Protect yourself and your family from rock-like slag material found on the beach in Keyport, Monmouth County

The New Jersey Department of Health (NJDOH) developed this fact sheet to address community concerns about possible exposures to the rock-like slag material recently found on the beach in Keyport.

What is the status of evaluation of the rock-like slag material found at Keyport beach?

Rock-like slag materials were first discovered at the beach in June of 2024, and additional materials were discovered in July. The New Jersey Department of Environmental Protection (NJDEP) has been removing the material as it continues to wash up on the beach and has conducted sampling to test for heavy metals, including lead and arsenic. NJDEP has posted signs in the area to warn people to not touch or eat the material and is currently investigating the source of the material. On August 5, 2024, NJDEP contacted NJDOH and requested assistance in evaluating the potential public health implications from possible exposures to contaminants found in this material.

What was detected in the rock-like slag material and the surrounding sand?

NJDEP has conducted sampling of the rock-like slag material and the surrounding sand. A majority of the rock-like slag samples had detections of arsenic above NJDEP's cleanup standard. Two of the 10 samples had cobalt levels slightly elevated above the cleanup standard. Lead was not detected above the cleanup standard in any of the collected samples.

Sampling of the beach sand surrounding the rock-like slag material showed no contaminants detected above NJDEP's cleanup standards. NJDEP's cleanup standard is a level at which actions must be taken to remove contaminated soil/ rock-like slag material.

What is Arsenic?

Arsenic is a naturally occurring heavy metal found in the earth's crust. Prior to 2003, arsenic was used in the production of wood preservatives, primarily copper chromated arsenate (CCA); wood preservatives containing arsenic have been phased out for certain wood products. Elemental arsenic is used as an alloying element in ammunition and solders, as an anti-friction additive to metals used for bearings, and to strengthen lead-acid storage battery grids. At this time, the source of the rock-like slag materials found on the beach in Keyport is unknown.

What is cobalt?

Cobalt is a naturally occurring element found in rocks, soil, water, plants, and animals. Alloys produced with cobalt metal are used in the manufacture of aircraft engines, magnets, grinding and cutting tools, and medical devices and prosthetics. Cobalt compounds are used to color glass, ceramics, paints, and cosmetics. As noted above, the source of the rock-like slag materials found on the beach in Keyport is unknown.

How can you be exposed to contaminants from the material found on the beach in Keyport?

In order for contaminants to impact human health, there needs to be an exposure pathway, such as eating or inhaling contaminants.

In general, exposure to sand would be the most likely way that individuals on the beach could accidentally ingest contaminants while playing or digging in the sand if the sand contained contaminants from the rock-like slag material. However, the sand was sampled by NJDEP and results indicated there were no elevated levels of heavy-metal contaminants in the sand. NJDEP noted that the rock-like slag material does not crumble easily. Based on the sampling results of the sand, people who played in the sand or who ate sand would **not** be exposed.

Exposure to the actual rock-like slag material would be another potential exposure pathway. A person could be exposed to the contaminants in the rock-like slag material by touching the material and then putting their hands in their mouth, or by eating the actual rock-like material.

In summary, based on the information provided to NJDOH, people could have been exposed at the beach in Keyport through direct contact to the actual rock-like slag materials but people could not be exposed to contaminants by just having contact with the sand.

How can you protect yourself and your family from exposure from contaminants in the rock-like slag material on the beach in Keyport?

- Avoid contact with the material by not touching it or eating it.
- Wash hands after playing at the beach and before eating or drinking.

What can you do if you think you or your child may have touched or accidentally ingested rock-like slag fragments from the beach in Keyport?

NJDOH is evaluating the potential public health implications from possible exposures to contaminant in this material. More information on potential health impacts will be included in a report. This work is being done under a cooperative agreement between NJDOH and the federal Agency for Toxic Substances and Disease Registry (ATSDR). Any questions or concerns about exposures to arsenic or cobalt from this material can be directed to Christa Fontecchio or Somia Aluwalia at 609-826-4984 or by email at Christa.Fontecchio@doh.nj.gov and Somia.Aluwalia@doh.nj.gov.