Appendix 1.—Values of $\delta^{13}C$ and $\delta^{18}O$ of carbonate deposits from units T6, T7, and T8 in the study area. Mineralogy is also indicated (approximate weight percentage from XRD analysis). Samples are grouped by stratigraphic sections, and their position is shown in Figure 2. Data from Vázquez-Urbez (2008).

Stratigraphic section	Unit	Sample	Facies	Isotope composition		Mineralogy (weight %)			
				$\delta^{18}O$ (‰ V-PDB)	$\delta^{13}C$ (‰ V-PDB)	Calcite	Dolomite	Quartz + Feldspar	Clay Min.
1	T7	CA-6	Lb	-7.4	-5.3	100	0	0	0
		CA-5	Lb	-7.7	-6.0	97	0	3	0
		LS-30	Lb	-7.3	-8.1	99	0	1	0
		LS-26	Lb	-6.1	-8.7	97	0	3	0
		LS-20	Lbb	-7.6	-8.5	99	0	1	0
		LS-18	Ln	-7.7	-8.1	72	0	28	0
		LS-16	M	-8.2	-8.2	65	0	19	16
		LS-10	Ln	-7.6	-7.3	82	0	18	0
		LS-4	M	-8.3	-8.6	58	0	33	9
		LS-2	Lbb	-8.6	-7.6	99	0	1	0
2	T7	LU-52	Ln	-7.7	-7.9	88	0	12	0
		LU-49	Ln	-8.3	-8.7	95	0	5	0
		LU-48	M	-8.0	-9.0	91	0	9	0
		LU-40	Lbb	-9.0	-7.6	100	0	0	0
		LU-38$_{cal}$	M	-4.3	-6.0	5	37	48	10
		LU-38$_{dol}$	M	-3.5	-4.8	5	37	48	10
		LU-36	Lbb	-8.4	-7.3	93	0	7	0
		LU-34	Lbb	-10.1	-8.0	95	0	5	0
		LU-32	Lbb	-8.6	-7.1	98	0	2	0
		LU-30	Lbb	-9.2	-8.2	97	0	3	0
		LU-28	Ln	-10.9	-8.5	96	0	4	0
		LU-27	M	-8.0	-7.9	83	0	17	0
		LU-26	Lbb	-8.7	-7.8	100	0	0	0
		LU-24	Lbb	-7.9	-7.3	96	0	4	0
		LU-21c	Lo	-9.1	-7.7	100	0	0	0
		LU-21a	M	-9.0	-8.1	84	0	16	0
		LU-20	Lbb	-7.9	-7.3	88	0	3	9
		LU-17	Lbb	-10.1	-6.6	99	0	1	0
		LU-16	M	-8.7	-6.0	61	0	39	0
	T6	LU-10	Lbb	-9.0	-6.6	99	0	1	0
		LU-8	Ln	-10.1	-7.3	99	0	1	0
		LU-7	M	-8.3	-6.3	67	0	33	0
		LU-6b	M	-7.5	-5.3	33	0	51	16
		LU-6a	M	-7.3	-5.3	29	0	51	20
		LU-4	Lbb	-8.8	-7.4	100	0	0	0
3	T8	BO-84	Lo	-6.7	-9.0	100	0	0	0
		BO-83	Lo	-6.8	-8.1	100	0	0	0
		BO-82	Lb	-6.8	-7.8	100	0	0	0
		BO-81	Lb	*-5.8*	*-7.8*	100	0	0	0
		BO-78	Lo	*-5.8*	*-7.3*	94	0	6	0
		BO-77	M	*-7.7*	*-7.2*	79	0	21	0
		BO-76b	Lo	-7.5	-8.1	100	0	0	0
		BO-76a	M	-7.5	-7.9	77	0	23	0
		BO-72	Lo	-7.9	-7.8	100	0	0	0
		BO-69	M	-7.5	-8.6	100	0	0	0
		BO-68	Lbb	-7.4	-7.7	100	0	0	0
