79
P	335.97	620.10	546.11	356.40	420.49	324.46	377.24	383.81	449.84	651.74	414.04
Sc	15.28	18.67	14.43	7.94	9.27	25.54	14.86	21.99	17.46	11.13	17.43
V	16.52	18.45	14.95	15.03	21.14	14.48	17.88	25.55	18.94	18.35	18.16
Cr		41.77	19.81	15.03		15.09	14.25	33.35			
Co	1.26	2.73	2.84	1.26		2.55	2.13	3.60	2.76	3.08	3.10
Ni				1.44	1.07				1.73		3.70
Cu	11.45	24.94	22.45	8.45	7.25	5.79	13.77	9.13	21.90	9.88	
Zn	65.30	79.12	43.32	85.20	54.43	73.46	85.07	77.06	42.49	73.25	125.94
Ga	12.59	14.08	13.38	18.01	15.99	13.23	16.04	16.26	12.36	16.56	14.19
Ge	2.50	2.34	3.89		4.11	1.75	3.71	0.54	3.60	1.49	5.44
As	5.47		10.48	12.33	4.72	11.15		12.31	11.52	15.61	
Rb	83.67	118.14	99.69	78.66	88.06	97.80	96.72	107.75	100.77	93.42	94.61
Sr	125.82	145.55	134.73	252.03	161.83	125.42	157.73	118.65	131.34	131.63	156.70
Y	27.99	37.31	36.22	28.33	29.05	35.11	29.69	36.57	36.22	32.58	27.71
Zr	161.35	188.71	192.37	158.22	156.95	177.13	166.36	187.65	182.92	161.47	167.24
Nb	6.56	7.65	9.21	8.21	6.24	8.42	9.02	10.45	7.89	7.16	9.03
Mo		2.21	2.81		1.95	0.72	1.90	1.47	1.92	0.68	1.54
Ag	0.11	0.14	0.16				0.09	0.35		0.41	
Cd			1.73							0.31	0.35
In	0.06	0.29	0.21	0.20		0.18	0.22	0.12			0.16
Sn	4.17	6.98	4.11	4.09		4.04	2.28	7.25	2.16	3.71	1.20
Sb	1.00	0.58		0.28	0.23	0.23	0.59	0.71	1.12	0.89	0.76
Cs	4.92	6.67	8.82	5.00	4.70	5.49	5.67	6.10	6.19	6.02	5.58
Ba	347.15	418.58	380.85	406.45	383.42	401.47	375.66	394.88	367.63	350.06	366.38
La	20.87	24.57	27.96	22.23	23.40	22.66	23.95	23.98	24.50	23.35	23.81
Ce	45.51	54.36	46.01	45.53	43.74	52.08	45.39	50.44	48.47	43.97	45.92
Pr	4.88	6.62	6.06	4.97	5.06	6.56	4.85	5.80	5.92	5.45	5.12
Nd	18.13	26.24	29.62	21.15	21.89	19.96	23.56	23.64	24.43	21.57	22.61
Sm	5.37	4.42	5.28	5.24	6.08	5.92	4.51	7.99	4.09	5.84	4.33
Eu	1.16	1.62	1.52	1.64	1.00	1.19	1.54	1.05	1.41	1.41	1.42
Gd	3.53	7.61	4.85	2.71	5.50	5.03	6.31	4.61	6.15	3.99	7.38
Tb	0.88	0.95	1.10	0.78	0.69	0.59	0.82	0.69	1.13	0.95	1.18
Dy	5.08	7.02	6.98	6.33	4.52	5.00	6.48	6.32	4.77	4.72	5.55
Ho	0.95	1.03	1.65	0.54	1.26	1.70	1.42	1.34	1.28	0.70	1.12
Er	3.47	3.23	3.62	1.68	2.73	3.15	2.56	2.83	3.60	4.63	3.37
Tm	0.61	0.16	0.63	0.86	0.58	0.56	0.63	0.61	0.64	0.56	0.47
Yb	3.51	3.19	6.36	3.39	4.04	3.69	3.95	3.78	5.21	4.03	2.08
Lu	0.33	0.63	0.34	0.49	0.36	0.39	0.70	0.49	0.82	0.70	0.61
Hf	4.67	3.78	4.01	2.52	2.49	3.99	4.06	6.28	3.29	4.34	3.95
Ta	0.56	0.51	0.37	0.64	0.43	0.64	0.50	0.42	0.57	0.48	0.47
W	1.13	1.29	0.78	1.14	1.81	1.11	2.42	1.82	1.39	1.19	1.91
Tl	0.96	1.18	1.37	0.82	0.82	1.11	1.02	1.29	1.50	0.91	1.24
Pb	14.35	20.65	21.58	17.56	16.90	17.76	39.56	17.53	17.26	22.23	16.35
Bi	0.19	0.19	0.06	0.21	0.08	0.31	0.09	0.27	0.10	0.12	0.13
Th	7.26	8.71	11.95	9.36	7.77	9.13	8.82	8.58	7.77	8.92	9.57
U	1.54	2.30	2.12	2.14	1.40	2.70	1.16	1.34	2.62	1.89	1.91

SY3CT-7 elevation: -305 to -309 cm (continued)

	grain I pit-03	grain I pit-04	grain I pit-05	grain J pit-01	grain J pit-03	grain K pit-01	grain K pit-02	grain K pit-03	grain K pit-04	grain K pit-05	grain K pit-06
(wt.%)											
SiO ₂	71.83	70.52	70.46	71.26	69.50	72.88	71.53	72.62	72.13	71.32	71.39
Na ₂ O	4.55	4.60	3.87	4.37	5.91	3.95	4.14	4.52	4.14	4.48	4.30
MgO	0.55	0.40	1.21	0.41	0.23	0.54	0.54	0.51	0.50	0.54	0.52
Al ₂ O ₃	13.70	15.64	13.15	14.53	15.98	13.00	14.37	13.05	13.68	13.94	13.83
K ₂ O	2.78	1.83	2.54	2.92	2.52	2.74	2.88	2.93	2.79	2.94	3.01
CaO	2.35	3.46	2.73	2.15	2.89	2.51	2.22	2.00	2.54	2.21	2.42
TiO ₂	0.52	0.38	0.55	0.49	0.38	0.54	0.53	0.53	0.52	0.53	0.54
MnO	0.10	0.07	0.17	0.09	0.06	0.09	0.10	0.09	0.09	0.10	0.10
FeO	3.47	2.97	5.19	3.62	2.38	3.59	3.52	3.57	3.45	3.76	3.73
(ppm)											
Li	35.87	11.37	19.37	36.88	36.99	32.91	31.41	45.58	31.01	28.92	31.42
Be				1.22	2.47	6.19	4.82	7.09		3.03	2.02
B	34.10	24.01	20.44	42.64	17.64	13.09	28.04	37.93	28.40	25.57	31.97
P	369.96	453.77	296.79	311.28	325.21	321.09	402.16	506.69	350.29	410.34	340.31
Sc	20.34	12.34	32.71	24.60	6.93	20.12	21.68	16.18	20.45	12.76	31.38
V	16.48	27.50	22.36	14.41	7.40	21.43	15.49	15.26	18.35	19.24	19.25
Cr		12.18		15.53	13.99		15.80			14.40	
Co	2.83	2.45	3.93	2.46	1.66	4.38	1.50	5.53	2.58	2.49	3.48
Ni	1.04					0.71		3.07		0.82	
Cu	10.52	5.36	10.66	13.15	7.98	3.94		8.47	6.18	6.02	5.06
Zn	96.26	15.21	85.16	49.73	49.49	93.27	88.24	131.61	79.06	113.92	64.46
Ga	13.29	16.64	13.30	17.03	16.75	13.84	13.48	12.80	13.87	16.13	13.53
Ge	6.57	2.11	2.05	3.21		0.77	0.60	1.66	4.30	2.08	0.38
As	11.40	10.27	4.63	7.54	13.17	9.64		12.91	3.91		3.58
Rb	101.94	55.10	84.13	85.03	87.82	96.05	98.98	100.97	91.99	97.68	94.83
Sr	131.87	207.29	135.61	140.26	194.01	134.83	134.41	125.66	161.98	159.19	140.16
Y	34.08	20.45	40.09	30.30	22.37	32.48	31.97	31.01	31.80	31.81	34.95
Zr	175.92	118.79	165.80	172.39	133.41	152.91	170.26	166.78	169.58	171.47	181.36
Nb	8.00	4.65	8.66	5.97	6.59	10.69	6.66	11.54	6.92	7.61	7.01
Mo	0.77	2.59	2.29	2.82	1.90	3.97			0.77	1.55	2.33
Ag	0.62		0.19			0.35		0.38	0.40	0.13	0.26
Cd		0.99				2.56	3.70	1.88		1.43	
In		0.18	0.19	0.09	0.09	0.25		0.25		0.19	0.21
Sn	7.47	3.38	2.39	5.23	3.43	3.42		4.70	3.72		1.58
Sb			0.36	0.25	1.05		0.47	1.27	0.27		
Cs	6.31	3.19	6.56	6.40	4.85	5.95	4.02	5.18	5.86	7.49	5.51
Ba	358.35	269.11	367.25	331.30	401.89	350.73	365.07	391.67	381.43	423.82	391.83
La	22.93	17.70	24.42	21.37	21.61	24.39	24.83	22.60	20.03	23.66	22.50
Ce	48.45	36.87	52.26	44.85	37.24	48.76	51.61	49.09	44.58	51.23	46.38
Pr	5.62	3.86	6.03	4.77	4.73	4.89	4.98	5.08	3.58	6.05	5.86
Nd	23.57	16.72	24.08	23.81	22.89	25.55	23.19	16.62	23.93	24.00	20.37
Sm	5.20	3.56	6.01	3.88	3.92	4.46	2.78	4.09	4.59	4.94	5.24
Eu	1.19	1.10	1.06	1.70	1.17	1.35	1.19	0.95	1.42	1.38	1.44
Gd	5.40	3.82	7.60	5.90	3.16	4.39	5.48	4.53	4.80	2.86	2.29
Tb	0.90	0.10	0.90	0.83	0.67	1.07	0.22	0.64	0.32	1.05	0.87
Dy	5.01	4.01	7.98	7.00	3.76	4.61	2.30	4.76	5.16	7.93	4.51
Ho	1.17	1.15	1.67	1.71	0.40	1.16	2.18	1.32	0.93	0.94	1.08
Er	2.43	1.36	5.89	3.96	4.00	4.32	3.25	2.15	3.63	4.35	3.54
Tm	0.13	0.62	0.76	0.58	0.48	0.35	0.28	0.45	0.68	0.52	0.43
Yb	3.75	1.40	4.75	2.80	2.83	4.09	3.35	1.85	4.56	3.15	6.51
Lu	0.47	0.21	0.61	0.80	0.64	0.44	0.60	0.42	0.42	0.71	0.47
Hf	4.93	3.32	3.26	3.22	6.10	7.80	1.59	5.83	7.86	0.99	3.65
Ta	0.82	0.51	0.40	0.42	0.70	0.39	0.27	0.50	0.36	0.80	0.52
W	2.31	0.62	1.26	0.68	0.98	1.23	0.64	1.55	1.19	0.80	1.04
Tl	0.95	0.93	0.65	1.13	0.97	0.95	0.76	1.75	0.85	0.91	0.70
Pb	14.16	12.66	15.37	21.63	16.25	16.69	20.05	21.20	17.28	20.73	17.16
Bi	0.30	0.26	0.18	0.21	0.14	0.22	0.27	0.12	0.19	0.19	0.18
Th	7.95	5.30	7.54	8.03	6.13	6.30	7.22	7.35	8.95	7.44	9.76
U	2.57	1.12	1.40	2.84	1.54	0.77	1.86	2.50	1.90	1.34	2.51

