

Electronic Supplementary Material  
 Submarine and coastal karstic groundwater discharges along the southwestern Mediterranean coast of Turkey  
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**ESM Table 1: Physical, chemical and isotope data**

Site ID	Date	Region/Location Name	Coordinate	Coordinate	pH	SC	<sup>18</sup> O	D	<sup>3</sup> H	<sup>3</sup> Herr	Ca	Mg	Na	K	NH <sub>4</sub>	Sr	Li	F	Br	Cl	SO <sub>4</sub>	CO <sub>3</sub>	HCO <sub>3</sub>	NO <sub>2</sub>	NO <sub>3</sub>	PO <sub>4</sub>	
			North	East		microS/cm	per mil	per mil	TU	TU	meq/l	meq/l	meq/l	meq/l	meq/l	meq/l	meq/l	meq/l	meq/l	meq/l	meq/l	meq/l	meq/l	meq/l	meq/l	meq/l	
MY220803-5	22.08.2003	Kalkan Liman Karşısı	361530	292502		19000	-3.81	-19.10																			
MO220803-4	22.08.2003	İnceburun Sarıbelen arası, isimsiz kovuk	361340	292530		19000					10.57	51.30	210.77	5.29	0.00	0.10	0.02	0.00	0.00	159.47	16.87	0.00	2.82	0.00	0.00	0.00	0.00
MY220803-3	22.08.2003	İnceburun Sarıbelen arası, isimsiz kovuk	361340	292530		30000	-1.94	-10.00																			
MO220803-2	22.08.2003	İnceburun Sarıbelen arası, isimsiz kovuk	361340	292530		36000																					
MY220803-1	22.08.2003	İnceburun Sarıbelen arası, isimsiz kovuk	361340	292530		36000																					
MY230803-8	23.08.2003	Patara Evleri önündeki kovuklar	361516	292454		17000					13.76	49.92	192.75	3.95	0.00	0.19	0.01	0.00	0.00	158.33	15.79	0.00	2.82	0.00	0.00	0.00	0.00
MY230803-9	23.08.2003	Patara Evleri önündeki kovuklar	361516	292454		17000					25.48	104.47	423.82	9.75	0.00	0.20	0.03	0.00	0.00	233.61	26.48	0.50	2.03	0.00	0.00	0.00	0.00
MY230803-6	23.08.2003	Patara Evleri önündeki kovuklar	361516	292454		22000	-3.56	-19.00	1.05	0.29	12.50	57.71	225.03	4.46	0.00	0.22	0.01	4.38	0.00	181.28	18.69	0.00	2.72	0.00	0.00	0.00	0.00
MY230803-4	23.08.2003	Patara Evleri önündeki kovuklar	361516	292454		27000	-2.59	-15.00			10.98	69.47	279.55	5.59	0.00	0.13	0.02	0.00	0.00	233.94	24.22	0.00	2.77	0.00	0.00	0.00	0.00
MD230803-9	23.08.2003	Patara Evleri önündeki kovuklar	361516	292454		30000																					
AD230803-10	23.08.2003	Fırnaz Limanı-Kalkan limanı arası	361551	292329		31000					27.44	114.49	463.66	9.60	0.00	0.11	0.02	0.00	0.00	268.61	29.45	0.79	2.03	0.00	0.00	0.00	0.00
MD230803-5	23.08.2003	Patara Evleri önündeki kovuklar	361516	292454		42000					20.76	115.96	478.08	10.73	0.00	0.13	0.03	2.00	0.00	400.23	43.46	0.79	1.73	0.00	0.00	0.00	0.00
MD230803-7	23.08.2003	Patara Evleri önündeki kovuklar	361516	292454		42000																					
MY230803-1	23.08.2003	Kalkan Liman Karşısı Mağarası	361530	292502							9.15	48.18	189.48	3.51	0.00	0.13	0.01	0.00	0.00	150.62	14.81	0.00	2.82	0.00	0.00	0.00	0.00
MD230803-2	23.08.2003	Kalkan Liman Karşısı Mağarası	361530	292502																							
MD230803-3	23.08.2003	Kalkan Liman Karşısı Mağarası	361530	292502																							
AO240803-1	24.08.2003	Bozburun	361254	292808		45000																					
MD250803-1	25.08.2003	Prences Mağarası	361234	292953		12580	-5.64	-36.90	-0.43	0.27	12.23	27.23	100.49	2.35	0.00	0.00	0.00	0.00	0.00	56.48	8.13	0.00	3.22	0.00	0.00	0.00	0.00
D250803-1	25.08.2003	Prences Mağarası	361234	292953		12580																					
MD250803-2	25.08.2003	Simay Mağarası	361234	292951		46000																					
MD250803-3	25.08.2003	Simay Mağarası	361234	292951		46000																					
MD260803-2	26.08.2003	Simay Mağarasından doğuya	361234	292951		16000	-5.14	-31.90	3.89	0.32	3.79	39.07	158.49	4.11	0.00	0.00	0.02	0.00	0.00	90.53	3.45	0.50	2.33	0.00	0.00	0.00	0.00
MD260803-3	26.08.2003	Simay Mağarasından doğuya	361234	292951		16000					19.29	129.65	535.69	10.59	0.00	0.15	0.03	0.00	0.00	368.78	38.29	0.00	2.43	0.00	0.00	0.00	0.00
MD260803-1	26.08.2003	Simay Mağarasından doğuya	361234	292951		37500																					
MD270803-1	27.08.2003	İsimsiz kovuk	361238	293204		42000																					
MD270803-2	27.08.2003	Yılan Mağarası	361236	293119		43500																					
D270803-1	27.08.2003	Yılan Mağarası	361236	293119		44000																					
MO270803-3	27.08.2003	Yılan Mağarası	361236	293119		44000																					
MO280803-2	28.08.2003	Tuba-Tümay Mağarası; Deveçökeği,	361240	293241		6600	-7.11	-46.70			3.73	11.56	44.46	0.92	0.00	0.02	0.00	0.00	0.00	34.50	3.85	0.50	2.48	0.00	0.00	0.00	0.00
MO280803-1	28.08.2003	Mivini	361242	293225		12240	-6.41	-39.10	3.83	0.30	4.52	26.28	96.81	1.66	0.00	0.00	0.00	0.00	0.00	61.79	3.86	0.59	2.18	0.00	0.00	0.00	0.00
AY290803-1	29.08.2003	Gembatan Koyu	361214	293414		24000	-2.73	-13.20			16.10	64.48	257.86	5.84	0.00	0.09	0.01	0.00	0.00	181.11	17.48	0.40	2.57	0.00	0.00	0.00	0.00







