

Table 2. Chemical analytical and mineralogical data for replacement carbonatites.
[Same footnotes as Table 1 apply.]

CLAIM	Haputa																														Amethyst									
FIELD NO.	74A-3A	74A-5	74A-2	74A-106	74A-111	74A-115	74A-117	74A-120	74A-122	74A-125	74A-149	74A-156	74A-159	74A-160	74A-167A	74A-167B	74A-171	74A-176	75A-211A	75A-211B	75A-235	75A-263C	75A-268	75A-271	75A-272	75A-273B	75A-274B	75A-309	75A-311	75A-312	75A-313B	75A-318	75A-319	75A-345	75A-348	75A-352	75A-353B	75A-361A		
LAB. NO.	D169178	D169180	D169188	D169440	D169444	D169449	D169450	D169452	D169453	D169465	D169473	D169477	D169479	D169480	D169487	D169488	D169492	D176564	D176567	D176593	D176868	D176874	D176876	D176877	D176879	D176881	D177188	D177190	D177190	D177193	D177197	D177198	D177542	D177545	D177549	D177551	D177559			
Semiquantitative spectrographic analyses (in percent)																																								
Fe	7.	5.	3.	5.	7.	7.	5.	5.	3.	6.	5.	3.	5.	7.	5.	2.	5.	5.	10.	3.	5.	3.	5.	3.	6.	7.	3.	3.	7.	5.	7.	6.	5.	10.	7.	10.	10.	5.		
Mg	.7	.3	2.	7.	1.	2.	3.	.5	3.	.1	7.	.3	7.	2.	3.	5.	.3	5.	5.	1.5	.3	3.	1.5	5.	1.5	1.5	1.	5.	1.5	1.5	3.	7.	1.5	6.	5.	6.	6.	.3		
Ca	6	6	3.	7.	7.	7.	10.	7.	6	1.5	10.	6	10.	5.	6	10.	10.	7.	10.	6	6	6	7.	10.	10.	6	6	6	6	5.	6	6	6	6	6	6	10.	6	10.	
Ti	.07	.5	.5	.7	.5	.5	.3	.5	.7	.003	.3	1.	.3	.5	.5	.3	.3	.3	.7	.3	.7	.15	.3	.3	.7	1.	.7	.7	.5	.7	1.	1.	2.	1.5	.7	1.5	.5			
Mn	.5	.3	.07	.1	.15	.2	.15	.05	.15	2.	.1	.1	.1	.07	.07	.15	.05	.05	.1	.3	.2	.07	.07	.07	.7	.3	.7	.15	.3	.1	.2	.2	.2	.15	.2	.1	.7	.1		
Ba	.15	.05	.07	.1	1.	.3	.02	.07	.015	10.	.15	.07	.1	.07	.07	.03	.05	.05	.2	.02	.015	.1	.03	3.	1.	1.5	.1	.02	.02	.07	.02	.7	.2	.3	.07	.015	.3	1.		
