

Table 2S - Clinopyroxene and diopside inclusions averaged major element compositions

Sample	16OM07A	16OM07B	16OM08	16OM09A	16OM10	16OM11A	16OM15A	16OM16A	16OM17	16OM18	16OM19	16OM21	16OM22
Lithology	pure dunite	pure dunite	pure dunite	pure dunite	cpx-dunite	cpx-dunite	pl/cpx dunite	opx/pl/cpx dunite	opx/pl/cpx dunite	amph-dunite (± pl/cpx)	amph-dunite (± pl/cpx)	opx/pl/cpx dunite	amph-dunite (± pl/cpx)
Longitude	57.934897	57.934897	57.935311	57.935664	57.935957	57.936141	57.937001	57.937188	57.937362	57.937525	57.937619	57.937908	57.938136
Latitude	23.128860	23.128860	23.129111	23.129051	23.128747	23.129032	23.129323	23.129348	23.129405	23.129352	23.129312	23.129206	23.129123
Elevation (m)	814	814	828	837	849	854	906	918	931	940	945	962	978
Mineral type	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx
n analyses	1	31	1	15	13	2	1	5	3	8	4	3	2
SiO ₂	51.21	52.79	52.82	52.94	51.92	52.46	52.24	52.90	53.15	53.05	52.74	53.21	53.18
TiO ₂	0.34	0.25	0.19	0.29	0.29	0.36	0.62	0.46	0.49	0.40	0.29	0.47	0.27
Al ₂ O ₃	3.38	2.32	2.08	2.55	2.66	2.20	2.72	2.34	1.74	2.27	1.95	2.00	1.94
Cr ₂ O ₃	1.44	1.16	0.77	1.26	0.93	1.42	1.42	1.49	1.36	1.45	1.36	1.22	1.42
FeO (tot)	3.22	2.39	2.54	2.24	2.74	2.40	3.29	2.51	2.55	2.62	3.18	2.53	2.93
MgO	15.35	16.18	16.48	16.20	15.81	16.29	16.09	17.39	17.26	17.56	16.73	17.00	17.03
MnO	0.03	0.05	0.06	0.05	0.04	0.06	0.09	0.09	0.09	0.10	0.15	0.10	0.11
NiO	0.02	0.04	0.00	0.04	0.04	0.06	0.02	0.05	0.05	0.05	0.05	0.04	0.03
CaO	24.70	24.61	24.46	24.32	25.05	24.46	24.12	23.03	23.76	23.03	23.43	23.04	22.79
Na ₂ O	0.40	0.49	0.37	0.64	0.25	0.52	0.47	0.35	0.24	0.34	0.55	0.64	0.55
K ₂ O	0.00	0.01	0.00	0.02	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.03	0.01
Total	100.09	100.29	99.77	100.55	99.74	100.23	101.08	100.62	100.69	100.87	100.43	100.28	100.26
XMg	89.47	92.33	92.05	92.81	91.14	92.35	89.72	92.52	92.33	92.30	90.33	92.29	91.19

$$\text{XMg} = 100 \times \text{Mg}/(\text{Mg} + \text{Fe}^{2+})$$

Sample	16OM23	16OM24A	16OM25	16OM26	16OM27	16OM28	16OM29	16OM30	16OM31	16OM32	16OM33	16OM34	16OM35	16OM37	16OM38A
Lithology	amph-dunite (± cpx)	amph-dunite (± opx/pl/cpx)	opx/pl/cpx dunite	opx/pl/cpx dunite	opx/pl/cpx dunite	opx/pl/cpx dunite	opx/pl/cpx dunite	amph-dunite (± pl/cpx)	cpx-dunite	cpx-dunite	pure dunite	cpx-dunite	pure dunite	pure dunite	pure dunite
Longitude	57.938363	57.938480	57.938641	57.938836	57.939020	57.939176	57.939412	57.939619	57.939776	57.926521	57.926974	57.927408	57.928180	57.930680	57.931841
Latitude	23.129040	23.128933	23.128824	23.128677	23.128565	23.128442	23.128313	23.128173	23.128046	23.133737	23.132670	23.131528	23.130736	23.130369	23.129961
Elevation (m)	995	1004	1016	1031	1046	1058	1065	1068	1072	685	688	697	707	730	748
Mineral type	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx
n analyses	8	16	2	3	1	2	2	1	1	3	47	3	1	24	17
SiO ₂	52.85	52.91	53.67	51.74	51.70	52.53	52.28	53.47	51.70	52.29	53.00	53.16	52.08	53.14	53.16
TiO ₂	0.44	0.24	0.45	0.44	0.58	0.42	0.46	0.24	0.61	0.18	0.25	0.15	0.48	0.32	0.31
Al ₂ O ₃	2.32	2.23	1.60	3.08	2.33	2.09	2.15	2.17	2.32	2.86	2.24	2.69	2.98	2.13	2.31
Cr ₂ O ₃	1.22	1.45	1.11	1.31	1.96	1.49	1.28	1.21	1.15	1.68	1.38	1.53	1.04	1.32	1.28
FeO (tot)	2.45	2.96	2.52	2.93	3.13	3.24	3.15	3.81	3.33	2.59	2.19	2.02	2.67	1.99	2.42
MgO	17.63	16.90	16.94	16.12	16.23	17.00	17.32	16.19	16.25	16.42	16.66	16.57	16.31	16.78	16.33
MnO	0.08	0.09	0.08	0.11	0.11	0.11	0.11	0.10	0.06	0.05	0.05	0.06	0.04	0.04	0.05
NiO	0.04	0.04	0.06	0.05	0.03	0.05	0.05	0.11	0.00	0.04	0.04	0.04	0.02	0.04	0.05
CaO	22.79	23.09	24.15	23.58	24.08	22.51	23.26	22.83	23.90	24.76	24.55	23.58	25.22	24.44	24.24
Na ₂ O	0.42	0.74	0.40	0.24	0.25	0.58	0.31	0.93	0.46	0.24	0.54	0.84	0.28	0.61	0.74
K ₂ O	0.04	0.01	0.01	0.01	0.00	0.01	0.45	0.00	0.00	0.01	0.02	0.04	0.00	0.01	0.01
Total	100.28	100.66	100.99	99.61	100.40	100.03	100.82	101.06	99.78	101.12	100.92	100.68	101.12	100.82	100.90
XMg	92.74	91.08	92.28	90.74	90.25	90.35	90.72	88.33	89.69	91.88	93.14	93.59	91.59	93.76	92.33

