

Sample: 5(1)

Grain 1:

Grain colour/opacity:

- Grey/Translucent

Grain shape/texture:

- Sub-angular
- Sub-spherical
- Angular fractures

Modal abundance and grain size (estimated):

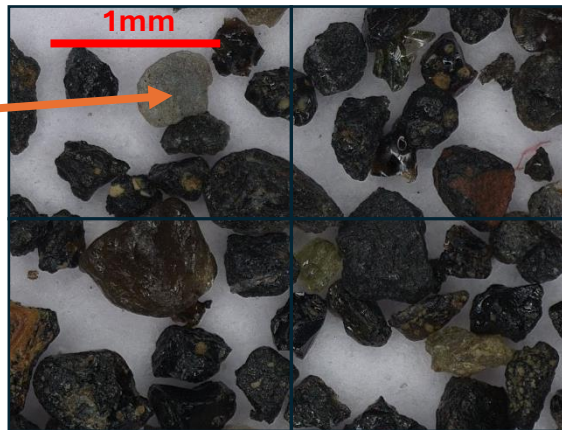
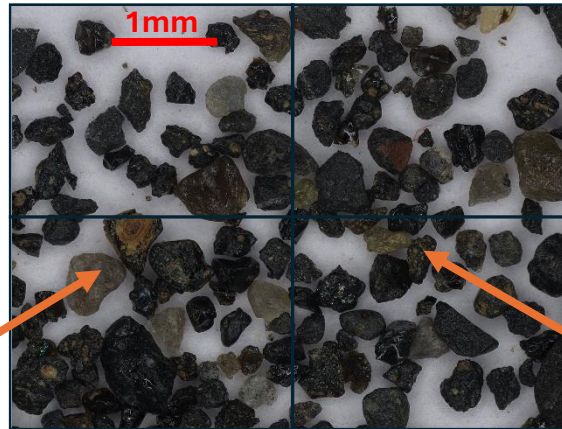
- ~10%, 0.5 mm

Mineral/rock identification:

- Quartz (mineral)

Other features:

- Some quartz grains have small black inclusions of basalt



Grain 2:

Grain colour/opacity:

- Black/Opaque

Grain shape/texture:

- Sub-angular
- Sub-spherical
- Mostly pitted surface. Some polished edges. Sharp fractures.

Modal abundance and grain size (estimated):

- ~90%, 0.3 – 1.0mm

Mineral/rock identification:

- Basalt (rock)

Other features:

- Pitted surface shows signs of weathering to buff coloured mineral - palagonite

Images courtesy of Jordan Poole
The University of Liverpool

Summary:

Sediment maturity:

- **Texturally moderately immature:** the grains are sub-angular and sub-spherical with polished edges.
- **Mineralogically mature:** Primarily basalt and quartz grains.

Provenance:

- **Distal to the source:** grains are texturally moderately immature and mineralogically mature.

Transport history:

- Non-abraded surfaces demonstrate likely **fluvial transport**. Primarily grain size 0.1 – 1.0mm: transport via variable velocity.

Source:

Vik, Iceland

Beach deposit derived from volcanic rocks. Mainly composed of basalt, palagonite and rhyolite.

Formal grain sample name:

Well sorted, mineralogically mature and texturally immature sand.