

XYPEX[®]

Xypex Chemical Corporation, October 2017

Briedbalakvisl Bridge Abutment, Scanning Electron Microscopy



Briedbalakvisl Bridge Abutment

Background

- Coated with Xypex Concentrate in 1993
- Inspected and microscopic imagery 2005
- Inspected and scanning electron microscopic imagery (SEM) 2017
 - At 8mm from surface
 - At 150-165mm from surface

Briedbalakvisl Bridge Abutment

Preliminary results

Table 1: Characteristics of crystal found in each sample.

Core ID	Near-Surface Sample (A) (within 8 mm from surface)		Sample from Deeper Portion (E) (approximately 150 mm from surface)	
1	1A-1	A lot of crystal found. Most (90%) of the crystal is needle-like with few crystal in the different forms	1E-1	There is noticeable needle-like crystal but the formation intensity is much lower than "1A-1". However, existence of small crystal is extensively noticeable on surface.
	1A-2	A lot of hexagonal plate-like crystals with few needle-like crystal.	1E-2	Not so much crystal found throughout the investigation on this sample.
2	2A-1	A lot of crystal found. The characteristics and shapes of crystal also vary a lot.	2E-1	Not so many clear crystal is observable. However, some products obviously formed on the surface of voids.
	2A-2	A lot of crystal found. Most of voids are filled with crystals. However, it was observed that, in some voids, the crystal could not fully developed.	2E-2	Crystal extensively forms on the surface of air bubble. However, shapes and characteristics of the crystal varies a lot. Many shape of small crystal found
3	3A-1	Not so much large crystal found although many small hexagonal crystals could be observed at the surface of air bubble. Some small size air voids are filled with needle-like crystals.	3E-1	Considerable amount of needle-like crystal or hexagonal plate-like crystal found. However, it seems that the crystal could not fully develop in some voids. Denser crystal development is found in smaller voids. (More crystal found than in 1E-1)
	3A-2	Not so much large crystal found. Some substance is observed on the surface of voids but the shape of crystal is unclear.	3E-2	Very strange shape of crystal is found. The crystal seems to be distributed well on the surface of void. However, the amount of crystal is not so much.

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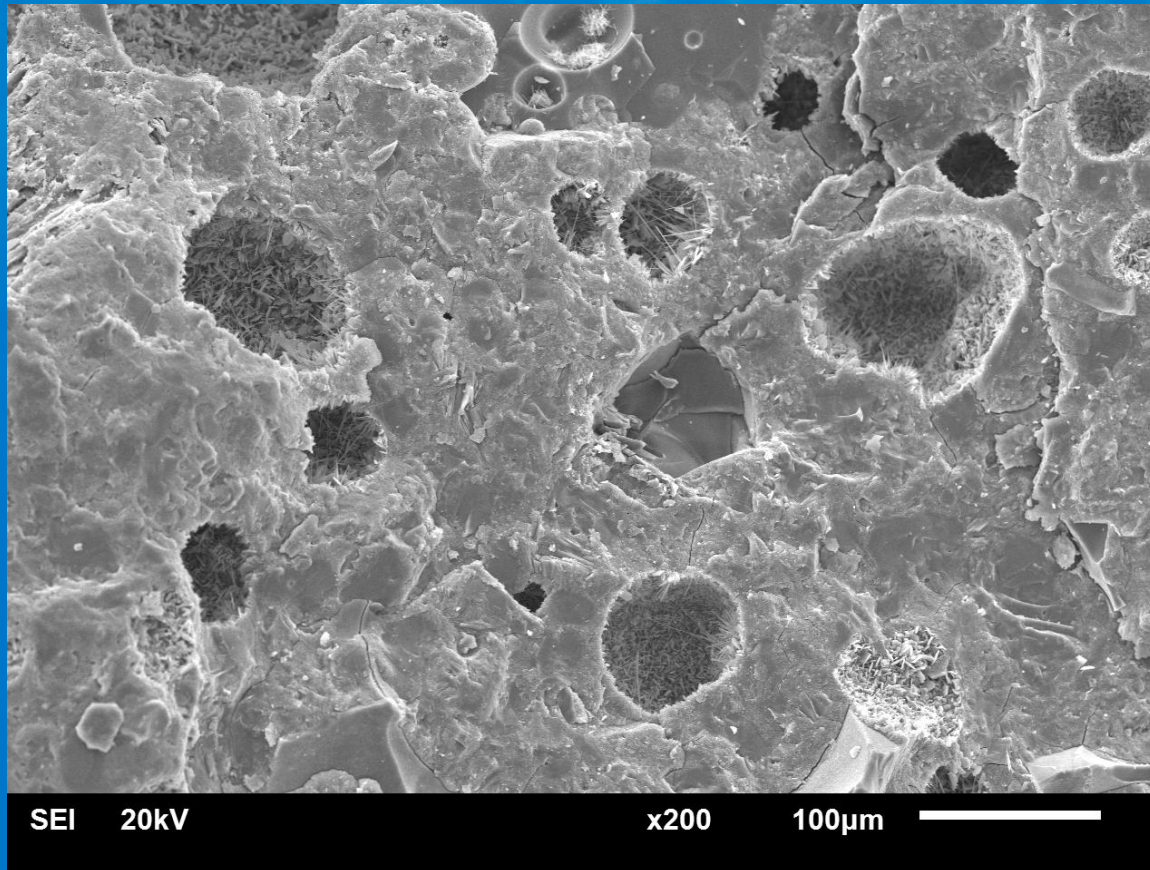
2005 Microscopic Imagery



