



OBSIDIAN AND CHALCEDON

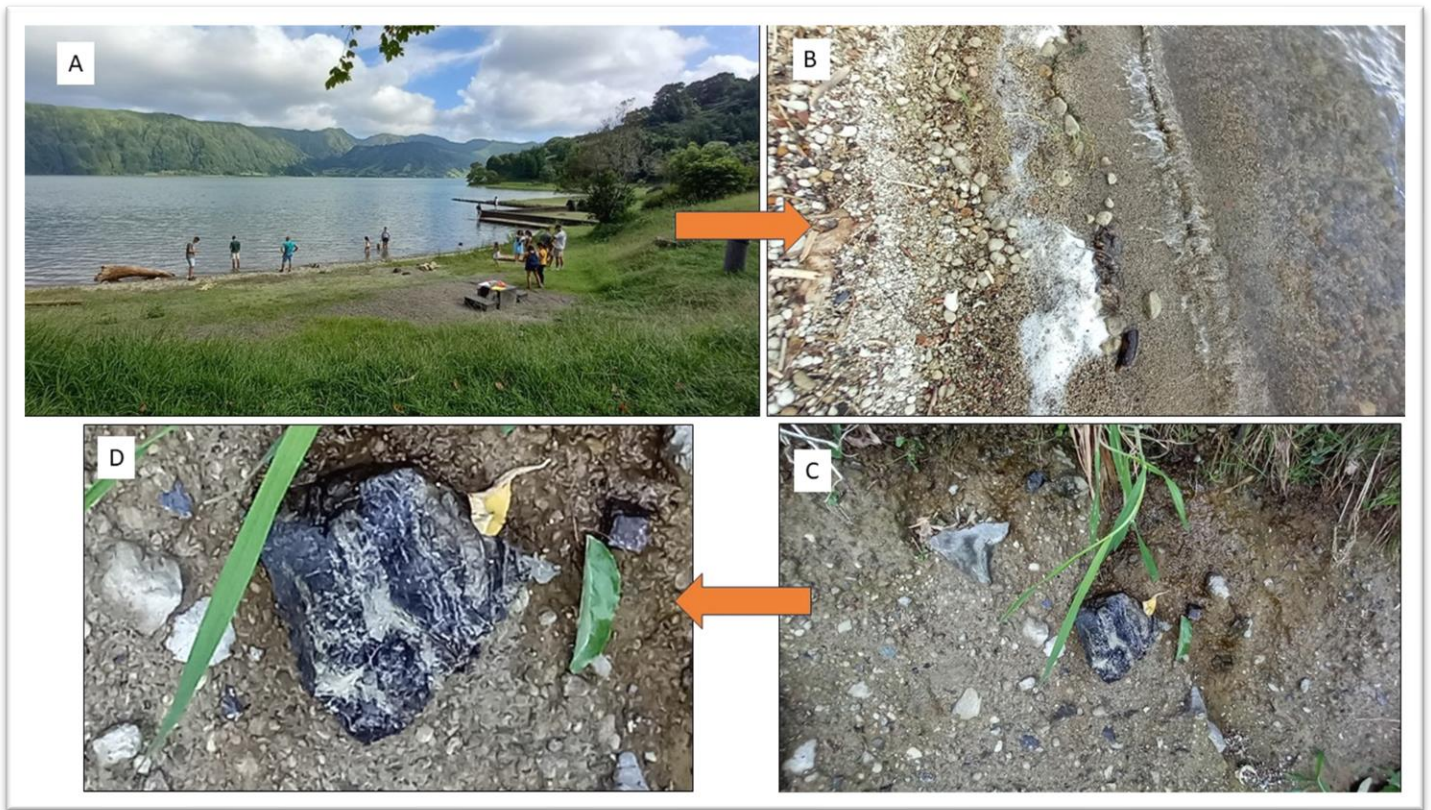
Sete Cidades Vulcano, São Miguel, Açores, Portugal.

A Mineral Happy New Year!

Greetings from Marcondes, Susana, Marcus and Dario.

2024

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A. Sete Cidades lagoon showing beach with pumice stones; B. Details of the beach with pumice stones; C. Pyroclastic exposition showing obsidian and pumices; D. Details of the obsidian.

JANUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			



The typical forest at São Miguel developed over volcanic pyroclastic and consolidated lavas.