SY3CT-7 elevation: -305 to -309 cm (continued)

	grain L pit-01	grain L pit-02	grain L pit-03	grain L pit-04	grain L pit-05	grain L pit-06	grain L pit-07
(wt.%)							
SiO ₂	71.63	69.58	72.98	69.38	71.57	73.65	69.87
Na ₂ O	3.98	3.75	3.78	4.61	4.25	4.02	4.34
MgO	0.57	1.37	0.35	0.42	0.36	0.44	0.73
Al ₂ O ₃	13.73	13.18	13.90	16.33	14.21	12.85	15.36
K ₂ O	2.61	2.52	2.99	2.65	3.16	3.15	2.38
CaO	2.49	3.10	2.37	3.03	2.32	1.77	3.14
TiO ₂	0.61	0.65	0.48	0.43	0.52	0.52	0.44
MnO	0.12	0.19	0.09	0.08	0.10	0.09	0.11
FeO	4.10	5.49	2.88	2.89	3.33	3.35	3.48
(ppm)							
Li	27.39	29.63	36.30	27.05	37.38	38.21	24.60
Be	3.99			2.03	3.13		5.85
B	20.57	25.97	23.09	12.04	30.58	33.41	17.01
P	417.54	452.57	525.57	427.75	523.63	526.02	458.01
Sc	13.04	34.38	15.58	18.49	8.87	20.04	11.54
V	29.51	44.50	12.58	10.61	13.46	12.32	11.77
Cr			34.26	28.78	12.49		
Co	3.33	4.83	2.31	1.63	1.60	2.68	2.08
Ni	0.58	2.05		3.98	1.08		
Cu	2.86	7.38	25.44	14.52	13.70	19.09	5.59
Zn	100.52	113.65	74.52	102.01	88.18	67.47	79.99
Ga	13.00	15.82	12.00	16.98	11.97	13.59	14.09
Ge	1.31			1.14	0.39		1.10
As		6.30	9.63	7.00	7.60	13.78	10.93
Rb	87.10	97.17	99.77	82.36	105.10	113.96	82.23
Sr	151.74	127.72	142.66	203.08	130.50	97.67	184.09
Y	32.81	42.38	34.09	28.12	34.55	33.70	29.55
Zr	159.67	171.62	185.42	148.34	191.41	177.40	131.65
Nb	8.86	9.70	7.30	6.14	10.03	7.80	7.94
Mo	3.84				0.80		
Ag	0.32	0.26	0.64	0.34	0.18		0.25
Cd	1.41		1.98		1.11		1.73
In	0.21	0.20					0.07
Sn			1.62	0.67	7.10	2.54	3.53
Sb	1.10	0.27	1.58	0.89	0.49		0.37
Cs	4.68	5.37	6.98	4.52	6.38	5.91	4.54
Ba	370.94	339.12	397.57	379.17	355.09	392.26	367.20
La	22.98	21.25	25.19	21.99	25.67	25.05	21.98
Ce	46.49	46.77	47.21	44.94	53.72	52.35	42.59
Pr	5.42	6.05	6.08	5.26	7.01	6.08	5.56
Nd	20.40	21.16	23.44	18.99	28.07	25.97	19.70
Sm	4.61	6.75	4.85	2.92	6.62	5.83	6.47
Eu	1.15	1.50	1.26	1.56	0.96	0.91	1.56
Gd	1.98	7.44	6.04	5.46	4.44	6.48	3.05
Tb	0.77	1.31	0.66	0.55	0.80	0.99	0.93
Dy	6.60	6.53	4.41	5.80	6.71	4.40	4.54
Ho	1.82	1.57	1.10	0.76	1.65	0.90	0.86
Er	3.10	4.68	2.27	2.73	3.38	2.61	2.24
Tm	0.17	0.52	0.58	0.52	0.71	0.45	0.21
Yb	4.37	5.07	4.20	1.48	3.69	4.21	5.49
Lu	0.66	0.62	0.63	0.52	0.59	0.49	0.69
Hf	4.27	4.93	6.63	2.66	4.46	6.06	5.77
Ta	0.51	0.41	0.49	0.48	0.59	0.55	0.52
W	1.82	1.27	0.45	0.72	1.24	1.68	2.02
Tl	0.70	0.84	0.86	0.89	0.75	1.01	0.48
Pb	17.32	16.25	17.56	13.14	19.32	18.79	15.45
Bi		0.09	0.12	0.12	0.15	0.20	0.18
Th	8.05	7.77	8.52	7.12	10.45	7.99	8.88
U	2.31	1.63	2.60	2.01	2.25	2.11	2.42

No.3-6 elevation: -296 to -299 cm

	grain A pit-02	grain A pit-03	grain A pit-04	grain A pit-05	grain B pit-01	grain B pit-02	grain B pit-04	grain B pit-05	grain C pit-01	grain C pit-02	grain C pit-03
(wt.%)											
SiO ₂	70.51	71.15	69.12	69.86	69.31	67.40	72.82	70.81	69.94	71.14	71.25
Na ₂ O	4.23	3.39	4.45	3.94	3.98	4.20	3.96	4.30	3.63	4.31	3.93
MgO	0.63	1.46	0.42	1.08	0.47	1.30	0.30	0.35	1.04	0.50	0.73
Al ₂ O ₃	13.20	11.52	15.99	13.89	13.75	14.81	13.74	14.96	13.09	14.05	13.44
K ₂ O	2.55	2.80	2.84	2.53	2.99	2.22	2.94	2.85	2.93	2.71	2.95
CaO	2.16	2.68	2.75	2.69	1.99	3.27	2.19	2.53	3.10	2.35	2.30
TiO ₂	0.64	0.53	0.52	0.54	0.92	0.53	0.53	0.53	0.61	0.58	0.57
MnO	0.11	0.18	0.09	0.16	0.12	0.17	0.08	0.08	0.17	0.09	0.13
FeO	5.81	6.12	3.66	5.14	6.29	5.90	3.26	3.41	5.32	4.11	4.53
(ppm)											
Li	23.40	30.34	32.39	34.43	31.32	20.40	31.84	28.83	30.36	38.99	35.46
Be	2.36	2.24		1.67					1.51		4.03
B	30.39	29.44	28.93	46.60	25.59	13.42	28.14	28.45	25.29	27.58	30.38
P	344.17	399.28	349.76	357.75	506.81	618.84	514.22	628.46	522.26	407.30	433.28
Sc	16.03	33.26	21.30	13.08	23.22	33.23	13.28	14.89	24.31	15.51	27.60
V	32.60	36.76	14.31	27.79	58.00	32.46	15.87	9.48	26.55	18.34	23.98
Cr	21.23		24.93		10.78			23.24	31.21		
Co	4.91	6.66	1.59	3.89	3.94	4.97	1.50	2.55	4.91	2.32	3.47
Ni		2.32			1.17	0.82		0.45			
Cu		1.98	2.95	5.74	7.83	7.56		5.60	4.02	5.88	4.81
Zn	102.48	96.64	100.50	113.15	59.27	103.71	72.97	89.96	105.31	131.34	87.48
Ga	14.78	13.91	15.61	16.13	15.56	22.23	14.60	14.52	12.41	15.09	13.21
Ge	1.51	3.45	1.20	5.63	0.45		1.05	1.37	0.29	1.08	0.93
As	8.52			7.71	5.51		10.05	5.70	5.61		19.68
Rb	83.04	87.07	84.40	85.47	102.55	60.46	99.98	98.49	95.66	100.15	90.54
Sr	134.07	87.82	177.56	166.78	108.61	292.66	131.66	149.23	105.72	132.35	129.23
Y	29.95	38.07	27.73	35.24	34.45	23.93	30.92	30.05	42.21	30.81	33.27
Zr	160.83	157.83	154.52	162.93	201.89	120.20	173.82	155.63	172.04	174.69	188.47
Nb	8.98	7.70	7.79	8.63	11.01	6.36	10.67	6.82	6.52	6.57	7.69
Mo	0.63	1.19	2.13	2.68	0.63	2.28		4.43			1.29
Ag		0.09	0.18	0.21			0.15	0.16		0.08	0.31
Cd	1.00				0.43	0.26	0.33	0.86			2.19
In				0.09	0.15		0.21		0.08		0.09
Sn	4.64	4.57	4.65		3.97	1.10	3.91	6.77	5.85	2.39	1.15
Sb	0.39	0.80			0.90		0.61	0.26		0.22	0.90
Cs	6.30	6.03	4.77	5.29	8.54	4.14	5.26	5.91	5.66	6.72	6.25
Ba	372.66	355.29	404.44	389.16	392.75	326.16	380.00	401.73	346.18	415.75	403.69
La	21.64	18.35	22.78	22.31	27.30	17.54	26.34	22.33	25.35	23.64	23.89
Ce	47.03	47.34	48.56	49.00	50.73	34.70	51.86	48.39	49.79	48.99	49.42
Pr	4.70	5.01	5.20	4.96	5.30	3.94	5.16	5.73	6.49	5.27	5.94
Nd	23.50	20.06	22.99	17.94	23.05	23.16	21.36	22.21	29.84	23.60	24.62
Sm	5.99	4.59	5.98	6.85	4.14	6.25	6.14	4.40	6.20	5.65	5.89
Eu	1.36	1.20	1.29	1.06	1.35	1.38	0.99	1.48	0.96	0.95	1.41
Gd	5.29	3.70	4.41	4.64	6.65	2.91	5.59	4.15	5.74	3.52	6.82
Tb	0.43	1.21	0.92	1.24	0.64	0.64	1.27	0.85	1.33	0.72	1.27
Dy	5.33	5.60	5.36	5.36	4.46	3.91	6.18	4.48	7.48	5.01	4.72
Ho	1.37	1.19	0.84	1.30	1.22	1.21	1.29	0.74	1.10	1.02	1.52
Er	3.29	3.72	2.39	2.59	3.60	2.49	4.43	2.98	4.39	2.93	3.69
Tm	0.41	0.49	0.62	0.47	0.58	0.81	0.20	0.45	0.63	0.28	0.21
Yb	3.42	5.10	4.23	3.29	5.20	3.24	5.85	4.25	4.38	3.33	4.33
Lu	0.45	0.79	0.55	0.60	0.45	0.61	0.61	0.79	0.69	0.50	0.62
Hf	3.69	3.75	3.86	3.36	6.31	4.29	3.05	2.38	4.30	3.50	2.16
Ta	0.49	0.52	0.60	0.31	0.52	0.39	0.48	0.66	0.67	0.73	0.51
W	1.04	0.92	1.75	0.83	1.55	1.29	1.35	1.43	1.43	1.32	0.99
Tl	0.98	0.76	0.77	0.63	0.99	0.78	0.70	0.88	0.83	0.87	0.72
Pb	17.94	15.35	18.86	13.50	19.89	16.45	21.08	19.47	18.64	19.96	17.65
Bi	0.22	0.20	0.28	0.09	0.23	0.05	0.22	0.11	0.21	0.21	0.25
Th	8.46	8.02	7.59	6.66	9.70	6.57	10.84	8.85	9.61	8.54	10.69
U	2.08	1.52	2.11	1.85	1.94	1.94	1.63	3.29	1.87	2.46	2.26

No.3-6 elevation: -296 to -299 cm (continued)

	grain C pit-04	grain C pit-05	grain C pit-06	grain E pit-01	grain E pit-02	grain E pit-03	grain G pit-02	grain G pit-03	grain G pit-04	grain G pit-05	grain H pit-01
(wt.%)											
SiO ₂	73.17	71.31	72.21	73.69	73.46	70.38	70.50	71.04	70.12	71.78	72.69
Na ₂ O	4.13	4.19	4.09	3.88	4.14	4.43	4.19	4.04	4.11	3.83	4.02
MgO	0.38	0.67	0.41	0.54	0.34	0.68	0.86	0.61	0.91	0.92	0.42
Al ₂ O ₃	13.03	13.84	13.74	13.17	12.88	13.92	12.99	13.71	14.00	12.60	12.81
K ₂ O	2.97	2.73	2.79	2.87	3.12	2.78	3.11	2.90	2.67	3.02	3.24
CaO	1.80	2.35	2.21	1.72	1.59	2.75	2.23	2.44	2.94	1.74	1.96
TiO ₂	0.54	0.54	0.57	0.46	0.57	0.60	0.58	0.59	0.54	0.63	0.61
MnO	0.09	0.11	0.09	0.10	0.09	0.11	0.12	0.11	0.13	0.14	0.10
FeO	3.73	4.11	3.73	3.38	3.62	4.19	5.22	4.40	4.43	5.17	3.97
(ppm)											
Li	33.53	24.85	28.61	21.83	32.14	28.81	42.45	34.83	34.57	35.28	30.97
Be	2.45			0.97	3.45			2.59	4.89	1.58	2.64
B	34.91	23.55	18.96	46.77	31.80	36.30	39.14	21.44	33.49	36.66	30.19
P	545.21	361.32	467.36	667.24	496.67	383.90	594.35	392.98	356.43	400.51	516.80
Sc	22.33	13.15	17.80	11.48	21.62	19.98	21.67	22.90	24.05	21.20	18.10
V	19.78	16.20	16.27	9.67	14.25	22.35	26.05	21.44	16.80	22.42	18.61
Cr				22.98	11.10					6.80	
Co	1.66	2.47	2.59	3.90	1.34	2.62	3.64	3.07	3.67	2.61	2.39
Ni				2.24		1.98		1.78			
Cu	3.07	2.15	3.21	9.06	5.73	3.99	6.34	2.67	7.03	3.68	10.92
Zn	99.08	75.17	47.62	48.79	116.16	72.43	82.69	117.79	87.35	92.21	71.59
Ga	14.00	14.31	16.71	13.68	14.49	18.31	12.33	13.35	14.10	13.30	11.32
Ge	0.31	2.64	0.73	4.68	0.50	3.32	0.69	0.66	1.57	5.33	2.37
As	8.48	7.61			6.57	16.18	9.32		8.31	6.98	4.59
Rb	101.87	88.59	107.99	99.70	104.02	87.06	104.79	98.28	94.59	106.25	113.81
Sr	118.83	141.47	137.30	119.68	120.10	151.24	121.68	138.59	173.29	87.85	100.63
Y	32.70	30.84	31.35	37.24	35.94	33.26	36.62	32.96	28.82	38.21	35.95
Zr	189.42	163.54	163.99	184.80	190.47	176.90	189.00	175.29	155.13	181.29	195.18
Nb	9.78	6.97	6.93	8.70	8.90	9.66	9.65	9.69	7.52	9.03	9.49
Mo	1.30	1.29		2.34		1.88	2.15	0.69	1.30	1.90	
Ag		0.40		0.68	0.25	0.13	0.11	0.57			0.09
Cd					1.72		3.08		0.74		
In	0.16		0.15					0.18		0.13	0.22
Sn	6.69	4.28	2.04	4.64	4.26	2.57	3.99	2.21		1.46	2.62
Sb	0.62	0.20	0.97		0.96	1.30	0.76		1.35	0.27	
Cs	6.03	5.53	5.43	5.74	6.35	6.24	6.81	5.59	5.47	6.21	5.89
Ba	393.42	365.80	403.28	355.77	439.82	403.04	400.17	400.68	333.95	402.59	389.23
La	23.85	20.37	22.37	26.26	26.23	24.51	23.02	23.59	21.66	27.26	23.14
Ce	50.82	45.43	45.17	49.94	51.27	47.72	50.95	49.32	44.29	59.21	53.46
Pr	5.40	5.39	5.18	6.54	5.49	6.12	5.80	5.48	5.14	5.56	5.25
Nd	21.49	22.11	17.30	24.74	23.18	23.20	27.81	29.13	17.66	27.14	28.44
Sm	5.72	3.31	6.92	6.27	4.55	6.20	4.72	4.80	4.05	5.33	4.38
Eu	1.13	1.34	1.34	0.94	1.25	1.26	1.38	1.35	1.43	1.41	1.01
Gd	5.47	5.43	6.90	4.27	4.28	5.95	4.44	5.79	4.99	5.78	3.86
Tb	0.88	0.40	0.65	1.31	0.97	1.02	0.89	0.89	0.40	1.28	0.79
Dy	2.98	5.62	6.00	5.53	4.58	5.60	6.55	4.89	5.21	6.81	6.12
Ho	1.19	1.29	1.43	1.42	1.62	1.29	1.52	1.34	1.19	1.23	1.37
Er	2.96	3.38	2.88	3.94	4.65	3.07	4.46	3.37	3.62	3.52	3.09
Tm	0.28	0.39	0.30	0.34	0.34	0.48	0.55	0.53	0.28	0.28	0.69
Yb	4.05	3.51	3.00	4.03	4.11	5.19	3.89	3.03	2.70	3.77	4.19
Lu	0.43	0.43	0.73	0.61	0.83	0.41	1.07	0.50	0.43	0.42	0.72
Hf	3.54	5.95	4.34	2.61	5.78	2.89	5.09	3.46	2.45	5.04	5.60
Ta	0.61	0.47	0.52	0.43	0.48	0.33	0.81	0.62	0.65	0.34	0.43
W	1.00	1.13	2.01	1.92	1.14	1.55	1.91	1.13	1.20	1.69	1.30
Tl	0.79	0.92	0.88	1.19	1.02	0.94	0.74	0.87	0.86	1.01	0.89
Pb	19.52	16.07	19.83	39.58	20.67	15.86	20.84	17.73	13.97	15.21	20.65
Bi	0.21	0.33	0.28		0.16	0.27	0.16	0.38	0.14	0.13	
Th	9.59	7.46	7.84	7.31	9.56	7.51	8.58	9.46	6.58	9.69	8.13
U	1.87	2.27	1.88	2.73	2.49	2.27	2.44	2.57	2.56	2.22	2.17

