

Supplementary Table 1. Quality control of soil analysis.

	Detection Limit	Reference material SO-18		
		Expected Value	Rep1	Rep2
	%			
SiO ₂	0.01	58.47	58.35	58.22
Al ₂ O ₃	0.01	14.23	14.07	14.03
Fe ₂ O ₃	0.04	7.67	7.59	7.63
MgO	0.01	3.35	3.34	3.36
CaO	0.01	6.42	6.25	6.31
Na ₂ O	0.01	3.71	3.66	3.69
K ₂ O	0.01	2.17	2.15	2.12
TiO ₂	0.01	0.69	0.68	0.69
P ₂ O ₅	0.01	0.83	0.79	0.80
MnO	0.01	0.39	0.40	0.40
Cr ₂ O ₃	0.002	0.550	0.559	0.560
	mg/Kg			
Ba	1	514	536	504
Be	1		2	1
Co	0.2	26.2	23.8	26.2
Cs	0.1	7.1	7.0	6.7
Ga	0.5	17.6	17.1	16.7
Hf	0.1	9.8	9.1	9.5
Nb	0.1	19.3	19.3	19.4
Rb	0.1	28.7	25.4	27.2
Sn	1	15	15	15
Sr	0.5	407.4	385.0	397.7
Ta	0.1	7.4	6.6	6.6
Th	0.2	9.9	9.3	9.6
U	0.1	16.4	16	16.3
V	8	200	213	197
W	0.5	14.8	14.4	14.7
Zr	0.1	290	279.5	291.6
Y	0.1	29	29.6	30.3
La	0.1	12.0	12.4	12.0
Ce	0.1	27.1	25.8	25.9
Pr	0.02	3.45	3.22	3.12
Nd	0.3	14	12.4	12.4
Sm	0.05	3	2.81	2.62
Eu	0.02	0.89	0.8	0.86
Gd	0.05	2.93	2.87	3.13
Tb	0.01	0.53	0.49	0.47
Dy	0.05	3	2.88	2.68
Ho	0.02	0.62	0.62	0.60
Er	0.03	1.84	1.76	1.71
Tm	0.01	0.27	0.25	0.29
Yb	0.05	1.79	1.83	1.91
Lu	0.01	0.27	0.26	0.28

Supplementary Table 1(cont.) Quality control of soil analysis.

	Detection Limit	Reference material DS-10		Reference material OREAS45EA	
		Expected Value	Rep1	Expected Value	Rep1
	mg/Kg				
Mo	0.1	14.69	14.8	1.39	1.6
Cu	0.1	154.61	153.3	709	694.9
Pb	0.1	150.55	145.7	14.3	13.1
Zn	1	370	355	28.9	30
Ni	0.1	74.6	73.8	381	400.2
As	0.5	43.7	42.1	9.1	10.6
Cd	0.1	2.49	2.6	0.02	<0.1
Sb	0.1	8.23	6.7	0.2	0.2
Bi	0.1	11.65	10.9	0.26	0.2
Ag	0.1	2.02	1.9	0.26	0.3
Hg	0.01	0.3	0.28		<0.01
Tl	0.1	5.1	4.7	0.072	0.072
Se	0.5	2.3	2.4	0.6	0.6
	µg/Kg				
Au	0.5	91.9	85.2	53	55.3
	Detection Limit	Reference material GS311-1		Reference material GS910-4	
		Expected Value	Rep1	Expected Value	Rep1
	%				
TOT/C	0.02	1.02	1.00	2.65	2.65
TOT/S	0.02	2.35	2.28	8.27	7.9

Supplementary Table 2. Quality control of water analysis.