FEBRUARY

S	M	T	W	T	F	S
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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29		



On the beach Vila Franca do Campo at São Miguel, with chalcedonic pebbles and sand grain size close to volcanic mafic to intermediary rocks.

MARCH

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						



Details of the water-waved worked volcanic glass (obsidian and chalcedonic) at sand beach Vila Franca do Campo.

APRIL

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				



A coastal plain with beach made of volcanic fragments, mostly volcanic glass with some yellow-green olivine and pyroxene grains.

MAY

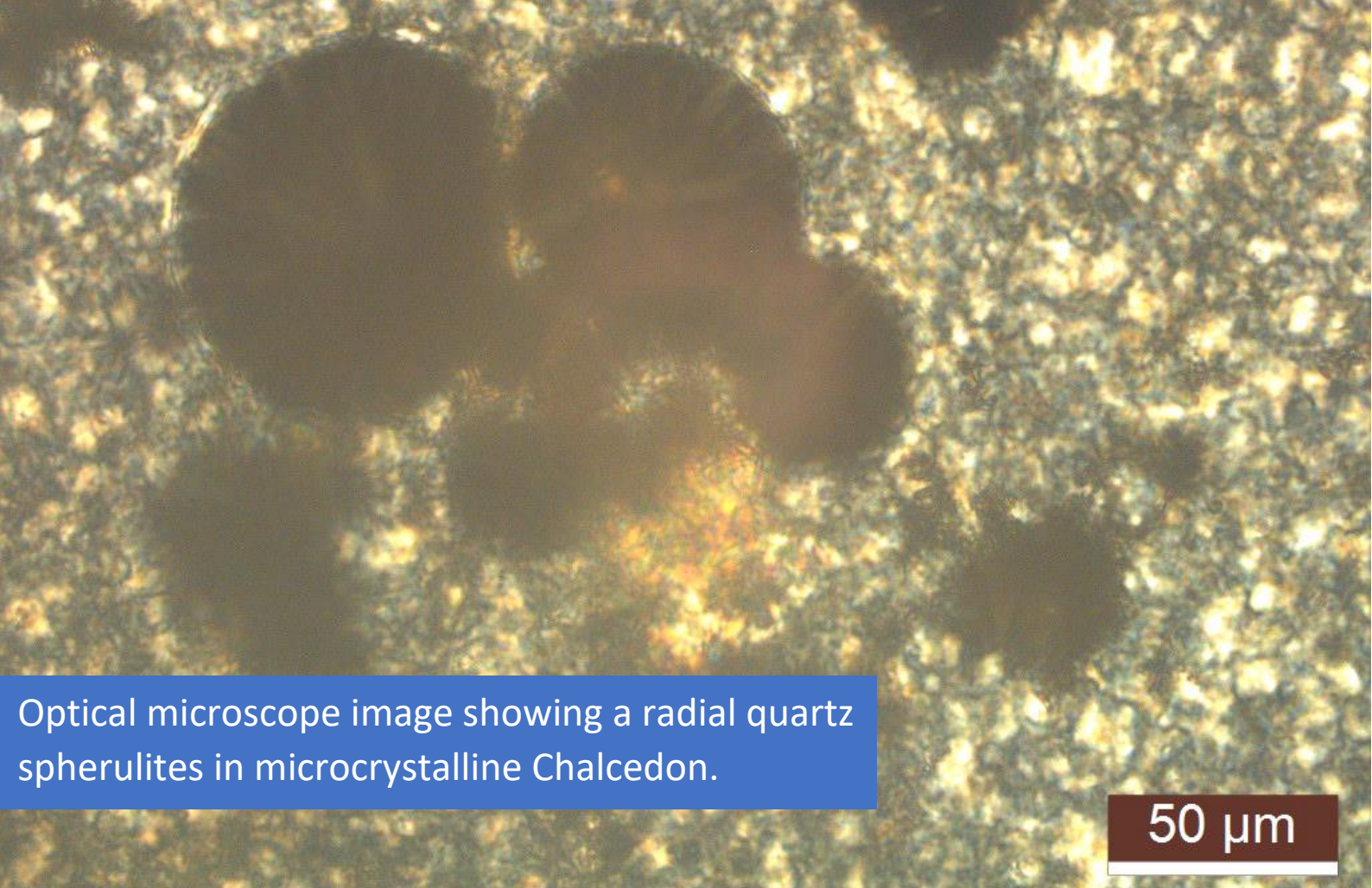
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5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	



A depression lagoon over pyroclastic tephra showing a narrow pumice beach with dispersed obsidian fragment at Furnas.