No.3-6 elevation: -296 to -299 cm (continued)

	grain H pit-02	grain I pit-01	grain I pit-02	grain I pit-03	grain J pit-01	grain J pit-02	grain J pit-03	grain J pit-04	grain J pit-05	grain K pit-01	grain K pit-02
(wt.%)											
SiO ₂	67.95	71.18	70.45	70.01	69.36	71.72	71.33	71.74	71.51	70.38	72.32
Na ₂ O	4.38	4.33	8.36	4.41	4.63	4.43	4.00	4.10	4.28	4.12	4.31
MgO	0.61	0.34	0.41	0.44	0.52	0.48	0.49	0.50	0.44	0.68	0.52
Al ₂ O ₃	16.18	14.18	11.23	15.38	14.79	13.17	14.04	13.82	13.79	14.25	12.79
K ₂ O	2.36	2.71	2.57	2.62	3.03	2.99	2.84	2.88	2.82	2.68	2.97
CaO	3.87	2.49	2.10	2.77	2.68	2.35	2.39	2.42	2.54	2.75	2.39
TiO ₂	0.53	0.56	0.58	0.52	0.55	0.58	0.58	0.56	0.51	0.60	0.59
MnO	0.09	0.08	0.10	0.08	0.10	0.09	0.10	0.10	0.10	0.11	0.09
FeO	3.88	3.98	4.01	3.59	4.16	4.04	4.07	3.72	3.84	4.28	3.84
(ppm)											
Li	28.85	28.85	34.00	31.52	32.67	33.67	38.31	39.60	34.32	28.92	33.51
Be	0.89	1.32	3.84		0.93	2.62		4.35	0.87	1.62	3.39
B	25.26	39.55	49.35	34.98	34.24	24.70	33.01	37.22	28.23	25.00	21.04
P	427.01	433.35	789.83	458.68	369.24	358.37	349.85	373.28	441.55	516.53	539.05
Sc	21.03	23.15	23.84	22.63	22.48	8.60	11.25	19.16	18.56	23.25	9.24
V	21.76	16.46	27.73	17.83	22.37	16.13	14.11	17.67	12.95	20.07	19.05
Cr	16.24		31.54			14.21		8.11	17.11	34.42	
Co	3.07	4.73	4.28	1.54	3.80	2.45	2.52	2.84	1.11	4.61	2.63
Ni	1.85	1.36		2.51		1.50		3.09	0.40	0.84	
Cu	4.74	3.50	14.45	1.29	2.88	2.51	4.84	1.54	3.07	2.69	9.55
Zn	65.62	12.01	78.65	80.10	95.45	61.90	97.35	88.69	112.75	117.52	83.67
Ga	14.88	17.82	18.63	14.82	15.11	15.81	12.29	15.84	16.15	15.84	13.77
Ge	4.12	3.80	4.80		3.21	5.37	0.50	2.34	3.00	2.96	1.63
As		8.19	18.84	5.40		15.04		3.30	19.62		11.02
Rb	81.35	104.42	86.35	88.57	102.08	83.47	97.30	100.68	86.99	83.48	108.20
Sr	219.14	146.55	120.75	196.42	154.19	154.65	134.26	138.85	169.29	145.78	120.81
Y	25.61	32.39	22.12	29.36	32.70	27.98	29.07	33.67	28.79	30.58	34.27
Zr	139.21	164.99	146.99	188.57	181.79	162.20	172.90	166.57	183.50	161.52	184.27
Nb	4.81	8.53	10.94	8.19	12.73	8.07	9.30	8.96	7.07	9.48	8.73
Mo	2.14			1.17	2.23	2.79	0.70	4.17			1.35
Ag	0.48	0.98	1.26	0.13	0.67	0.56	0.11	0.37		0.08	
Cd	1.13	2.39		1.06	0.34				1.41		1.99
In		0.07	0.17		0.15	0.20		0.12	0.25		
Sn		1.57	1.37	3.21	1.27		6.14	3.98	1.49	3.23	
Sb		0.41		0.64		0.35	1.10	0.54	0.76	0.62	1.15
Cs	4.37	5.67	4.89	5.31	5.17	5.32	5.92	5.67	5.97	5.97	5.49
Ba	344.32	413.60	265.16	350.90	423.02	377.34	431.97	418.19	384.97	350.74	358.58
La	18.62	22.05	21.47	19.97	24.35	22.75	21.52	24.44	22.73	22.16	24.10
Ce	41.50	49.92	44.47	47.39	50.92	50.50	47.30	48.46	50.17	48.33	48.17
Pr	4.53	6.17	5.02	5.46	6.09	5.55	6.32	4.95	5.68	4.77	5.45
Nd	17.61	18.53	22.24	25.51	24.96	24.11	23.52	26.33	20.08	22.77	22.32
Sm	4.18	3.47	7.86	4.05	6.80	6.64	4.61	6.10	8.37	5.22	7.68
Eu	1.43	1.39	0.70	1.34	1.12	1.11	1.35	1.21	1.20	0.88	1.33
Gd	7.30	4.62	4.48	2.98	5.69	6.37	5.88	5.07	6.83	5.44	5.43
Tb	0.48	0.53	0.60	0.88	0.88	0.94	0.59	0.66	1.13	1.20	1.03
Dy	4.08	6.27	6.32	5.07	4.25	7.03	6.73	6.20	5.55	4.89	7.59
Ho	0.88	2.05	1.08	1.03	1.09	1.52	0.86	1.23	1.02	1.11	1.31
Er	1.68	2.49	5.43	4.03	3.38	3.77	3.54	2.58	2.80	4.59	4.56
Tm	0.27	0.63	0.33	0.48	0.36	0.46	0.34	0.57	0.60	0.35	0.44
Yb	2.40	3.55	1.99	3.77	4.61	3.98	1.63	4.13	3.05	3.19	4.73
Lu	0.43	0.63	0.55	0.80	0.36	0.38	0.67	0.46	0.62	0.54	0.40
Hf	1.79	1.32	1.93	4.15	3.73	4.68	2.93	6.39	5.22	4.88	2.55
Ta	0.19	0.54	1.41	0.63	0.43	0.52	0.51	0.57	0.35	0.39	0.69
W	0.88		1.26	1.08	0.61	2.15	1.22	1.00	1.43	1.07	1.25
Tl	0.89	1.07	0.93	0.86	0.92	0.92	0.92	0.83	0.84	0.64	0.67
Pb	13.81	24.20	30.98	15.36	20.20	13.65	20.97	17.56	16.05	16.25	13.81
Bi	0.08	0.20	0.47	0.16	0.09	0.20	0.17	0.25	0.29	0.15	0.32
Th	7.94	6.70	7.31	8.58	11.26	8.06	7.88	9.02	7.90	7.11	6.35
U	2.13	2.58	1.80	1.67	2.21	2.23	1.64	2.07	2.06	2.07	2.09

No.3-6 elevation: -296 to -299 cm (continued)

	grain K pit-03	grain L pit-01	grain L pit-02	grain L pit-03	grain M pit-01	grain M pit-02	grain M pit-03	grain M pit-04
(wt.%)								
SiO ₂	71.70	69.39	71.16	68.86	71.03	72.55	70.87	73.12
Na ₂ O	4.27	4.43	3.97	4.50	3.87	4.17	4.17	4.72
MgO	0.39	0.41	0.60	0.53	1.27	0.36	0.95	0.34
Al ₂ O ₃	13.59	15.69	13.46	15.82	12.32	13.23	12.85	12.70
K ₂ O	3.37	2.80	3.08	2.36	3.09	3.20	2.91	3.02
CaO	1.95	2.82	2.20	3.68	2.23	2.07	2.51	1.74
TiO ₂	0.60	0.52	0.64	0.50	0.62	0.56	0.56	0.57
MnO	0.10	0.09	0.11	0.09	0.15	0.08	0.13	0.09
FeO	3.85	3.69	4.59	3.50	5.23	3.62	4.87	3.54
(ppm)								
Li	33.23	34.07	33.45	26.66	33.91	32.02	41.36	29.66
Be	0.99	3.99	4.08	3.41		1.82	3.97	6.93
B	20.34	30.08	28.82	31.18	23.97	28.09	34.87	27.15
P	630.85	375.79	544.31	330.82	404.02	461.29	466.98	530.30
Sc	9.11	16.74	27.93	22.64	31.80	16.18	21.88	21.20
V	13.80	18.18	25.84	19.66	28.52	16.82	24.47	18.58
Cr		13.40	14.19			19.33	12.33	19.27
Co	4.67	2.57	2.69	4.02	5.98	1.39	3.51	3.24
Ni	1.36			1.04			1.03	
Cu	8.54	8.47		6.54	1.49	6.25	9.22	3.51
Zn	61.74	57.57	71.58	106.47	105.98	74.01	99.37	88.19
Ga	15.57	16.32	16.04	13.87	15.94	12.30	15.49	13.76
Ge	1.33	5.83	5.49	3.50	1.11	3.33	3.05	1.33
As		19.01			5.02	7.66	6.95	6.34
Rb	112.96	87.64	99.56	76.32	101.36	95.45	99.16	97.81
Sr	115.96	198.41	126.71	208.52	107.39	112.98	128.07	129.60
Y	35.08	29.00	34.47	25.90	36.85	31.80	32.75	30.36
Zr	200.08	173.87	192.06	161.80	185.21	164.98	162.75	154.31
Nb	7.77	7.98	7.53	7.53	10.54	9.81	9.63	7.93
Mo		1.28	3.26	0.91	1.54	1.46	3.18	
Ag	0.16	0.16	0.46		0.32			0.10
Cd	0.36	0.87	0.55				1.98	0.90
In	0.26	0.08		0.06				0.21
Sn	3.94	5.22	1.64	2.30	2.24	4.44	2.42	2.94
Sb		0.55	1.00	0.61	0.50	0.47	1.15	0.33
Cs	6.18	5.71	5.88	4.66	6.02	5.72	6.28	5.71
Ba	376.40	390.17	393.66	356.63	384.71	342.69	386.08	365.63
La	27.55	24.47	22.63	22.36	23.16	24.85	23.55	21.48
Ce	50.77	46.35	52.56	43.83	55.76	49.99	48.05	43.71
Pr	5.59	5.63	5.68	5.32	5.94	5.47	4.76	5.83
Nd	22.42	24.97	20.10	21.02	25.91	22.44	25.68	20.50
Sm	6.95	4.67	6.26	7.32	5.36	5.60	5.52	2.90
Eu	1.64	0.92	1.11	1.10	1.08	1.04	1.14	0.99
Gd	4.91	6.28	5.95	3.65	5.07	5.58	4.92	6.64
Tb	0.71	0.75	1.05	0.61	1.34	1.02	1.03	0.45
Dy	7.42	5.55	3.36	3.74	8.47	4.66	5.45	5.07
Ho	1.07	0.86	1.34	1.02	1.86	1.20	0.98	1.21
Er	4.26	4.30	3.71	3.37	4.81	2.70	3.48	1.33
Tm	0.56	0.35	0.67	0.30	0.59	0.28	0.61	0.39
Yb	2.05	1.65	2.95	3.06	3.39	2.07	4.31	5.33
Lu	0.33	0.57	0.19	0.54	0.74	0.52	1.14	0.47
Hf	6.95	4.00	4.09	3.80	2.58	5.48	5.31	5.63
Ta	0.84	0.48	0.81	0.51	0.60	0.63	0.42	0.48
W	1.54	1.44	1.34		0.63	1.35	0.90	1.47
Tl	0.80	0.99	0.91	0.55	0.82	0.63	0.99	0.88
Pb	17.64	14.77	20.09	17.39	18.19	18.72	17.03	18.50
Bi	0.16	0.11	0.28	0.13		0.16	0.20	0.19
Th	9.24	9.57	8.47	6.56	9.35	6.62	8.36	8.11
U	2.94	1.56	2.51	1.64	2.95	2.71	1.43	1.94

