

Sample	WT 773	mafic sill	M-1	BB-2	BB-1	J81-225
Age, Ma			28.1			
Long W	103 10	103 05	103 23	103 06	103 06	104 54
Lat N	29 37	29 17	29 23	29 16.5	29 16.5	31 26
SiO2	42.15	42.69	44.16	44.34	44.44	44.08
TiO2	4.12	3.24	3.39	1.84	1.83	5.18
Al2O3	14.31	15.62	16.16	14.17	14.16	18.23
Fe2O3	16.63	2.49	1.67	1.19	1.20	5.48
FeO		10.28	11.09	9.91	9.96	10.59
FeO*	14.97	12.52	12.59	10.98	11.04	15.52
MnO	0.18	0.18	0.16	0.19	0.19	0.14
MgO	9.31	6.96	8.10	11.03	10.99	2.70
CaO	7.15	9.18	8.39	12.3	12.20	6.11
Na2O	3.37	3.45	3.37	3.29	3.70	4.40
K2O	1.98	1.01	2.68	1.08	0.69	1.28
P2O5	0.81	1.87	0.82	0.66	0.65	0.68
H2O+						0.14
H2O-						
CO2						0.20
Total	100.01	96.97	99.99	100	100	99.21
SiO2'	42.15	44.02	44.16	44.34	44.44	44.58
(Na2O+K2O)'	5.35	4.60	6.06	4.37	4.39	5.74
Sc						
V					297	320
Cr					403	
Ni				155	153	29
Cu						21
Zn						150
Ga						
Rb			29	26	53	16
Sr			1250	1092	1050	1700
Y				29	30	21
Zr				168	167	160
Nb				19	20	38
Cs						
Ba					465	740
La					36	
Ce					72	
Pr						
Nd					44	
Sm						
Eu						
Gd						
Tb						
Dy						
Ho						
Er						
Tm						
Yb						
Lu						

Hf						
Ta						
Pb						
Th						
U						
Li						
F						470
Rb/Sr			0.02	0.02	0.05	0.01
Cen/Ybn						
Eu*						
Zr/Hf						
Ba/Rb					8.77	46.3
Rb/Th						
87Sr/86Sr,l						
143Nd/144Nd						
206Pb/204Pb						
207Pb/204Pb						
208Pb/204Pb						

Sample	WT 771	Cob-2	WT772	R-4	BP-901	BP-902
Age, Ma						
Long W	103 10	103 18	103 10		103 22.7	103 22.7
Lat N	29 37	29 43	29 37		29 43.2	29 43.2
SiO2	44.70	43.24	44.94	43.44	43.93	44.17
TiO2	3.91	3.69	4.45	2.89	3.79	3.72
Al2O3	16.15	15.56	16.51	15.00	15.99	15.93
Fe2O3	13.56	4.49	11.60	7.81	2.86	2.69
FeO		7.87		4.42	8.75	8.72
FeO*	12.2	11.91	10.44	11.45	11.32	11.14
MnO	0.15	0.16	0.14	0.17	0.17	0.17
MgO	5.27	6.22	4.40	5.91	4.85	4.80
CaO	8.69	8.31	10.39	10.04	8.44	8.35
Na2O	4.08	4.64	4.35	3.70	4.84	4.70
K2O	2.74	1.62	2.37	1.95	2.12	2.23
P2O5	0.96	0.86	0.86	1.26	0.99	0.96
H2O+		2.65		1.59	2.21	2.37
H2O-		0.38		1.15	0.14	0.16
CO2		0.10		1.19	0.06	0.21
Total	100.21	99.79	100.01	100.52	99.14	99.18
SiO2'	44.61	44.73	44.94	44.97	45.42	45.80
(Na2O+K2O)'	6.81	6.48	6.72	5.85	7.20	7.19
Sc		16.65			19.2	19
V					117	117
Cr		65.5			23	20
Ni		115			35	29
Cu					47	13
Zn		66			80	78
Ga						
Rb		38			34	40
Sr		1100			1044	1108
Y		29			32	32
Zr		373			342	350
Nb		59			44	46
Cs		0.53			1.7	1.8
Ba		433			522	518
La		41.59			48.6	46.9
Ce		94.82			107.1	108
Pr						
Nd		57			54.1	58
Sm		9.77				
Eu		2.91				
Gd						
Tb		1.345				
Dy						
Ho						
Er					3.19	
Tm						
Yb		2.12			2.17	
Lu		0.31			0.21	

Hf		6.99			7	2.8
Ta		2.7			2.6	1.8
Pb					11	10
Th		4.24			4.5	4.4
U		1.7			1.7	1.4
Li					7	9
F					1500	600
Rb/Sr		0.03			0.03	0.04
Cen/Ybn		12.09			13.34	
Eu*		0.92				
Zr/Hf		53.4			48.9	12.5
Ba/Rb		11.4			15.4	13
Rb/Th		8.96			7.56	9.09
$^{87}\text{Sr}/^{86}\text{Sr}_i$					0.7033	
$^{143}\text{Nd}/^{144}\text{Nd}$					0.51288	
$^{206}\text{Pb}/^{204}\text{Pb}$						
$^{207}\text{Pb}/^{204}\text{Pb}$						
$^{208}\text{Pb}/^{204}\text{Pb}$						

Sample	E90-19	Black Hill	H90-68	H90-28	Tib-1	H88-60
Age, Ma	27.8-27.3		27.3-27.0	27.8-27.3		
Long W	104 07	103 33	103 51.1	104 05.9	104 09.5	103 35
Lat N	29 31	29 36	29 25.2	29 24.2	29 36	30 03.4
SiO2	45.85	44.99	46.10	46.11	44.70	46.35
TiO2	3.87	3.55	2.63	3.93	2.61	3.41
Al2O3	15.32	16.68	15.95	15.49	14.89	16.63
Fe2O3		2.73			2.61	6.10
FeO		9.56			7.95	7.93
FeO*	13.70	12.02	11.28	13.51	10.30	13.42
MnO	0.19	0.17	0.19	0.17	0.19	0.20
MgO	5.77	4.70	7.04	5.23	7.07	5.63
CaO	8.12	9.59	9.63	8.25	9.42	8.72
Na2O	3.45	3.69	4.41	3.53	3.21	3.23
K2O	1.73	1.29	1.59	1.75	1.47	1.24
P2O5	2.01	0.74	1.20	2.02	1.20	0.56
H2O+		1.26			2.4	2.03
H2O-		0.29			0.24	
CO2		0.15			0.01	0.92
Total	100.01	99.39	97.56	99.99	99.22	100.17
SiO2'	45.85	46.05	46.08	46.11	46.29	46.35
(Na2O+K2O)'	5.18	5.10	6.00	5.28	4.85	4.47
Sc	24		21	22	19.88	
V	174		136	185		
Cr			215	3	675.5	
Ni	10		87	6	140	
Cu	9		31	13		
Zn	149		82	134	66	
Ga	19		13	20		
Rb	26	45	40	29	33	
Sr	893	1054	1199	878	1060	880
Y	42	16	27	44	60	
Zr	264	226	168	266	150	190
Nb	45	46	75.1	45	85	
Cs				0.96	0.44	
Ba	2201		1042	2185	690	460
La	50		51	53	41.8	
Ce	100		94	112	89.47	
Pr			10.6	14.5		
Nd			44.5	66.4	53	
Sm			9.4	15.3	8.63	
Eu			3.21	5.98	2.85	
Gd			7.8	13		
Tb			1	1.81	1.1	
Dy			5.96	9.61		
Ho			1.07	1.68		
Er			2.76	4.1		
Tm			0.33	0.5		
Yb			1.88	2.91	1.9	
Lu			0.29	0.42	0.28	