JUNE

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23	24	25	26	27	28	29
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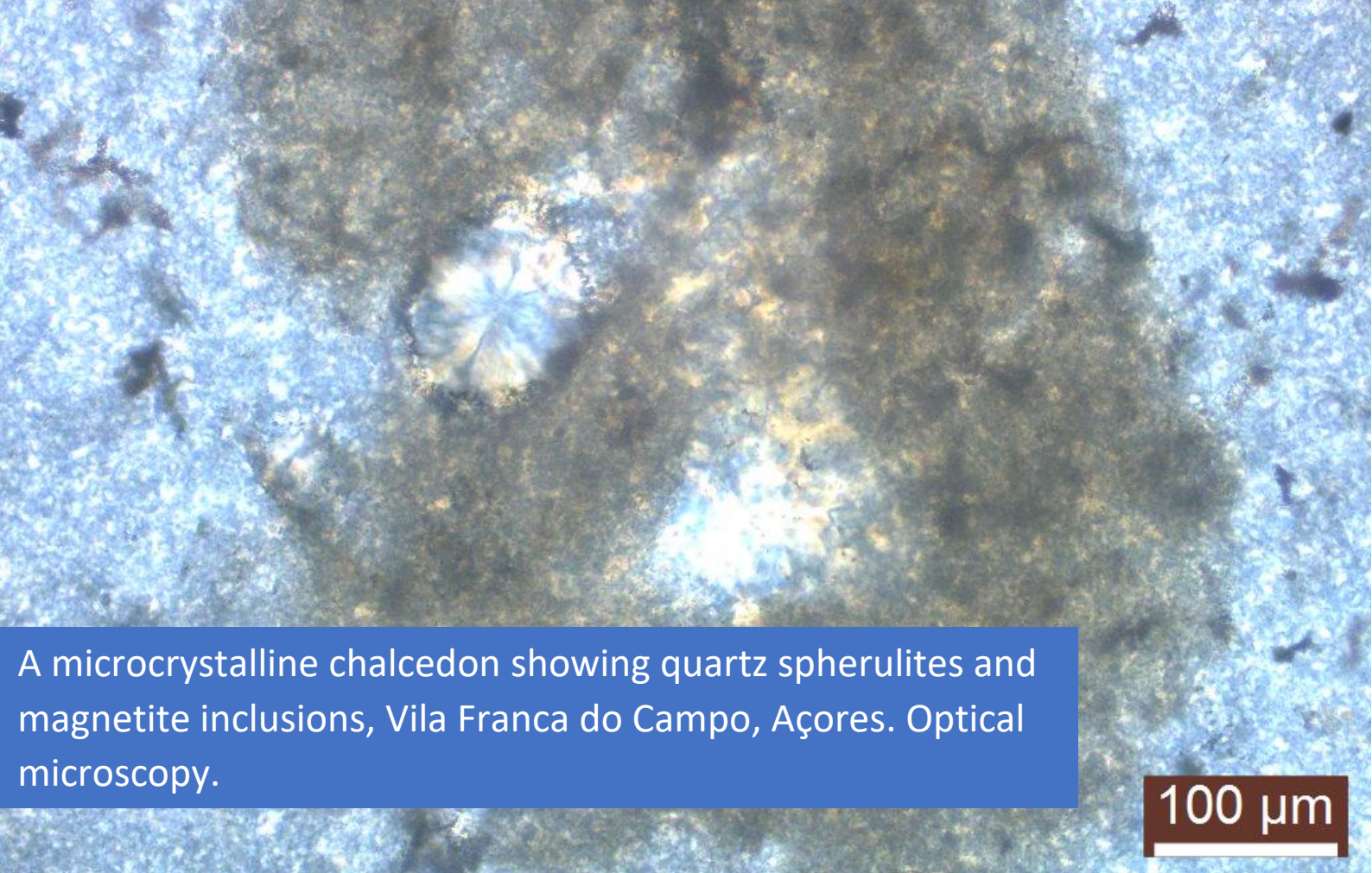


Optical microscope image showing a radial quartz spherulites in microcrystalline Chalcedon.