SH3-1 elevation: 366 to 362 cm

	grain A pit-01	grain A pit-02	grain A pit-03	grain B pit-01	grain B pit-02	grain C pit-01	grain C pit-03	grain D pit-01	grain D pit-02	grain D pit-03	grain E pit-01
(wt.%)											
SiO ₂	70.67	72.23	73.48	70.65	71.23	71.46	72.95	71.15	71.19	71.89	72.07
Na ₂ O	4.68	4.88	3.93	4.33	4.20	3.92	3.80	4.47	4.47	4.13	4.68
MgO	0.27	0.43	0.68	0.52	0.41	1.12	0.45	0.46	1.00	0.75	0.55
Al ₂ O ₃	14.79	13.32	11.67	13.80	13.98	12.35	12.18	13.95	12.49	12.74	13.16
K ₂ O	2.76	3.06	2.96	3.12	2.73	2.76	3.29	2.89	2.70	2.78	3.05
CaO	2.85	1.52	2.01	2.73	2.97	2.72	1.98	2.43	2.70	2.47	1.78
TiO ₂	0.50	0.52	0.56	0.52	0.50	0.62	0.56	0.53	0.54	0.53	0.55
MnO	0.08	0.09	0.11	0.10	0.09	0.12	0.12	0.10	0.12	0.11	0.10
FeO	3.22	3.79	4.45	4.06	3.73	4.76	4.53	3.87	4.60	4.43	3.90
(ppm)											
Li	30.99	36.62	32.41	32.69	29.81	40.01	18.49	40.87	33.62	37.46	39.65
Be	4.64		6.47		3.51	3.18			2.18	5.56	7.42
B	20.53	9.99	24.81	32.64	18.67	26.26	11.37	23.84	25.10	39.41	31.52
P	390.43	444.72	334.88	465.60	332.30	361.48	244.59	347.05	567.09	316.17	75.84
Sc	21.83	7.92	15.22	34.59	19.94	20.49	23.36	8.93	39.02	16.58	33.00
V	12.23	18.51	17.15	17.43	14.13	30.65	26.02	21.28	27.66	20.72	20.03
Cr	50.67	7.17		12.76		11.08	42.30			17.12	69.09
Co	3.99	2.50	3.66	3.92	1.51	3.33	6.38		4.69	3.16	1.01
Ni	5.34	4.03		5.27					1.04		3.18
Cu	5.90	7.54	3.02	1.88	3.88	3.51	12.43	1.96		13.60	7.93
Zn	82.66	44.38	96.62		74.62	95.78		12.10	94.30	112.00	57.16
Ga	19.08	17.85	13.13	16.99	16.29	18.03	15.65	18.63	15.16	13.73	19.23
Ge	4.07		5.67		2.05			2.25			2.60
As	19.57		9.55	4.67				13.26		18.32	25.05
Rb	92.25	100.18	86.17	103.54	83.19	91.44	106.58	85.33	100.38	102.11	102.74
Sr	179.64	124.66	95.64	126.93	174.01	126.60	118.92	176.00	138.00	141.00	140.98
Y	30.99	31.77	33.17	35.52	28.78	37.24	30.83	29.06	30.01	35.58	29.22
Zr	161.10	184.42	168.81	191.55	159.85	162.71	184.93	149.10	179.96	167.58	156.39
Nb	9.86	8.56	8.38	9.46	8.74	8.56	11.98	9.97	8.65	9.17	9.23
Mo	6.44	8.23	1.80		0.98	1.77			3.64		
Ag		0.18	0.22	0.66		0.19		0.20	0.89		
Cd	1.77			4.22				0.88		2.29	4.41
In			0.30	0.26	0.33			0.12		0.41	0.21
Sn	12.01	8.19	12.25		17.05				1.60	1.73	5.10
Sb	1.23	0.81	1.10	0.23		1.35	1.39	0.86	0.69	0.85	
Cs	4.94	6.06	6.51	6.90	4.62	5.02	6.41	5.89	4.95	5.83	5.85
Ba	420.76	395.31	379.66	426.31	400.18	379.71	409.03	410.68	419.92	378.11	399.85
La	24.19	21.06	21.53	30.06	20.79	21.22	25.40	22.51	22.20	22.59	23.51
Ce	45.01	49.82	46.85	59.11	48.50	52.48	57.19	48.85	51.32	51.59	49.50
Pr	4.08	4.21	5.06	6.67	4.58	5.28	4.27	4.95	5.33	5.98	4.06
Nd	27.09	20.39	23.20	21.54	19.09	19.54	27.64	20.50	24.13	22.24	15.51
Sm	10.19	7.75	3.55	4.73	3.00	9.31	6.59	0.94	5.99	3.67	6.52
Eu	1.50	0.57	1.56	1.64	1.70	1.11	0.73	1.71	1.58	1.35	0.90
Gd	9.22	6.31	4.02	6.18	3.93	2.37		4.30	3.25	6.22	8.30
Tb	0.47	1.11	0.46	1.00	0.71	0.83	1.70	0.85	1.91	0.47	1.07
Dy	3.74	7.84	5.99	4.90	6.51	5.12	4.97	5.58	4.48	5.11	3.59
Ho	1.46	0.62	1.83	1.16	0.96	1.40	1.62	1.37	0.62	1.47	1.31
Er	3.05	3.04	2.13	6.61	3.36	4.37	7.83	5.29	3.13	3.59	2.66
Tm		0.17	1.03	0.77	0.56	1.39	0.15	0.15	0.91	0.40	0.71
Yb	6.63	4.44	1.54	6.86	3.69	3.94		2.20	1.56	3.82	3.82
Lu	0.42	0.67	0.66	0.13	0.72		0.52	0.70	0.67		0.71
Hf	4.46	6.10	5.18	4.43	6.19	5.09	4.94	4.31	4.19	3.21	2.85
Ta	0.41	0.71	0.63	0.68	0.65	0.65	0.68	0.58	0.58	0.59	0.20
W	1.52	0.87	1.06	1.59	0.58	0.91	2.21	2.21	1.88	0.96	3.84
Tl	0.80	0.82	0.56	0.88	0.51	0.32	0.61	0.50	0.52	0.55	0.35
Pb	19.77	21.57	26.37	20.50	17.91	15.02	22.14	19.25	12.12	17.01	15.26
Bi		0.33	0.16	0.09		0.18	0.25	0.32	0.13	0.22	0.25
Th	6.87	10.71	8.98	9.56	8.03	9.42	8.56	4.75	11.11	9.27	6.32
U	1.46	2.44	1.53	2.32	1.84	2.67	2.02	2.02	2.57	2.63	2.57

SH3-1 elevation: 366 to 362 cm (continued)

	grain E pit-03	grain E pit-04	grain F pit-01	grain F pit-02	grain F pit-03	grain F pit-04	grain F pit-05	grain F pit-06	grain F pit-07	grain G pit-01	grain G pit-02
(wt.%)											
SiO ₂	71.64	70.18	71.27	72.71	71.93	72.93	73.61	71.42	72.79	72.12	72.41
Na ₂ O	4.17	4.42	4.17	4.01	4.40	4.05	4.01	4.02	4.27	4.42	4.25
MgO	0.52	0.54	0.66	0.39	0.52	0.44	0.32	1.14	0.45	0.51	0.49
Al ₂ O ₃	13.36	13.62	13.29	13.15	12.94	12.86	12.87	12.32	12.89	12.78	12.60
K ₂ O	3.02	3.06	2.83	3.06	3.01	3.03	2.90	2.70	3.02	2.87	3.00
CaO	2.65	3.01	2.77	1.88	2.16	1.88	1.89	2.89	1.96	2.38	2.37
TiO ₂	0.53	0.56	0.57	0.53	0.56	0.58	0.52	0.52	0.52	0.52	0.52
MnO	0.10	0.14	0.11	0.09	0.10	0.09	0.08	0.13	0.10	0.10	0.10
FeO	3.83	4.26	4.18	4.02	4.19	3.99	3.65	4.74	3.86	4.13	4.10
(ppm)											
Li	38.07	37.57	31.67	37.85	40.51	26.27	36.65	28.86	28.78	34.16	30.84
Be				6.27		1.09		5.15	6.36		
B	20.01	43.81	24.67	36.99	18.67	23.11	28.98	19.15	18.03	31.38	18.26
P	515.27	685.26	233.60	243.40	579.09	331.40	337.39	117.19	181.13	337.99	391.38
Sc	11.17	15.66	20.73	9.29	3.87	12.41	9.72	23.92	26.10	16.38	21.77
V	18.41	18.22	17.78	14.31	18.10	16.26	14.88	25.84	17.06	16.53	22.16
Cr	37.42	101.64		13.61	22.72		6.89		46.81	7.78	9.43
Co	0.76	0.74	3.12	3.73	0.90	1.71	2.84	3.26	3.51	2.39	2.92
Ni	2.54			1.74	0.66	2.20	1.39				0.56
Cu	7.35	14.32		3.46	2.54		4.17	5.51	1.62	14.04	7.88
Zn	77.99	132.64	61.51	59.13	120.46	76.98	108.46	97.21	71.06	82.07	91.42
Ga	11.96	15.81	15.73	11.58	15.26	16.82	9.86	15.45	13.92	16.30	17.57
Ge	3.85	4.93	1.17	1.83	3.65	6.91		2.94	3.91	1.08	5.34
As	13.25	9.02	7.24	4.85			12.09	16.96		4.78	5.14
Rb	100.98	108.75	94.22	99.84	112.49	102.41	101.28	91.89	103.18	98.83	95.61
Sr	138.64	134.41	158.75	122.70	113.74	124.14	109.87	126.57	114.75	129.31	143.11
Y	33.15	33.98	27.84	30.89	34.71	33.55	32.59	37.74	30.82	32.04	31.31
Zr	178.87	163.26	153.95	162.65	188.58	197.56	173.57	184.32	178.26	165.49	171.99
Nb	6.83	6.99	8.83	8.61	7.77	10.99	7.45	8.33	7.92	9.19	5.83
Mo		1.87	1.79		1.85		3.90				2.34
Ag	0.32	1.15			0.43		0.21	0.76	0.26	0.86	
Cd		4.12	1.47	1.67	0.76						0.64
In			0.35		0.18		0.11				
Sn	8.62	11.95		3.33	5.08		11.47	1.77	4.89	3.30	4.98
Sb	1.08	0.50		0.76	0.92	0.62			0.28	0.56	0.24
Cs	5.45	6.85	5.67	5.16	7.76	6.08	5.95	4.94	7.12	5.60	6.37
Ba	380.83	426.13	402.24	411.60	419.66	437.33	424.22	358.30	379.27	362.61	383.66
La	22.61	21.21	21.33	25.51	26.68	25.36	25.03	22.53	23.09	22.50	23.02
Ce	46.04	49.28	49.42	49.59	52.71	55.69	55.36	46.72	51.56	48.56	48.23
Pr	5.03	4.62	5.66	6.38	5.80	5.74	6.85	5.24	5.22	4.19	4.86
Nd	19.30	21.44	25.37	24.08	22.87	26.08	18.69	21.54	23.09	24.22	23.64
Sm	7.82	4.94	2.36	5.36	4.47	5.18	6.42	6.79	6.53	6.13	4.12
Eu	1.57	1.00	1.51	1.35	0.81	0.75	1.46	1.45	1.49	1.11	1.36
Gd	5.62	6.71	7.59	5.45	2.90	6.89	3.92	5.38	2.85	2.57	7.34
Tb		1.63	0.97	1.26	0.60	0.85	1.13	0.81	0.61	0.95	0.96
Dy	6.98	2.72	4.66	6.31	5.10	5.26	7.34	6.47	6.15	5.71	6.34
Ho	1.27	1.98	1.62	0.66	1.33	1.30	1.33	0.91	0.88	0.81	1.42
Er	1.80	2.82	5.00	3.75	3.58	4.29	2.10	5.17	3.88	2.82	3.36
Tm		0.54	0.51	0.31	0.66	0.39	0.42	0.62	0.61	0.35	0.28
Yb	3.59		3.98	2.69	2.22	4.36	4.35	5.01	3.28	5.63	3.22
Lu	0.68	0.92	0.88	0.92	0.38	0.44	0.80	0.35	0.17	0.40	0.32
Hf	3.62	1.08	6.18	6.02	8.00	0.52	5.05	3.96	6.73	3.78	3.15
Ta	0.63	0.84	0.51	0.55	0.41	0.72	0.22	0.33	0.47	0.24	0.60
W		2.49	1.06	2.70	1.64	1.21	1.44	1.14	1.41	1.46	1.04
Tl	0.68	0.49	0.51	0.68	0.67	0.45	0.86	0.53	0.44	0.74	0.49
Pb	18.85	20.63	17.28	19.16	18.51	21.17	21.12	15.75	23.00	16.97	18.77
Bi	0.15	0.19	0.25	0.36	0.22	0.16	0.08	0.24		0.16	0.22
Th	9.07	8.75	9.13	9.09	9.46	8.46	9.53	6.30	7.78	9.66	6.77
U	2.37	2.12	2.53	2.47	2.10	2.74	1.47	1.30	2.40	1.55	0.74