Be	N	N	.00015	.0007	.0005	.0005	.0015	.0002	.0001	.0007	.001	.0003	.0005	.001	.0002	.0003	N	.00015	N	.002	N	.0015	.0015	.0001	.0003	.0015	N	.0015	.0015	.001	.0015	.001	.0015	.001	.0015	.0005	.002	.0015	.00015	
Co	.003	.001	.002	.002	.003	.002	.0015	.0015	.001	.007	.002	.0015	.0015	.002	.002	.0015	.0015	.002	.003	.0007	.0003	.003	.0015	.03	.007	.0015	.003	.002	.001	.001	.003	.005	.003	.005	.005	.007	.005	.001		
Cr	.015	.03	.07	.05	.02	.05	.05	.007	.05	.01	.2	.03	.07	.05	.03	.03	.02	.03	.05	.02	.0015	.05	.007	.015	.05	.03	.007	.07	.05	.01	.07	.07	.05	.07	.07	.15	.15	.0015		
Cu	.0015	.0015	.007	.0015	.0007	.0007	.0005	.0007	.002	.003	.0003	.005	.0007	.005	.005	.003	.005	.001	.02	.007	.001	.007	.003	.002	.01	.007	.01	.0002	.0015	.007	.0002	.01	.0005	.002	.0015	.01	.002	.001		
La	.5	.007	.007	.007	.007	.007	.007	.007	.003	.007	.005	.01	.007	.005	.003	.01	N	.015	.03	.003	N	N	N	.015	.015	.05	.1	.005	.005	.007	N	.005	.01	.005	.007	N	.01	.005		
Mo	.003	.0003	L	.002	.0003	N	N	N	N	.0003	N	N	N	N	N	N	N	.0005	N	N	N	N	N	N	N	N	.0007	.001	.001	N	N	N	N	N	N	.0005	N	N	N	N
Nb	.003	.007	.007	.007	.015	.01	.005	.003	.005	N	.003	.015	.003	.007	.002	.007	.007	.005	.002	.0015	.002	.03	.007	.007	.015	.015	.2	.02	.015	.007	.015	.015	.015	.01	.015	.007	.015	.002		
Ni	.007	.007	.015	.015	.007	.02	.015	.002	.015	.007	.02	.015	.03	.015	.01	.015	.007	.02	.02	.005	N	.015	.007	.015	.07	.01	.007	.03	.007	.005	.03	.03	.02	.05	.03	.07	.1	.001		
Pb	.007	.002	.003	.003	.0015	.0015	.007	.005	.0015	.001	.003	.0015	.005	.007	.001	.001	.07	.005	N	.015	N	.02	.003	.0015	.007	.1	.015	.001	N	.002	N	.007	.0015	.003	.002	.002	N	.01		
Sc	.0015	.0015	.0015	.0015	.002	.0015	.0015	.002	.0015	.0007	.002	.0015	.0015	.003	.0015	.0015	.0007	.002	.003	.007	.002	.015	.003	.0015	.0015	.007	N(.001)	.005	.002	.002	.003	.002	.003	.002	.003	.002	.003	.0015	.0015	
Sr	.07	.015	.03	.2	.05	.15	.1	.03	.07	.05	.15	.02	.07	.1	.1	.1	.05	.15	.1	.2	.015	.1	.07	.1	.05	.1	.05	.07	.07	.05	.07	.07	.05	.2	.2	.07	.1	.07		
V	.007	.015	.015	.015	.015	.01	.01	.015	.007	.003	.007	.015	.01	.02	.01	.005	.003	.005	.03	.007	.01	.02	.007	.015	.03	.03	.1	.015	.02	.02	.02	.02	.03	.03	.02	.03	.01	.005		
Y	.007	.003	.0015	.003	.03	.003	.002	.007	.003	.15	.002	.015	.0015	.007	.002	.005	.003	.002	.002	.003	.01	.07	.03	.015	.005	.015	.07	.015	.005	.02	.002	.003	.005	.005	.007	.003	.003	.02		
Zr	.015	.07	.007	.007	.007	.015	.01	.01	.02	.003	.005	.05	.007	.007	.01	.007	N	N	.015	.03	.05	.02	.07	.007	.007	.02	.002	.007	.03	.02	.007	.015	.007	.02	.03	.015	.02	.03		
Si	3.	7.	6	7.	6	10.	10.	6	5.	3.	7.	10.	7.	6	7.	7.	6	5.	6	6	6	6	6	6	6	10.	10.	2.	7.	5.	6	7.	7.	7.	6	10.	6			
Al	.3	5.	5.	3.	10.	2.	3.	6	1.5	.5	1.5	5.	2.	7.	3.	1.5	10.	1.5	10.	3.	7.	5.	1.5	2.	5.	1.5	3.	2.	5.	3.	2.	3.	5.	5.	3.	3.	10.			
Na	.7	3.	5.	.7	.3	1.	2.	7.	5.	N	5.	3.	5.	10.	1.	.3	1.	.5	2.	1.	5.	7.	3.	7.	3.	.7	3.	.5	.7	5.	5.	3.	5.	7.	2.	3.	3.	1.		