Hf			2.6	6	3.67
Ta			1.1	2.4	2.9
Pb			2.8	3.9	
Th			4.2	2.8	3.68
U			1	0.6	1.4
Li					
F					
Rb/Sr	0.03	0.04	0.03	0.03	0.03
Cen/Ybn			13.37	10.41	12.72
Eu*			1.11	1.26	1.03
Zr/Hf			64.6	44.3	40.9
Ba/Rb	84.7		26	75.3	20.9
Rb/Th			9.52	10.4	8.98
87Sr/86Sr,l					
143Nd/144Nd					
206Pb/204Pb					
207Pb/204Pb					
208Pb/204Pb					

Sample	SEL-84-2	Tr-32	H88-61	77024	Sheep	DM144
Age, Ma	35	27.8-27.3				
Long W		104 05.9	103 35	104 03		104 28.2
Lat N		29 24.3	30 04	30 16		30 33.3
SiO2	46.36	47.01	47.06	45.16	45.65	47.17
TiO2	2.63	4.12	2.98	3.28	3.01	2.55
Al2O3	13.23	14.67	15.59	14.11	16.5	15.42
Fe2O3	11.50			7.29		2.44
FeO				5.22		10.07
FeO*	10.35	12.49	12.92	11.78	12.34	12.27
MnO	0.16	0.16	0.25	0.16	0.17	0.17
MgO	9.82	5.08	4.60	5.04	6.00	8.13
CaO	8.45	8.74	6.81	9.59	8.12	8.91
Na2O	3.45	4.19	4.41	3.36	3.05	2.84
K2O	2.06	1.88	2.33	1.62	1.03	1.31
P2O5	1.09	1.66	3.05*	1.02	1.00	0.81
H2O+			2.08	1.65	2.23	
H2O-				0.71		
CO2				1.12	0.44	
Total	98.75	100	100.6	99.33	99.54	99.82
SiO2'	46.95	47.01	47.06	47.12	47.13	47.26
(Na2O+K2O)'	5.58	6.07	6.74	5.20	4.21	4.16
Sc	23.01	25.7	18			19.21
V		484	90			410
Cr	132	50.4				52
Ni		16.6		100		35
Cu						
Zn	102		152	103		59
Ga			20			
Rb	41	44.3	22	17	12	19.68
Sr	971	682	1135	1580	771	962
Y	30	43	61	32		44.1
Zr	255	291	385	145		207
Nb	18*	24*	42			18.4*
Cs	0.74	1.11				
Ba	1200	2391	3588*			933
La	58.38	49.9	72			31.7
Ce	122	106	126			72.2
Pr						
Nd	66.35	66				35.1
Sm	11.41	13.5				7.92
Eu	3.57	4.89				2.36
Gd						
Tb	1.38	2.17				1.32
Dy						
Ho						
Er						
Tm						
Yb	2.54	2.57				2.27
Lu	0.3	0.37				0.31

Hf	5.4	5.83				3.9
Ta	1.51	5.44				1.49
Pb						
Th	4.08	2.77				2.21
U	0.8	1.57				1.1
Li						
F						
Rb/Sr	0.04	0.07	0.02	0.01	0.02	0.02
Cen/Ybn	12.99	11.1				8.6
Eu*	0.99	1.07				0.88
Zr/Hf	47.2	49.9				53.1
Ba/Rb	29.3	53.9	163*			47.4
Rb/Th	10	16	5.5			8.9
87Sr/86Sr,l						
143Nd/144Nd						
206Pb/204Pb						
207Pb/204Pb						
208Pb/204Pb						

Sample	M7456	81-192	Tr-33	H84-12	E90-31	H90-48
Age, Ma	32.7	37	27.8-27.3	37	30	29.2
Long W	103 42	104 50.5	104 05.9	104 52	104 3.2	104 0.4
Lat N	29 29.7	30 50	29 24.3	30 49	30 17.4	29 19.8
SiO2	46.49	47.06	47.29	46.69	47.50	47.53
TiO2	2.50	2.27	4.15	3.57	3.71	3.19
Al2O3	16.73	13.89	14.72	16.29	14.81	16.37
Fe2O3	1.95	4.97		3.55	2.72	
FeO	10.44	7.80		8.29	9.89	
FeO*	12.20	12.27	12.3	11.49	12.34	13.01
MnO	0.18	0.20	0.18	0.17	0.17	0.18
MgO	6.19	9.19	6.23	5.59	4.96	5.53
CaO	8.31	9.44	8.33	7.72	10.15	7.90
Na2O	4.11	2.88	3.2	4.23	3.80	3.91
K2O	0.96	1.18	1.71	1.81	1.78	1.63
P2O5	0.49	0.56	1.71	0.60	0.96	0.74
H2O+	0.87	0.58		1.30		
H2O-	0.27					
CO2		0.12		0.18		
Total	99.49	100.14	99.82	99.97	100	98.53
SiO2'	47.27	47.33	47.38	47.41	47.50	47.53
(Na2O+K2O)'	5.16	4.08	4.92	6.13	5.58	5.54
Sc			13.2		20	26
V		250	464		281	222
Cr		540	3.9			11
Ni		150	19.2		85	40
Cu		32				13
Zn		140		82		130
Ga						22
Rb		24			31	26
Sr		623	684	1060	1549	707
Y		26	39.6		29	34
Zr		236	343		206	254
Nb		28	23.3*		15*	43.6
Cs			0.87			
Ba		380	2539	560	1077	682
La			50.1		34	37
Ce			112		74	74
Pr						9.1
Nd			64			39.5
Sm			13.2			9.4
Eu			4.87			2.97
Gd						8.2
Tb			2.28			1.26
Dy						7.09
Ho						1.29
Er						3.41
Tm						0.44
Yb			2.73			2.64
Lu			0.37			0.39

Hf			6.11			4.2
Ta			3.8			0.7
Pb						4.5
Th			2.78			2.7
U			0.82			0.7
Li						
F		470				
Rb/Sr		0.04			0.02	0.04
Cen/Ybn			11.1			7.58
Eu*			1.07			1
Zr/Hf			56.1			60.5
Ba/Rb		15.8			34.7	26.2
Rb/Th						9.64
87Sr/86Sr,l						
143Nd/144Nd						
206Pb/204Pb						
207Pb/204Pb						
208Pb/204Pb						