SH3-1 elevation: 366 to 362 cm (continued)

	grain A pit-01	grain A pit-02	grain A pit-03	grain A pit-04	grain B pit-01	grain B pit-02	grain C pit-01	grain C pit-02	grain C pit-03	grain D pit-02	grain D pit-03
(wt.%)											
SiO ₂	72.54	72.52	73.06	72.71	73.37	70.42	71.30	68.95	69.98	70.85	72.58
Na ₂ O	4.21	3.98	4.70	4.12	4.13	4.56	4.45	4.68	4.90	4.53	4.25
MgO	0.40	0.49	0.46	0.46	0.45	0.38	0.60	0.68	0.61	0.69	0.56
Al ₂ O ₃	13.98	12.99	12.32	12.80	12.95	14.64	12.91	14.47	13.36	13.22	11.78
K ₂ O	2.60	2.76	2.88	3.01	2.87	2.41	3.77	3.07	2.86	2.69	3.07
CaO	2.18	2.53	2.02	2.17	1.89	3.74	1.99	2.74	3.04	2.04	1.83
TiO ₂	0.48	0.53	0.54	0.54	0.52	0.43	0.60	0.63	0.54	0.54	0.56
MnO	0.09	0.10	0.09	0.10	0.09	0.07	0.11	0.11	0.12	0.14	0.10
FeO	3.38	3.96	3.81	3.94	3.59	3.20	4.10	4.50	4.40	5.11	5.12
(ppm)											
Li	25.98	33.32	35.27	43.84	31.30	36.02	25.57	38.96	35.62	37.14	32.56
Be	3.45	1.16	3.27							3.40	
B	21.36	33.82	28.93	26.31	41.32	26.51		33.88	33.37	30.11	28.99
P	218.76	273.80		350.75	234.43	334.34	527.27	373.97	586.13	510.40	383.09
Sc	18.22		8.22		10.13	14.83		24.49	11.76	11.51	22.31
V	11.97	20.88	15.45	18.90	17.46	10.98	28.79	21.58	23.46	22.47	20.32
Cr	10.61		12.66			13.76	8.47			55.81	28.62
Co		3.17	4.10	5.83	2.62	3.55	1.29	4.88	3.02	1.51	3.03
Ni				0.92		0.86			2.17	1.82	3.22
Cu	5.26			8.41	8.40	3.96	3.23	11.24	11.76	6.93	5.80
Zn	38.84	61.90	75.81	126.35	104.72	34.85	101.55	72.92	54.49	108.29	115.30
Ga	14.00	15.91	19.40	12.38	13.33	19.65	15.21	16.32	17.28	16.73	12.01
Ge		1.27	6.45	1.69	3.24		5.57			2.24	
As		8.79		20.67	11.05	12.13		11.18	10.26		
Rb	92.21	98.46	103.00	105.20	103.17	70.53	93.24	97.94	100.50	93.33	102.91
Sr	168.58	121.73	133.07	135.50	134.58	241.43	126.24	168.38	154.06	152.42	101.13
Y	27.41	29.99	32.18	29.76	29.49	25.54	27.20	34.08	30.81	29.41	32.46
Zr	160.20	169.45	176.20	163.09	148.44	129.52	128.16	198.17	169.92	169.51	200.68
Nb	8.93	9.18	7.11	8.73	7.26	7.26	11.19	9.84	6.24	7.67	9.08
Mo	0.96	2.90	10.90		0.95						
Ag		0.56	0.38	0.25	0.70	0.40			0.22	0.39	0.15
Cd		1.32					7.26		3.06		
In	0.21			0.54	0.64	0.25		0.51		0.59	
Sn	3.19	1.23	9.49	1.89	5.58	6.76	6.06			13.21	
Sb		0.59	1.19	1.08	0.90	0.57		0.98	1.62	0.27	
Cs	5.91	5.20	5.87	6.48	5.06	4.54	4.76	7.49	4.73	6.03	6.54
Ba	394.44	411.88	386.64	384.73	391.82	361.20	338.95	404.56	360.14	372.05	378.63
La	19.94	21.53	25.90	25.15	22.88	20.08	22.46	24.77	23.17	21.71	21.07
Ce	46.61	50.73	44.87	54.66	46.38	45.13	46.63	50.07	57.80	45.38	58.10
Pr	5.39	5.43	7.19	5.49	5.78	4.04	5.38	5.90	4.87	3.49	4.66
Nd	22.96	20.29	21.10	20.64	13.65	18.05	20.83	27.60	22.43	23.52	25.82
Sm	5.47	2.97	4.79	4.03	6.67	3.95	5.43	4.31	7.13	1.87	7.30
Eu	1.44	1.17	1.32	1.77	1.19	0.68	0.85	1.01	1.37	1.10	1.55
Gd	8.14	4.75	5.48	6.56	4.67	4.91	1.58	3.84	6.35	6.97	5.31
Tb	0.69	0.84	0.69	0.73	0.21		0.89	0.18	0.37	0.72	0.86
Dy	1.94	6.43	5.92	5.59	6.05	3.47	6.14	6.05	7.64	2.47	3.44
Ho	0.94	1.39	1.03	0.97	1.36	1.21	1.60	1.11	1.15	0.96	1.26
Er	3.30	2.91	4.39	2.76	1.84	2.79	0.38	5.28	0.87	3.35	4.34
Tm	0.55	0.14	0.88	0.39	0.61	0.36		0.53	0.36	0.20	0.60
Yb	1.97	5.30	1.87	5.67	3.26	4.80	3.63	5.05	1.04	3.40	6.52
Lu	0.31	0.79	1.45	0.67			0.43	1.50	0.66	0.46	0.58
Hf	8.83	2.78	5.50	4.23	1.09	0.58	6.10	9.90	2.92	3.27	5.47
Ta	0.55	0.89	1.21	0.58	0.27	0.79	0.22	0.27	0.58	1.13	0.45
W	0.28	1.00	2.01	1.36	2.24	1.77	1.30	1.99	0.75		
Tl	0.60	0.58	0.64	0.62	0.47	0.47	0.78	0.60	0.79	0.62	0.52
Pb	16.29	18.99	16.81	22.95	17.72	18.31	31.19	23.32	17.58	23.16	13.45
Bi	0.30	0.08	0.32	0.05	0.28	0.22	0.10	0.24	0.14		0.33
Th	10.00	8.15	9.08	9.99	9.28	5.32	6.27	8.45	9.68	4.72	10.28
U	1.45	3.28	2.31	1.91	2.87	1.89	1.33	2.09	2.87	1.34	1.34

SH3-1 elevation: 366 to 362 cm (continued)

	grain D pit-04	grain E pit-01	grain E pit-02	grain E pit-03	grain F pit-01	grain F pit-02	grain G pit-01	grain G pit-02	grain G pit-03
(wt.%)									
SiO ₂	72.46	70.91	71.24	71.35	69.62	72.62	70.41	71.33	74.10
Na ₂ O	4.44	4.29	4.05	4.03	5.74	4.30	4.00	4.57	3.83
MgO	0.31	0.58	0.70	0.70	0.52	0.51	0.52	0.44	0.51
Al ₂ O ₃	12.67	13.73	13.62	12.99	13.74	12.75	14.27	13.96	12.35
K ₂ O	3.55	3.00	2.70	2.83	3.03	2.83	2.94	2.83	2.72
CaO	2.13	2.18	2.59	2.67	2.33	2.38	3.53	2.29	2.01
TiO ₂	0.54	0.60	0.54	0.59	0.55	0.52	0.46	0.48	0.50
MnO	0.08	0.10	0.10	0.11	0.10	0.09	0.09	0.10	0.09
FeO	3.65	4.43	4.28	4.56	4.21	3.84	3.64	3.86	3.74
(ppm)									
Li	30.84	39.03	36.11	38.03	31.64	30.40	31.04	36.21	32.42
Be	1.38	9.49		1.16			8.54	3.28	3.32
B	26.86	21.01	29.09	34.81	11.53	30.06	44.29	14.50	30.37
P	427.82	475.67	379.33	473.96	360.67	399.08	362.59	330.03	370.39
Sc	25.08			27.51	15.11	25.01	28.09	31.90	21.62
V	8.65	21.86	26.12	24.98	14.39	17.22	24.01	15.91	24.01
Cr	43.29		7.56		6.98		6.07	16.81	6.30
Co		1.98	4.10	2.81	2.49		3.46	3.74	3.70
Ni	4.60				0.56	4.17		1.95	0.66
Cu	4.21	7.85		1.77	2.11		15.53		9.86
Zn	46.63	88.63	75.74	102.74	94.94	42.21	104.58	73.00	60.03
Ga	14.43	15.57	12.21	14.63	16.83	13.18	17.34	16.55	11.41
Ge	6.05	8.84	0.50	4.56	5.45				1.94
As		13.27		6.10	9.24		5.15		8.87
Rb	85.83	102.43	101.45	91.88	107.11	96.32	83.33	84.88	90.22
Sr	116.91	141.52	157.84	133.75	131.62	138.66	159.63	159.83	128.13
Y	37.19	28.98	28.56	32.40	29.83	27.45	29.29	25.52	28.12
Zr	180.30	169.75	156.32	151.15	157.95	165.96	143.70	166.79	157.63
Nb	7.94	8.12	5.99	8.63	7.36	7.15	7.21	5.77	7.05
Mo	5.75	3.96			0.99				
Ag		0.24		0.65					
Cd	4.42	2.99	0.78				1.40	3.25	
In	0.29	0.22	0.13	0.24		0.28	0.23		0.15
Sn	1.80	4.46	2.22		2.52		7.48	6.34	5.25
Sb	1.80	0.53	1.04	1.18	1.43			1.28	
Cs	8.81	5.15	5.49	4.85	5.50	6.02	5.54	5.13	4.53
Ba	445.34	434.84	375.98	348.66	364.32	376.12	333.22	357.52	333.65
La	26.37	23.00	21.37	22.11	22.33	20.95	18.46	22.31	20.72
Ce	49.60	47.30	43.97	51.49	50.75	47.42	42.16	42.83	97.53
Pr	4.85	5.22	5.48	5.03	5.03	4.87	4.41	4.80	5.14
Nd	22.47	25.54	21.25	20.97	21.84	19.20	19.13	20.15	23.47
Sm	5.05	3.48	4.57	5.08	6.94	2.01	7.60	4.80	2.43
Eu	1.61	1.00	1.19	1.40	0.76	1.32	0.69	1.23	1.47
Gd	6.17	7.52	8.03	8.19	3.97	3.27	5.91	2.85	2.47
Tb	0.92	0.79	0.55	1.05	1.00	0.59	0.44	0.72	0.60
Dy	6.33	6.59	5.48	3.35	5.15	5.29	3.83	6.07	5.35
Ho	0.43	1.27	0.79	1.31	1.12	1.31	1.00	0.62	0.35
Er	4.45	2.34	2.23	3.11	3.18	2.16	3.06	1.96	1.59
Tm		0.64	0.68	0.55	0.57	0.59	0.29	0.59	0.33
Yb	3.55	3.39	5.84	2.32	3.05	3.45	1.40	2.19	0.32
Lu	0.28	0.24	0.85	0.47	0.89	0.82	0.75	0.45	0.53
Hf	5.30	5.70	4.36	4.44	3.98	3.16	1.76	7.35	5.85
Ta	0.26	0.50	0.42	0.18	0.69	0.17	0.36	0.20	0.53
W	2.72	0.58	0.42	1.99	1.75	1.35	2.40	1.88	3.54
Tl	0.60	0.69	0.39	0.67	0.77	0.54	0.90	0.59	0.53
Pb	17.64	19.46	16.70	18.00	23.03	15.53	12.89	20.95	18.45
Bi	0.32	0.25		0.21	0.18	0.20	0.14	0.23	0.48
Th	12.01	7.91	6.93	6.64	8.99	8.12	7.01	7.69	7.38
U	3.04	1.68	2.32	1.82	1.30	1.72	2.11	1.38	1.22