The pore in the middle of the photo is about 110 microns in diameter
The Figure is taken in 40x magnification 320447x70 mm

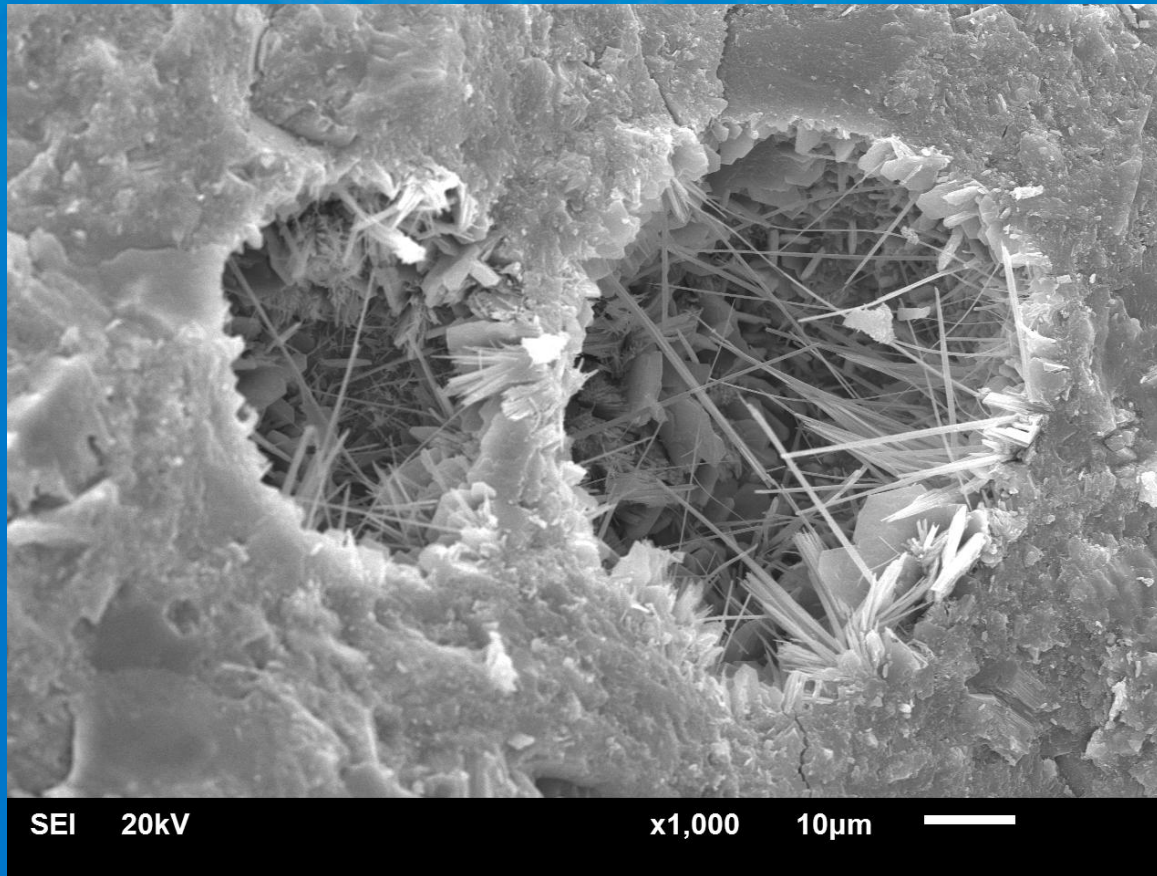
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2017 SEM Imagery – 8mm from surface



