TABLE 6: REPRESENTATIVE OLIVINE ANALYSES

	Rodriguez					San Marcos				Adam			
Sample	D3-21 C	D3-21 R	D3-21 R	D3-21 C	D4-4 m	D6-51 R	D6-51 C	D6-51 R	D6-51 C	D7-5 m	D7-5 m	D8-1b R	D8-1b C
SiO_2	39.8	39.7	39.6	38.7	39.6	39.4	39.3	39.0	39.4	40.0	40.2	39.9	39.9
FeO	12.6	14.3	14.5	19.0	15.3	16.2	15.9	17.5	16.3	13.2	12.2	13.9	13.8
MgO	45.9	44.2	44.5	41.6	43.5	42.7	43.2	41.6	42.5	45.2	46.2	44.4	44.6
CaO	0.25	0.28	0.25	0.08	0.21	0.22	0.23	0.26	0.21	0.32	0.30	0.33	0.32
MnO	0.18	0.22	0.22	0.28	0.25	0.27	0.23	0.29	0.23	0.23	0.20	0.22	0.23
NiO	0.38	0.30	0.27	0.19	0.24	0.27	0.29	0.27	0.29	0.14	0.24	0.13	0.14
Total	99.2	99.0	99.4	99.9	99.1	99.0	99.1	99.0	99.0	99.1	99.3	99.0	99.1
Fo	86.6	84.7	84.5	79.6	83.5	82.5	82.9	80.9	82.3	85.9	87.1	85.1	85.6

	Hoss		Little Joe						Flint			Rocas Alijos	
Sample	D11-2 m	D11-2 m	D13-2b R	D13-2b C	D14-1b R	D14-1b C	D21-3 R	D21-3 C	D23-2c m	D23-2c R	D23-2c C	A91-374 m	A91-374 m
SiO_2	39.9	39.4	39.9	40.7	39.2	39.2	38.4	38.5	38.0	38.9	38.6	29.7	29.1
FeO	13.1	13.6	12.7	11.9	16.1	14.8	17.9	16.7	20.8	20.0	19.5	67.7	67.5
MgO	45.9	45.3	46.4	47.3	43.4	44.1	42.1	42.9	39.7	40.9	40.8	0.24	0.12
CaO	0.33	0.45	0.23	0.21	0.21	0.20	0.21	0.17	0.23	0.19	0.20	0.33	0.51
MnO	0.22	0.24	0.21	0.18	0.22	0.23	0.22	0.20	0.28	0.28	0.26	2.68	2.70
NiO	0.08	0.09	0.22	0.31	0.31	0.39	0.36	0.46	0.31	0.43	0.43	0.00	0.00
Total	99.5	99.0	99.6	100.6	99.4	99.0	99.2	99.0	99.2	100.6	99.8	100.7	99.9
Fo	86.2	85.6	86.7	87.6	82.8	84.2	80.8	82.1	77.3	78.4	78.9	0.63	0.31

R and C, rim and core of phenocryst; m, microphenocryst.

TABLE 7. REPRESENTATIVE FELDSPAR ANALYSES

	Rodriguez					San Marcos			Adam				Hoss	
Sample	D3-18 R	D3-18 C	D3-18 m	D4-4 R	D4-4 C	D6-51 R	D6-51 C	D6-51 m	D7-5 R	D7-5 C	D8-1b m	D8-1b m	D11-2 R	D11-2 C
SiO_2	54.4	51.0	49.9	53.7	50.0	52.0	50.8	51.2	50.1	48.7	50.6	51.4	49.9	48.5
Al_2O_3	28.4	31.6	31.6	29.5	31.8	29.2	29.8	28.8	31.5	32.0	31.5	30.5	30.7	32.4
FeO	0.87	0.33	0.47	0.56	0.43	0.67	0.87	1.79	0.45	0.30	0.54	0.63	0.45	0.35
MgO	0.14	0.10	0.14	0.11	0.10	0.17	0.40	0.23	0.25	0.21	0.30	0.30	0.25	0.23
CaO	10.5	13.6	14.2	11.2	14.4	12.5	13.0	12.4	14.7	15.6	14.3	12.9	14.4	15.3
K_2O	0.62	0.26	0.24	0.51	0.21	0.30	0.40	0.43	0.03	0.03	0.06	0.07	0.01	0.02
Na_2O	5.21	5.21	3.43	4.99	3.29	4.27	3.76	4.16	3.15	2.66	3.48	4.40	3.29	2.71
Total	100.2	100.6	100.0	100.6	100.2	99.1	99.1	99.0	100.0	99.4	100.7	100.2	99.0	99.5
An	50.8	65.3	68.5	53.6	70.0	60.8	64.1	60.7	71.9	76.2	69.1	61.7	70.7	75.6
Ab	45.6	33.2	30.0	43.5	28.8	37.5	33.6	36.8	27.9	23.6	30.5	37.9	29.3	24.3
Or	3.6	1.5	1.4	2.9	2.9	1.7	2.3	2.5	0.2	0.2	0.4	0.4	0.0	0.1

