

Table 2 supplementary file. Major oxides (wt%), trace element (ppm) concentrations, TOC (%), TC (%) and TS (%) and some geochemical parameters of a. Derindere b. Çeltikli samples. C*: C-value (ratio of Fe + Mn + Cr + Ni + V + Co) / (Ca + Mg + Sr + Ba + K + Na). CIA: $[Al_2O_3 / (Al_2O_3 + CaO^* + K_2O + Na_2O) \times 100]$, where CaO is the amount of CaO associated in the silicate fraction of the rock. Average data of UCC and PAAS (data from Taylor and McLennan, 1985) also given for comparison.

Sample Number	Major Elements (wt%)												Trace Elements (ppm)				
	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MgO	CaO	Na ₂ O	K ₂ O	TiO ₂	P ₂ O ₅	MnO	Cr ₂ O ₃	LOI	Total	Ni	Sc	Ba	Co
D288	48.90	15.68	6.92	4.76	4.94	0.36	4.37	0.67	0.16	0.05	0.01	13.00	99.78	43.00	14.00	407.00	20.00
D289	46.30	23.60	8.84	2.34	2.00	0.40	4.20	0.94	0.14	0.04	0.02	11.00	99.82	47.00	21.00	289.00	26.10
D290	45.30	23.12	11.62	2.04	1.03	0.44	4.08	0.90	0.17	0.12	0.02	10.90	99.81	52.00	21.00	290.00	25.40
D291	46.10	22.34	10.61	2.33	1.78	0.43	4.16	0.92	0.17	0.11	0.02	10.90	99.83	54.00	20.00	363.00	23.30
D292	44.80	23.33	12.89	1.98	1.14	0.41	3.74	0.87	0.15	0.13	0.02	10.40	99.81	56.00	20.00	315.00	22.70
D293	44.00	22.49	11.42	2.39	2.08	0.42	3.75	0.89	0.16	0.14	0.02	12.10	99.81	57.00	20.00	320.00	21.80
D294	45.70	23.13	10.85	2.22	1.24	0.41	3.94	0.90	0.17	0.15	0.02	11.10	99.84	54.00	21.00	339.00	23.70
D295	43.90	21.93	14.24	2.29	1.38	0.48	3.76	0.86	0.16	0.23	0.02	10.60	99.81	60.00	20.00	327.00	24.70
D296	44.80	21.10	11.26	2.84	2.51	0.49	3.68	0.85	0.19	0.19	0.02	11.90	99.79	54.00	19.00	446.00	23.70
D297	45.70	22.09	11.54	2.55	1.68	0.39	3.77	0.90	0.19	0.20	0.02	10.80	99.81	51.00	20.00	392.00	23.20
D298	45.60	22.42	10.98	2.39	1.48	0.40	3.85	0.90	0.17	0.17	0.02	11.50	99.81	56.00	20.00	375.00	23.40
D299	45.60	22.54	10.22	2.47	1.72	0.48	3.77	0.93	0.17	0.15	0.02	11.70	99.81	52.00	20.00	357.00	23.60
D300	33.10	14.37	8.74	2.57	16.96	0.33	2.73	0.62	0.17	0.16	0.01	20.00	99.77	43.00	13.00	439.00	17.70
D301	36.50	14.24	7.12	2.50	15.65	0.35	3.10	0.69	0.19	0.11	0.01	19.30	99.76	50.00	13.00	351.00	15.40
D302	37.20	12.01	4.76	1.82	19.05	0.47	2.80	0.63	0.19	0.06	0.01	20.80	99.81	55.00	11.00	288.00	13.20