Sample	H84-10	Tr-34	H91-173	H90-50	H88-58	RS71-28
Age, Ma	37	27.8-27.3	29.2	34.5		35
Long W	104 53	104 05.9	103 54.4	104 4.9	103 31.8	
Lat N	30 49	29 24.3	29 24.6	29 23	30 05	
SiO2	46.80	47.47	47.64	47.66	47.67	47.69
TiO2	3.59	4.20	3.10	2.51	2.30	2.51
Al2O3	16.32	14.35	16.03	17.03	17.49	15.43
Fe2O3	4.47					12.06
FeO	7.50					
FeO*	11.52	12.64	11.78	12.72	11.77	10.85
MnO	0.17	0.17	0.15	0.19	0.17	0.15
MgO	5.52	5.52	6.51	6.50	5.86	7.57
CaO	7.86	8.43	8.20	8.62	7.55	9.16
Na2O	3.65	3.81	3.83	3.35	4.35	3.12
K2O	1.94	1.47	1.57	0.98	0.90	1.01
P2O5	0.62	1.71	1.19	0.45	0.38	1.13
H2O+	0.95					
H2O-						
CO2	0.13					
Total	99.53	99.77	98.68	98.36	98.44	99.83
SiO2'	47.54	47.58	47.64	47.66	47.67	47.77
(Na2O+K2O)'	5.68	5.29	5.60	4.33	5.25	4.14
Sc		19.6	7	32	26	21.5
V		514	152	228	182	
Cr		42.6	93	22	11	139
Ni		18.7	52	35	25	
Cu			14	25	12	
Zn	73		83	109	86	119
Ga			14	21		
Rb		29.3	28	12	10	27
Sr	1120	667	1322	594	1066	828
Y		39.1	28	30	24	28.3
Zr		308	220	200	195	242
Nb		22*	48	20.8*	21	17*
Cs				0.86		0.58
Ba	700	2236	833	295	404	1075
La		48.7	38	17	50	50.5
Ce		108	72	53	51	99.5
Pr				5.9		
Nd		67		26.1		42.3
Sm		13.6		6.8		10.61
Eu		4.82		2.26		2.71
Gd				6		
Tb		2.24		1.03		1.39
Dy				5.91		
Ho				1.18		
Er				3.2		
Tm				0.41		
Yb		2.69		2.61		2.28
Lu		0.37		0.39		0.28

Hf		5.77		4.6		5.04
Ta				1		2.73
Pb			1	4.1	1	
Th		2.8	3	1.6	2	3.5
U		1.62		0.4		
Li						
F						
Rb/Sr		0.04	0.02	0.02	0.01	0.03
Cen/Ybn		10.9		5.49		11.79
Eu*		1.04		1.05		0.79
Zr/Hf		53.4		43.5		48
Ba/Rb		76.3	29.8	24.6	40.4	39.8
Rb/Th		10.5	9.3	7.5	5	7.71
87Sr/86Sr,l						
143Nd/144Nd						
206Pb/204Pb						
207Pb/204Pb						
208Pb/204Pb						

Sample	82-92	K	1049	H91-100	H88-77	H91-50
Age, Ma	37			27.23		27.1
Long W	104 52.5		103 50	103 51.9	103 42.4	103 48.1
Lat N	30 49		29 33	29 30.2	30 53.3	29 32.1
SiO2	47.93	46.92	48.02	48.04	48.03	48.04
TiO2	3.53	2.92	3.27	3.29	3.87	3.43
Al2O3	16.96	16.86	16.86	16.93	14.22	16.82
Fe2O3	4.76	2.10	1.34			
FeO	7.56	8.77	11.17			
FeO*	11.84	10.66	12.38	12.52	13.09	12.36
MnO	0.17	0.24	0.18	0.17	0.25	0.17
MgO	5.62	5.10	4.33	4.35	2.95	3.19
CaO	8.01	9.65	8.55	7.76	9.39	8.51
Na2O	3.61	2.76	3.88	4.49	3.53	4.53
K2O	1.55	1.89	1.76	1.79	2.80	2.20
P2O5	0.60	0.95	0.64	0.66	1.87	0.75
H2O+	0.50					
H2O-						
CO2	0.15					
Total	100.95	98.16	100	98.88	98.95	96.73
SiO2'	47.79	47.80	48.02	48.03	48.03	48.04
(Na2O+K2O)'	5.14	4.74	5.64	6.28	6.33	6.73
Sc		18.57		13	28	10
V				217	266	159
Cr		3.92		12	8	4
Ni			18	15	1	2
Cu				7	2	12
Zn	93	152		107	127	107
Ga				23	22	21
Rb		52.22	31	29	79	52
Sr	1030	700	893	868	629	996
Y			31	27	55	32
Zr		402	248	246	276	282
Nb			49	48.4	34	52.5
Cs		1		0.16		
Ba	561	1389		750	805	770
La		69.72		38	52	48
Ce		125		75	110	80
Pr				9.1		
Nd		77.7		38.8		
Sm		13.92		9.2		
Eu		4.16		3.16		
Gd				8.1		
Tb		2.26		1.25		
Dy				6.81		
Ho				1.28		
Er				3.34		
Tm				0.43		
Yb		5.01		2.52		
Lu		0.69		0.38		

Hf		8.66		5.7		
Ta		2.53		3.1		
Pb				3.2	2	
Th		3.2		2.3	4	4
U		1.4		0.4		
Li						
F	1010					
Rb/Sr		0.07	0.03	0.03	0.13	0.05
Cen/Ybn		6.74		8.11		
Eu*		0.88		1.09		
Zr/Hf		46.4		43.2		
Ba/Rb		26.6		25.9	10.2	14.8
Rb/Th		16.3		12.6	19.8	13
$^{87}\text{Sr}/^{86}\text{Sr}_i$						
$^{143}\text{Nd}/^{144}\text{Nd}$						
$^{206}\text{Pb}/^{204}\text{Pb}$						
$^{207}\text{Pb}/^{204}\text{Pb}$						
$^{208}\text{Pb}/^{204}\text{Pb}$						