MO160504-13	16.05.2004	Tuba Mağarası	361243	293244	40000												27.46	114.51	494.23	10.71	0.00	0.00	0.00	0.00	0.49	515.35	63.18	0.76	2.10	0.00	0.00	0.00	
MO160504-11	16.05.2004	Mivini Mağarası	361245	293225	40000												35.66	112.27	477.66	9.76	0.00	0.00	0.00	0.56	0.94	484.78	49.80	0.86	1.57	0.00	0.00	0.00	
MD160504-12	16.05.2004	Mivini Mağarası	361245	293225	42000												30.98	115.64	505.38	10.79	0.00	0.00	0.00	0.00	0.59	521.75	53.17	0.76	1.62	0.00	2.81	0.00	
MY160504-8	16.05.2004	Prenses doğusu kovuklar	371237	293006	42000												31.78	118.88	505.03	10.61	0.00	1.67	0.00	1.32	0.67	524.66	56.81	0.95	1.48	0.00	0.39	0.00	
MY160504-10	16.05.2004	Mivini Mağarası	361245	293225	43000												25.57	123.57	533.33	11.96	0.00	0.00	0.04	0.53	0.81	548.61	57.66	0.95	1.71	0.00	0.00	1.07	
MD160504-7	16.05.2004	Prenses Mağarası	361238	292955	43000												31.55	126.61	542.90	11.11	0.00	1.11	0.08	0.00	0.53	556.26	56.45	0.95	1.48	0.00	0.00	0.00	
MY170504-11	17.05.2004	Havalı Mağara	361113	293900	15000												18.33	38.98	163.77	3.85	0.00	1.03	0.00	0.00	0.00	158.75	17.84	0.95	1.71	0.00	0.00	0.00	
MY170504-8	17.05.2004	Kuş döneği	360922	293212	18500												23.65	47.05	195.98	3.90	0.00	0.00	0.00	0.00	0.40	184.67	20.25	0.95	3.43	0.00	0.00	0.00	
AY170504-9	17.05.2004	Likya batılı çatlağı	361057	293902	20000												18.29	51.28	221.55	4.79	0.00	n.a.	0.00	0.00	0.31	211.61	23.70	0.76	2.62	0.00	0.00	0.00	
AY170504-12	17.05.2004	Büyük çakıl batısı çatlak	361131	293857	27000												23.89	70.79	303.60	6.46	0.00	1.30	0.00	0.00	0.41	308.09	33.93	0.76	2.00	0.00	0.00	0.00	
MY170504-13	17.05.2004	Çakıl Mağarası	361130	293900	30000												28.14	82.15	349.06	8.30	0.00	0.00	0.00	0.86	0.31	346.70	36.37	0.67	2.29	0.00	0.27	0.00	
AY170504-10	17.05.2004	Havalı Mağara	361110	293900	35000												27.36	95.46	410.83	8.71	0.00	n.a.	0.00	0.00	0.45	427.68	44.22	0.76	2.24	0.00	0.00	0.00	
AY170504-6	17.05.2004	Fakdere	360907	294038	38000												26.42	103.32	443.84	9.28	0.00	0.00	0.00	0.51	0.43	444.05	46.07	1.24	1.71	0.00	0.00	0.00	
AY170504-3	17.05.2004	Hastane önü	361154	293806	38000												30.51	105.74	457.91	10.42	0.00	1.16	0.00	0.00	0.48	475.13	49.12	0.00	2.05	0.00	0.00	1.96	
AY170504-7	17.05.2004	Kuş döneği	360922	293212	38500												22.26	107.91	466.73	9.60	0.00	1.07	0.02	0.00	0.75	461.82	48.63	1.05	1.81	0.00	0.48	0.00	