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	grain B pit-01	grain B pit-02	grain D pit-01	grain D pit-02	grain E pit-01	grain E pit-02	grain E pit-03	grain E pit-04	grain G pit-01	grain G pit-02	grain G pit-03
(wt.%)											
SiO ₂	70.33	72.31	73.20	71.49	73.82	72.23	71.26	70.52	70.83	71.79	71.42
Na ₂ O	6.36	4.50	4.59	7.18	3.80	4.40	4.15	3.84	4.76	4.12	4.36
MgO	0.55	0.53	0.47	0.50	0.43	0.56	0.68	0.47	0.61	0.89	0.63
Al ₂ O ₃	13.85	13.60	12.54	11.94	13.03	13.89	14.20	16.02	14.23	13.38	14.10
K ₂ O	2.97	2.70	2.91	2.90	2.71	2.75	2.82	2.46	2.81	2.67	2.79
CaO	1.93	2.38	2.27	1.68	2.42	2.17	2.45	2.42	2.67	2.35	2.54
TiO ₂	0.49	0.53	0.52	0.50	0.47	0.51	0.61	0.53	0.54	0.57	0.57
MnO	0.11	0.13	0.11	0.09	0.09	0.09	0.10	0.09	0.13	0.13	0.10
FeO	3.23	3.15	3.26	3.53	3.05	3.26	3.57	3.46	3.27	3.92	3.33
(ppm)											
Li	83.07	29.52	33.97	34.68	46.60	37.05	31.88	26.62	38.58	44.46	43.27
Be	6.58	5.86				5.76		1.61	9.51	3.11	
B	14.82	8.81	16.42	12.26	23.34	27.26	26.09	29.04	35.98	39.29	29.16
P	465.59	461.65	353.65	735.54	475.06	276.15	421.82	879.54	310.46	420.09	362.45
Sc	52.31	20.06	19.49	12.20	28.08	25.20	16.04	21.43	27.48	28.36	12.47
V	21.29	20.35	18.44	19.84	19.27	18.22	23.81	20.74	17.25	27.45	18.57
Cr	60.99	39.30	21.77	13.28			14.41			15.25	17.34
Co	2.18	0.76	1.52	3.70	2.64	1.49	3.88	2.57	4.72	1.85	2.78
Ni		2.28	2.13					1.61			
Cu	10.81	17.02	1.80	12.07			6.34	25.15	1.56	2.30	2.28
Zn	106.72	60.39	87.27	67.27	120.04	57.86	45.56	45.64	52.87	125.08	92.03
Ga	18.19	11.94	13.26	14.26	16.96	13.97	19.04	16.10	15.86	13.90	13.45
Ge		5.37	3.43		3.28	3.96	3.72	6.76		1.58	
As	4.16	4.40	8.71					14.27	6.41	10.51	
Rb	87.90	90.36	106.51	141.13	109.51	91.69	101.74	91.44	83.90	104.87	102.38
Sr	131.66	133.62	127.33	112.61	124.70	135.62	113.60	159.37	132.27	134.27	145.99
Y	32.04	32.39	27.32	25.41	26.69	28.70	30.03	33.93	26.35	34.17	32.19
Zr	144.62	162.65	156.74	104.92	158.15	162.61	167.54	174.03	169.50	186.08	161.82
Nb	6.98	5.77	6.89	6.28	12.24	7.31	8.61	6.54	7.72	7.18	8.67
Mo	3.35	3.98	1.85	2.77	1.65	1.47		0.82		0.79	2.35
Ag	0.23	0.65	0.10	0.38				0.72		0.22	
Cd			0.44				0.58		1.15		
In						0.36	0.21	0.10	0.27	0.23	0.13
Sn		1.52	4.63	3.24		0.83	4.95	1.45		2.62	3.35
Sb	0.69	0.63	0.32	1.59	1.10	0.63	0.86	0.44	1.02	0.81	0.25
Cs	6.12	5.66	5.73	6.77	6.28	5.71	5.41	6.03	5.04	6.21	5.26
Ba	375.71	407.44	338.41	337.35	437.44	387.23	359.20	350.13	351.29	395.41	394.14
La	22.45	24.13	20.97	16.94	22.20	23.47	24.43	24.85	21.94	23.81	21.39
Ce	42.06	47.55	50.83	45.16	45.15	47.42	49.08	47.68	44.50	50.38	49.12
Pr	6.72	5.80	3.99	4.04	3.78	5.57	4.38	5.53	6.15	6.06	4.84
Nd	22.22	31.00	18.73	19.98	22.35	22.63	23.15	25.32	20.66	20.58	22.85
Sm	1.72	6.48	4.77	1.43	3.96	6.04	5.34	4.78	5.64	7.34	3.77
Eu	0.98	1.27	1.15	1.51	1.14	1.52	1.31	1.47	1.06	1.36	1.37
Gd	6.58	3.58	2.13	3.63	7.01	5.28	5.63	6.17	3.80	4.93	4.88
Tb	0.95	1.08	0.48	0.43	0.60	0.91	0.81	0.76	0.85	0.90	0.77
Dy	7.66	4.14	3.47	2.88	4.46	5.95	4.26	5.97	5.03	7.25	4.57
Ho	0.62	0.73	1.07	0.95	1.73	1.27	0.95	1.08	0.97	1.13	1.69
Er	3.25	3.57	2.49	3.52	3.69	2.30	3.30	3.31	3.76	1.89	4.33
Tm	0.49	0.49	0.32	0.54	0.24	0.54	0.32	0.32	0.24	0.39	0.42
Yb	2.75	2.57	3.05	1.95	3.87	4.14	4.23	3.08	2.27	2.98	5.34
Lu	0.45	0.21	0.35	0.37	0.53	0.55	0.62	0.35	0.78	0.64	0.46
Hf	1.25	2.60	4.51	1.04	4.93	4.11	7.04	5.82	6.51	6.22	5.86
Ta	0.41	0.46	0.53	0.62	0.53	0.55	0.65	0.60	0.49	0.42	0.57
W	3.17	0.85	1.14	1.18	0.47	1.25	1.01	1.01	0.92	2.10	1.04
Tl	0.89	0.78	0.72	0.62	0.66	0.55	0.72	0.50	0.59	0.55	0.49
Pb	27.92	17.88	28.32	23.09	27.47	16.99	22.16	22.02	13.62	15.79	14.09
Bi		0.21	0.13	0.45	0.12	0.25	0.92	0.79	0.12	0.04	0.11
Th	9.30	8.35	7.78	7.69	6.60	7.95	10.25	6.88	7.12	7.88	9.62
U	1.97	2.34	2.48	2.08	2.82	1.88	2.81	1.93	2.28	1.70	1.85

2013112601 Sz-Bm (continued)

	grain G pit-04	grain H pit-02	grain I pit-01	grain I pit-02	grain I pit-03	grain I pit-04	grain I pit-05	grain J pit-02	grain A pit-01	grain C pit-01	grain C pit-02
(wt.%)											
SiO ₂	70.64	72.33	71.60	73.90	72.07	70.29	71.68	69.88	73.19	72.24	74.65
Na ₂ O	4.26	3.36	4.77	4.32	4.70	4.65	5.04	4.54	4.52	4.29	4.05
MgO	0.41	0.47	0.53	0.49	0.52	0.54	0.52	0.39	0.69	0.68	0.40
Al ₂ O ₃	14.93	13.85	13.51	12.34	13.61	14.47	13.27	15.94	12.81	13.45	12.53
K ₂ O	2.91	4.09	2.88	2.71	2.96	3.51	3.08	2.33	2.36	2.63	2.68
CaO	2.23	2.18	2.60	2.28	2.30	2.33	2.45	3.59	2.09	2.55	1.99
TiO ₂	0.56	0.37	0.53	0.49	0.52	0.61	0.54	0.44	0.51	0.57	0.53
MnO	0.09	0.09	0.10	0.09	0.10	0.11	0.11	0.07	0.12	0.12	0.09
FeO	3.80	3.03	3.32	3.24	3.06	3.26	3.17	2.69	3.53	3.29	2.94
(ppm)											
Li	34.37	28.77	32.46	27.87	39.01	30.98	44.71	17.03	52.34	41.77	43.39
Be			6.45		3.71	3.75	1.57	8.49	6.52	3.73	1.96
B	26.92	10.47	9.69	50.08	26.78	15.21	38.10	51.65	54.86	43.65	22.91
P	406.53	1028.00	428.33	283.58	368.39	876.24	250.54	211.00	511.49	534.41	358.27
Sc	27.26		12.74	8.79	27.65	18.16	29.65	15.96	26.09	21.81	19.23
V	32.08	22.46	14.55	15.11	17.82	20.09	18.99	22.58	19.73	25.36	19.20
Cr	9.79	33.84	14.17	12.71	15.42	25.28			44.82		
Co	3.78	0.89	2.70	4.04	3.25	1.37	1.36	1.73	3.29	3.74	5.05
Ni	9.35	2.42	2.33	3.19		2.82	3.27	3.72		3.11	5.71
Cu	7.67	20.99			5.80	6.16	6.69	6.63	3.57	3.37	6.11
Zn	29.80	152.49	126.18	53.65	55.47	44.42	56.45	71.05	90.69	68.12	58.42
Ga	19.38	9.58	10.84	15.67	18.92	17.47	14.73	18.94	13.50	12.11	16.89
Ge			1.55		1.34	6.78	2.04	5.53	1.89	4.85	
As	4.99	17.96	8.46	5.61	5.48	6.06	6.60	9.85	18.64		7.97
Rb	104.26	95.29	101.74	86.37	82.71	94.40	102.49	76.90	112.28	90.43	93.76
Sr	114.54	114.20	140.46	113.75	133.71	145.88	136.34	237.36	140.78	140.99	125.75
Y	31.62	31.21	30.14	29.13	28.15	30.09	27.78	24.11	29.09	31.32	24.74
Zr	181.11	167.13	176.62	148.76	165.27	156.73	162.56	143.32	154.77	169.35	175.40
Nb	6.03	5.89	5.75	9.93	7.20	9.17	5.78	4.50	6.82	8.08	7.76
Mo	0.95	2.95	1.09	2.65	3.78		3.98	1.08			1.00
Ag		0.24	0.39				0.24		0.33	0.49	0.16
Cd							0.19		1.05	1.13	0.24
In				0.06	0.22				0.34		0.24
Sn	2.68	8.81	4.76	6.77	5.64	5.23				3.44	6.90
Sb	0.73	1.79		1.27	0.84	0.97	0.79	0.79	0.60	1.21	
Cs	6.99	11.59	5.88	5.13	5.79	7.59	6.94	3.89	11.35	5.70	5.29
Ba	394.40	355.81	400.16	349.11	390.65	411.86	378.80	280.86	338.15	360.69	339.61
La	23.61	19.81	23.16	19.58	19.89	22.40	20.59	19.25	19.86	21.07	21.99
Ce	48.47	38.16	51.33	42.50	49.11	49.69	49.04	37.81	43.71	46.21	42.87
Pr	6.31	4.38	6.12	4.35	5.69	6.57	6.13	4.18	5.08	5.12	4.66
Nd	21.93	14.49	23.04	21.68	24.28	25.06	23.69	15.59	23.31	23.26	21.83
Sm	6.19	6.08	8.63	2.43	5.51	3.93	4.37	2.22	4.56	3.90	4.78
Eu	0.90	1.19	1.08	0.84	1.41	1.29	1.13	1.18	1.33	1.18	0.83
Gd	6.53	6.77	5.37	4.34	5.26	4.37	6.00	4.24	3.98	3.72	4.89
Tb	0.93	0.15	1.13	0.69	0.73	0.89	0.78	1.06	1.03	0.44	0.77
Dy	5.34	4.30	8.19	3.86	5.90	5.56	5.47	4.27	7.14	3.94	3.73
Ho	1.35	0.16	1.32	0.84	1.39	1.05	1.01	1.02	0.81	1.00	0.89
Er	5.11	4.41	3.59	2.38	3.11	3.42	3.21	2.74	3.80	3.68	2.38
Tm	0.51	0.58	0.65	0.35	0.42	0.42	0.82	0.21		0.47	0.39
Yb	4.02	2.08	3.09	2.28	5.55	2.47	3.56	3.30	3.64	2.90	3.74
Lu	0.41	0.64	0.59	0.48	0.51	0.67	0.43	0.17	0.48	0.10	0.43
Hf	4.26	4.42	2.45	3.96	3.53	5.35	6.85	3.63	4.55	4.25	4.84
Ta	0.44	0.42	0.51	0.41	0.50	0.48	0.53	0.26	0.52	0.58	0.42
W	1.44	2.24	1.45	1.34	0.90	1.45	1.66	0.61	2.31	0.63	1.23
Tl	0.60	0.73	0.60	0.64	0.53	0.59	0.70	0.52	0.53	0.47	0.69
Pb	52.49	16.00	19.42	14.74	20.06	20.88	19.85	18.71	19.17	16.22	14.66
Bi	0.34	0.18	0.27	0.24	0.17	0.14	0.10	0.15	0.37	0.26	0.10
Th	8.71	8.78	10.74	6.96	9.28	9.49	6.38	6.98	8.57	6.86	7.46
U	1.93	2.53	1.64	2.37	2.23	5.21	3.50	0.93	2.25	1.73	2.67