D303	44.50	20.60	9.14	2.34	4.50	0.42	3.65	0.87	0.18	0.15	0.02	13.50	99.81	52.00	19.00	395.00	20.20
D304	41.00	18.07	7.57	2.08	9.54	0.47	3.39	0.83	0.23	0.10	0.02	16.40	99.76	94.00	17.00	362.00	18.20
D305	46.20	21.32	9.12	2.34	2.87	0.44	3.88	0.92	0.19	0.14	0.02	12.40	99.78	49.00	19.00	425.00	22.40
D306	43.30	17.53	11.63	2.78	5.30	0.51	3.77	0.85	0.20	0.15	0.02	13.60	99.62	94.00	18.00	1441.00	22.90
D307	46.40	18.79	7.71	3.59	3.95	0.48	4.42	0.85	0.15	0.10	0.02	13.30	99.76	70.00	19.00	577.00	16.20
Average	43.74	20.04	9.86	2.53	5.04	0.43	3.74	0.84	0.18	0.13	0.02	13.26	99.79	57.15	18.25	424.90	21.39
S. dev.	3.94	3.62	2.30	0.61	5.80	0.05	0.43	0.10	0.02	0.05	0.00	3.34	0.05	13.93	3.10	252.76	3.41
PAAS	62.80	18.90	7.23	2.20	1.30	1.20	3.70	1.00		0.08	0.02	---	---	55.00	16.00	650.00	23.00
UCC	66.00	15.20	5.00	2.20	4.20	3.90	3.40	0.50	0.16	0.11	0.01	---	---	20.00	11.00	550.00	10.00

Sample Number	Trace Elements (ppm)																TC (%)	TS(%)	TOC(%)
	Cs	Ga	Hf	Nb	Rb	Sr	Ta	Th	U	V	Zr	Y	Cu	Pb	Zn	As			
D288	4.50	20.40	3.90	14.80	107.90	158.90	1.10	13.40	3.40	119.00	144.00	28.10	27.90	7.40	82.00	3.40			
D289	6.60	29.60	3.20	16.50	148.10	152.50	1.20	14.10	2.50	162.00	113.80	29.70	53.00	5.80	42.00	6.00	0.96	0.36	0.27
D290	7.60	29.30	2.90	17.80	159.80	157.40	1.20	13.60	1.90	165.00	101.50	31.30	36.00	7.40	67.00	7.20	1.13	0.22	0.25
D291	6.80	29.00	2.90	17.50	147.70	154.90	1.20	14.40	2.20	156.00	103.50	33.70	34.70	12.90	58.00	8.50	1.28	0.63	0.28
D292	7.00	28.00	2.30	15.30	147.90	118.30	1.10	13.40	1.70	177.00	84.70	29.20	41.70	14.20	140.00	9.70	1.09	0.51	0.34
D293	7.00	28.10	2.40	16.30	154.10	125.20	1.20	13.20	2.10	166.00	85.10	27.90	39.00	19.40	78.00	8.40	1.42	0.59	0.28
D294	8.00	33.10	2.30	17.60	179.90	156.50	1.30	14.60	2.30	152.00	84.20	34.30	27.80	7.90	55.00	7.20	1.08	0.29	0.27
D295	7.10	27.30	2.30	14.90	159.50	138.00	1.00	14.20	1.80	184.00	81.40	29.80	56.80	8.90	65.00	10.10	1.23	0.22	0.24
D296	7.80	28.50	2.40	17.10	163.00	152.60	1.10	14.80	2.50	157.00	91.70	33.70	57.40	7.50	62.00	8.90	1.62	0.20	0.28
D297	8.00	30.80	2.70	17.60	174.70	158.40	1.20	14.90	2.50	157.00	90.20	35.80	48.40	7.20	63.00	8.90	1.28	0.14	0.23