	T7	BO-54	M	-5.8	-6.8	59	0	31	10
		BO-53	Lb	*-5.7*	*-3.7*	100	0	0	0
		BO-51	Lb	-8.2	-5.6	100	0	0	0
		BO-48a	Lb	-7.1	-4.8	100	0	0	0
		BO-45$_{cal}$	M	-7.0	-5.2	15	18	53	14

		BO-45$_{dol}$	M	-3.0	-3.5	15	18	53	14
		BO-44	Lb	-6.6	-7.0	100	0	0	0
		BO-43	Lbb	-7.4	-8.2	100	0	0	0
		BO-42	Ln	-7.0	-8.3	98	0	2	0
		BO-33	Lbb	-7.5	-7.6	100	0	0	0
		BO-32	Ln	*-6.7*	*-7.2*	99	0	1	0
		BO-29	Lb	-9.3	-8.1	96	0	4	0
		BO-27	Lbb	*-7.0*	*-6.9*	89	0	11	0
		BO-25	Ln	*-6.8*	*-8.3*	98	0	2	0
		BO-22	Ln	-8.8	-7.4	100	0	0	0
		BO-14	Lo	*-7.4*	*-7.5*	99	0	1	0
		BO-13b	Ln	*-7.5*	*-8.0*	95	0	5	0
		BO-13a	M	*-7.1*	*-4.7*	41	0	54	5
		BO-9b	Ln	*-7.5*	*-6.5*	94	0	6	0
		BO-9a	M	*-7.7*	*-5.8*	53	0	19	28
		BO-7	Ln	-7.9	-6.2	92	0	8	0
		BO-6	Lbb	-9.1	-7.0	100	0	0	0
		BO-5b	M	-8.5	-5.4	63	0	22	15
		BO-4b	Lbb	-9.1	-6.2	86	0	14	0
		BO-4a	M	-8.3	-5.1	46	0	43	11
	T6	BO-3b	M	-7.8	-4.2	28	0	44	28
		BO-3a	Lbb	-8.6	-4.7	64	0	36	0
		BO-0	M	-8.8	-4.2	35	0	37	28
4	T8	LT-49b	Lo	-6.5	-8.0	100	0	0	0
		LT-48	Lb	-6.2	-7.9	100	0	0	0
		LT-47	Lb	-6.2	-7.8	100	0	0	0
		LT-42	Lo	*-5.5*	*-7.8*	99	0	1	0
		LT-37	Lo	-6.8	-8.2	76	0	21	3
		LT-35	Li	-7.1	-7.8	96	0	4	0
		LT-34b	Lb	-7.1	-8.3	99	0	1	0
		LT-33	Lb	-6.7	-7.3	99	0	1	0
		LT-27	Lb	*-5.2*	*-7.5*	100	0	0	0
		LT-26	Lb	*-5.8*	*-7.6*	100	0	0	0
		LT-25	Lb	*-6.4*	*-8.0*	100	0	0	0
		LT-23	M	*-6.4*	*-7.4*	86	0	12	2
		LT-22	Lo	*-5.2*	*-7.9*	97	0	3	0
		LT-15b	M	-6.1	-8.1	34	0	62	4
		LT-11	Lo	-6.3	-8.1	100	0	0	0
		LT-9	Lb	*-7.2*	-7.7	97	0	3	0
		LT-3	Lo	*-7.2*	-7.2	98	0	2	0
5	T8	CS-9	Lph	-6.4	-8.3	99	0	1	0
		CS-3	Ln	-7.3	-7.7	98	0	2	0
8	T8	ER-40	Lo	*-6.0*	*-7.5*	99	0	1	0
		ER-30	Lb	-7.6	-7.7	100	0	0	0
		ER-28b	Lb	-7.2	-7.7	100	0	0	0
		ER-28a	Lo	-6.4	-7.6	100	0	0	0
		ER-27c	Lph	-7.3	-8.2	100	0	0	0
		ER-27b	Lst	-6.5	-7.9	100	0	0	0
		ER-26	Lb	-7.3	-7.8	100	0	0	0
		ER-23	Lo	-7.0	-8.7	100	0	0	0
		ER-22	Li	-7.2	-8.9	100	0	0	0
		ER-21	Li	-7.2	-8.7	100	0	0	0
		ER-15	Lo	-7.1	-8.8	100	0	0	0
		ER-10	Lph	-7.2	-7.6	100	0	0	0
		ER-3	Lst	-7.7	-7.6	100	0	0	0
		ER-2	Lst	-7.4	-8.4	100	0	0	0