	Little Joe			Ben			Flint		Rocas Alijos					
Sample	D14-1b R	D14-1b C	D14-1b m	D17-28 R	D17-28 C	D17-28 m	D21-3 m	D23-2c m	A91-374 R	A91-374 C	A91-374 R	A91-374 C	A91-G1 m	A91-G1 m
SiO_2	50.2	50.5	51.2	50.8	49.9	51.6	50.4	54.1	66.1	67.3	65.6	66.3	64.1	64.5
Al_2O_3	31.2	31.8	30.7	30.0	30.7	29.1	31.5	28.5	19.2	18.9	19.4	18.8	20.4	21.0
FeO	0.57	0.54	0.71	0.70	0.49	0.86	0.70	1.02	0.43	0.15	0.44	0.22	0.88	0.57
MgO	0.16	0.13	0.17	0.33	0.30	0.29	0.18	0.20	0.00	0.02	0.03	0.00	0.04	0.00
CaO	13.9	13.9	13.2	13.8	14.8	13.1	14.0	11.4	0.69	0.18	0.44	0.10	2.05	2.19
K_2O	0.18	0.19	0.23	0.02	0.02	0.04	0.23	0.26	5.53	7.80	5.90	7.05	5.15	4.70
Na_2O	3.43	3.52	3.91	3.65	2.95	4.00	3.69	4.89	7.58	6.10	7.44	6.72	6.67	6.94
Total	99.6	100.5	100.1	99.3	99.3	99.0	100.6	100.3	99.5	100.4	99.2	99.1	99.3	99.9
An	68.5	67.8	64.2	67.5	73.4	64.3	66.8	55.4	3.3	0.9	2.1	0.5	10.1	10.8
Ab	30.5	31.1	34.5	32.4	26.5	35.5	31.9	43.1	65.4	53.9	64.4	58.9	59.6	61.8
Or	1.0	1.1	1.3	0.1	0.1	0.2	1.3	1.5	31.4	45.3	33.6	40.6	30.3	27.5

R and C, rim and core of phenocrysts; m, microlite.

TABLE 8. REPRESENTATIVE SPINEL ANALYSES

	Rodriguez					San Marcos			Hoss		Little Joe			Flint
Sample Host	D3-8 Oli	D3-18 Oli	D3-21 Oli	D3-21 Gms	D5-10 Oli	D5-1 Plag	D6-51 Oli	D6-51 Oli	D11-2 Oli	D11-2 Gms	D13-2b Oli	D13-2b Oli	D14-1b Oli	D21-3 Oli
TiO_2	1.11	2.16	1.37	0.99	2.34	5.72	1.45	3.55	0.82	0.82	1.36	0.98	2.87	2.71
Al_2O_3	40.6	38.8	40.0	41.8	37.6	24.5	40.4	32.9	31.0	30.8	37.8	39.0	31.5	36.4
FeO	15.1	10.4	15.3	14.4	18.6	22.6	17.3	20.8	13.8	14.1	13.6	12.9	19.3	19.5
Fe_2O_3	7.93	17.9	11.8	7.47	11.3	17.1	10.0	14.4	6.67	6.89	6.40	6.37	12.4	10.7
MnO	0.19	0.22	0.23	0.20	0.22	0.29	0.21	0.27	0.23	0.24	0.18	0.20	0.25	0.24
MgO	15.8	14.4	15.6	16.4	14.0	11.6	14.7	12.8	15.5	15.2	16.8	16.7	13.2	13.4
CaO	0.13	0.03	0.02	0.08	0.01	0.23	0.00	0.02	0.05	0.15	0.00	0.01	0.02	0.03
Cr_2O_3	19.7	16.7	15.5	19.4	16.8	17.8	16.8	16.3	32.9	32.7	24.6	24.3	21.4	17.3
Total	100.6	100.7	99.8	99.9	100.9	99.8	100.9	100.9	100.9	100.9	100.8	100.9	100.9	100.0
Mg#	65.3	58.9	64.5	66.9	57.3	47.7	60.3	52.3	66.6	65.8	68.7	70.0	55.1	55.0
Cr#	24.6	22.4	20.6	23.8	23.0	32.7	21.8	31.0	41.6	41.6	30.4	29.5	31.3	24.2