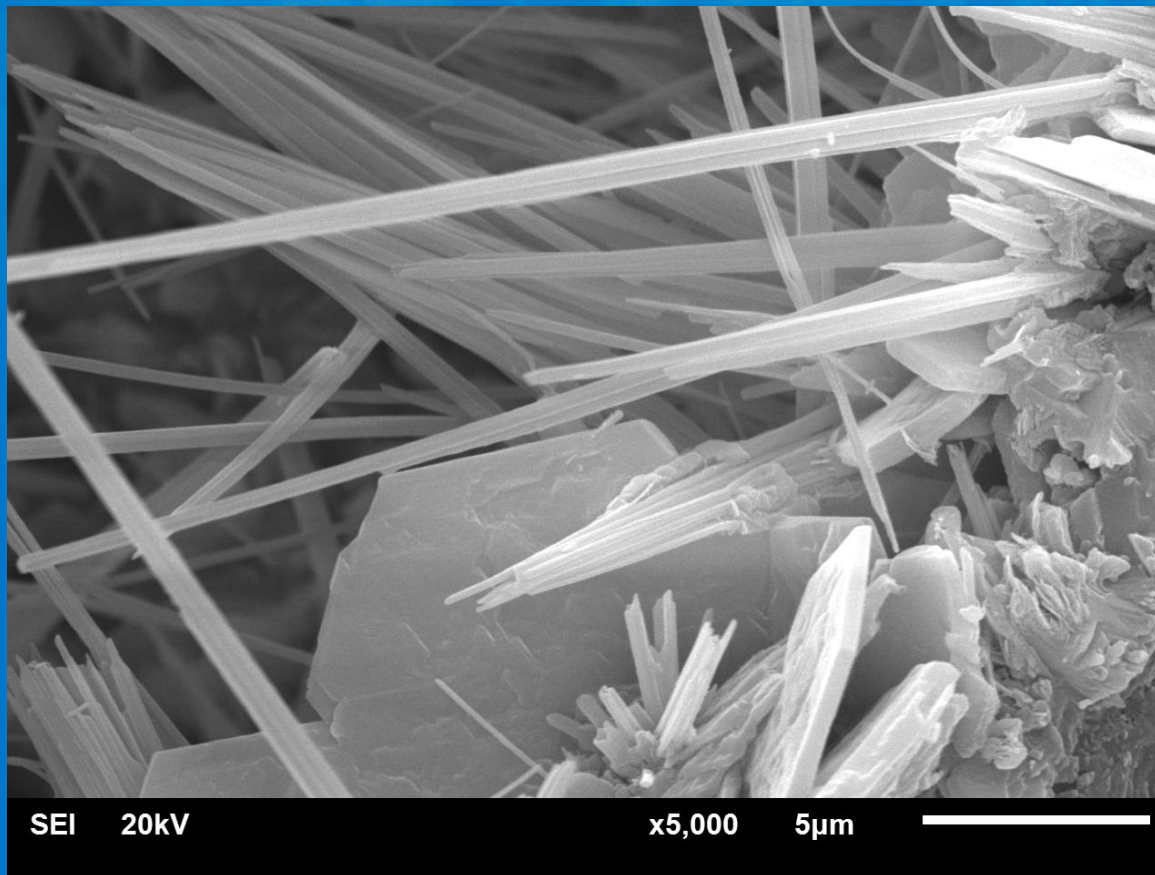
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2017 SEM Imagery – 8mm from surface