Sample	H91-93	J-9	30	84617	188/1	DML-10
Age, Ma	27.1	27.8-27.3	35.9	35.6		35
Long W	103 49.2	104 05.9	103 26	104 16.0		104 15
Lat N	29 32.5	29 24.2	29 34	30 32.4		30 32
SiO2	48.13	48.14	46.99	48.20	46.78	47.69
TiO2	3.61	2.16	3.35	2.84	2.11	2.51
Al2O3	16.84	17.06	17.10	15.76	16.05	15.43
Fe2O3			3.07			2.16
FeO			9.06			8.91
FeO*	12.97	9.40	11.82	12.12	9.26	10.85
MnO	0.17	0.13	0.19	0.15	0.17	0.15
MgO	4.03	8.71	4.54	6.45	6.27	7.57
CaO	7.84	8.74	6.28	8.45	8.19	9.16
Na2O	4.15	3.76	4.40	3.76	4.54	3.12
K2O	1.69	1.42	1.86	1.38	2.50	1.01
P2O5	0.56	0.48	0.70	0.89	1.10	1.13
H2O+			1.98		1.97	
H2O-			0.26			
CO2					0.37	
Total	98.81	100	99.78	100	99.33	98.84
SiO2'	48.13	48.14	48.18	48.20	48.23	48.25
(Na2O+K2O)'	5.84	5.18	6.42	5.14	7.26	4.18
Sc	16	18.4				
V	198	164				
Cr	19	26				
Ni	15	33			71	
Cu	16					
Zn	95	97.5				
Ga	16					
Rb	29	28.8		19		
Sr	957	670		1129		
Y	26	26		26		
Zr	228	165		197		
Nb	50	21		12*		
Cs		0.4				
Ba	678	585		644		
La	34	25.4				
Ce	68	56				
Pr						
Nd		30.8		37.1		
Sm		5.9		7.6		
Eu		2.13				
Gd						
Tb		0.94				
Dy						
Ho						
Er						
Tm						
Yb		1.72				
Lu		0.24				

Hf		4.41			
Ta		1.76			
Pb	3			3.8	
Th	3	2.35		2.6	
U		0.54		0.59	
Li					
F					
Rb/Sr	0.03	0.04		0.02	
Cen/Ybn		8.8			
Eu*		1.07			
Zr/Hf		37.4			
Ba/Rb	23.4	20.3		33.9	
Rb/Th	9.67	12.3		7.31	
$^{87}\text{Sr}/^{86}\text{Sr}_i$				0.70414	
$^{143}\text{Nd}/^{144}\text{Nd}$				0.51269	
$^{206}\text{Pb}/^{204}\text{Pb}$				18.069	
$^{207}\text{Pb}/^{204}\text{Pb}$				15.478	
$^{208}\text{Pb}/^{204}\text{Pb}$				37.482	

Sample	IB-C	BFB	H84-8	H91-102	J-4	IB-L
Age, Ma	27.8-27.3		37	27.23	27.8-27.3	27.8-27.3
Long W	104 05.9	103 43.7	104 52.9	103 51.9	104 05.3	104 02.2
Lat N	29 24.3	29 32	30 49.5	29 30 6	29 25.2	29 20.3
SiO2	48.39	47.27	47.57	48.58	48.59	48.64
TiO2	4.05	2.56	2.62	3.39	3.92	2.07
Al2O3	14.11	16.60	15.84	16.85	13.65	15.97
Fe2O3		2.04	4.48			
FeO		10.04	7.57			
FeO*	11.70	11.88	11.60	12.54	11.95	10.55
MnO	0.14	0.18	0.18	0.19	0.15	0.12
MgO	6.53	5.47	6.14	3.12	5.62	7.88
CaO	8.44	7.43	7.87	7.47	9.18	9.72
Na2O	2.73	4.31	3.93	4.76	3.02	3.08
K2O	1.8	1.24	1.39	2.16	1.84	1.47
P2O5	2.12	0.56	0.45	0.93	2.08	0.49
H2O+		1.65	1.13			
H2O-		0.21				
CO2		0.02				
Total	100.01	99.58	99.29	97.38	100	99.99
SiO2'	48.38	48.38	48.46	48.58	48.59	48.64
(Na2O+K2O)'	4.53	5.68	5.42	6.92	4.86	4.55
Sc	20.9			11	20.7	23.7
V	77			146	95	240
Cr	5.73			5	6.15	128
Ni	13.3				15.8	120
Cu				4		
Zn	143		102	103	149	106
Ga				21		
Rb	37.5			34	23.6	19.2
Sr	660		778	975	674	630
Y	38.4			34	41.9	26.2
Zr	256			277	310	233
Nb	22			63.2	18	22.9
Cs	0.69				0.89	8.18*
Ba	2538		480	897	2498	539
La	50.7			43	51	25.1
Ce	116			100	116	53
Pr						
Nd	74				70	26.4
Sm	13.4				13.3	5.66
Eu	6.09				6.2	2.11
Gd						
Tb	1.93				1.95	0.87
Dy						
Ho						
Er						
Tm						
Yb	2.82				2.93	1.75
Lu	0.38				0.37	0.24

Hf	6.56				6.4	4.29
Ta	2.83				2.73	2.16
Pb				4		
Th	2.74			2	2.85	2.41
U	0.84				0.85	1.15
Li						
F						
Rb/Sr	0.06			0.03	0.04	0.03
Cen/Ybn	11.1				10.7	8.19
Eu*	1.38				1.41	1.12
Zr/Hf	39				48.4	54.3
Ba/Rb	67.7			26.4	105.8*	28.1
Rb/Th	13.7			17	8.28	7.97
87Sr/86Sr,l						
143Nd/144Nd						
206Pb/204Pb						
207Pb/204Pb						
208Pb/204Pb						

Sample	81-200	BM-6	H91-198	H88-63	K332	84609
Age, Ma	37		27.23		37	36.8
Long W	104 50.5	103 58	103 54.8	103 43.7		103 58.3
Lat N	30 48	29 18	29 31	30 39		30 51.7
SiO2	47.81	48.69	48.88	48.89	48.29	48.97
TiO2	1.83	2.40	3.17	3.59	2.87	1.60
Al2O3	14.75	16.98	16.74	14.75	16.01	15.18
Fe2O3	6.53	1.09				
FeO	4.95	9.08				
FeO*	10.83	10.06	12.19	12.72	11.92	10.19
MnO	0.19	0.16	0.19	0.20	0.57	0.12
MgO	7.74	6.65	4.36	3.26	2.08	9.77
CaO	9.12	8.03	6.34	9.84	7.45	8.76
Na2O	3.62	3.83	4.92	3.86	4.49	3.22
K2O	0.96	2.28	2.19	1.76	2.50	1.29
P2O5	0.78	0.81	1.02	1.15	2.44	0.88
H2O+	1.14					
H2O-						
CO2	0.46					
Total	99.88	100	98.96	98.92	98.62	99.88
SiO2'	48.65	48.69	48.88	48.89	48.97	48.99
(Na2O+K2O)'	4.66	6.11	7.11	5.62	7.09	4.51
Sc			14	32		
V	240		117	255		
Cr	240		3	10		
Ni	110	86				
Cu	58		4	1		
Zn	109		113	138		
Ga			17	25		
Rb	13	46	41	29	32	13
Sr	817	1047	907	651	897	764
Y	31	26	36	48	59	27
Zr	173	221	281	293	462	199
Nb	18	67	62.1	30	46	16*
Cs						
Ba	765		904	687	1551	460
La			36	24		
Ce			94	75		
Pr						
Nd					97.5	35.6
Sm					19.5	7.3
Eu						
Gd						
Tb						
Dy						
Ho						
Er						
Tm						
Yb						
Lu						