2013112601 Sz-Bm (continued)

	grain D pit-04	grain D pit-06	grain I pit-01	grain I pit-02
(wt.%)				
SiO ₂	71.27	75.07	71.16	71.07
Na ₂ O	4.65	4.12	5.73	4.58
MgO	0.37	0.35	0.50	0.52
Al ₂ O ₃	14.53	12.20	13.89	14.16
K ₂ O	3.10	2.75	2.96	3.22
CaO	2.09	1.69	1.78	2.29
TiO ₂	0.60	0.63	0.51	0.53
MnO	0.09	0.09	0.11	0.10
FeO	3.10	2.90	3.17	3.38
(ppm)				
Li	31.44	24.73	26.13	35.92
Be	1.85	6.08		
B	26.68	32.85		17.15
P	458.97	640.62	388.30	265.71
Sc	17.12	22.17	56.75	5.85
V	14.18	19.55	20.97	18.58
Cr			85.42	
Co	2.08	2.66	2.74	
Ni	3.09	16.86		6.95
Cu	8.21	10.98	27.29	7.03
Zn	64.80	37.54	124.40	46.55
Ga	16.69	17.09	18.06	14.31
Ge		3.30	8.01	5.51
As	7.80	16.87	9.91	4.35
Rb	111.11	105.50	108.79	102.36
Sr	150.51	106.35	140.73	153.11
Y	29.02	30.02	33.36	31.53
Zr	184.02	165.62	156.29	174.29
Nb	10.24	6.86	6.96	8.56
Mo	3.77	1.55		4.84
Ag	0.16	0.19	0.21	0.40
Cd		0.74		1.15
In	0.18	0.09		0.14
Sn	2.28	8.29		6.73
Sb	0.54	1.23		0.23
Cs	6.83	6.64	5.78	4.42
Ba	474.25	380.09	418.25	371.05
La	24.02	21.04	26.61	23.87
Ce	56.52	52.67	52.84	51.92
Pr	6.30	5.62	5.02	4.63
Nd	29.08	22.30	28.09	23.05
Sm	5.17	4.24	4.39	6.65
Eu	1.65	0.76	1.77	1.28
Gd	4.32	3.54	5.03	2.77
Tb	0.68	0.76	1.33	0.50
Dy	6.66	5.95	4.26	6.30
Ho	1.09	1.02	1.75	1.02
Er	4.08	3.23	3.83	2.89
Tm	0.56	0.46	1.39	0.54
Yb	3.54	3.27	2.41	1.71
Lu	0.81	0.62	0.83	0.33
Hf	5.98	4.62	4.79	3.62
Ta	0.63	0.47	0.36	0.37
W	2.50	1.76	3.64	2.29
Tl	0.70	0.73	0.55	0.60
Pb	18.35	23.10	18.30	25.17
Bi	0.15	0.29		0.15
Th	9.49	9.08	6.62	8.13
U	2.72	1.90	3.57	1.82

2013112601 Sz-An

	Sz-An_C grain A pit01	Sz-An_C grain C pit02	Sz-An_C grain D pit01	Sz-An_C grain E pit01	Sz-An_C grain F pit01	Sz-An_C grain G pit01	Sz-An_C grain H pit01	Sz-An_D grain A pit03
(wt.%)								
SiO2	70.33	66.98	70.99	75.82	68.52	65.02	66.94	64.91
Na2O	5.43	4.94	4.10	3.40	4.50	5.26	4.45	5.07
MgO	0.59	0.61	0.62	0.46	0.66	0.70	0.70	0.66
Al2O3	12.79	16.24	13.27	11.00	14.48	16.23	15.38	15.97
K2O	2.79	3.15	3.42	2.23	3.46	3.30	3.49	3.80
CaO	3.35	2.60	2.63	2.84	2.91	4.15	3.02	4.04
TiO2	0.53	0.55	0.53	0.45	0.60	0.57	0.63	0.67
MnO	0.09	0.09	0.10	0.07	0.10	0.11	0.12	0.11
FeO	3.92	4.58	4.14	3.54	4.59	4.46	5.09	4.54
(ppm)								
Li	35.66	45.81	42.07	38.04	39.59	81.45	30.90	32.68
Be	14.45				5.35			
B	26.42	40.73	31.17	52.61	29.33	39.78	37.89	90.60
P	660.39	1292.06	710.72	724.32	476.07	646.83	532.13	822.57
Sc			14.94	21.69	28.45	22.96	21.17	23.33
V	26.50	22.38	28.58	19.31	35.53	29.98	26.50	27.56
Cr	83.27	34.78	14.92	281.01	30.82	8.76		49.44
Co	4.31			17.90	2.96	2.67	3.58	3.63
Ni			2.83			5.29	2.15	
Cu		15.39	19.28	53.15			6.01	
Zn	43.36	86.66	36.28	52.77	57.50	33.85	39.30	73.78
Ga	14.49	14.94	13.25	10.18	14.90	12.28	17.11	14.46
Ge		9.91	2.38	15.85		0.86	4.10	16.73
As	7.72		6.92	8.28	18.13	5.42		7.37
Rb	62.81	107.96	93.59	57.44	84.73	78.15	90.13	97.84
Sr	130.80	193.71	147.14	86.33	163.92	216.95	164.20	170.81
Y	25.18	31.18	29.34	28.34	32.52	31.03	34.43	31.12
Zr	161.07	164.94	177.44	134.97	173.55	182.68	189.50	201.34
Nb	5.66	6.91	8.44	6.44	8.53	4.54	7.61	9.03
Mo				4.19		2.96		
Ag	0.22		0.08		0.28		0.16	
Cd	2.17							
In	0.16				0.20	0.15		0.17
Sn	12.60	14.40		6.09			1.88	
Sb		0.93	0.67	0.69	0.19	0.44		
Cs	5.70	5.02	9.22	2.96	5.30	6.27	4.72	3.80
Ba	332.15	330.26	334.77	246.49	313.85	366.81	414.32	437.23
La	19.83	20.69	19.56	17.48	22.27	20.00	25.39	26.06
Ce	36.59	46.24	46.59	37.53	45.86	49.96	52.76	49.68
Pr	4.68	4.80	4.55	4.56	5.68	6.20	6.56	7.30
Nd	14.81	23.60	21.25	17.42	23.91	26.01	30.69	23.40
Sm	3.98	5.00	4.63	4.75	3.09	5.59	5.32	1.97
Eu	1.07	0.82	1.00		1.24	1.57	1.45	1.57
Gd	7.35	3.30	6.07	8.78	3.26	2.58	7.07	7.91
Tb	0.46	0.31	0.56		0.70	0.81	0.86	
Dy	0.94	7.15	4.77	8.38	5.97	8.87	3.72	5.03
Ho	0.60	0.75	0.46	1.42	1.12	1.00	1.35	0.99
Er	1.70	3.06	3.14	1.36	3.59	2.39	2.71	3.38
Tm	0.87	0.69	0.32		0.48	0.46	0.73	0.45
Yb	5.73	3.75	3.54		2.31	4.03	3.92	4.74
Lu	1.04	0.83	0.84	1.15	1.03	0.41	0.63	1.05
Hf	2.45	2.94	5.17		4.54	5.17	3.08	2.71
Ta	0.13	0.27	0.37	1.02	0.38	0.48	0.59	0.39
W	0.40	0.36	1.45		0.77	1.12	0.42	2.31
Tl	0.39	0.56	0.55	0.70	0.58	0.52	0.63	0.74
Pb	12.05	17.09	19.59	6.46	26.51	22.48	18.23	17.27
Bi	0.19		0.12		0.22	0.24		0.31
Th	8.61	11.24	6.34	9.41	6.48	7.22	7.79	8.74
U	1.42	1.91	1.26	2.36	1.58	2.33	1.68	1.57

2013112601 Sz-An (continued)

	Sz-An_D grain B pit01	Sz-An_D grain C pit01	Sz-An_D grain E pit01	Sz-An_D grain F pit01	Sz-An_D grain F pit02	Sz-An_D grain F pit04	Sz-An_D grain G pit01	Sz-An_D grain G pit02
(wt.%)								
SiO ₂	65.21	66.50	66.04	64.61	67.69	68.57	67.79	66.80
Na ₂ O	3.91	4.34	4.27	6.12	4.46	4.36	4.44	4.62
MgO	0.75	0.82	0.58	0.75	0.73	0.65	0.72	0.71
Al ₂ O ₃	16.35	15.56	16.92	17.22	14.69	14.61	15.07	15.47
K ₂ O	3.71	3.58	2.87	3.53	3.98	3.29	3.50	3.57
CaO	3.54	2.41	4.66	2.11	2.83	3.04	2.71	3.11
TiO ₂	0.67	0.61	0.55	0.62	0.66	0.54	0.61	0.64
MnO	0.12	0.14	0.09	0.14	0.11	0.12	0.11	0.11
FeO	5.49	5.81	3.87	4.67	4.66	4.66	4.84	4.78
(ppm)								
Li	26.46	32.40	21.44	54.12	55.42	27.98	29.76	28.53
Be								4.23
B	37.94	46.83	17.17	64.15	18.00	33.61	13.78	44.76
P	1078.62	974.60	334.63	751.21	588.75	464.52	660.42	728.28
Sc	21.04	29.02	8.16	58.98	9.17	19.78	24.80	26.17
V	36.39	42.11	21.17	13.28	23.70	24.18	31.87	35.49
Cr	50.89	25.63	19.93	111.31	42.10	21.29	97.81	23.76
Co	3.97	3.72	5.22		2.92		5.60	
Ni	4.59	7.43	2.34			2.24		7.07
Cu	29.81	32.27	8.09	78.53	5.71	8.94		6.91
Zn	53.28	31.39	103.01	95.54	61.75	92.97	105.56	71.94
Ga	16.56	17.71	15.90	18.11	11.94	19.48	9.96	12.91
Ge	9.44	4.94	1.39	7.81	7.30	8.00	5.81	6.99
As	11.94	11.05	8.10	7.57		5.29	3.04	7.30
Rb	77.34	99.61	65.41	98.86	89.05	88.41	100.26	91.76
Sr	178.25	161.25	247.00	157.14	157.08	179.63	165.51	164.77
Y	38.40	32.49	27.39	29.72	29.37	37.05	32.38	32.94
Zr	186.52	170.21	132.42	164.91	174.96	197.94	161.92	182.83
Nb	9.21	10.28	6.99	9.73	4.82	5.28	6.49	9.41
Mo	2.82	3.92				1.25		6.48
Ag	0.41	0.41	0.13	0.16		0.13		0.17
Cd		1.35	1.73		1.29		2.38	0.48
In	0.10	0.23			0.16	0.15		0.21
Sn		5.81	4.09		6.11	6.30		1.58
Sb		0.98	0.19		0.91	0.20	0.66	
Cs	6.73	6.39	4.80	5.09	5.03	6.70	6.16	6.26
Ba	401.00	322.60	336.04	382.83	361.64	361.41	387.28	365.19
La	22.62	22.82	19.14	24.66	21.66	24.90	22.89	26.53
Ce	52.39	46.27	38.21	62.82	48.83	44.60	55.27	50.71
Pr	4.02	5.68	4.76	6.17	4.87	5.24	5.73	7.42
Nd	26.61	26.73	18.98	27.65	21.67	23.18	23.59	26.90
Sm	4.26	4.44	1.81		8.06	5.66	8.13	8.03
Eu	1.66	1.49	1.35	1.29	1.48	0.98	0.48	1.67
Gd	7.88	8.21	3.68	4.16	3.94	4.80	5.37	2.91
Tb	1.31	0.78	0.52	0.81	0.62	0.61	0.34	1.06
Dy	7.21	6.38	2.77	3.31	5.30	6.11	5.47	6.16
Ho	1.28	1.18	1.08	1.52	1.56	2.19	0.96	1.78
Er	4.11	3.38	3.56	4.34	2.64	4.25	2.49	4.79
Tm	0.22	0.47	0.50	0.46		0.58	0.64	0.24
Yb	3.84	2.59	4.03	2.95	3.73	4.33	3.42	4.12
Lu	0.54	0.29	0.37	0.49	0.28	0.55	0.42	0.56
Hf	3.84	4.06	1.49	5.79	6.34	0.97	4.18	7.91
Ta	0.37	0.47	0.23	0.42	0.51	0.48	0.59	0.45
W	2.14	1.36	1.09	2.82	1.07	0.83	1.60	0.61
Tl	0.52	0.43	0.50	0.72	0.53	0.53	0.57	0.41
Pb	16.78	36.25	8.65	19.70	19.35	11.84	15.24	19.14
Bi	0.14	0.38	0.05		0.09	0.20	0.37	0.16
Th	7.63	9.14	7.58	7.87	5.80	8.08	7.51	8.79
U	2.22	1.32	1.72	1.68	2.96	2.25	1.73	1.87

2013112601 Sz-An (continued)

	Sz-An_D grain G pit03	Sz-An_D grain G pit04
(wt.%)		
SiO ₂	70.48	66.52
Na ₂ O	4.18	4.48
MgO	0.66	0.72
Al ₂ O ₃	13.91	15.65
K ₂ O	3.19	3.72
CaO	2.39	3.24
TiO ₂	0.55	0.62
MnO	0.10	0.12
FeO	4.32	4.76
(ppm)		
Li	30.84	42.58
Be	7.95	4.88
B	37.38	28.68
P	999.75	417.88
Sc	19.39	21.09
V	27.21	46.50
Cr	16.64	15.40
Co	4.10	4.92
Ni		
Cu	10.17	5.20
Zn	71.58	42.71
Ga	11.96	12.30
Ge		10.55
As	12.74	4.81
Rb	129.86	90.04
Sr	142.40	165.86
Y	31.23	33.92
Zr	177.30	195.51
Nb	6.90	7.98
Mo	5.80	1.07
Ag	0.15	0.36
Cd		
In		
Sn	3.76	
Sb	0.76	0.63
Cs	5.66	5.34
Ba	330.41	398.19
La	23.66	22.54
Ce	44.09	50.83
Pr	6.29	6.35
Nd	27.04	24.55
Sm	5.69	5.64
Eu	1.27	1.17
Gd	7.28	6.33
Tb	1.51	1.16
Dy	4.63	4.74
Ho	1.11	1.09
Er	3.94	4.14
Tm	0.54	0.72
Yb	3.15	4.49
Lu	0.51	0.59
Hf	2.70	4.14
Ta	0.42	0.73
W		0.91
Tl	0.54	0.55
Pb	15.05	13.39
Bi	0.16	0.07
Th	7.03	7.88
U	2.08	2.28