AY170504-2	17.05.2004	Hastane önü	361154	293806	39000												50.06	114.07	493.94	10.11	0.00	0.00	0.03	0.00	0.43	462.89	48.03	1.62	1.05	0.00	0.00	2.22	
MD170504-4	17.05.2004	Altuğ Mağarası	360850	294000	42500												22.56	113.72	510.63	11.12	0.00	0.97	0.05	0.00	0.68	526.58	51.95	0.95	1.48	0.00	0.33	0.00	
MO170504-5	17.05.2004	Altuğ Mağarası	360850	294000	43000												34.30	120.76	521.84	11.24	0.00	0.86	0.00	0.84	0.71	539.22	56.01	1.24	1.29	0.00	0.43	0.00	
AD170504-1	17.05.2004	Çapa Banko, kuyu	361115	293547	43500												32.14	114.29	502.48	11.37	0.00	1.61	0.06	0.00	0.66	514.46	52.32	1.90	0.57	0.00	0.00	0.00	
AY180504-14	18.05.2004	Gökkaya, Restoran dere,	361240	295333	13500												20.63	33.95	141.28	3.86	0.00	1.05	0.00	1.57	0.20	137.57	15.72	0.00	6.76	0.00	0.33	0.00	
AY180504-12	18.05.2004	Gökkaya, Restoran dere,	361240	295333	14500												17.61	35.64	150.43	3.73	0.33	0.00	0.00	0.00	0.00	142.72	16.52	0.76	3.14	0.00	0.26	0.00	
MY180504-9	18.05.2004	Çamlıca limanı	361319	295423	17500												22.33	45.70	191.20	4.21	0.00	0.00	0.00	0.00	0.00	174.17	19.81	0.67	3.14	0.00	0.00	0.00	
AY180504-13	18.05.2004	Gökkaya, Restoran dere,	361240	295333	18000												16.45	42.80	191.12	4.21	0.00	1.07	0.00	0.45	0.15	187.00	21.09	0.76	2.10	0.00	0.98	0.00	
MY180504-5	18.05.2004	Buza Mağarası	361043	295333	27000												25.87	71.53	304.08	6.76	0.00	n.a.	0.00	0.00	0.35	305.15	32.51	0.76	2.43	0.00	0.00	0.00	
AY180504-7	18.05.2004	Çamlık Koyu	361333	295414	30000												28.62	80.37	345.29	8.09	0.00	0.00	0.00	0.00	0.36	338.18	36.98	0.95	2.43	0.00	0.35	0.00	
AY180504-6	18.05.2004	Çamlık Koyu	361333	295414	34000												30.41	92.46	400.06	8.15	0.00	0.00	0.02	0.54	0.55	414.99	43.35	0.57	2.48	0.00	0.00	0.00	
MD180504-10	18.05.2004	İlker Kaptan Mağarası	361308	295432	36000												29.58	98.53	417.23	8.86	0.00	0.00	0.00	0.00	0.37	422.25	44.33	1.05	1.43	0.00	0.00	0.00	
AY180504-8	18.05.2004	Çamlıca Mağarası	361319	295412	36500												27.83	110.54	481.57	10.51	0.00	0.00	0.00	0.86	0.64	487.46	48.94	0.95	1.90	0.00	0.78	0.00	
AY180504-11	18.05.2004	Gökkaya, Restoran dere	361240	295333	38000												26.49	106.70	451.42	9.85	0.00	0.00	0.00	0.00	0.51	447.44	48.24	1.24	1.52	0.00	0.00	0.00	
AY180504-1	18.05.2004	Bohça iskelesi	360945	294450	38000												28.33	103.79	443.22	10.15	0.00	0.00	0.00	3.26	0.42	455.57	50.87	1.05	1.62	0.00	2.86	0.00	