Hf						
Ta						
Pb				2	6.8	4.5
Th			3	4	4.9	6.6
U					0.97	1.16
Li						
F	510					
Rb/Sr	0.02	0.04	0.05	0.04	0.04	0.02
Cen/Ybn						
Eu*						
Zr/Hf						
Ba/Rb	58.8			23.7	48.5	35.4
Rb/Th			22	7.25	6.53	1.97
$^{87}\text{Sr}/^{86}\text{Sr}_i$					0.70366	0.70386
$^{143}\text{Nd}/^{144}\text{Nd}$					0.512569	0.512734
$^{206}\text{Pb}/^{204}\text{Pb}$					17.744	17.98
$^{207}\text{Pb}/^{204}\text{Pb}$					15.487	15.494
$^{208}\text{Pb}/^{204}\text{Pb}$					37.487	37.665

Sample	SR-6	E90-23	H89-158A	Tr-35	H92-74	H90-72
Age, Ma	28.1	27.8-27.3	34	27.8-27.3	29.2	34.5
Long W	103 23	104 02.5	104 0.7	104 05.9	103 57.2	103 49.6
Lat N	29 23	29 20.2	30 33.8	29 24.3	29 23.8	29 16.3
SiO2	49.02	49.03	49.06	49.14	49.37	49.53
TiO2	3.20	2.27	3.21	2.02	2.40	2.82
Al2O3	17.56	17.84	16.47	16.30	17.10	15.66
Fe2O3	1.44		2.93			
FeO	9.60		10.64			
FeO*	10.90	9.97	13.28	8.62	10.43	12.93
MnO	0.16	0.15	0.12	0.12	0.15	0.15
MgO	4.61	4.53	3.82	9.31	5.13	4.45
CaO	7.07	11.72	6.91	8.76	8.49	8.20
Na2O	4.52	3.02	3.97	4.00	4.10	3.77
K2O	2.19	1.33	2.12	1.30	2.05	1.90
P2O5	0.64	0.45	1.01	0.43	0.77	0.59
H2O+						
H2O-						
CO2						
Total	100.01	100.31	100	100	98.35	100
SiO2'	49.02	49.03	49.06	49.14	49.37	49.53
(Na2O+K2O)'	6.71	4.35	6.09	5.3	6.15	5.67
Sc		27	25	26.6	20	30
V		202	200	258	157	270
Cr		146		283	98	5
Ni		57	5	24.6	40	9
Cu		36			21	9
Zn		90			81	115
Ga		20			15	20
Rb	45	25	23	31	43	42
Sr	1097	775	859	657	1030	529
Y		22	39	19.6	24	37
Zr		185	275	205	251	272
Nb		36	38	28.4	66.3	25.1
Cs		1.25		0.59		1.79
Ba		455	200	556	1270	672
La		25	28	24.6	50	37
Ce		49	72	54	83	76
Pr		6				9
Nd		25.2		25.6		37.2
Sm		6.2		5.73		8.7
Eu		2.25		1.81		2.67
Gd		5.6				7.6
Tb		0.94		1.07		1.25
Dy		4.49				7.06
Ho		0.84				1.39
Er		2.23				3.81
Tm		0.28				0.5
Yb		1.71		1.07		3.09
Lu		0.25		0.24		0.48

Hf		4.1		4.41		6.2
Ta		1.9				1.5
Pb		3.3			2	7.5
Th		3	3	2.25	8	3.7
U		0.6		1.01		0.8
Li						
F						
Rb/Sr	0.04	0.03	0.03	0.05	0.04	0.08
Cen/Ybn		7.75		13.6		6.63
Eu*		1.14		0.9		0.98
Zr/Hf		45.1		46.5		43.9
Ba/Rb		18.2	8.7	17.9	29.5	16
Rb/Th		8.33	7.67	13.8	5.38	11.4
87Sr/86Sr,l						
143Nd/144Nd						
206Pb/204Pb						
207Pb/204Pb						
208Pb/204Pb						

Sample	H86-35	H91-105	Tr-18	CF8512	H91-21	PP365
Age, Ma	28.1	27.6	27.8-27.3	31.8	29.2	36.3
Long W	103 37	103 48	104 01	103 20.6	104 0.7	103 47.5
Lat N	29 23.5	29 32.5	29 21.1	29 13.7	29 20.8	30 16
SiO2	48.14	49.59	49.58	49.34	49.64	48.41
TiO2	3.37	2.63	2.3	1.24	2.28	3.12
Al2O3	16.53	17.07	15.00	16.41	16.52	16.61
Fe2O3	2.70			1.64		
FeO	8.37			6.77		
FeO*	10.80	11.27	10.63	8.25	10.48	11.21
MnO	0.16	0.19	0.17	0.16	0.17	0.15
MgO	4.74	2.36	6.98	7.38	6.08	3.10
CaO	7.33	7.48	9.21	11.91	7.71	6.26
Na2O	4.67	5.19	3.83	3.93	4.49	4.38
K2O	2.29	2.68	1.65	0.42	1.85	2.26
P2O5	0.58	1.54	0.67	0.22	0.78	1.88
H2O+	0.40					
H2O-						
CO2						
Total	97.52	97.49	100.02	99.42	97.51	97.38
SiO2'	49.57	49.59	49.59	49.63	49.64	49.71
(Na2O+K2O)'	7.17	7.87	5.48	4.38	6.34	6.82
Sc		10	17.6	18.21	19	
V		99	170	143	148	
Cr		1	148	6.07	170	
Ni			127	36.7	71	
Cu					36	
Zn		128		114	81	
Ga		21			14	
Rb		42	55	70.74	72	35
Sr		947	622	418	1093	1092
Y		40	32	37	26	36
Zr		373	284	317	264	541
Nb		66.1	31.6	10.33*	66.7	31
Cs			0.63	1.12	0.78	
Ba		1069	1517	787	1453	1181
La		56	54	47.86	63	
Ce		114	106	98.45	111	
Pr					11.6	
Nd			36.2		43.5	64.5
Sm			6.89	8.57	8.3	13.3
Eu			2.42	2.33	2.8	
Gd					7.3	
Tb			1.13	1.87	0.97	
Dy					5.36	
Ho					0.97	
Er					2.49	
Tm					0.33	
Yb			1.91	3.48	2	
Lu			0.26	0.46	0.31	

Hf			5.31	8.06	5.4	
Ta				2.95	3.4	
Pb		3			5.7	6.8
Th		7	5.88	7.56	6	3.3
U			1.58	7.21	1.1	0.75
Li						
F						
Rb/Sr		0.04	0.09	0.17	0.07	0.03
Cen/Ybn			15	7.65	15	
Eu*			1.04	0.74	1.07	
Zr/Hf			53.5	39.3	48.9	
Ba/Rb		25.5	27.6	11.1	20.2	33.7
Rb/Th		14	9.36	9.36	12	10.6
$^{87}\text{Sr}/^{86}\text{Sr}_i$						0.70372
$^{143}\text{Nd}/^{144}\text{Nd}$						0.512674
$^{206}\text{Pb}/^{204}\text{Pb}$						18.047
$^{207}\text{Pb}/^{204}\text{Pb}$						15.513
$^{208}\text{Pb}/^{204}\text{Pb}$						37.554