$$XMg = 100 \times Mg / (Mg + Fe^{2+})$$

Sample	16OM38B	16OM39	16OM40	16OM41A	16OM41B	16OM41C	16OM42	16OM43
Lithology	chromitite	pure dunite	pure dunite	pure dunite	amph-dunite* (± cpx)	pure dunite*	pure dunite	pure dunite
Longitude	57.931841	57.932391	57.932946	57.933308	57.933308	57.933308	57.933828	57.934188
Latitude	23.129961	23.129682	23.129669	23.129253	23.129253	23.129253	23.129515	23.129159
Elevation (m)	748	751	763	772	772	772	788	791
Mineral type	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx	Cpx
n analyses	1	6	2	25	24	12	9	9
SiO ₂	53.99	53.31	52.94	52.60	53.06	53.17	52.94	52.82
TiO ₂	0.29	0.29	0.18	0.28	0.31	0.25	0.21	0.30
Al ₂ O ₃	2.16	2.29	2.55	2.28	2.23	2.09	2.14	2.28
Cr ₂ O ₃	1.50	1.37	1.36	1.42	1.37	1.30	0.95	1.01
FeO (tot)	1.73	2.13	2.33	2.41	1.98	2.28	2.40	2.48
MgO	16.12	16.66	15.84	16.45	16.95	16.57	16.30	16.42
MnO	0.04	0.03	0.05	0.05	0.06	0.05	0.05	0.05
NiO	0.05	0.04	0.04	0.04	0.05	0.06	0.04	0.05
CaO	23.53	23.82	24.78	24.26	23.63	24.17	24.96	24.91
Na ₂ O	1.15	0.78	0.44	0.59	0.66	0.61	0.28	0.34
K ₂ O	0.00	0.02	0.00	0.01	0.02	0.01	0.01	0.01
Total	100.56	100.74	100.51	100.39	100.32	100.56	100.28	100.67
XMg	94.32	93.29	92.36	92.39	93.84	92.81	92.38	92.18

XMg = $100 \times \text{Mg}/(\text{Mg} + \text{Fe}^{2+})$

* (with chromite schlieren)

Sample	16OM10	16OM18	16OM21	16OM22	16OM24A	16OM33	16OM37	16OM38A	16OM41A	16OM41B
Lithology	cpx dunite	amph-dunite (± pl/cpx)	opx/pl/cpx dunite	amph-dunite (± pl/cpx)	amph-dunite (± opx/pl/cpx)	pure dunite	pure dunite	pure dunite	pure dunite	pure dunite*
Longitude	57.935957	57.937525	57.937908	57.938136	57.938480	57.926974	57.930680	57.931841	57.933308	57.933308
Latitude	23.128747	23.129352	23.129206	23.129123	23.128933	23.132670	23.130369	23.129961	23.129253	23.129253
Elevation (m)	849	940	962	978	1004	688	730	748	772	772
Mineral type	diopside	diopside	diopside	diopside	diopside	diopside	diopside	diopside	diopside	diopside
n analyses	2	1	2	1	1	2	1	2	2	6
SiO ₂	53.50	53.33	54.16	52.36	54.71	54.21	54.04	54.62	53.55	54.48
TiO ₂	0.19	0.00	0.10	0.12	0.02	0.13	0.23	0.12	0.13	0.14
Al ₂ O ₃	1.11	0.52	0.50	0.36	0.66	0.94	0.84	0.58	0.86	0.65
Cr ₂ O ₃	0.27	1.85	0.67	0.55	0.98	0.61	0.90	0.78	0.47	0.75
FeO (tot)	1.71	3.11	1.70	1.07	1.74	1.31	1.45	1.39	1.31	1.18
MgO	17.10	17.09	18.26	19.10	17.53	17.74	17.89	17.50	17.71	17.88
MnO	0.04	0.07	0.08	0.01	0.06	0.01	0.03	0.04	0.02	0.04
NiO	0.02	0.09	0.04	0.00	0.02	0.03	0.10	0.05	0.03	0.05
CaO	25.91	25.23	24.81	25.59	24.74	25.66	25.74	25.30	25.45	24.82
Na ₂ O	0.08	0.02	0.16	0.00	0.36	0.15	0.16	0.40	0.14	0.33
K ₂ O	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Total	99.94	101.31	100.48	99.16	100.82	100.79	101.38	100.78	99.67	100.33
XMg	94.68	90.74	95.03	96.95	94.74	96.00	95.67	95.72	96.01	96.40

XMg = 100 × Mg/(Mg + Fe²⁺)

* (with chromite schlieren)