AY180504-3	18.05.2004	Bohça iskelesi	360945	294450	39000												27.07	106.79	465.02	9.72	0.00	0.99	0.00	0.00	0.70	489.51	51.58	0.76	2.38	0.00	0.56	0.00	
AY180504-2	18.05.2004	Bohça iskelesi	360945	294450	40000												29.79	112.87	479.37	9.69	0.00	0.89	0.02	0.00	0.57	504.63	52.00	0.95	1.67	0.00	0.00	0.00	
MD180504-4	18.05.2004	Buza Mağarası	361043	295333	43000												31.82	120.66	515.55	11.25	0.00	0.97	0.00	0.39	0.55	539.20	55.16	1.05	2.00	0.00	0.71	0.00	
AD250704-2	25.07.2004	İsimsiz nokta	361451	300604	30000												1.57	0.22	19.09	77.99	341.67	8.33	0.00	0.00	0.97	0.59	337.67	34.91	1.22	2.43	0.00	0.00	0.00
AD250704-1	25.07.2004	İsimsiz nokta	361503	300635	35000												1.96	0.25	21.33	92.67	413.25	8.81	0.00	0.00	0.00	0.41	415.90	41.74	1.22	1.83	0.00	0.00	0.00
KY260704-X	26.07.2004	Tipik kaynak suyu			320												4.48	0.32	1.56	0.96	1.10	0.04	0.00	0.00	0.01	1.00	0.14	0.87	1.22	0.00	0.02	0.00	
AD260704-1	26.07.2004	İsimsiz nokta	361454	300658	39000												1.98	0.25	22.48	109.67	477.92	10.05	0.00	0.00	0.39	0.66	447.32	46.12	1.57	1.22	0.00	0.61	0.00
MD280704-1	28.07.2004	İsimsiz nokta	361546	300737	28000												2.20	0.24	21.42	93.99	415.40	9.28	0.00	0.00	0.00	0.35	402.02	40.84	1.04	1.78	0.00	0.40	0.00
AY280704-1	28.07.2004	İsimsiz nokta	361546	300737	29500												1.32	0.20	20.95	102.90	450.44	9.81	0.00	0.00	0.34	0.62	438.24	42.63	0.43	2.35	0.00	0.46	0.00
AY290704-4	29.07.2004	İsimsiz nokta	361638	300834	25500												1.66	0.21	17.30	65.25	279.93	6.30	0.00	0.00	0.39	0.42	260.98	27.18	0.87	1.91	0.00	1.27	0.00
AY290704-1	29.07.2004	İsimsiz nokta	361558	300756	27000												1.67	0.21	23.13	79.66	350.17	7.77	0.00	0.00	0.37	0.36	334.56	35.57	1.57	1.26	0.00	5.53	0.00
AY290704-5	29.07.2004	İsimsiz nokta	361638	300834	29000												1.78	0.24	20.78	82.90	364.11	8.13	0.00	0.00	0.31	0.66	357.41	35.73	0.70	2.09	0.00	6.31	0.00
AY290704-6	29.07.2004	Gökliman batısının tamamı	361617	300759	30000												1.84	0.22	17.29	79.79	371.45	8.53	0.00	0.00	0.00	0.00	363.45	37.23	1.22	1.65	0.00	2.58	0.00
AY290704-3	29.07.2004	İsimsiz nokta	361638	300834	31000												1.55	0.23	20.22	88.51	383.30	8.41	0.00	0.00	0.45	361.62	38.51	1.57	1.17	0.00	0.31	0.00	
AY290704-2	29.07.2004	İsimsiz nokta	361617	300759	34000												1.24	0.20	21.81	100.97	438.59	9.33	0.00	0.00	0.49	426.59	43.53	1.30	1.3				