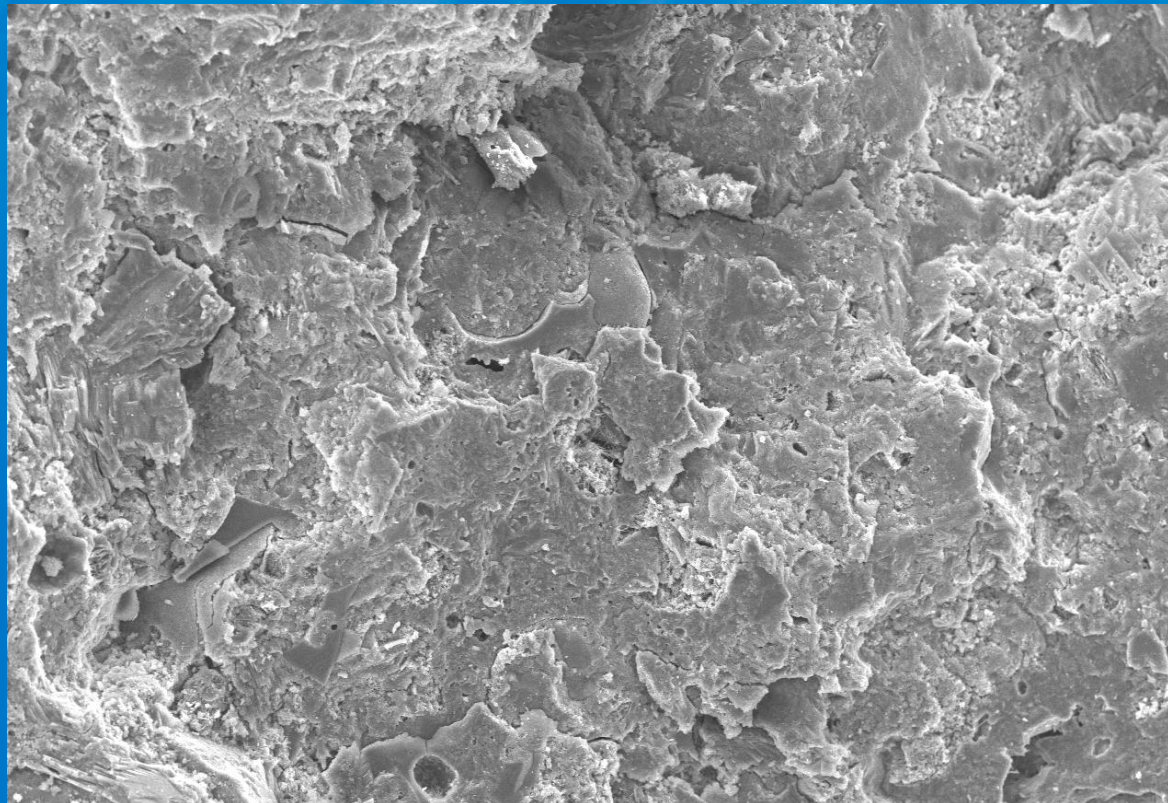
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2017 SEM Imagery – 8mm from surface



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2017 SEM Imagery – 8mm from surface



