SUPPLEMENTAL FILE 4. DULCE DIKES: LEACHING OF CARBONATE WITH DILUTE HCL

Table S4B. Bulk-sample vs. HCl-leached ICP-MS analyses (ppm)

Sample ID	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Ba	Th	Nb	Y	Hf	Ta	U	Pb	Rb	Cs	Sr	Sc	Zr	CO_2
N Colorado: NW to SE (segments 1, 2B)																												
15L-37 L	20.0	40.1	5.1	21.1	4.5	1.6	4.1	0.6	3.4	0.7	1.8	0.3	1.5	0.23	1071	3.1	8.3	16.5	3.4	0.46	1.1	6.1	22.7	0.4	843	18.8	128	**H**
15L-37	35.1	68.4	8.4	34.2	7.3	2.1	6.4	0.9	5.2	1.0	2.5	0.3	2.1	0.30	1059	4.1	8.1	24.9	3.2	0.43	1.2	7.7	21.3	0.8	880	28.9	124	
Change:	-15.1	-28.4	-3.3	-13.2	-2.7	-0.5	-2.3	-0.3	-1.8	-0.3	-0.7	-0.1	-0.6	-0.07	12	-0.9	0.2	-8.4	0.2	0.03	0.0	-1.6	1.4	-0.4	-37	-10.1	4	
15L-36 L	21.0	42.8	5.5	23.2	5.0	1.7	4.4	0.7	3.8	0.7	1.9	0.3	1.6	0.26	570	3.5	8.1	18.0	3.4	0.44	1.1	3.9	3.7	0.4	431	23.2	129	***H***
15L-36	27.6	57.2	7.5	31.1	6.9	2.1	6.1	0.9	5.0	1.0	2.5	0.3	2.1	0.32	539	3.8	7.4	23.7	3.1	0.41	1.0	4.9	3.3	0.4	479	30.6	117	
Change:	-6.6	-14.4	-2.1	-7.9	-1.8	-0.4	-1.7	-0.3	-1.3	-0.2	-0.6	-0.1	-0.5	-0.06	31	-0.3	0.7	-5.7	0.3	0.03	0.1	-1.0	0.4	0.0	-48	-7.4	12	
15L-39 L	35.8	72.7	9.1	36.1	7.0	2.2	5.3	0.7	3.8	0.7	1.7	0.2	1.3	0.19	1376	3.3	35.3	16.7	6.2	2.17	1.2	6.9	49.1	0.4	1143	15.2	254	***H***
15L-39	47.8	101.6	12.9	52.2	10.0	2.9	7.6	1.0	5.0	0.9	2.0	0.3	1.5	0.21	1232	3.8	31.0	21.7	5.5	1.90	1.1	6.8	43.7	0.4	1184	19.1	223	
Change:	-12.0	-28.9	-3.8	-16.0	-3.0	-0.7	-2.3	-0.3	-1.2	-0.2	-0.3	0.0	-0.2	-0.02	144	-0.4	4.3	-5.0	0.7	0.27	0.1	0.2	5.4	0.1	-41	-3.9	31	
S Colorado: W to E (segment 3)																												
15L-48 L	36.3	72.1	8.8	34.3	6.6	2.0	5.3	0.8	4.0	0.7	1.8	0.3	1.5	0.21	515	2.2	20.4	18.0	4.6	1.08	0.7	9.1	3.0	0.1	846	13.4	194	
15L-48	44.1	91.0	11.3	44.9	8.5	2.5	6.6	0.9	4.9	0.9	2.1	0.3	1.6	0.25	504	2.3	19.5	21.2	4.4	1.02	0.7	9.0	2.9	0.1	843	13.2	185	
Change:	-7.8	-18.9	-2.5	-10.6	-1.9	-0.4	-1.4	-0.2	-0.9	-0.1	-0.2	0.0	-0.2	-0.04	11	0.0	0.9	-3.2	0.2	0.06	0.0	0.1	0.1	0.0	3	0.2	9	
15L-47 L	36.7	74.8	9.4	36.4	7.1	2.1	5.6	0.8	4.1	0.7	1.8	0.2	1.3	0.19	1342	1.8	18.1	17.7	4.5	0.94	0.6	6.0	17.9	0.2	1668	15.4	186	**L**
15L-47	44.3	92.1	11.5	45.3	8.7	2.5	6.8	0.9	4.8	0.8	2.0	0.3	1.5	0.21	1277	2.0	18.4	20.8	4.4	0.93	0.5	6.7	17.0	0.2	1727	16.0	186	
Change:	-7.7	-17.3	-2.1	-8.9	-1.6	-0.4	-1.2	-0.2	-0.7	-0.1	-0.2	0.0	-0.1	-0.02	65	-0.2	-0.4	-3.1	0.1	0.01	0.0	-0.7	0.9	0.0	-59	-0.6	0	
15L-44 L	52.5	106.2	13.2	51.7	9.5	2.8	6.5	0.8	4.1	0.7	1.7	0.2	1.4	0.20	2206	3.0	18.3	17.4	5.1	0.92	0.9	10.9	24.1	0.2	1826	15.9	207	
15L-44	66.2	141.4	17.9	71.5	12.8	3.4	8.8	1.1	5.1	0.9	2.0	0.3	1.5	0.22	2058	3.1	17.9	21.8	5.0	0.88	0.9	11.4	23.6	0.1	1821	17.9	204	
Change:	-13.7	-35.1	-4.8	-19.8	-3.3	-0.7	-2.3	-0.2	-1.1	-0.1	-0.3	0.0	-0.2	-0.02	148	-0.1	0.4	-4.5	0.1	0.04	0.0	-0.6	0.5	0.0	5	-2.0	3	