Mg#, $100Mg/(Mg+Fe^{2+})$; Cr#, Cr/Cr+Al; Oli, olivine; Plag, plagioclase; Gms, groundmass.

TABLE 9. REPRESENTATIVE CLINOPYROXENE AND AMPHIBOLE ANALYSES

	Ben			Adam		Rocas Alijos				
Sample	D17-25 m	D17-25 m	D17-28f m	D9-22 m	D9-22 m	A91-374 R	A91-374 C	A91-376 R	A91-376 C	A91-374 m
SiO_2	53.7	51.3	50.3	52.0	52.6	47.8	48.0	47.8	48.2	49.4
TiO_2	0.44	0.86	1.18	1.30	0.79	0.65	0.78	0.76	0.74	0.76
Al_2O_3	1.72	4.02	3.91	2.65	2.22	0.89	1.00	1.17	0.97	0.14
FeO	6.98	5.47	9.19	10.2	8.11	27.9	27.8	28.1	27.8	28.3
Cr_2O_3	0.08	0.60	0.21	0.33	0.56	0.01	0.00	0.00	0.00	0.00
MnO	0.21	0.13	0.22	0.25	0.22	0.90	0.92	0.88	0.82	0.70
MgO	19.1	16.6	14.3	16.1	17.7	1.72	1.61	1.66	1.69	0.28
CaO	17.8	20.2	20.3	17.6	17.5	19.7	19.9	19.8	19.9	12.9
Na_2O	0.21	0.27	0.39	0.33	0.34	0.46	0.47	0.50	0.47	4.82
Total	100.2	99.5	100.1	100.6	99.9	100.0	100.5	100.7	100.6	97.3
Wo	35.8	42.5	42.9	36.7	36.2	44.9	45.5	45.0	45.2	--
En	53.3	48.6	42.0	46.7	50.8	5.5	5.1	5.2	5.4	--
Fs	10.9	8.9	15.1	16.6	13.1	49.6	49.4	49.8	49.4	--
Mg#	83.0	84.4	73.5	73.8	79.5	9.9	9.3	9.5	9.8	1.7

R and C , rim and core of phenocryst, respectively; m, microlite. Mg#, $100Mg/(Mg+Fe^{2+})$.