AY300704-2	30.07.2004	Gökliman batısının tamamı	361601	300835		32500			0.56	0.22	22.11	86.69	395.35	10.15	0.00		0.00	0.45	0.29	407.78	42.28	0.52	2.39	0.00	25.28	0.00
AY310704-1	31.07.2004	Gökliman batısı	361643	300917		21000			1.58	0.22	14.09	63.26	282.44	27.22	0.00		0.00	0.00	0.52	286.04	30.25	0.70	2.26	0.00	62.75	0.00
AY310704-3	31.07.2004	Gökliman batısı	361643	300853		24000			1.08	0.20	19.99	79.93	364.28	9.66	0.00		0.00	0.31	0.00	373.87	39.38	0.87	2.09	0.00	0.42	0.00
AY310704-4	31.07.2004	Finike mendirek başı	361702	300853		28000			1.81	0.24	15.00	61.02	277.45	7.56	0.00		0.00	0.00	0.67	280.13	29.99	0.00	2.61	0.00	0.00	0.00
AD310704-5	31.07.2004	Finike mendirek başı	361701	300911		32000					16.62	81.73	367.58	7.75	0.00		0.00	0.00	0.75	375.13	38.07	0.00	2.61	0.00	0.00	7.92
AY310704-2	31.07.2004	Finike mendirek başı	361643	300853		33000			1.93	0.24	20.79	92.47	415.85	9.63	0.00		0.00	0.00	0.58	440.39	45.11	0.87	1.91	0.00	0.33	0.00
AD010804-1	01.08.2004	Akçaöğrü Burnu	361616	302203		41500			1.23	0.23	20.58	100.86	458.75	13.48	0.00		0.00	0.73	0.47	456.79	47.77	1.13	1.57	0.00	0.00	0.00
AY030804-1	03.08.2004	Sulu Ada	361437	302826		550			4.33	0.27	1.56	0.75	3.36	0.08	0.00		0.00	0.00	0.00	2.80	0.49	0.87	0.70	0.03	0.29	0.00
AY050804-X2	05.08.2004	Mendirek başı dolayı	361701	300911		17000			2.58	0.26	10.74	37.12	167.58	4.06	0.00		0.00	1.17	0.00	160.03	16.18	0.78	2.61	0.00	0.00	0.00
AY050804-1	05.08.2004	Mendirek başı	361701	300911		32000					17.88	74.90	333.89	8.05	0.00		0.00	0.53	0.00	318.82	32.44	0.70	2.17	0.00	0.00	0.00
AY050804-X1	05.08.2004	Mendirek başı dolayı	361616	302203		37500			1.91	0.25	18.34	96.74	425.55	9.24	0.00		0.00	0.61	0.35	432.91	43.77	0.70	2.09	0.00	0.21	0.00
AY050804-X	05.08.2004	Yardımcı burnu doğusu	361266	302442		37500					11.22	37.93	167.04	3.71	0.00		0.00	0.00	0.00	156.58	16.24	0.87	1.87	0.00	0.00	0.00
AY050804-2	05.08.2004	Yardımcı burnu doğusu	361266	302442		43000					16.75	58.62	262.32	5.54	0.00		0.00	0.35	0.32	257.00	26.79	0.78	1.87	0.00	0.52	0.00