SEI 20kV

x200

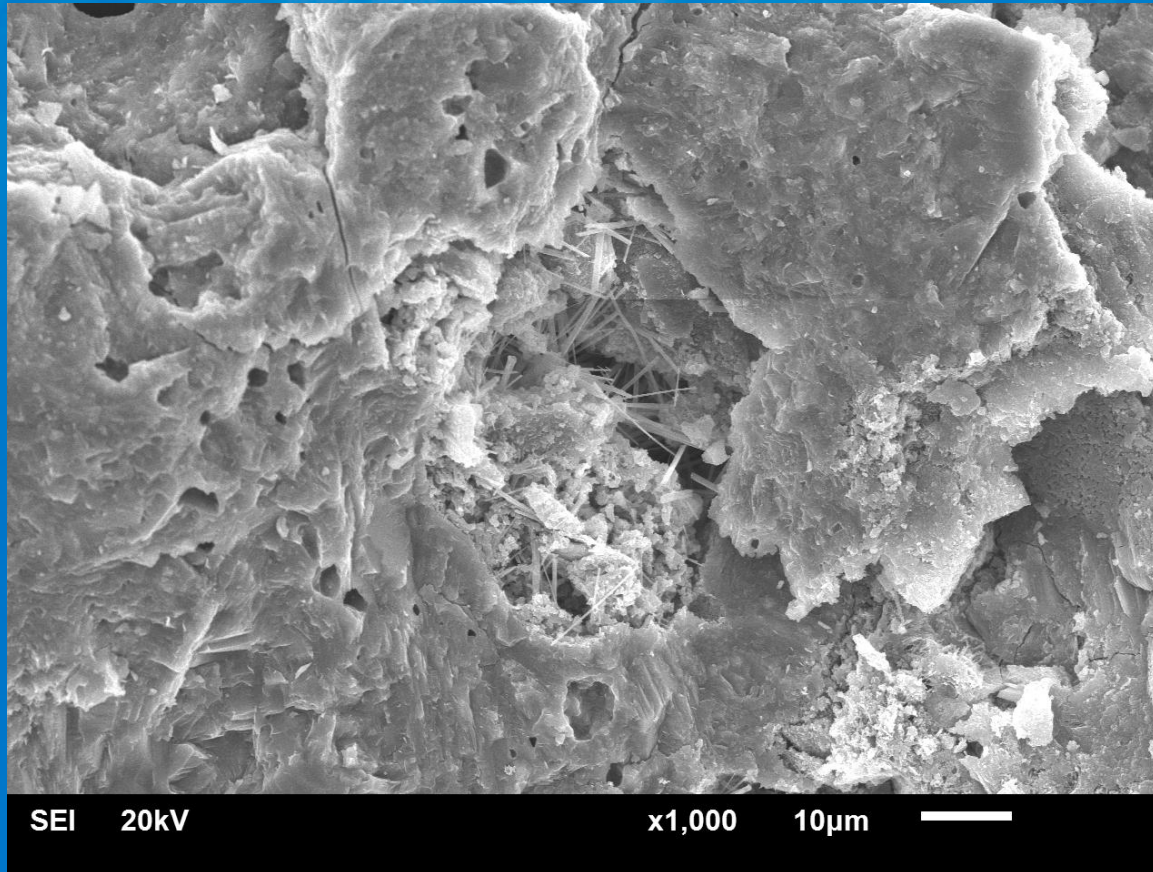
100µm



3A (1) Zone 4 x200 Magnification

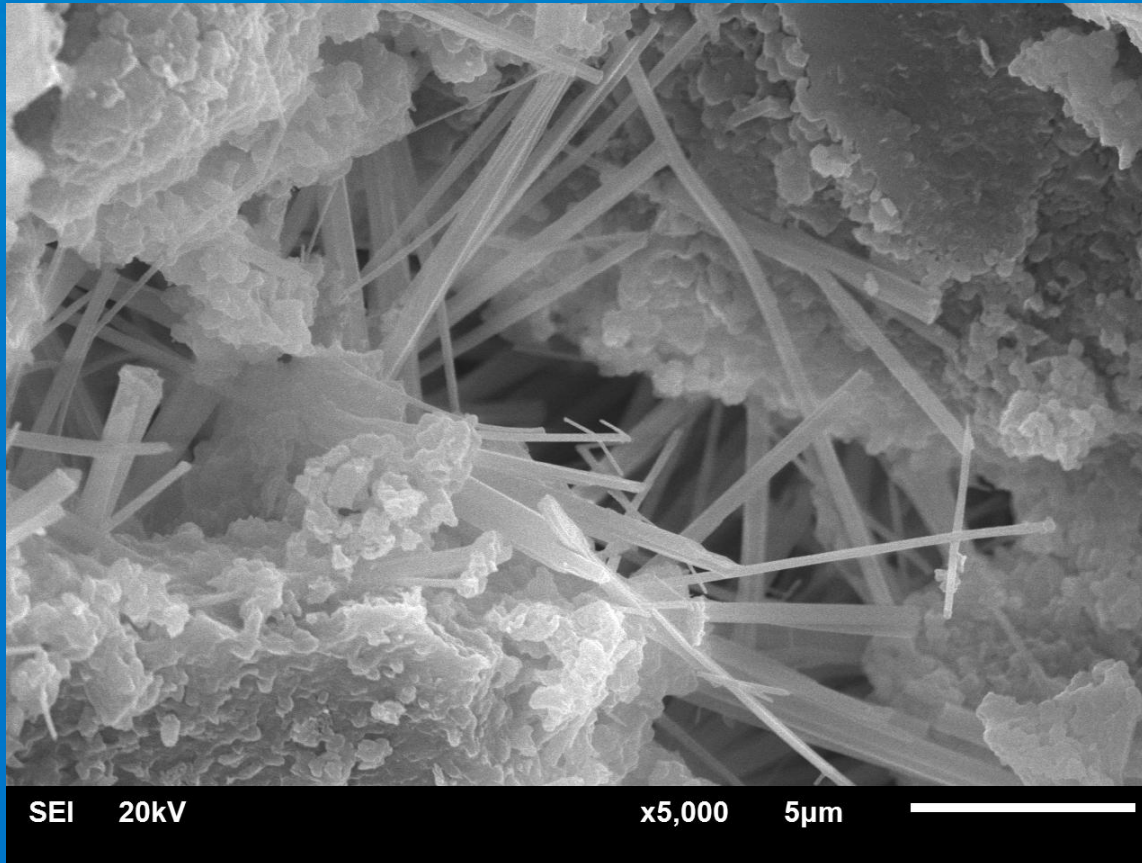
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2017 