TABLE 10: $^{40}Ar/^{39}Ar$ LASER FUSION DATA

Sample	$^{40}Ar/^{39}Ar^{a}$	$^{37}Ar/^{39}Ar^{b}$	$^{36}Ar/^{39}Ar^{a}$ (x 10^{-2})	$^{39}Ar_{K}$ (mol)	$^{40}Ar^{*}$ (%)	$^{40}Ar^{*}/^{39}Ar_{K}$	Age±1σ^{c} (Ma)
D3-18 J=0.007520							
				(x 10^{-14})			
a	1.085	17.34	0.558	3.37	82.6	0.915	12.4±0.1
b	0.968	18.10	0.577	1.36	80.3	0.806	10.9±0.2
c	1.405	16.78	0.584	3.28	77.5	1.108	15.0±0.1
d	1.153	16.90	0.571	3.14	76.6	0.900	12.2±0.1
e_1	1.031	15.18	0.510	1.51	76.4	0.809	10.9±0.2
e_2	1.011	18.54	0.572	1.30	86.0	0.896	12.1±0.2
f_1	1.238	14.83	0.571	1.19	63.3	0.805	10.9±0.3
f_2	1.003	17.51	0.546	1.67	84.9	0.874	11.8±0.2
D5-20 J=0.007620							
				(x 10^{-15})			
a	31.638	23.15	11.15	6.01	2.1	0.665	9.1±2.8
b_1	74.979	21.95	24.45	1.61	6.1	4.668	63.1±11.6
b_2	31.399	25.13	11.02	2.63	3.1	0.994	13.6±2.4
c_1	19.313	21.07	6.64	1.24	7.5	1.490	20.4±3.4
c_2	18.789	22.72	6.80	8.11	3.3	0.626	8.58±1.2
c_3	5.869	24.05	2.29	4.96	19.4	1.167	16.0±0.8
D6-51 J=0.007620							
				(x 10^{-15})			
a	28.837	23.89	10.18	5.44	2.7	0.790	10.8±2.3
D9-22 J=0.007508							
				(x 10^{-14})			
a	3.812	20.50	1.440	1.64	33.5	1.306	17.6±0.4
b	3.579	21.00	1.392	1.71	34.4	1.258	17.0±0.3
c	3.527	20.29	1.344	1.58	35.7	1.286	17.3±0.3
d	4.001	21.07	1.545	1.35	30.1	1.233	16.6±0.5
e	4.003	21.45	1.542	1.33	31.2	1.279	17.2±0.4
f	3.647	21.55	1.434	1.53	33.4	1.247	16.8±0.3
g_1	6.351	17.13	2.255	0.58	17.6	1.142	15.4±0.8
g_2	2.142	24.21	1.006	1.00	55.7	1.238	16.7±0.4
h_1	5.076	15.90	1.828	0.50	19.6	1.023	13.8±0.5
h_2	2.141	24.18	0.996	1.31	57.1	1.266	17.1±0.4
D11-2 J=0.007620							
				(x 10^{-16})			
a_1	14.435	321.66	13.13	8.70	22.5	4.270	57.8±5.1
a_2	20.112	246.45	13.13	6.90	12.0	2.978	40.5±13.6
b	12.968	405.83	14.53	6.92	36.1	6.695	89.8±7.8
c_1	23.454	280.10	15.12	3.12	11.7	3.530	47.9±1.4
c_2	40.701	276.62	20.78	1.27	7.3	3.716	50.4±6.1
D14-1 J=0.007620							
				(x 10^{-15})			
a	2.334	23.34	1.300	4.96	19.8	0.481	6.60±5.7
b	2.081	22.55	1.206	6.62	20.1	0.435	5.96±2.6
c	2.117	22.63	1.201	6.56	22.6	0.491	6.74±2.6

D17-28 J=0.007594

				(x 10^{-15})			
a	1.439	59.29	1.941	6.53	51.7	0.795	10.9±0.5
b	2.484	131.85	4.106	5.42	64.9	1.803	24.5±1.2
c	2.763	153.41	4.868	4.82	54.6	1.707	23.2±1.4
d_1	4.771	127.01	4.828	1.15	28.4	1.524	20.8±3.6
d_2	2.141	187.32	5.515	1.71	84.6	2.176	29.6±2.3

A91-374 J=0.0004850

		(x10-2)		(x 10^{-14})			(Ka±1σ)
a	0.865	3.029	0.182	1.58	38.0	0.330	289±4
b	0.940	4.242	0.215	3.21	32.9	0.309	270±4
c	0.959	4.746	0.218	3.46	33.1	0.318	278±5
d	0.899	5.226	0.196	3.57	36.1	0.325	284±7
e	0.844	4.680	0.180	3.94	37.2	0.315	275±5
f_1	0.966	6.390	0.236	1.01	28.1	0.274	239±11
f_2	0.867	4.442	0.190	4.40	35.5	0.309	270±5
g	0.842	5.620	0.181	3.57	37.0	0.312	273±5
h	0.947	4.698	0.215	3.63	33.2	0.315	276±4
i	0.971	5.533	0.225	6.69	32.0	0.311	272±3

[a] Background and blank corrected; [b] corrected for ^{37}Ar decay, half life 35.1 days; [c] decay constants taken from Steiger and Jäger (1977) and uncertainties are estimates of the standard deviation of analytical precision (Dalrymple and Lanphere, 1971). Sample names with subscripts indicate samples heated at 2W (1) and melted at 6 W (2).