2013112601 Sz-Ts

	Sz-Ts_C grain D pit01	Sz-Ts_C grain F pit01	Sz-Ts_C grain F pit02	Sz-Ts_C grain F pit03	Sz-Ts_C grain G pit01	Sz-Ts_C grain H pit02	Sz-Ts_D grain A pit01	Sz-Ts_D grain B pit01
(wt.%)								
SiO2	68.48	67.68	68.14	66.72	66.91	67.28	69.04	65.66
Na2O	4.93	4.32	3.85	3.87	4.31	4.03	4.07	4.74
MgO	0.62	0.93	0.89	0.93	0.70	0.89	0.72	0.64
Al2O3	13.72	14.39	14.14	15.24	15.75	14.57	13.99	16.61
K2O	3.05	3.19	2.96	3.07	2.87	3.07	2.92	2.73
CaO	3.83	3.02	3.67	3.56	4.41	3.01	3.53	3.98
TiO2	0.53	0.70	0.66	0.72	0.68	0.68	0.62	0.62
MnO	0.08	0.11	0.11	0.11	0.08	0.11	0.11	0.10
FeO	4.56	5.46	5.38	5.59	4.10	6.13	4.82	4.70
(ppm)								
Li	20.00	23.15	39.81	28.81	40.29	27.74	38.63	13.99
Be	5.97		7.09				2.44	
B	38.99	53.10	13.88	25.92			32.44	5.53
P	788.70	662.45	804.95	666.56	798.78	782.10	672.98	849.78
Sc	23.56	45.82	34.16	29.24	15.09	28.69	26.23	15.01
V	50.23	50.22	53.38	54.97	43.51	51.25	49.68	55.63
Cr	28.11		11.19	30.17		175.16	19.48	53.45
Co	3.41	5.23	5.27	8.71	3.30	2.74	2.96	7.33
Ni	3.40	4.82			2.53		5.36	2.01
Cu	31.11	6.82	7.30	10.50	4.61	53.01	6.23	24.06
Zn	50.77	86.15	39.87	85.63	43.78	72.89	63.33	105.85
Ga	17.96	14.24	14.10	20.31	15.20	22.18	15.51	21.53
Ge		2.51	4.50		2.89	2.22	11.46	10.32
As			12.01	6.72	19.18	17.25	2.40	4.35
Rb	73.66	102.85	74.10	78.75	66.70	82.22	78.11	93.71
Sr	177.07	176.10	173.89	181.34	249.45	160.95	161.03	242.01
Y	23.68	34.87	31.00	33.39	25.54	25.40	27.58	32.07
Zr	145.02	164.57	163.66	166.22	136.32	163.11	150.39	155.93
Nb	7.18	7.82	8.62	8.98	7.35	6.85	7.97	7.10
Mo	1.74		3.10			12.75		1.54
Ag		0.29		0.18		0.54		
Cd		0.64	1.40	1.09		3.94	1.37	
In				0.25	0.07	0.13	0.13	
Sn	6.32		4.70	0.87	2.54	2.40	11.10	2.64
Sb	0.17	1.42		0.20	0.28	1.25		
Cs	4.51	3.93	4.24	3.91	5.01	4.50	4.83	5.00
Ba	304.43	333.85	336.93	371.73	302.74	362.07	309.83	349.03
La	19.58	21.12	21.38	23.54	23.03	20.70	22.58	18.73
Ce	38.84	50.14	47.10	47.59	38.34	54.85	44.36	46.08
Pr	4.05	6.19	5.05	5.50	3.81	6.20	5.56	4.47
Nd	19.75	24.46	19.80	23.92	20.84	23.62	22.46	18.73
Sm	4.27	5.59	5.85	6.10	5.89	9.62	4.82	1.16
Eu	1.23	1.40	1.25	1.13	1.83	2.00	0.75	1.09
Gd	4.56	4.74	5.14	5.34	2.47	7.12	2.60	6.46
Tb	0.28	0.87	0.97	0.97	0.62	0.28	0.70	0.76
Dy	5.03	6.03	4.82	6.05	3.78	5.09	5.20	3.77
Ho	0.94	1.26	0.96	1.25	0.72	1.01	1.45	0.70
Er	2.39	4.19	3.01	4.95	1.15	2.06	4.48	3.49
Tm	0.41	0.64	0.32	0.22	0.44	0.13	0.61	0.64
Yb	3.45	2.14	1.72	3.58	3.51	3.15	3.69	3.43
Lu	0.67	0.61	0.38	0.33	0.54	0.84	0.47	0.51
Hf	3.38	3.36	5.42	1.98	6.61	3.96	5.38	4.79
Ta	0.30	0.40	0.58	0.55	0.14	0.41	0.41	0.44
W	1.24	1.87		0.80	1.07	1.93		1.75
Tl	0.51	0.59	0.63	0.55	0.63	0.71	0.61	0.83
Pb	15.33	21.20	13.81	12.73	14.67	22.44	17.81	11.88
Bi	0.19		0.24	0.04	0.18	0.13	0.23	0.21
Th	5.51	7.82	7.36	7.63	6.73	9.41	7.44	5.70
U	1.76	1.80	1.48	2.20	2.07	0.29	0.96	1.39

2013112601 Sz-Ts (continued)

	Sz-Ts_D grain B pit02	Sz-Ts_D grain C pit02	Sz-Ts_D grain C pit03	Sz-Ts_D grain C pit04	Sz-Ts_D grain D pit01	Sz-Ts_D grain E pit01	Sz-Ts_D grain F pit01	Sz-Ts_D grain F pit02
(wt.%)								
SiO ₂	69.46	66.85	67.63	67.31	66.17	66.09	68.33	68.30
Na ₂ O	6.10	5.35	3.62	3.97	4.07	4.23	4.21	4.35
MgO	0.66	0.79	0.70	0.68	0.75	0.87	0.85	0.82
Al ₂ O ₃	11.30	13.67	14.22	14.40	12.58	14.75	14.53	14.28
K ₂ O	4.16	3.46	2.77	5.30	7.40	3.71	2.87	3.23
CaO	2.48	3.62	4.38	2.70	3.12	2.97	3.52	3.05
TiO ₂	0.93	0.66	0.56	0.57	0.64	0.67	0.64	0.62
MnO	0.12	0.11	0.09	0.10	0.11	0.11	0.10	0.11
FeO	4.53	5.28	5.82	4.78	4.96	6.35	4.72	5.07
(ppm)								
Li	28.07	32.36	95.02	46.24	21.62	14.82	25.72	37.33
Be	24.51	4.62	5.29	5.73	2.56		4.05	5.43
B	29.87	50.66	53.84	6.74	52.07	30.75	82.58	23.40
P	1226.62	809.62	729.23	673.70	708.47	1109.47	918.44	516.71
Sc	20.64	17.51	4.22	16.40	24.48	28.71		37.92
V	121.35	51.76	48.95	43.87	53.69	50.04	35.37	53.39
Cr	45.40	20.04	83.34	55.41	27.06	64.26	80.19	68.66
Co		4.97	4.17	4.96	10.12	4.13	7.93	2.80
Ni	5.42	1.81	3.38		1.82			12.54
Cu	7.74		41.30	18.74	3.27	17.92	24.77	
Zn	126.63	71.60	58.15	133.34	205.81	85.52	22.30	33.95
Ga	15.42	19.20	10.75	15.22	14.24	19.84	13.63	12.97
Ge			9.41		2.27	6.06	4.64	3.45
As	9.73	3.42		6.72	8.51			9.37
Rb	130.53	83.44	79.14	85.31	80.01	99.40	85.38	152.21
Sr	152.63	152.85	155.45	178.62	144.24	185.78	178.58	166.48
Y	22.07	28.17	31.63	28.56	28.95	36.32	31.33	29.93
Zr	126.67	154.08	124.25	142.40	153.19	170.34	190.63	162.74
Nb	10.28	9.69	6.21	3.61	7.08	9.65	7.14	8.89
Mo		3.03		2.51		2.45		3.56
Ag			0.36		0.35	0.35		0.19
Cd		2.86			1.15		1.37	
In	0.24		0.34	0.12	0.33		0.61	
Sn		1.47	5.73	5.14	2.39			
Sb	0.16		1.44	0.99	0.77	1.20	0.70	
Cs	6.73	4.34	2.86	3.99	3.29	3.61	5.53	3.29
Ba	345.23	339.31	310.16	311.95	313.15	366.27	369.88	373.38
La	19.60	19.30	18.27	17.66	19.60	20.79	25.48	23.13
Ce	36.59	48.18	43.65	37.04	43.54	50.98	50.63	51.02
Pr	5.54	5.38	5.02	4.41	4.97	4.88	5.68	6.94
Nd	19.40	21.62	25.85	18.83	23.57	19.19	26.06	19.73
Sm	5.39	3.81	6.11	3.31	6.33	2.78	0.67	7.62
Eu	0.61	1.66	0.54	0.59	1.49	2.26	1.67	1.21
Gd	4.57	3.17	8.07	5.25	5.85	6.84	4.33	5.39
Tb	0.78	0.33	1.01	0.96	0.61	0.53	1.06	0.58
Dy	6.87	5.16	5.13	5.01	6.45	5.17	4.72	7.12
Ho	0.67	0.69	0.52	1.49	0.38	1.39	1.81	1.95
Er	2.89	3.27	4.11	3.24	1.63	2.97	4.01	3.65
Tm	0.80	0.52		0.32	0.81	0.82	0.55	0.37
Yb	5.01	3.00	4.00	2.79	2.76	2.73	2.63	3.23
Lu	0.39	0.50	0.51	0.55	0.80	0.47	0.88	0.59
Hf	3.24	2.35	5.39	1.95	2.17	6.67	2.75	5.53
Ta	0.26	0.31	0.42	0.38	0.45	0.59	0.64	0.53
W	2.93	2.29	2.19	1.54	1.59	0.70	1.01	0.56
Tl	0.77	0.65	0.43	0.88	0.68	0.70	0.82	0.55
Pb	11.01	21.78	16.79	14.35	18.70	20.51	16.39	11.50
Bi	0.09	0.14	0.35	0.25	0.24	0.26		0.22
Th	6.75	6.79	6.10	6.28	9.44	6.47	5.38	9.08
U	1.34	1.47	1.04	0.70	2.51	2.20	1.99	2.13

2013112601 Sz-Ts (continued)

	Sz-Ts_D grain F pit03	Sz-Ts_D grain G pit02	Sz-Ts_D grain G pit03	Sz-Ts_D grain I pit02
(wt.%)				
SiO ₂	65.01	65.23	69.97	68.27
Na ₂ O	4.43	4.51	3.61	4.42
MgO	0.83	0.99	0.87	0.73
Al ₂ O ₃	17.10	15.91	13.35	14.07
K ₂ O	3.09	3.58	3.00	2.99
CaO	3.95	3.37	3.18	3.57
TiO ₂	0.62	0.67	0.61	0.61
MnO	0.13	0.12	0.11	0.11
FeO	4.67	5.40	5.09	5.02
(ppm)				
Li	35.30	20.88	60.81	39.94
Be	8.09		6.05	8.24
B	6.34	24.76	37.94	32.28
P	762.96	816.48	787.74	895.70
Sc		24.16	17.71	29.59
V	58.37	44.18	62.95	32.44
Cr	69.29		14.50	46.33
Co	1.41	6.23	0.87	1.79
Ni	1.73	2.25		
Cu	21.84	6.73	76.55	3.90
Zn	12.14	73.74	83.24	71.43
Ga	10.02	15.14	10.98	13.61
Ge	5.14		9.23	2.79
As		11.36	5.97	
Rb	78.95	88.01	89.75	68.99
Sr	212.88	161.23	154.40	162.42
Y	29.73	33.71	31.64	28.61
Zr	152.05	162.60	147.29	159.16
Nb	9.17	9.06	5.33	6.68
Mo				1.20
Ag	0.56		0.24	
Cd	5.46	0.89		
In			0.13	0.12
Sn			6.67	6.26
Sb		0.72	0.30	0.39
Cs	5.21	7.19	6.00	3.68
Ba	263.41	413.96	366.85	312.96
La	17.93	28.05	22.44	17.44
Ce	41.79	48.87	52.60	41.81
Pr	4.30	6.07	4.17	4.04
Nd	23.18	29.43	28.75	16.50
Sm	2.67	3.91	6.49	6.35
Eu	0.97	1.26	1.61	0.94
Gd	4.32	8.44	2.31	5.45
Tb	0.87	0.63	0.79	1.24
Dy	7.07	6.39	3.53	6.13
Ho	1.10	1.11	0.67	1.29
Er	3.15	3.35	1.07	3.69
Tm	0.09	1.01		0.19
Yb	4.38	3.13	3.27	2.67
Lu	0.19	0.44	0.29	0.40
Hf	6.87	5.37	4.11	4.20
Ta	0.54	0.60	0.27	0.61
W	1.51	1.42	0.50	2.16
Tl	0.52	0.60	0.56	0.53
Pb	17.91	22.30	17.48	12.95
Bi	0.11	0.17	0.25	0.26
Th	9.33	8.20	6.46	5.23
U	1.99	1.29	2.38	1.62