Explanation:

Coordinates are for UTM (36S).

SC (Specific Conductance).

Stable isotope data standard is V\_SMOW.

<sup>3</sup>Herr, 1 sigma overall analytical error of <sup>3</sup>H measurement.

**ESM Table 2: Results of geochemical modeling for hypothetical mixing of freshwater (FEM) and seawater (SEM)**

1	2	3	4	5	6	7	8	9	10	11
%Fw	Solution	pHs15g15	S15_G15 (winter)	SI_CO2(g)	pHs25g15	S25_G15 (spring)	SI_CO2(g)	pHs25g25	S25_G25 (summer)	SI_CO2(g)
10	1	8.11	0.780	-3.119	8.15	0.911	-3.126	8.15	0.919	-3.141
20	2	7.97	0.639	-2.950	8.04	0.796	-2.993	8.06	0.821	-3.026
30	3	7.82	0.476	-2.767	7.92	0.654	-2.837	7.96	0.703	-2.895
40	4	7.67	0.310	-2.588	7.77	0.483	-2.662	7.83	0.562	-2.746
50	5	7.54	0.162	-2.433	7.61	0.303	-2.486	7.70	0.401	-2.583
60	6	7.44	0.039	-2.307	7.48	0.140	-2.335	7.56	0.237	-2.424
70	7	7.36	-0.059	-2.207	7.39	0.008	-2.216	7.44	0.087	-2.284
80	8	7.31	-0.133	-2.125	7.32	-0.094	-2.126	7.35	-0.038	-2.169
90	9	7.28	-0.172	-2.057	7.29	-0.154	-2.055	7.29	-0.127	-2.076

**Explanation:**

%Fw: Percent freshwater in hypothetical mixture.

Column # 3, pHs15g15: pH of mixture of groundwater temperature of 15°C and seawater temperature of 15°C.

Column # 4, S15\_G15 (winter): SI<sub>cc</sub> value for above temperature set.

Column # 5, SI\_CO2(g): log PCO<sub>2</sub> (atm) partial pressure of the mixture for above temperature set.

Other columns present data for other temperature sets as indicated in the headings.