Sample	H88-81	DM110	H92-75	H91-20	J81-208	E90-29
Age, Ma		36.5-36.3	29.2	34.5		27.8-27.3
Long W	103 53.8	103 45.2	103 57.2	103 48.7	104 54	104 5.9
Lat N	30 36.3	30 30.6	29 24.5	29 16.5	31 26	29 24.2
SiO2	49.82	50.68	50.03	50.06	49.56	50.11
TiO2	3.60	3.50	2.30	2.86	2.61	2.22
Al2O3	15.00	15.17	17.47	15.80	18.62	18.65
Fe2O3		2.43			1.77	
FeO		10.04			8.12	
FeO*	12.14	12.23	10.13	12.38	9.71	10.08
MnO	0.17	0.19	0.17	0.15	0.13	0.14
MgO	2.69	4.52	4.82	4.72	2.68	4.1
CaO	8.70	7.96	7.30	7.74	6.44	9.12
Na2O	4.18	3.51	5.33	3.82	5.39	3.64
K2O	2.00	2.49	1.59	1.87	2.16	1.49
P2O5	1.69	1.01	0.86	0.60	1.52	0.45
H2O+					0.20	
H2O-						
CO2						
Total	98.03	101.5	99.10	97.96	99.20	100.00
SiO2'	49.82	49.93	50.03	50.06	50.08	50.11
(Na2O+K2O)'	6.18	5.91	6.92	5.69	7.63	5.13
Sc	19	30.52	14	19		19
V	206	493	151	275	49	189
Cr	1	1.98	38	5		36
Ni			20	12	8	41
Cu			15	5	18	16
Zn	126	151	76	116	100	90
Ga	23		12	20		19
Rb	30	36.4	39	36	36	27
Sr	721	548	1086	533	1700	766
Y	55	41.6	26	36	28	25
Zr	340	380	272	282	82	202
Nb	35	17*	74.1	25.8	36	33
Cs		0.21				0.12
Ba	819	1207	1360	677	1200	534
La	51	47.9	61	22		28
Ce	109	96.4	99	67		56
Pr						6.9
Nd		56.4				28.7
Sm		11.64				6.8
Eu		3.47				2.31
Gd						6.1
Tb		1.71				0.92
Dy						4.88
Ho						0.92
Er						2.48
Tm						0.31
Yb		4.32				1.84
Lu		0.6				0.27

Hf		7.83				4.4
Ta		2.16				1.8
Pb	4		1	3		3.4
Th	4	3.35	5	4		2.4
U		1.06				1.1
Li						
F					1200	
Rb/Sr	0.04	0.07	0.04	0.07	0.02	0.04
Cen/Ybn		6.03				8.23
Eu*		0.9				1.07
Zr/Hf		48.5				45.9
Ba/Rb	27.3	33.2	34.9	18.8	33.3	19.8
Rb/Th	7.5	10.9	7.79	9.01		11.3
$^{87}\text{Sr}/^{86}\text{Sr}_i$					0.7034	
$^{143}\text{Nd}/^{144}\text{Nd}$						
$^{206}\text{Pb}/^{204}\text{Pb}$						
$^{207}\text{Pb}/^{204}\text{Pb}$						
$^{208}\text{Pb}/^{204}\text{Pb}$						

Sample	DM117	PP391	J81-207	961201	H91-49	H82-57
Age, Ma	36.5-36.3	36.3			27.13	32
Long W	103 45.8	103 47.5	104 53.6	103 43.8	103 46.8	
Lat N	30 31	30 16	31 25.7	29 16.3	29.32	
SiO2	49.34	48.91	50.19	48.92	50.34	50.70
TiO2	3.13	2.77	2.62	2.77	3.05	2.96
Al2O3	13.27	16.45	18.82	15.14	16.29	15.98
Fe2O3	2.40		1.82			10.72
FeO	9.89		7.92			0.96
FeO*	12.05	10.20	9.56	12.26	10.04	10.61
MnO	0.20	0.23	0.13	0.23	0.17	0.17
MgO	4.77	3.55	2.78	5.68	2.66	3.75
CaO	8.65	6.05	6.56	6.28	9.06	6.87
Na2O	4.20	4.69	5.36	3.98	4.58	4.53
K2O	1.78	2.63	2.13	1.58	2.71	2.41
P2O5	0.82	2.06	1.52	0.46	1.1	0.95
H2O+			0.17			
H2O-						
CO2						
Total	98.45	97.54	100.02	97.30	97.63	100
SiO2'	50.12	50.14	50.27	50.28	50.34	50.70
(Na2O+K2O)'	6.07	7.50	7.50	5.71	7.29	6.94
Sc	29.34		8	33.1	16	
V	476		52	353	121	
Cr	2.31			32	2	
Ni			8	15		
Cu			16	7	14	
Zn	139		100	114	124	
Ga				26	23	
Rb	28.76	37	33	33.1	52	
Sr	523	1127	1657	540	712	
Y	46.9	43	24	32.37	42	
Zr	304	332	243	214	351	
Nb	20.7*	38	39	17.42	79.3	
Cs	0.3			0.75		
Ba	1021	1557	520	504	892	
La	43.2		44	27.15	53	
Ce	90.1		110	54.71	118	
Pr				6.89		
Nd	55.1	84.9		29.66		
Sm	10.69	17.3		7.11		
Eu	3.28			2.34		
Gd				6.93		
Tb	1.74			1.09		
Dy				6.23		
Ho				1.23		
Er				3.16		
Tm				0.44		
Yb	4.02			2.64		
Lu	0.55			0.4		

Hf	7.44			5.29	
Ta	1.96			1.35	
Pb		5.5		7.1	
Th	3.07	4	4	2.67	6
U	1.25	1.14		0.84	
Li					
F			1100		
Rb/Sr	0.05	0.03	0.02	0.06	0.07
Cen/Ybn	6.06			5.6	
Eu*	0.91			1	
Zr/Hf	40.9			40.5	
Ba/Rb	35.5	42.1	1.58	15.2	17.2
Rb/Th	9.37	9.25	8.25	12.4	8.67
$^{87}\text{Sr}/^{86}\text{Sr}_i$		0.70394			
$^{143}\text{Nd}/^{144}\text{Nd}$		0.512702			
$^{206}\text{Pb}/^{204}\text{Pb}$		18.244			
$^{207}\text{Pb}/^{204}\text{Pb}$		15.512			
$^{208}\text{Pb}/^{204}\text{Pb}$		37.639			