50 μm

JULY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

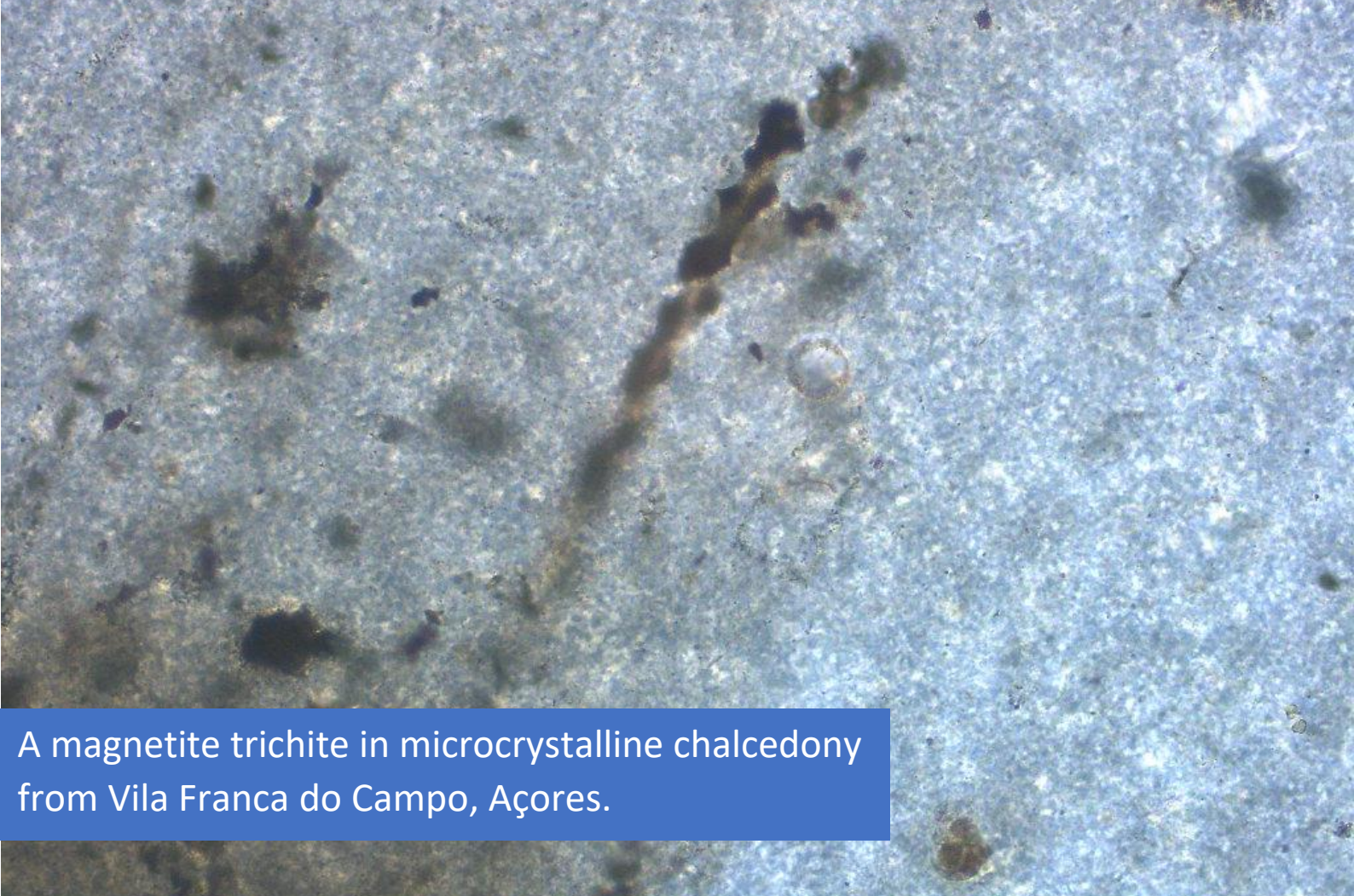


A microcrystalline chalcedon showing quartz spherulites and magnetite inclusions, Vila Franca do Campo, Açores. Optical microscopy.