SEM Imagery – 8mm from surface



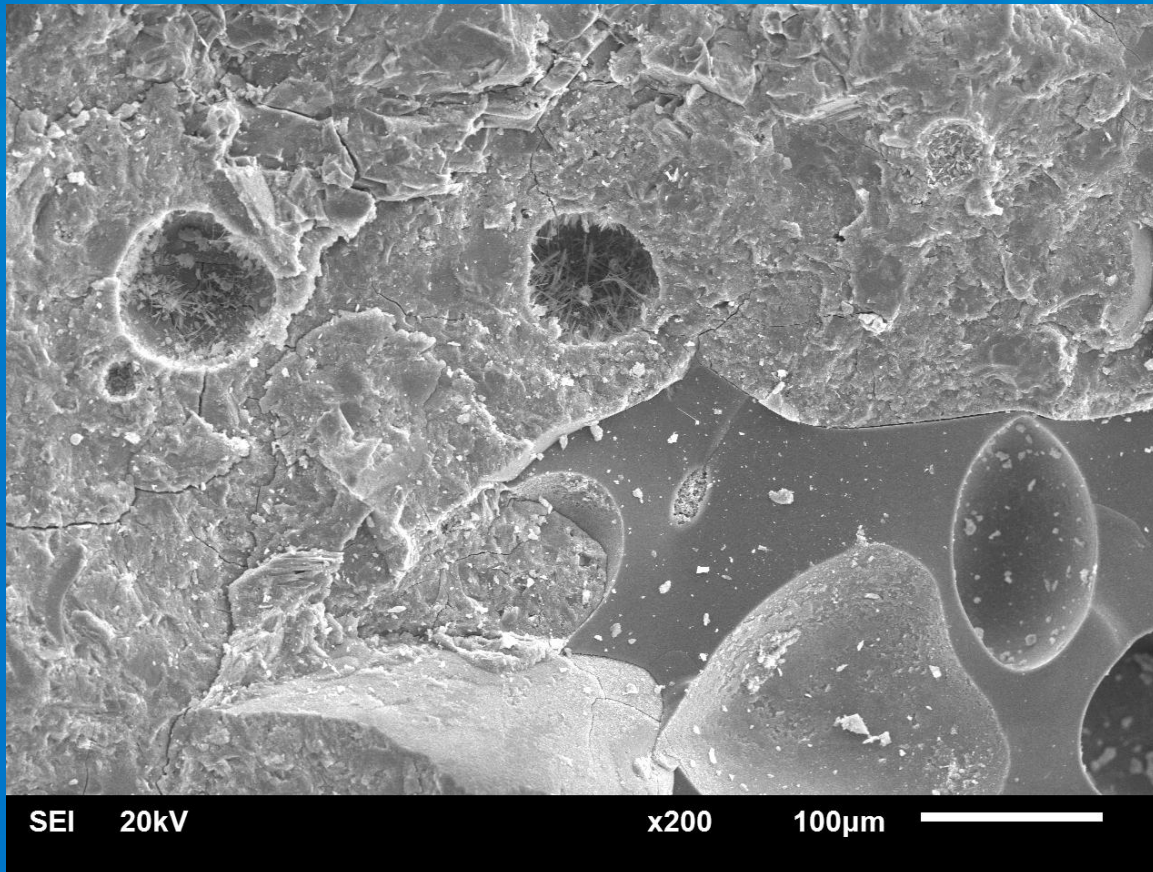
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2017 SEM Imagery – 8mm from surface