D298	7.50	27.90	2.50	15.80	167.00	134.10	1.00	14.10	2.10	154.00	90.10	30.90	40.40	7.70	67.00	9.20	1.26	0.25	0.23
D299	7.20	27.00	2.50	16.50	165.70	125.50	1.10	14.80	2.20	153.00	89.30	30.40	33.00	8.10	73.00	9.10	1.30	0.19	0.30
D300	5.30	19.30	2.00	12.10	115.00	425.70	0.80	10.50	3.70	145.00	81.50	29.70	46.80	12.90	86.00	14.30	4.86	0.64	0.46
D301	5.10	18.40	2.80	13.80	114.40	502.40	0.90	10.10	4.30	177.00	99.40	32.20	32.90	8.10	81.00	9.30	4.81	0.72	0.45
D302	4.30	15.20	3.40	13.00	93.70	368.30	1.00	9.50	7.70	179.00	132.60	33.50	36.20	9.10	120.00	10.30	5.51	0.79	0.48
D303	6.80	24.20	2.70	15.40	152.30	149.40	1.20	13.00	2.90	156.00	99.20	30.10	28.70	7.10	75.00	9.70	2.03	0.49	0.33
D304	6.60	20.80	3.20	17.50	132.80	205.40	1.10	11.90	6.00	363.00	122.60	32.20	58.70	10.40	179.00	15.50	4.31	1.50	1.25
D305	8.10	28.70	3.00	19.40	168.70	165.50	1.10	14.70	4.10	240.00	110.90	37.40	35.60	9.00	145.00	10.10	2.08	0.62	2.87
D306	7.60	24.40	3.30	20.30	147.50	186.70	1.40	12.50	7.50	373.00	129.40	36.00	105.20	16.10	194.00	13.40	4.34	1.01	2.53
D307	7.50	22.00	4.00	14.30	151.50	115.50	0.90	12.70	4.90	167.00	138.30	34.60	64.00	38.40	86.00	10.60	3.74	0.96	2.04
Average	6.82	25.60	2.84	16.18	147.56	192.56	1.11	13.22	3.42	185.10	103.67	32.03	45.21	11.28	90.90	9.49	2.38	0.54	0.68
S. dev.	1.16	4.81	0.48	2.05	24.02	109.07	0.14	1.65	1.84	68.22	18.86	2.75	17.85	3.60	43.27	2.78	1.57	0.34	0.78
PAAS	15.00	20.00	5.00	19.00	160.00	200.00	---	14.60	3.10	150.00	210.00	30.00	50.00	20.00	85.00	---	---	---	---
UCC	3.70	17.00	5.80	25.00	112.00	350.00	2.20	10.70	2.80	60.00	190.00	22.00	25.00	20.00	71.00	1.50	---	---	---

Sample Numb.	C*	CIA	Al ₂ O ₃ / TiO ₂	Th/Sc	V/Cr	Ni/Co	Co/Th	Zr/Sc	Cu/Zn	U/Th	Th/U	Rb/Sr	La/Ni	Cr/Th
D288	0.47	61.85	23.40	0.96	1.46	1.28	1.49	10.29	0.34	0.25	3.94	0.68	1.59	6.09
D289	0.93	78.15	25.11	0.67	1.32	1.24	1.85	5.42	1.26	0.18	5.64	0.97	1.37	8.68
D290	1.43	80.64	25.69	0.65	1.21	1.28	1.87	4.83	0.54	0.14	7.16	1.02	1.41	10.00
D291	1.15	77.81	24.28	0.72	1.21	1.32	1.62	5.18	0.6	0.15	6.55	0.95	1.54	8.97
D292	1.66	81.52	26.82	0.67	1.37	1.75	1.69	4.24	0.30	0.13	7.88	1.25	1.07	9.64
D293	1.26	78.25	25.27	0.66	1.22	1.73	1.65	4.26	0.50	0.16	6.29	1.23	1.14	10.30
