Table DR1: Representative plagioclase analyses.

	93-8 core TRi	93-8 in ol TRi	93-31 core OGi	93-31 rim OGi	94-22 core OGi	94-22 rim OGi	94-12 core OGi	94-12 rim OGi	93-27 core TR
SiO_2	49.83	49.40	48.98	48.13	50.23	50.36	50.43	52.84	48.99
Al_2O_3	32.62	32.82	32.78	33.55	31.84	31.94	31.67	30.40	33.33
FeO	0.04	0.14	< d.l.	0.80	0.03	0.02	0.03	0.08	0.05
CaO	15.01	15.30	14.79	15.47	15.01	14.92	13.96	12.79	15.38
Na_2O	2.98	2.81	2.95	2.48	3.02	3.02	3.55	4.32	2.69
K_2O	0.02	< d.l.	< d.l.	0.01	0.02	0.03	0.05	0.06	0.01
Total	100.51	100.46	99.51	100.44	100.14	100.28	99.67	100.50	100.44
Cations calculated on 8 oxygen basis									
Si	2.26	2.24	2.24	2.19	2.29	2.29	2.30	2.38	2.23
Al	1.74	1.76	1.77	1.80	1.71	1.71	1.70	1.62	1.79
Fe	0.00	0.01	0.00	0.03	0.00	0.00	0.00	0.00	0.00
Ca	0.73	0.75	0.73	0.76	0.73	0.73	0.68	0.62	0.75
Na	0.26	0.25	0.26	0.22	0.27	0.27	0.31	0.38	0.24
K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
X_{An}	0.74	0.75	0.74	0.78	0.73	0.73	0.68	0.62	0.76

G = gabbro; OG = olivine gabbro (including olivine + opx-rich rocks); TR = troctolite; i = inclusion; < d.l. = less than detection limit

Table DR2: Representative olivine analyses*

	93-8 TRi	93-31 OGi	94-22 OGi	94-12 OGi	93-29 OGi	94-53 OGi	93-19 OGi	93-27 TR
SiO_2	39.26	39.64	39.19	38.63	39.81	38.91	39.15	39.10
FeO	16.82	14.35	17.98	17.28	15.72	20.49	14.75	17.78
MnO	0.21	0.13	0.23	0.23	0.19	0.21	0.20	0.23
MgO	43.43	46.24	42.63	42.87	44.27	40.33	45.20	42.40
NiO	0.07	< d.l.	0.04	0.08	0.15	0.05	0.11	0.03
Total	99.79	100.37	100.06	99.10	100.17	99.99	99.41	99.55
Cations calculated on 4 oxygen basis								
Si	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00
Fe	0.36	0.30	0.39	0.37	0.33	0.44	0.38	0.38
Mn	0.01	0.00	0.00	0.01	0.00	0.01	0.01	0.01
Mg	1.64	1.72	1.63	1.64	1.66	1.55	1.62	1.62
Mg#	0.82	0.85	0.80	0.81	0.83	0.78	0.81	0.81

*Ti, Al, and Ca analyzed, but were < detection limits of the microprobe.

Table DR3: Representative pyroxene analyses from olivine gabbro.

	93-8 ol rim opx	93-38 core cpx	93-38 ol rim opx	93-38 rim opx	93-19 core cpx	93-19 rim cpx	94-12 core cpx	94-12 rim cpx	94-34 core-1 cpx	94-34 core-2 cpx	94-34 rim cpx	94-34 in cpx opx	93-31 matrix opx
SiO_2	55.73	53.73	55.30	55.35	53.25	53.71	53.12	53.57	52.27	52.20	51.83	54.70	55.25
TiO_2	0.40	0.67	0.09	0.16	0.49	0.19	0.56	0.59	0.56	0.46	0.63	0.25	0.40
Al_2O_3	1.79	2.85	1.84	1.99	2.37	0.98	3.00	2.86	3.10	3.11	3.20	1.94	2.05
FeO	10.84	5.24	13.04	12.23	6.18	6.25	4.57	4.78	4.81	4.63	3.49	12.44	9.65
MnO	0.21	0.15	0.25	0.18	0.25	0.26	0.13	0.17	0.14	0.17	0.12	0.24	0.20
MgO	31.03	15.66	29.62	29.75	16.23	15.38	16.88	17.97	18.53	17.59	16.92	29.29	31.90
Cr_2O_3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.30	0.24	0.67	0.58	0.60	0.43	n.a.
CaO	0.16	20.75	0.46	0.58	21.12	23.17	20.93	19.32	19.61	20.84	22.75	0.84	0.67
Na_2O	< d.l.	n.a.	< d.l.	< d.l.	n.a.	n.a.	0.52	0.46	0.40	0.42	0.45	0.01	< d.l.
Total	100.16	99.05	100.60	100.24	99.90	99.93	100.00	99.96	100.08	99.99	100.00	100.15	100.12
Cations calculated on 6 oxygen basis													
Si	1.96	1.97	1.95	1.96	1.95	1.98	1.94	1.95	1.912	1.90	1.90	1.95	1.94
Ti	0.01	0.02	0.00	0.00	0.01	0.01	0.02	0.02	0.015	0.02	0.02	0.01	0.01
Al	0.07	0.12	0.08	0.08	0.10	0.04	0.13	0.12	0.134	0.14	0.14	0.08	0.09
Fe	0.32	0.16	0.39	0.36	0.19	0.19	0.14	0.15	0.147	0.11	0.11	0.37	0.28
Mn	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.004	0.00	0.00	0.01	0.01
Mg	1.62	0.86	1.56	1.57	0.89	0.85	0.92	0.97	1.011	0.93	0.93	1.56	1.67
Ca	0.01	0.82	0.02	0.02	0.83	0.92	0.82	0.75	0.768	0.90	0.90	0.03	0.03
Mg#	0.83	0.84	0.79	0.80	0.82	0.81	0.87	0.87	0.87	0.89	0.89	0.81	0.84