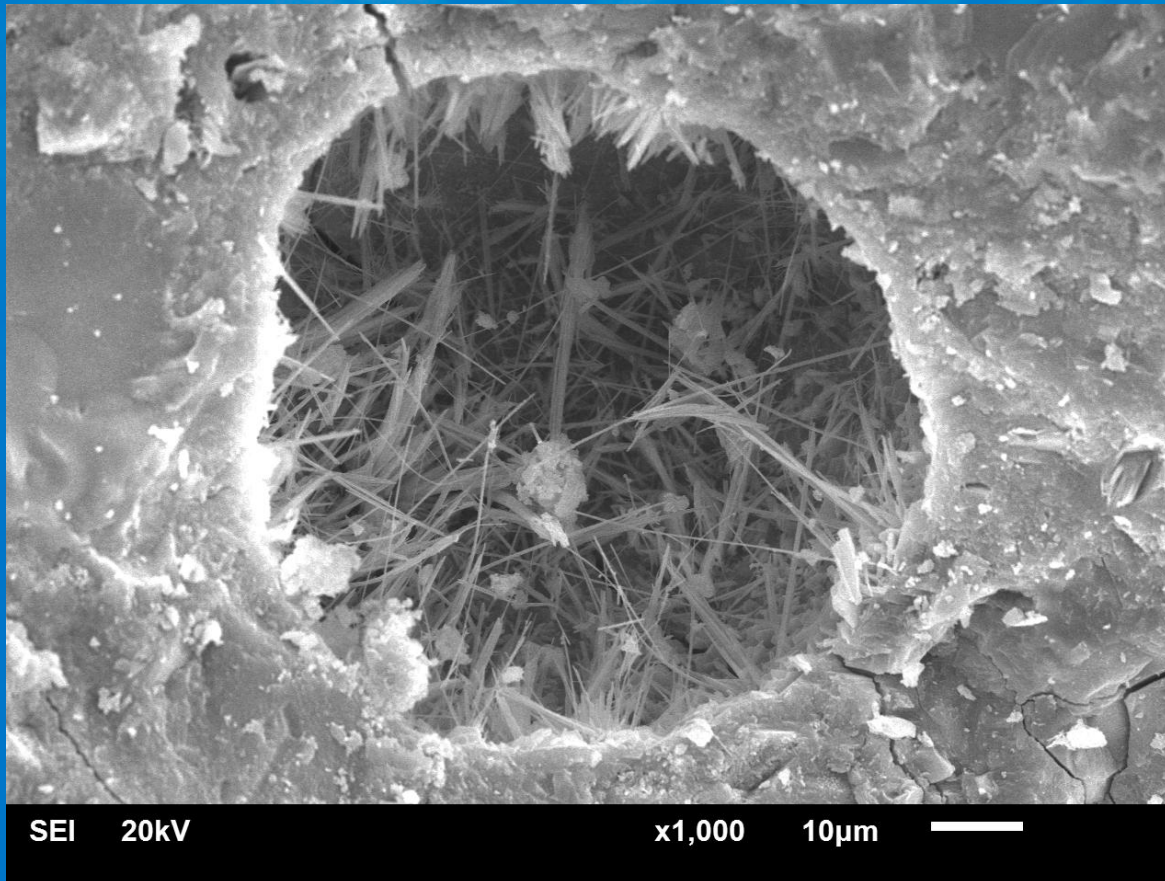
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2017 SEM Imagery – 150mm from surface