D294	1.31	80.54	25.70	0.70	1.24	1.19	1.62	4.01	0.51	0.16	6.35	1.15	1.80	8.38
D295	1.71	79.60	25.50	0.71	1.18	1.93	1.74	4.07	0.87	0.13	7.89	1.16	0.90	11.01
D296	1.14	75.95	24.82	0.78	1.22	1.70	1.60	4.83	0.93	0.17	5.92	1.07	1.21	8.73
D297	1.32	79.09	24.54	0.75	1.28	1.62	1.56	4.51	0.77	0.17	5.96	1.10	1.37	8.21
D298	1.28	79.64	24.91	0.71	1.19	1.59	1.66	4.51	0.60	0.15	6.71	1.25	1.21	9.16
D299	1.15	79.06	24.24	0.74	1.25	1.47	1.59	4.47	0.45	0.15	6.73	1.32	1.32	8.27
D300	0.38	41.79	23.18	0.81	1.52	2.24	1.69	6.27	0.54	0.35	2.84	0.27	0.96	9.07
D301	0.32	42.71	20.64	0.78	2.01	2.13	1.52	7.65	0.41	0.43	2.35	0.23	1.16	8.75
D302	0.19	34.98	19.06	0.86	2.39	3.20	1.39	12.05	0.3	0.81	1.23	0.25	0.84	7.87
D303	0.81	70.62	23.68	0.68	1.35	1.81	1.55	5.22	0.38	0.22	4.48	1.02	1.14	8.89
D304	0.48	57.42	21.77	0.70	3.34	3.98	1.53	7.21	0.33	0.5	1.98	0.65	0.55	9.14
D305	0.91	74.78	23.17	0.77	2.21	1.96	1.52	5.84	0.25	0.28	3.59	1.02	1.14	7.40
D306	0.90	64.66	20.62	0.69	2.49	3.55	1.83	7.19	0.54	0.6	1.67	0.79	0.55	11.97
D307	0.60	67.98	22.11	0.67	1.44	3.12	1.28	7.28	0.74	0.39	2.59	1.31	0.78	9.10
Average	0.97	69.35	23.73	0.73	1.59	2.00	1.61	5.96	0.56	0.28	4.89	0.93	1.15	8.98
S. dev.	0.45	14.47	2.01	0.07	0.57	0.80	0.14	2.09	0.25	0.18	2.12	0.34	0.32	1.23
PAAS	---	---	18.90	0.91	1.36	2.39	1.57	13.12	0.58	0.21	4.70	0.80	0.69	7.50
UCC	---	---	30.40	0.97	1.71	2.00	0.93	17.27	0.26	0.26	3.82	0.32	1.50	8.76

Sample Numb.	Major Elements (wt%)												Trace Elements (ppm)				
	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MgO	CaO	Na ₂ O	K ₂ O	TiO ₂	P ₂ O ₅	MnO	Cr ₂ O ₃	LOI	Total	Ni	Sc	Ba	Co
C263	59.29	12.60	6.27	3.44	4.73	0.29	3.37	0.50	0.14	0.07	0.01	8.80	99.52	32.00	11.00	3449.00	16.30
C265	47.16	22.82	8.68	2.27	1.85	0.35	4.54	0.90	0.15	0.09	0.02	10.90	99.77	51.00	20.00	664.00	23.80
C266	46.26	21.83	9.55	2.49	2.31	0.31	4.43	0.90	0.20	0.16	0.02	11.30	99.79	54.00	20.00	540.00	23.50
C267	46.70	21.52	10.08	2.44	1.94	0.33	4.26	0.88	0.21	0.18	0.02	11.20	99.75	54.00	19.00	790.00	22.80
C269	45.84	22.20	11.28	2.30	1.46	0.31	4.25	0.91	0.19	0.18	0.02	10.80	99.80	41.00	20.00	473.00	24.00
C271	45.04	21.48	10.68	2.74	2.70	0.33	4.02	0.90	0.18	0.17	0.02	11.50	99.78	38.00	20.00	605.00	24.00