Sample	RM-162	SCA-3-1	H92-71	CF8539	SCA-3-2	DM122
Age, Ma	28.6	31.6	29.2	34.5	31.6	36.5-36.3
Long W	103 33	104 14	103 59.2	103 31.0	104 14	103 45.3
Lat N	29 15	29 18	29 23.9	29 08.9	29 18	30 30.7
SiO2	50.70	49.91	50.82	49.23	50.54	51.08
TiO2	2.74	2.26	2.58	1.38	2.18	3.10
Al2O3	16.40	15.71	17.71	15.75	16.05	14.98
Fe2O3	11.36	2.63		1.78	2.27	2.52
FeO		8.60		7.34	8.85	10.41
FeO*	10.22	10.97	10.31	8.94	10.89	12.68
MnO	0.19	0.24	0.17	0.14	0.23	0.14
MgO	3.65	4.86	3.86	8.19	5.06	3.87
CaO	5.67	8.48	5.82	8.52	8.59	7.62
Na2O	5.17	3.69	5.67	3.38	3.65	3.30
K2O	2.98	1.52	2.22	0.85	1.43	2.15
P2O5	1.16	0.50	0.83	0.27	0.50	1.18
H2O+		0.70			0.51	
H2O-		0.22			0.12	
CO2		0.07				
Total	100	99.40	98.98	96.83	99.98	100.35
SiO2'	50.70	50.72	50.82	50.84	50.87	50.90
(Na2O+K2O)'	8.15	5.30	7.89	4.37	5.11	5.43
Sc			11	24.82		27.9
V			122	211		350
Cr			8	29.15		4.05
Ni			7	22.84		15
Cu			10			
Zn			67	94		
Ga			12			
Rb	55	33	46	25.57	28	53.4
Sr	1121	634	1363	514	656	620
Y	39	27	26	33	27	31
Zr	376	233	251	170	223	394
Nb	79	28	68.9	9.37*	31	21.9*
Cs				4.97		
Ba	1009		1176	341		1052
La			43	14.59		44.4
Ce	124.6		79	34.64		143
Pr						
Nd	62.24			20.66		45.4
Sm	11.65			4.42		11.02
Eu	3.639			1.5		3.28
Gd	9.344					
Tb				1.02		1.29
Dy	7.373					
Ho						
Er	3.524					
Tm						
Yb	2.888			2.64		3.76
Lu				0.36		0.48

Hf				3.68		11.36
Ta				0.56		3.37
Pb			1			
Th			6	1.7		3.15
U				0.66		
Li						
F						
Rb/Sr	0.05	0.05	0.03	0.05	0.04	0.09
Cen/Ybn	11.66			3.55		10.3
Eu*	1.03			0.91		0.95
Zr/Hf				46.2		34.7
Ba/Rb	18.3		25.6	13.3		19.7
Rb/Th			7.67	15		17
⁸⁷ Sr/ ⁸⁶ Sr _l						
¹⁴³ Nd/ ¹⁴⁴ Nd						
²⁰⁶ Pb/ ²⁰⁴ Pb						
²⁰⁷ Pb/ ²⁰⁴ Pb						
²⁰⁸ Pb/ ²⁰⁴ Pb						

Sample	556	H91-22	560	H82-58	CF8550	BM-4
Age, Ma	31.8		34.5	32		34.5
Long W	103 46	103 52.1	103 46		103 30.3	103 55
Lat N	29 15	29 19.1	29 15		29 13.0	29 17
SiO2	50.94	51.07	51.08	51.10	52.22	51.24
TiO2	2.88	2.48	1.59	2.94	2.09	1.60
Al2O3	15.62	16.88	17.67	16.02	15.62	17.62
Fe2O3	1.34		1.04	10.77	2.04	1.04
FeO	11.17		8.67	0.79	8.43	8.68
FeO*	12.38	10.53	9.61	10.48	10.27	9.62
MnO	0.17	0.19	0.13	0.18	0.22	0.14
MgO	3.82	3.58	6.17	4.02	5.21	6.18
CaO	7.81	5.97	8.59	6.44	5.93	8.37
Na2O	3.40	5.11	3.63	4.20	4.02	3.76
K2O	2.21	2.83	1.05	2.52	5.18	1.06
P2O5	0.64	1.35	0.37	1.02	1.15	0.32
H2O+						
H2O-						
CO2						
Total	100	98.29	100	100	102.11	100
SiO2'	50.94	51.08	51.08	51.10	51.14	51.24
(Na2O+K2O)'	5.61	7.94	4.68	6.72	9.01	4.82
Sc		16			14.9	
V		62			100	174
Cr					4.9	30
Ni	10		55		15.3	56
Cu		4				
Zn		132				
Ga		20				
Rb	57	50	28		64.21	30
Sr	539	758	509		476	504
Y	36	44	30		48	34
Zr	312	396	187		477	200
Nb	24*	71.3	14*		47.24	12*
Cs					1.32	
Ba		968			1107	363
La		50			71.44	23
Ce		121			147.69	43
Pr						
Nd					70.05	25
Sm					14.07	
Eu					3.7	
Gd						
Tb					2.4	
Dy						
Ho						
Er						
Tm						
Yb					4.22	
Lu					0.58	

Hf					10.99	
Ta					5.11	
Pb		1				
Th		7			8.71	
U					3.4	
Li						
F						
Rb/Sr	0.11	0.07	0.06		0.13	0.06
Cen/Ybn					9.46	
Eu*					0.77	
Zr/Hf					43.4	
Ba/Rb		19.4			17.2	12.1
Rb/Th		7.13			7.37	
$^{87}\text{Sr}/^{86}\text{Sr}_i$						
$^{143}\text{Nd}/^{144}\text{Nd}$						
$^{206}\text{Pb}/^{204}\text{Pb}$						
$^{207}\text{Pb}/^{204}\text{Pb}$						
$^{208}\text{Pb}/^{204}\text{Pb}$						

Sample	K343	H90-42	Chin-232	DM119	PP-165	H91-91
Age, Ma	36.5-36.3	34.5	32.2	36.5-36.3	36.3	
Long W		103 52.7	104 24.2	103 53.6	103 47.5	103 48.6
Lat N		29 17.6	29 57.4	30 36.4	30 16	29 27.6
SiO2	50.44	51.26	49.63	50.54	49.80	51.36
TiO2	3.68	1.59	2.96	3.11	2.22	2.28
Al2O3	15.75	17.75	15.65	13.94	16.30	17.24
Fe2O3			6.46	2.40	10.43	
FeO			3.51	9.87	0.44	
FeO*	12.29	9.70	9.32	12.03	9.83	9.99
MnO	0.15	0.14	0.18	0.20	0.23	0.18
MgO	1.69	6.28	4.14	3.39	2.24	3.32
CaO	7.26	8.03	6.48	7.17	5.54	5.86
Na2O	3.02	3.63	4.43	3.78	4.99	5.37
K2O	2.24	1.28	2.37	2.18	2.83	2.97
P2O5	1.91	0.34	1.11	1.90	1.95	1.42
H2O+			1.75		2.21	
H2O-			0.49		0.57	
CO2			0.06		0.10	
Total	98.43	98.13	99.12	98.48	99.85	97.31
SiO2'	51.24	51.26	51.26	51.32	51.36	51.36
(Na2O+K2O)'	5.34	4.91	7.02	6.05	8.06	8.34
Sc		27	16.95	27.87		15
V		179		516		78
Cr		27	238	5.14		3
Ni		48	90			
Cu		36				
Zn		83	78.5	152	124	109
Ga		15				16
Rb	36	29	24	33.3	34	42
Sr	754	505	680	591	1185	1113
Y	59	29	31	58.8	103	40
Zr	391	180	403	369	299	396
Nb	36*	13.2*	24*	23.2*	39	62
Cs			9	0.4		
Ba	923	346	760	1165		1026
La		9	46.63	51.9		67
Ce		46	106.94	114		130
Pr						
Nd	67.9		59	66.3		
Sm	14.7		10.81	14.01		
Eu			3.1	4.52		
Gd						
Tb			1.4	2.33		
Dy						
Ho						
Er						
Tm						
Yb			3.25	4.76		
Lu			0.5	0.66		