n.a. = not analyzed

Table DR4: Representative spinel analyses in olivine gabbro.

	93-31 OGi	90-14 OGi	94-34 OGi
Al_2O_3	68.20	66.91	65.92
FeO	12.57	14.33	16.09
MnO	0.16	0.07	0.13
MgO	19.55	17.87	17.44
ZnO	n.a.	n.a.	0.45
Cr_2O_3	< d.l.	< d.l.	0.01
NiO	< d.l.	0.23	< d.l.
Total	100.48	99.41	100.04
Cations calculated on 4 oxygen basis			
Al	2.01	2.01	1.99
Fe	0.26	0.31	0.34
Mg	0.73	0.68	0.67
Mg#	0.73	0.69	0.66

Table DR5: Representative amphibole analyses.*

	93-31 OGi rim	93-31 OGi core	93-31 OGi corona	94-34 OGi corona
SiO_2	43.74	41.47	43.93	42.73
TiO_2	0.32	4.24	0.44	0.13
Al_2O_3	16.49	13.06	15.81	16.69
FeO	4.88	5.31	4.94	6.01
MnO	0.03	< d.l.	< d.l.	0.12
MgO	18.10	16.92	18.16	17.01
CaO	11.69	11.94	11.46	11.51
Na_2O	2.98	2.69	2.68	2.67
K_2O	0.07	0.78	0.25	< d.l.
Total	98.30	96.40	97.65	96.88
Cations calculated on 23 oxygen basis				
Si	6.10	6.00	6.16	6.06
Ti	0.03	0.46	0.05	0.01
Al	2.71	2.23	2.62	2.79
Fe	0.57	0.64	0.58	0.71
Mn	0.00	0.00	0.00	0.01
Mg	3.76	3.65	3.80	3.59
Ca	1.75	1.85	1.72	1.75
Mg#	0.87	0.85	0.87	0.83

* F, Cl below detection limits of the microprobe.

Table DR6: Whole rock trace element data in ppm (except TiO_2 in wt. %)