C273	39.13	15.94	6.96	3.01	12.26	0.25	3.68	0.74	0.18	0.12	0.01	17.50	99.77	52.00	14.00	413.00	18.30
C274	34.71	12.91	5.96	2.31	18.72	0.32	3.14	0.65	0.21	0.10	0.01	20.70	99.74	31.00	12.00	749.00	13.50
C276	33.40	11.67	4.94	2.08	21.43	0.38	2.82	0.58	0.18	0.08	0.01	22.20	99.73	56.00	11.00	868.00	12.50
C277	45.09	20.27	8.59	2.72	4.40	0.36	4.07	0.88	0.17	0.15	0.02	13.00	99.78	51.00	18.00	391.00	21.50
C278	44.65	19.44	8.09	3.18	4.78	0.43	4.26	0.89	0.19	0.12	0.02	13.70	99.75	63.00	17.00	538.00	18.80
C279	40.41	17.18	8.10	4.62	6.90	0.42	3.84	0.79	0.24	0.16	0.02	17.10	99.74	62.00	17.00	583.00	17.10
Average	44.00	18.30	8.30	2.80	7.00	0.30	3.90	0.80	0.20	0.10	0.02	14.10	99.70	48.80	16.60	838.60	19.70
S. dev.	6.70	4.10	2.00	0.70	6.80	0.10	0.50	0.10	0.02	0.03	0.00	4.30	0.10	10.80	3.60	835.10	4.20
PAAS	62.80	18.90	7.23	2.20	1.30	1.20	3.70	1.00		0.08	0.02	---	---	55.00	16.00	650.00	23.00
UCC	66.00	15.20	5.00	2.20	4.20	3.90	3.40	0.50	0.16	0.11	0.01	---	---	20.00	11.00	550.00	10.00

Sample Numb.	Trace Elements (ppm)																	TC(%)	TS(%)	TOC(%)
	Cs	Ga	Hf	Nb	Rb	Sr	Ta	Th	U	V	Zr	Y	Cu	Pb	Zn	Ni	As			
C263	4.30	16.60	3.50	11.50	116.00	241.60	0.80	8.70	1.90	93.00	142.70	22.10	40.90	12.30	29.00	24.70	9.00	1.64	0.64	0.16
C265	8.20	29.20	2.80	18.20	169.30	191.60	1.40	13.50	2.10	141.00	96.30	32.20	29.00	13.60	238.00	27.50	8.70	1.13	0.56	0.35
C266	8.00	27.50	2.60	17.90	164.60	184.90	1.40	13.80	2.10	144.00	98.80	35.80	30.20	19.20	155.00	30.90	10.70	1.36	0.58	0.27
C267	7.70	28.70	2.90	18.10	173.00	209.00	1.30	14.10	2.30	142.00	99.70	35.90	31.80	10.20	74.00	28.30	8.50	1.33	0.29	0.23
C269	8.00	29.40	2.90	18.40	177.00	186.50	1.40	14.90	2.30	164.00	92.90	34.10	37.90	9.50	86.00	33.30	8.80	1.15	0.25	0.27
C271	8.20	28.00	2.30	19.30	174.10	178.80	1.30	15.00	2.40	156.00	94.10	35.30	35.70	9.80	88.00	31.40	8.90	1.58	0.34	0.27
C273	6.10	20.20	3.00	15.60	129.40	383.90	1.10	11.20	3.40	193.00	107.70	32.60	25.10	10.70	84.00	33.60	10.00	4.02	0.92	0.66
C274	4.60	16.50	2.80	13.50	107.60	468.20	0.90	9.40	5.30	166.00	109.20	30.90	32.10	8.30	92.00	32.50	11.10	5.40	0.67	0.71
C276	4.30	14.10	3.30	12.30	96.60	519.00	0.80	8.50	5.60	138.00	116.40	29.90	28.30	7.70	77.00	27.30	8.60	5.84	0.60	0.52