15L-40B L	30.5	70.0	9.8	41.3	8.6	2.6	6.7	0.9	4.5	0.8	1.9	0.3	1.5	0.23	501	3.8	9.5	19.6	5.9	0.57	1.7	4.3	201.2	0.8	640	18.5	219	**L**
15L-40B	36.9	86.7	12.1	50.8	10.7	3.0	8.2	1.1	5.4	0.9	2.1	0.3	1.7	0.25	648	4.0	9.7	23.5	6.0	0.57	1.7	4.7	221.4	1.5	699	19.2	221	
Change:	-6.3	-16.8	-2.3	-9.6	-2.0	-0.4	-1.5	-0.2	-0.9	-0.1	-0.2	0.0	-0.2	-0.02	-147	-0.2	-0.2	-3.9	-0.1	0.00	-0.1	-0.4	-20.2	-0.7	-59	-0.7	-2	
15L-39x L	48.8	106.2	14.0	57.1	10.6	3.2	7.2	0.9	4.4	0.7	1.7	0.2	1.3	0.18	1620	3.2	30.1	18.1	6.5	2.00	1.0	9.1	38.0	0.1	1647	15.9	258	
15L-39x	65.8	144.4	18.7	74.9	13.3	3.6	8.9	1.1	5.2	0.9	2.0	0.2	1.5	0.21	1566	3.4	29.4	21.3	6.4	1.96	1.0	9.8	34.5	0.1	1652	16.1	253	
Change:	-17.0	-38.2	-4.7	-17.9	-2.7	-0.4	-1.7	-0.2	-0.8	-0.1	-0.3	0.0	-0.2	-0.03	54	-0.2	0.7	-3.2	0.0	0.04	0.0	-0.7	3.5	0.0	-5	-0.2	5	
N New Mexico: W to E (segments 4-5)																												
15L-55 L	36.7	74.6	9.1	36.0	7.1	2.1	5.6	0.8	4.1	0.7	1.8	0.2	1.3	0.21	693	1.9	18.4	18.1	4.5	0.94	0.5	10.0	6.2	0.1	812	15.9	190	
15L-55	40.8	85.9	10.7	43.4	8.2	2.3	6.3	0.9	4.4	0.8	1.9	0.2	1.4	0.21	651	1.9	17.3	19.5	4.3	0.89	0.5	7.9	5.9	0.1	834	15.2	179	
Change:	-4.1	-11.3	-1.6	-7.4	-1.1	-0.2	-0.7	-0.1	-0.3	-0.1	-0.2	0.0	-0.1	0.00	42	0.0	1.1	-1.5	0.2	0.05	0.0	2.1	0.3	0.0	-22	0.7	11	
15L-56 L	78.2	178.1	25.3	108.7	26.2	6.9	21.1	2.5	10.6	1.6	3.3	0.4	2.3	0.35	309	7.9	7.4	41.0	6.6	0.32	3.4	3.1	67.9	1.0	574	29.3	280	**L**
15L-56	87.6	197.7	27.9	119.0	28.2	7.4	22.5	2.7	11.3	1.7	3.6	0.4	2.4	0.35	298	8.7	7.1	43.6	6.4	0.32	3.5	3.4	65.7	1.0	630	28.0	272	
Change:	-9.5	-19.6	-2.6	-10.3	-2.0	-0.4	-1.4	-0.2	-0.6	-0.1	-0.2	0.0	0.0	0.00	11	-0.8	0.3	-2.7	0.2	0.00	-0.1	-0.3	2.2	-0.1	-56	1.3	8	
15L-58 L	39.3	86.7	11.4	45.9	8.8	2.6	6.4	0.9	4.4	0.8	1.8	0.2	1.4	0.21	1302	2.2	17.6	19.1	5.4	0.98	0.6	7.4	12.3	0.0	1105	17.5	211	
15L-58	45.6	105.9	14.6	61.5	11.6	3.3	8.6	1.1	5.3	0.9	2.2	0.3	1.6	0.24	1386	2.1	16.5	23.1	5.1	0.91	0.6	7.4	17.0	0.1	1339	17.7	197	
Change:	-6.3	-19.1	-3.2	-15.6	-2.9	-0.7	-2.2	-0.2	-1.0	-0.2	-0.3	0.0	-0.2	-0.03	-84	0.1	1.1	-3.9	0.3	0.07	0.0	0.0	-4.7	0.0	-234	-0.2	14	
15L-50 L	39.9	83.9	10.6	41.6	7.9	2.4	6.0	0.8	4.1	0.7	1.8	0.2	1.4	0.21	3968	3.6	29.4	17.9	6.0	1.77	1.1	6.8	39.1	0.7	1210	16.5	241	
15L-50	48.4	105.0	13.6	54.7	10.6	3.0	8.0	1.0	5.2	0.9	2.1	0.3	1.6	0.24	4858	3.6	28.5	22.7	5.6	1.69	1.1	6.2	38.0	0.7	1319	20.6	224	
Change:	-8.5	-21.1	-3.0	-13.0	-2.7	-0.6	-2.1	-0.2	-1.1	-0.2	-0.3	0.0	-0.2	-0.02	-890	0.0	0.9	-4.8	0.4	0.07	0.0	0.6	1.1	0.1	-109	-4.2	17	
AVG Ch:	**-9.5**	**-22.4**	**-3.0**	**-12.5**	**-2.3**	**-0.5**	**-1.7**	**-0.2**	**-1.0**	**-0.2**	**-0.3**	**0.0**	**-0.2**	**-0.03**	**-50**	**-0.2**	**0.8**	**-4.1**	**0.2**	**0.06**	**0.0**	**-0.2**	**-0.8**	**-0.1**	**-55**	**-2.3**	**9**	

(H), high CO_2 released during leaching; (L), low CO_2