	95-8[1]	95-9[1]	94-13[1]	94-15[1]	94-29[1]	94-31[1]	94-53[1]	93-8[2]	90-14[2]	93-31[2]
	OGi	G	G	OGi	G	OGi	OGi	TRi	OGi	OGi
Cs	0.09	0.04	0.04	0.02	0.08	0.53	0.30	n.d.	0.06	n.d.
Rb	1.0	1.0	1.3	0.6	1.1	0.7	1.5	0.7	1.3	0.9
Ba	33	45	55	19	33	30	72	40	47	43
Th	0.05	0.02	0.04	0.02	0.02	0.03	0.13	n.d.	n.d.	n.d.
U	0.02	0.01	0.02	0.01	0.01	0.02	0.06	0.00	0.01	0.01
Nb	0.2	0.0	0.2	0.0	0.2	0.1	0.4	0.6	0.6	0.6
Ta	0.02	0.00	0.01	0.00	0.01	0.01	0.03	0.08	0.05	0.09
Pb	1.0	0.5	0.5	0.2	0.7	0.6	1.1	n.d.	4.2	2.0
Sr	232	390	389	115	294	275	232	164	156	178
Zr	4.	4.	6.	4.	2.	5.	10.	3.	4.	4.
Hf	0.12	0.15	0.19	0.12	0.06	0.13	0.31	0.07	010	0.09
TiO_2	0.082	0.129	0.135	0.098	0.060	0.118	0.192	0.090	0.059	0.102
Y	1.4	2.8	2.7	2.1	1.0	2.1	4.9	1.8	1.2	2.0
V	34	78	49	59	14	37	99	51	30	51
Co	84	45	39	118	45	50	71	118	136	115
Ni	309	83	144	226	208	195	152	484	675	516
Sc	6	12	8	12	3	7	14	n.d.	n.d.	n.d.
Cr	154	217	138	191	107	118	461	228	193	241
Cu	89	13	49	16	48	52	59	59	38	105
Zn	68	41	39	96	30	38	64	40	92	53
La	0.58	0.60	0.83	0.35	0.59	0.50	1.53	0.53	0.59	0.55
Ce	1.28	1.42	1.88	0.86	1.26	1.25	3.61	1.13	1.10	1.15
Pr	0.19	0.23	0.29	0.14	0.18	0.19	0.53	n.d.	n.d.	n.d.
Nd	0.85	1.14	1.36	0.69	0.81	0.94	2.38	0.82	0.64	0.90
Sm	0.22	0.35	0.38	0.23	0.19	0.27	0.64	0.22	0.18	0.24
Eu	0.36	0.56	0.59	0.19	0.38	0.44	0.44	0.26	0.17	0.28
Gd	0.25	0.46	0.45	0.30	0.20	0.33	0.75	0.26	0.19	0.29
Tb	0.04	0.08	0.08	0.05	0.03	0.06	0.13	n.d.	n.d.	n.d.
Dy	0.24	0.49	0.46	0.34	0.18	0.35	0.79	0.28	0.18	0.31
Ho	0.05	0.10	0.10	0.08	0.04	0.08	0.17	n.d.	n.d.	n.d.
Er	0.15	0.29	0.26	0.22	0.10	0.21	0.49	n.d.	n.d.	n.d.
Yb	0.15	0.27	0.25	0.24	0.09	0.21	0.50	0.18	0.14	0.20
Lu	0.03	0.04	0.04	0.04	0.02	0.03	0.08	0.03	0.024	0.03

[1] analyzed by ICP-MS at Boston University (T. Plank) [2] analyzed by ICP-MS at Union College (J. H. Tepper) [3] analyzed by ICP-MS at Chemex Labs and Elemental Research Inc. (Vancouver, BC)

Table DR7: Clinopyroxene trace element data (ppm).

	93-8 grain 1	93-8 grain 2	94-14 grain 1	94-14 grain 2	94-14 grain 3	94-14 grain 4	94-14 grain 5	94-22 grain 1	94-22 grain 2	94-22 grain 3	94-22 grain 4	93-30 grain 1	93-30 grain 2	94-53 grain 1
La	1.49	1.25	0.82	1.12	0.88	1.11	1.15	0.93	0.87	0.80	0.84	1.09	1.26	3.33
Ce	7.00	5.02	3.52	4.02	3.13	3.74	3.71	5.19	4.35	4.36	4.48	5.19	5.37	13.70
Nd	9.01	5.78	4.37	4.07	3.69	4.05	4.12	8.24	6.77	6.70	6.87	7.68	6.56	14.05
Sm	4.23	2.68	1.95	2.03	1.71	1.84	1.85	4.58	3.78	3.85	4.11	4.20	3.58	5.46
Eu	0.58	0.53	0.60	0.69	0.62	0.65	0.68	0.76	0.70	0.66	0.67	0.57	0.57	0.60
Gd*	3.76	2.45	1.75	1.87	1.68	1.76	1.74	4.87	4.15	4.08	4.31	3.98	3.23	4.03
Dy	6.94	4.37	2.91	3.05	2.74	2.87	2.81	8.97	7.60	7.50	7.95	7.39	5.90	7.47
Er	3.68	2.43	1.78	1.62	1.37	1.46	1.56	5.37	4.29	4.16	4.30	3.61	2.97	3.47
Yb	3.86	2.60	1.58	1.73	1.45	1.47	1.58	5.61	5.05	4.87	4.93	3.85	3.24	3.81
Ti	4550	3170			2500	3000		7740	10300	16500		3780		3650
Cr	2000	2750			1330	900		2920	3010	4300		2730		2210
Sr	21	19			24	23		13	17	75		18		21
Zr	45	18			16	10		80	88	130		62		74

* Gd interpolated

Samples 93-8, 93-30, and 93-53 are tectonic lenses in troctolite; sample 94-14 is a xenolith in gabbro; sample 94-22 is an inclusion in gabbro (margins not exposed).

Table DR8: Sm-Nd data.

Sample/mineral	Sm (ppm)	Nd (ppm)	$^{147}Sm/^{144}Nd$	$^{143}Nd/^{144}Nd$
SC95-8 WR*	0.53	1.57	0.21065	0.512959
SC95-8 Cpx	2.31	5.12	0.26717	0.512968
SC95-8 Pl	0.19	0.88	0.13131	0.512953
SC95-8 Ol	0.14	0.68	0.12581	0.512930
SC95-8 Amp	1.71	3.98	0.26637	0.512989
SC95-9 WR*	0.24	0.74	0.19941	0.512942

* WR = whole rock