C277	7.10	26.40	3.10	16.40	158.30	201.70	1.20	13.90	3.10	151.00	104.70	30.60	29.70	10.00	330.00	40.60	10.00	2.15	0.55	0.55
C278	8.10	24.20	3.20	17.30	162.20	181.80	1.10	12.90	4.20	268.00	118.90	30.60	46.50	11.70	111.00	50.80	11.20	3.08	0.90	1.15
C279	7.30	22.10	3.20	17.20	146.00	170.00	1.30	12.10	6.80	217.00	121.30	37.00	60.60	15.20	100.00	45.40	9.40	5.09	0.84	2.61
Average	6.80	23.60	2.97	16.31	147.80	259.80	1.20	12.30	3.50	164.40	108.60	32.30	35.70	11.50	122.00	33.90	9.60	2.80	0.60	0.64
S. dev.	1.60	5.50	0.32	2.55	28.30	123.80	0.20	2.40	1.60	44.50	14.40	4.00	9.90	3.20	83.20	7.90	1.00	1.80	0.20	0.67
PAAS	15.00	20.00	5.00	19.00	160.00	200.00	---	14.60	3.10	150.00	210.00	30.00	50.00	20.00	85.00	55.00	---	---	---	---
UCC	3.70	17.00	5.80	25.00	112.00	350.00	2.20	10.70	2.80	60.00	190.00	22.00	25.00	20.00	71.00	20.00	1.50	---	---	---

Sample Numb.	C*	CIA	Al ₂ O ₃ /TiO ₂	Th/Sc	V/Cr	Ni/Co	Co/Th	Zr/Sc	Cu/Zn	U/Th	Th/U	Rb/Sr	La/Ni	Cr/Th
C263	0.50	65.8	25.36	0.79	1.14	1.52	1.87	12.97	1.41	0.22	4.58	0.48	1.15	9.38
C265	0.89	77.65	24.26	0.68	1.30	1.16	1.76	4.82	0.12	0.16	6.43	0.88	1.74	8.06
C266	0.94	75.75	24.45	0.69	1.06	1.31	1.70	4.94	0.19	0.15	6.57	0.89	1.58	9.86
C267	1.06	76.97	24.40	0.74	1.31	1.24	1.62	5.25	0.43	0.16	6.13	0.83	1.72	7.72
C269	1.27	78.84	23.87	0.75	1.27	1.39	1.61	4.65	0.44	0.15	6.48	0.95	1.49	8.67
C271	1.04	75.66	21.54	0.75	1.35	1.31	1.60	4.71	0.41	0.16	6.25	0.97	1.65	7.71
C273	0.35	71.13	19.86	0.80	2.18	1.84	1.63	7.69	0.30	0.30	3.29	0.34	1.25	7.89
C274	0.23	64.81	20.12	0.78	2.22	2.41	1.44	9.10	0.35	0.56	1.77	0.23	1.08	7.96
C276	0.18	67.73	23.03	0.77	2.03	2.18	1.47	10.58	0.37	0.66	1.52	0.19	1.23	8.00
C277	0.71	72.24	21.84	0.77	1.31	1.89	1.55	5.82	0.09	0.22	4.48	0.78	1.05	8.32
C278	0.62	70.13	21.75	0.76	2.46	2.70	1.46	6.99	0.42	0.33	3.07	0.89	0.81	8.43
C279	0.51	72.40	23.09	0.71	2.13	2.65	1.41	7.14	0.61	0.56	1.78	0.86	1.00	8.43
Average	0.69	72.42	22.8	0.75	1.65	1.80	1.59	7.05	0.43	0.30	4.36	0.69	1.31	8.37
S. dev.	0.96	4.49	1.70	0.04	0.51	0.57	0.14	2.66	0.34	0.19	2.01	0.29	0.31	0.66
PAAS	---	---	18.90	0.91	1.36	2.39	1.57	13.12	0.58	0.21	4.70	0.80	0.69	7.50
UCC	---	---	30.40	0.97	1.71	2.00	0.93	17.27	0.26	0.26	3.82	0.32	1.50	8.76