

# MYSTERY ROCK B

01 *Description of Location*

Backyard – not *in-situ*. Being used for a garden path. They were originally quarried near Oamaru.

02 *Picture / Photo*



03 *Colour*

Grey

04 *Texture*

Smooth, rounded, fine grained

05 *Hardness*

Harder than limestone (Mystery Rock A)

06 *Lustre*

Dull

07 *Streak*

White-ish

08 *Fracture / Cleavage*

Too hard to break with hands...but there are some broken pebbles and they have broken at random angles – no pattern

09 *Other*

These rocks are commonly found in riverbeds in the Waitaki District (keep an eye out for them once we are out of lockdown).

# SOLUTION

## WHAT DO THESE OBSERVATIONS TELL US?

The texture is a big clue here - these pebbles are rounded telling us they have been tumbled around a lot (probably in a river) - knocking all the sharp edges off. This tells us the pebbles were eroded from their original location, transported by a river or rivers before being deposited to where they were quarried...phew, what a journey!

## KNOW WHAT THEY ARE?

Yes, these pebbles are greywacke.

## WHAT IS GREYWACKE?

Greywacke is made from sands and silts that have been hardened by heat and pressure. They form a large part of the basement rock of the Waitaki Whitestone Geopark and were formed a very long time ago – before Zealandia broke away from Gondwana!

## WHERE CAN WE SEE GREYWACKE IN THE WAITAKI WHITESTONE GEOPARK?

- Ohau Moraines
- Waitaki River