K	1.5	5.	3.	3.	10.	7.	7.	2.	N	N	5.	5.	5.	5.	.7	7.	10.	7.	1.5	2.	3.	7.	N	3.	7.	7.	7.	5.	7.	5.	5.	5.	5.	5.	.7	5.	2.	6		
P	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	1.5	N	N	N	.3	N	N	.15	N	.03	N	N	N	N	N	N	N	N	N		
Ce	1.	.02	.03	.01	.015	.015	.01	.01	N	N	N	.015	N	N	N	.02	N	.03	N	N	N	N	N	.02	.02	.07	.07	N	N	.02	N	N	N	N	N	N	N	.015	N	
Ga	L	.0015	.0015	.001	.0015	.0007	.001	.002	.0007	—	.0007	.0015	.001	.0015	.001	.0007	.001	.0007	.0015	.001	.002	.003	.003	.0015	.001	.0015	.0007	.0007	.0007	.0015	.0007	.001	.001	.002	.0015	.0015	.001	.003		
Yb	.0002	.0003	.00015	.0003	.003	.0007	.0002	N	.0003	.005	.0003	.0015	.0001	.0015	.00015	.0005	.0002	.0002	—	.001	.0015	.007	.003	.002	.0007	.002	.005	.002	.0007	.002	.0003	.0003	.0005	—	.0015	—	—	.002		
Pr	—	—	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Nd	.7	—	.007	N	.007	N	N	.007	N	.01	N	N	N	N	N	.007	—	.01	N	N	—	N	N	.015	.01	.03	.07	N	N	N	—	N	N	N	N	—	N	N		
Sm	.07	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Eu	.01	N	N	N	N	N	N	N	N	.007	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Gd	—	—	—	—	N	—	—	N	—	.005	—	N	—	—	—	—	—	—	—	—	N	N	N	N	N	N	N	N	—	N	—	—	—	—	—	—	—	N	N	
Tb	—	—	—	—	N	—	—	N	—	N	—	N	—	—	—	—	—	—	—	—	N	N	N	N	N	N	N	N	—	N	—	—	—	—	—	—	—	—	N	N
Dy	—	—	—	—	.002	—	—	N	—	.015	—	.002	—	N	—	—	—	—	—	—	N	.015	.007	N	N	N	.015	N	—	.007	—	—	—	—	—	—	—	N	N	
Ho	—	—	—	—	.001	—	—	N	—	.003	—	N	—	N	—	—	—	—	—	—	N	N	N	N	N	N	.005	N	—	L	—	—	—	—	—	—	—	N	L	
Er	—	—	—	—	N	—	—	N	—	.007	—	N	—	N	—	—	—	—	—	—	N	N	N	N	N	N	N	N	N	N	—	N	—	—	—	—	—	—	N	N
Tm	—	—	—	—	N	—	—	N	—	N	—	N	—	N	—	—	—	—	—	—	N	N	N	N	N	N	N	N	—	N	—	—	—	—	—	—	—	—	N	N
Lu	—	—	—	—	N	—	—	N	—	N	—	N	—	N	—	—	—	—	—	—	N	N	N	N	N	N	N	N	—	N	—	—	—	—	—	—	—	—	N	N
Gamma-ray Spectrometric analyses (RaU and Th in ppm, K in percent)																																								
RaU	N.D.	1.15	.99	<1.	.7	<5.	8.2	N.D.	13.99	13	1.06	5.	1.41	.11	<2.	<1.	N.D.	N.D.	1.24	2.13	4.75	3.44	36.3	2.58	N.D.	1.	N.D.	7.9	4.45	N.D.	.25	.59	.33	1.2	N.D.	.26	1.	30.1		
Th	251.6	9.10	6.76	99.4	56.15	148.9	80.24	334.8	58.59	596.6	34.04	143.5	41.05	37.87	52.83	74.17	242.3	3.98	4.70	5.45	41.41	110.6	228.3	173.3	336.7	246	412.8	107.2	68.66	421.6	15.57	57.39	37.10	44.2	104.7	7.08	62.94	302		
K	.11	2.79	1.36																																					