100 μm

AUGUST

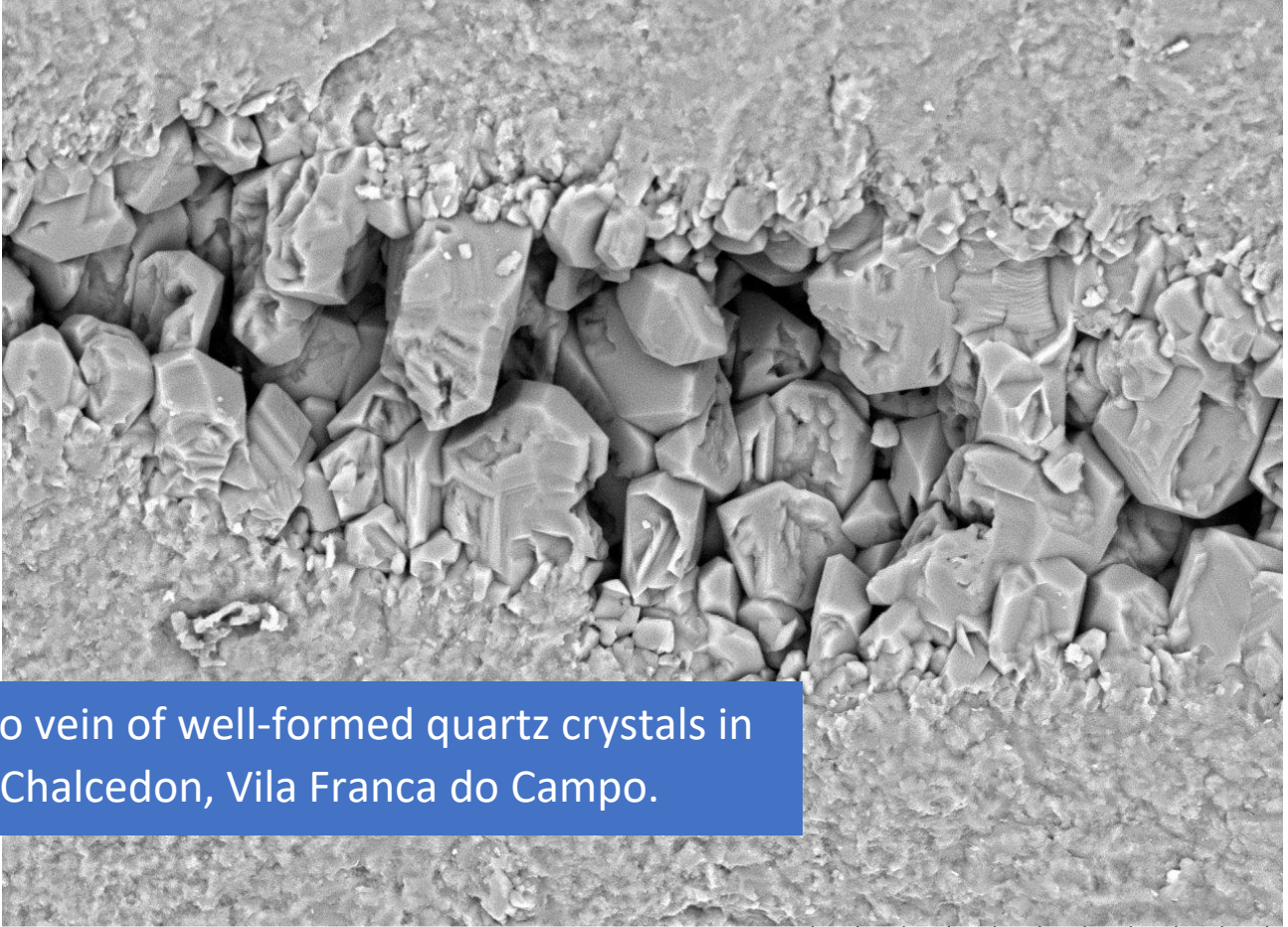
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4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31



A magnetite trichite in microcrystalline chalcedony from Vila Franca do Campo, Açores.

SEPTEMBER

S	M	T	W	T	F	S
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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					



A micro vein of well-formed quartz crystals in micro-Chalcedon, Vila Franca do Campo.