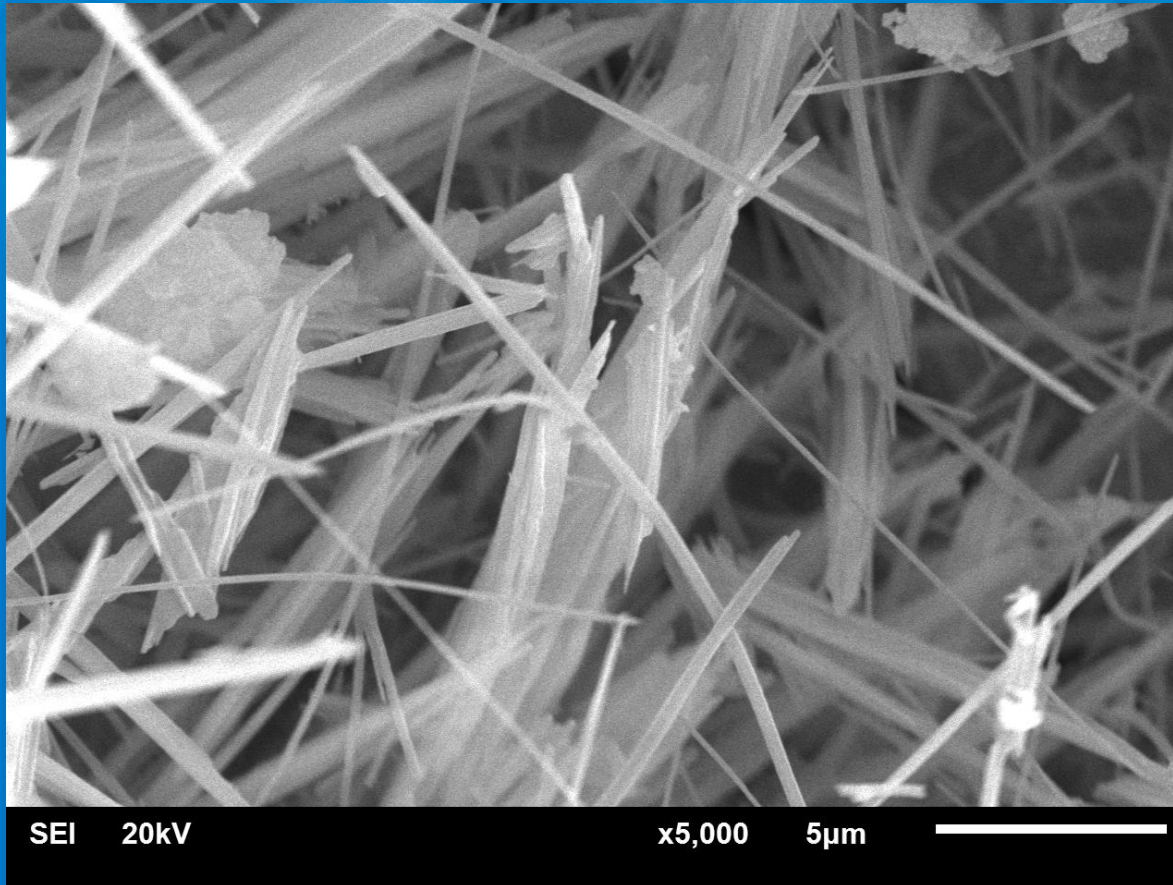
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2017 SEM Imagery – 150mm from surface



Briedbalakvisl Bridge Abutment

2017 SEM Imagery – 150mm from surface



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