Hf			8.39	8.09		
Ta			1.52	2.3		
Pb	4.7	6				6
Th	3.8	4	2.66	3.01		7
U	1.34		1	1.52		
Li						
F						
Rb/Sr	0.05	0.06	0.04	0.06	0.03	0.04
Cen/Ybn			8.89	6.47		
Eu*			0.89	0.95		
Zr/Hf			48	45.6		
Ba/Rb	25.6	11.9	31.7	35		24.4
Rb/Th	9.47	7.25	9.02	11.1		6.01
$^{87}\text{Sr}/^{86}\text{Sr}_i$	0.70409					
$^{143}\text{Nd}/^{144}\text{Nd}$	0.51267					
$^{206}\text{Pb}/^{204}\text{Pb}$	17.629			17.75		
$^{207}\text{Pb}/^{204}\text{Pb}$	15.466			15.44		
$^{208}\text{Pb}/^{204}\text{Pb}$	37.35			37.32		

Sample	J-8	CF8415	TPC-435	Puerto	H91-103	QM-112
Age, Ma	27.1		34.5		27.13	
Long W	104 05.9	103 21.4	103 22	103 56.5	103 48.7	105 30
Lat N	29 24.4	29 14.7	29 13	29 49.5	29 32.4	31 08
SiO2	51.44	50.06	49.83	50.89	51.66	51.74
TiO2	2.27	2.20	1.62	2.11	2.48	2.92
Al2O3	16.92	16.34	16.35	16.57	18.07	16.77
Fe2O3		1.57	2.53	3.47		3.25
FeO		6.49	6.79	6.55		6.84
FeO*	9.29	7.9	9.02	9.67	9.29	9.77
MnO	0.16	0.28	0.11	0.16	0.13	0.16
MgO	4.36	4.37	5.52	3.26	2.75	3.65
CaO	6.73	8.50	9.19	4.83	8.34	6.04
Na2O	3.85	3.06	3.37	5.16	4.13	4.71
K2O	3.70	3.07	0.82	3.44	2.55	3.00
P2O5	1.27	1.29	0.42	2.10	0.61	0.93
H2O+			1.87	0.96		
H2O-			1.03	0.14		
CO2			0.25	0.06		
Total	99.99	97.23	99.70	99.70	98.18	100
SiO2'	51.45	51.49	51.61	51.64	51.65	51.74
(Na2O+K2O)'	7.55	6.30	4.34	8.73	6.68	7.71
Sc	12	14.96			22	10.7
V	92				122	128
Cr	3.1	3.12			2	3.9
Ni	12	15.31	40		9	1
Cu					38	7
Zn	128	114	96	116	105	96
Ga					21	
Rb	69	65.87	15	44	50	106*
Sr	640	694	470	904	753	696
Y	48	31	38	34	37	49
Zr	388	334	160	360	344	401
Nb	54.3	28.83		45	65.5	46
Cs	2.13	0.53			0.77	1.42
Ba	1189	935		1733	770	808
La	65	51.55			46	18.7
Ce	139	105.83			89	38
Pr					10.5	
Nd	65	28.83			43.5	22.9
Sm	12.6	10.19			10.1	3.3
Eu	3.94	3.14			3.1	1.39
Gd					8.3	
Tb	1.91	2.01			1.35	0.36
Dy					7.27	
Ho					1.35	0.37
Er					3.6	
Tm					0.47	
Yb	3.8	3.09			2.89	1.6
Lu	0.47	0.4			0.43	0.16

Hf	10.7	8.08			7.9	10.4
Ta	3.13	3.57			3.9	0.73
Pb					5.3	
Th	7.2	5.94			6.5	1.34
U	0.98	2.15			1.2	3.1
Li						30
F						690
Rb/Sr	0.11	0.09	0.03	0.05	0.07	0.15
Cen/Ybn	9.89	9.26			8.3	6.42
Eu*	0.94	0.86			1	1.36
Zr/Hf	36.3	41.3			43.5	38.6
Ba/Rb	17.2	14.2		39.4	15.4	7.62
Rb/Th	9.58	11.1			7.69	79.1*
$^{87}\text{Sr}/^{86}\text{Sr}_i$						
$^{143}\text{Nd}/^{144}\text{Nd}$						
$^{206}\text{Pb}/^{204}\text{Pb}$						
$^{207}\text{Pb}/^{204}\text{Pb}$						
$^{208}\text{Pb}/^{204}\text{Pb}$						

Sample	J84-16
Age, Ma	
Long W	104 54
Lat N	31 26
SiO2	51.81
TiO2	1.94
Al2O3	19.74
Fe2O3	1.55
FeO	6.84
FeO*	8.24
MnO	0.11
MgO	2.02
CaO	6.31
Na2O	5.95
K2O	2.58
P2O5	0.92
H2O+	
H2O-	
CO2	0.18
Total	99.95
SiO2'	51.93
(Na2O+K2O)'	8.55
Sc	
V	39
Cr	
Ni	10
Cu	23
Zn	80
Ga	
Rb	69
Sr	1635
Y	24
Zr	190
Nb	55
Cs	
Ba	900
La	
Ce	
Pr	
Nd	
Sm	
Eu	
Gd	
Tb	
Dy	
Ho	
Er	
Tm	
Yb	
Lu	

Hf	
Ta	
Pb	
Th	
U	
Li	
F	820
Rb/Sr	0.04
Cen/Ybn	
Eu*	
Zr/Hf	
Ba/Rb	13
Rb/Th	
$^{87}\text{Sr}/^{86}\text{Sr},\text{l}$	
$^{143}\text{Nd}/^{144}\text{Nd}$	
$^{206}\text{Pb}/^{204}\text{Pb}$	
$^{207}\text{Pb}/^{204}\text{Pb}$	
$^{208}\text{Pb}/^{204}\text{Pb}$	