Reference material TMDA-70.2							
	Detection Limit	Expected Value	Measured Value	Detection Limit	Expected Value	Measured Value	Detection Limit
	$\mu\text{g/L}$						
Ag	0.05	8.7	9.95	Rb	0.01	0.7	0.72
Al	1	424	487	Re	0.01		<0.01
As	0.5	42.2	45.2	Rh	0.01		0.02
Au	0.05		<0.05	Ru	0.05		<0.05
B	5	36.3	37	Sb	0.05	22	24
Ba	0.05	320	347.73	Sc	1		<1
Be	0.05	16.3	17.61	Se	0.5	27.8	26.7
Bi	0.05	12.7	9.61	Si	40	360	369
Br	5		31	Sm	0.02		<0.02
Cd	0.05	139	149.82	Sn	0.05		<0.05
Ce	0.01		<0.01	Sr	0.01	448	455.35
Co	0.02	288	294.51	Ta	0.02		<0.05
Cr	0.5	397	416.1	Tb	0.01		<0.01
Cs	0.01		<0.01	Te	0.05		<0.05
Cu	0.1	408	418.1	Th	0.05		<0.05
Dy	0.01		<0.01	Ti	10		<10
Er	0.01		<0.01	Tl	0.01	20.9	22.61
Eu	0.01		<0.01	Tm	0.01		<0.01
Fe	10	376	409	U	0.02	58.1	62.81
Ga	0.05		0.1	V	0.2	315	335.9
Gd	0.01		<0.01	W	0.02		0.08
Ge	0.05		<0.05	Y	0.01		<0.01
Hf	0.02		<0.02	Yb	0.01		<0.01
Hg	0.1		<0.1	Zn	0.5	494	496.4
Ho	0.01		<0.01	Zr	0.02		<0.02
In	0.01		<0.01		mg/L		
La	0.01		<0.01	Cl	1	15	17
Li	0.1	22	23.4	K	0.05	1.04	1.06
Lu	0.01		<0.01	Mg	0.05	5.64	5.98
Mn	0.05	312	330.9	Na	0.05	9.34	9.69
Mo	0.1	265	281.3	S	1	6.79	9
Nb	0.01		<0.01				
Nd	0.01		<0.01				
Ni	0.2	331	341.8				
P	10		<10				
Pb	0.1	452	473.7				
Pd	0.2		<0.2				
Pr	0.01		<0.01				
Pt	0.01		<0.01				
Rb	0.01	0.7	0.72				
Re	0.01		<0.01				
Rh	0.01		0.02				

Supplementary Table 3. Correlation coefficient matrix for soil data. Soil data per factor include data from all four MTPs at Mt. Oiti (i.e. Livadies, Louka, Greveno and Alikaina).

	SI	OM	Altitude	Gravel	Sand	Mud	SiO ₂	Fe ₂ O ₃	MgO	CaO	Na ₂ O	K ₂ O	TiO ₂	P ₂ O ₅	MnO	Cr ₂ O ₃	Eco-status
SI	1.00																
OM	0.89	1.00															
Altitude	0.30	0.03	1.00														
Gravel	0.79	0.87	−0.35	1.00													
Sand	−0.40	−0.70	0.69	−0.86	1.00												
Mud	0.27	0.61	−0.75	0.78	−0.99	1.00											
SiO₂	0.16	−0.31	0.63	−0.30	0.72	−0.80	1.00										
Fe₂O₃	0.52	0.43	−0.51	0.80	−0.63	0.54	0.05	1.00									
MgO	1.00	0.85	0.37	0.73	−0.32	0.19	0.23	0.48	1.00								
CaO	−0.62	−0.20	−0.41	−0.30	−0.20	0.34	−0.82	−0.54	−0.66	1.00							
Na₂O	0.23	−0.11	0.97	−0.42	0.79	−0.86	0.79	−0.43	0.31	−0.53	1.00						
K₂O	0.89	1.00	0.09	0.84	−0.65	0.57	−0.45	0.38	0.86	−0.21	−0.06	1.00					
TiO₂	−0.30	−0.12	−0.98	0.32	−0.60	0.64	−0.45	0.60	−0.36	0.24	−0.90	−0.19	1.00				
P₂O₅	0.70	0.80	0.52	0.40	−0.23	0.17	−0.22	−0.17	0.71	−0.04	0.33	0.83	−0.65	1.00			
MnO	0.90	0.98	0.23	0.76	−0.54	0.45	−0.36	0.27	0.88	−0.23	0.08	0.99	−0.33	0.90	1.00		
Cr₂O₃	0.66	0.77	−0.52	0.98	−0.91	0.84	−0.36	0.86	0.60	−0.23	−0.56	0.73	0.49	0.24	0.63	1.00	
Eco-status	−0.27	−0.53	0.83	−0.81	0.97	−0.97	0.65	−0.72	−0.19	−0.17	0.87	−0.48	−0.77	0.02	−0.35	−0.89	1.00

Supplementary Table 4. Wetland water normalization values used in the manuscript (data from Shvartsev, 2008).

Cation	Unit	Value
Na	mg/L	2.1
Mg	mg/L	4.22
Si	µg/L	3361
K	mg/L	0.68
Ca	mg/L	11.9
Cr	µg/L	1.25
Fe	µg/L	860
Ni	µg/L	2.37
Rb	µg/L	0.36
Sr	µg/L	145
Ba	µg/L	27.7



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