TM30002823

2023/08/24

15:12 AL

D8.8

x1.2k

50 um

OCTOBER

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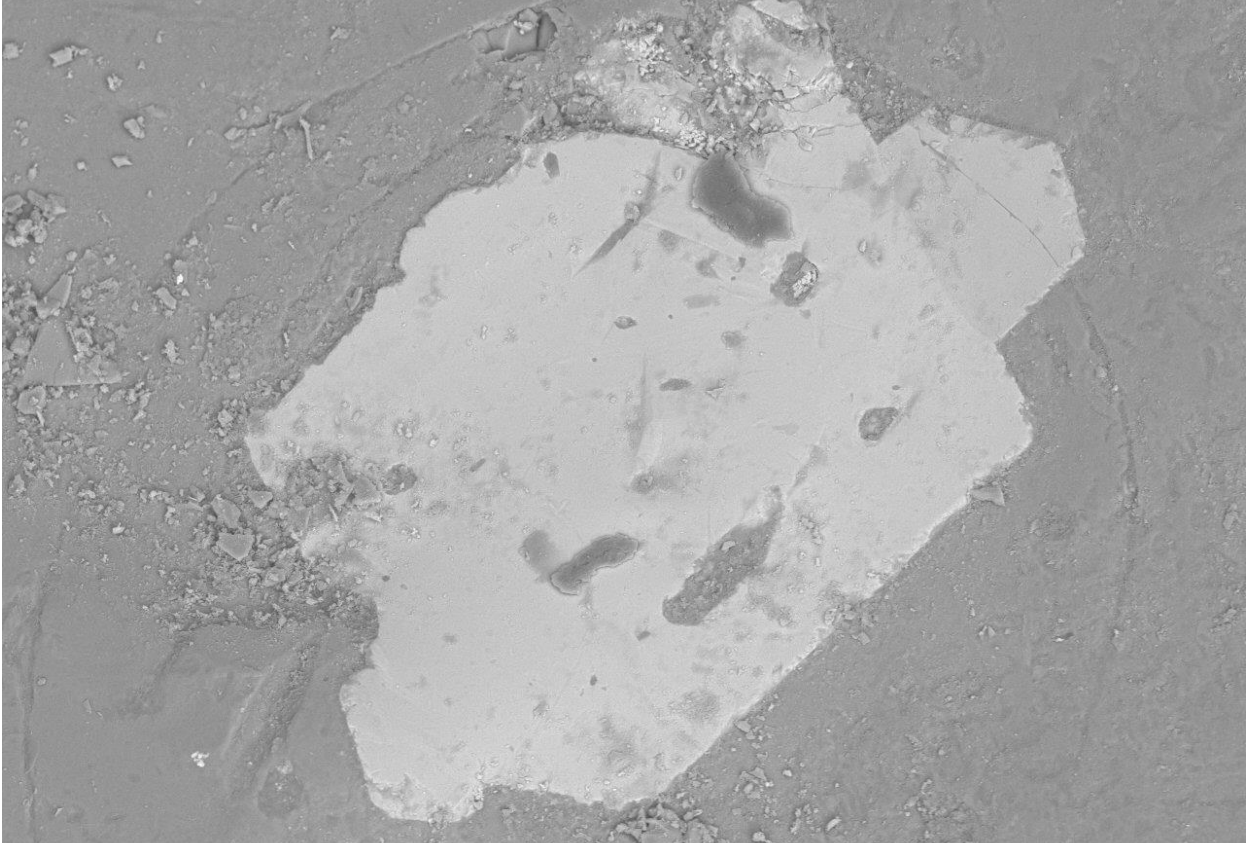
27

28

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31



A well-formed phenocrystal of titanomagnetite in obsidian from Sete Cidades. SEM image.

TM30002906

2023/09/28 11:06 AL D8.8 x500 200 um

NOVEMBER

S	M	T	W	T	F	S
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3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30



A well-formed calcite crystal in obsidian from Sete Cidades. SEM-image.

TM30002667

2023/05/22 16:55 AL D8.2 x4.0k 20 um

DECEMBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
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22	23	24	25	26	27	28
29	30	31				



A volcanic Chalcedon pebble showing possible bivalve impression.

2025 January

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			1	2	3	4
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19	20	21	22	23	24	25
26	27	28	29	30	31	