### ESM Table 3: Results of geochemical modeling for selected water samples

Solution	1	2	3	4	5	6	7	8	9	10	11	12
%Fw	83	74	60	46	36	24	22	18	16	12	10	8
Temp	15	15	15	15	15	15	15	15	15	15	15	15
pH	7.47	7.45	7.33	7.53	7.73	7.88	7.84	7.93	7.88	8.09	8.14	8.3
pe	8.45	8.45	8.45	8.45	8.45	8.45	8.45	8.45	8.45	8.45	8.45	8.45
Density	1.004	1.00598	1.0092	1.01242	1.01472	1.01748	1.01932	1.01794	1.01886	1.02024	1.0207	1.02116
SC	9000	13000	20000	27000	32000	38000	42000	39000	41000	44000	45000	46000
m_Ca <sup>2+</sup>	3.137E-03	4.380E-03	7.627E-03	4.104E-03	5.118E-03	7.573E-03	7.547E-03	5.556E-03	7.507E-03	1.315E-02	1.071E-02	7.013E-03
m_K <sup>+</sup>	3.607E-03	5.463E-03	7.609E-03	6.025E-03	7.295E-03	1.064E-02	8.890E-03	9.591E-03	1.118E-02	1.506E-02	1.434E-02	9.754E-03
m_Na <sup>+</sup>	1.505E-01	1.984E-01	2.466E-01	2.645E-01	3.130E-01	4.992E-01	4.105E-01	4.612E-01	4.278E-01	4.771E-01	5.177E-01	4.683E-01
m_Mg <sup>2+</sup>	1.738E-02	2.143E-02	2.691E-02	2.833E-02	3.373E-02	5.241E-02	4.363E-02	5.028E-02	4.454E-02	5.064E-02	5.486E-02	4.861E-02
m_Cl <sup>-</sup>	1.329E-01	1.844E-01	2.213E-01	2.485E-01	3.085E-01	5.150E-01	4.060E-01	4.686E-01	4.362E-01	4.670E-01	5.062E-01	5.062E-01
m_SO <sub>4</sub> <sup>2-</sup>	9.860E-04	7.153E-03	8.414E-03	8.354E-03	8.061E-03	1.380E-02	1.103E-02	1.302E-02	1.328E-02	1.310E-02	1.335E-02	1.210E-02
m_CO <sub>3</sub> <sup>2-</sup>	6.623E-06	6.210E-06	6.061E-06	1.064E-05	2.072E-05	2.313E-05	2.390E-05	2.777E-05	2.606E-05	3.543E-05	3.827E-05	6.402E-05
m_HCO <sub>3</sub> <sup>-</sup>	2.571E-03	2.329E-03	2.839E-03	3.104E-03	3.650E-03	2.570E-03	3.059E-03	2.804E-03	3.000E-03	2.451E-03	2.323E-03	2.144E-03
SI_cc	-0.222	-0.190	-0.014	-0.051	0.292	0.412	0.464	0.372	0.488	0.844	0.777	0.862
SI_CO2(g)	-2.421	-2.455	-2.256	-2.419	-2.554	-2.870	-2.749	-2.880	-2.799	-3.099	-3.174	-3.309
SI_Dolomite	0.315	0.332	0.548	0.766	1.438	1.715	1.734	1.749	1.795	2.324	2.315	2.754

**Explanation:**

%Fw: Percent freshwater in solution

Temp: Temperature in °C

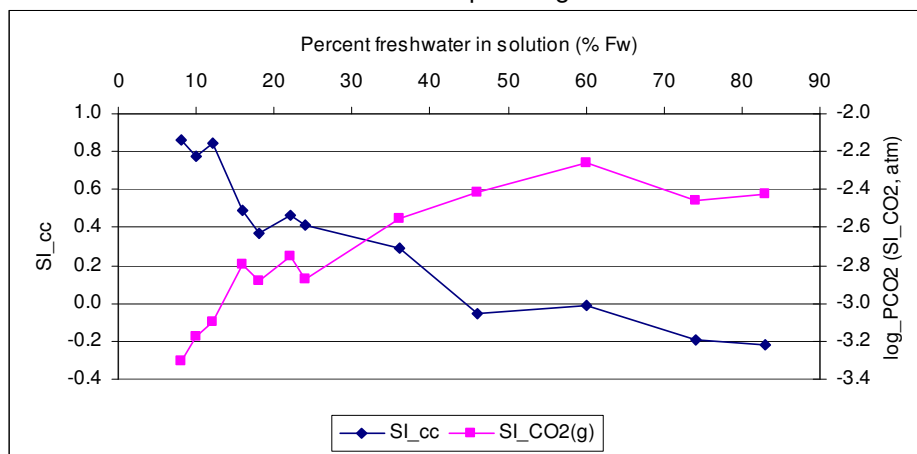
pH: pH of solution in standard units

pe: Redox potential, conventional negative log of the activity of the electron

Density: Density of solution in kg/m<sup>3</sup>

SC: Specific conductance of solution in microS/cm

Ion concentrations are molalities in mol per kilogram of solution.



ESM Fig. 1 Variation of SI\_cc and SI\_CO2 for the water samples presented in ESM Table 3.