

University of Derby

Reykjavík, 21.07. 2023

UST202307-191/G.G.

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Subject: Geological dating of Icelandic zircon

The Environment Agency of Iceland has received an application from University of Derby, dated 16th of July 2023, for a geological research permit within Fjallabak and Kerlingarfjöll in the period of 2nd of July to 30th of September 2023.

Fjallabak is protected as a nature reserve, cf. regulation no. 354/1979. Construction work, extraction of minerals, disturbance to geological formations, vegetation and wild animal life in the protected area is prohibited. The use of unmanned aircraft (drones) within the nature reserve from June 15th – September 15th is subject to a permit from the Environment Agency of Iceland.

Kerlingarfjöll is protected as an area of landscape, cf. Regulation no. 822/2020. Disturbance to geological formations, landscape, hot springs, other springs and ecosystems in hot springs in the protected area is prohibited. Permission must be obtained from the Environment Agency of Iceland for organized events and projects that need facilities, labour force or use of equipment within the protected area such as filming, at events and ceremonies.

Description of the project:

The project applied for is a research project and collection of samples in Fjallabak and Kerlingarfjöll areas. Rhyolitic, sandstone, and detrital sand samples are to be collected for the separation of zircon crystals for age determinations of Icelandic bedrock. The aim is to sample approx. 500g of rhyolitic rock, sandstone, or detrital sediment (i.e. sand). Disruption to the natural landscape will be minimal by collecting small samples, often in the form of already loose fragments of rock or detrital river sand, and from obscure locations or locations already disrupted by anthropogenic activities (e.g. road cuttings) to ensure the enjoyment of the area is not affected for others. For hard rock sample collection, a geological hammer may on rare occasion be necessary to dislodge samples.

No chemicals or chemical compounds will be used. 4x4 vehicles will be used on marked tracks only to approach sampling sites, the remaining distance is covered on foot.

Impact assessment:

The Environment Agency of Iceland considers the project Geological dating of Icelandic zircon not likely to have negative impact on the conservation value of the area or other visitors.

Conclusions and conditions:

The Environment Agency of Iceland hereby grants University of Derby permission on its behalf to collect samples within Fjallabak and Kerlingarfjöll as described above from July 20th to September 30th on the following conditions:

- Keep this letter with you on site during the project. The permit conditions should be introduced to the staff of the project before work begins.
- The applicant shall inform rangers in the area about their arrival and departure. This is to be done 24 hours before entering the area and again before leaving it.
- If the project dates or description changes the Environment Agency shall be notified as soon as possible.
- Crew members should always stay on authorized paths/tracks/roads.
- The crew must follow rules of conduct that apply to the area.
- This permit is only valid for research purposes. It does not include permit to utilize the samples for commercial purposes. The samples cannot be signed over to third party for commercial use.
- Every measure should be taken to avoid damage to the sites and unnecessary disturbance while collecting samples.
- Samples should be collected where any resulting disturbance to soil, vegetation or geological formations is not visible to other visitors.
- All participants in the project must wear high-visibility clothing during field work, labelled with the identity of the researcher or the research institute.
- All disturbance to animals and wildlife is strictly prohibited.
- Off-road driving in Iceland is strictly prohibited.
- All traces of the work must be removed carefully from the site by the end of the work/project.
- The project's staff is required to prevent all disturbance to the environment and make sure that all litter is removed from the sites.

If the developer causes damage to nature, according to art. 87 in the Nature Conservation Act no. 60/2013, the Environment Agency of Iceland can, according to the Nature Conservation Act, f.e. order the licensee to fix damage to nature and vegetation and/or stop the project.

The Environment Agency of Iceland can according to art. 89 in the Nature Conservation Act no. 60/2013 change conditions of the permit, add new conditions or withdraw the permit in order to prevent damage to nature if environmental conditions change.

According to art 89. in the Nature Conservation Act no. 60/2013 the Environment Agency can withdraw the permit if conditions of the permit are not complied to.

Permit from the National Energy Authority is needed for researches in geothermal areas (www.os.is).

If you wish to export samples from Iceland a special permit is needed from the Icelandic Institute of Natural History (www.ni.is).

The Environment Agency of Iceland wishes to receive, free of charge, a copy of all reports and scientific articles that result from the research project.

Permission fee:

Environment Agency of Iceland charges a fee for processing applications for permits in protected areas based on Article 92 of Act no. 61/2013 on Nature Conservation. The fee for research is **57.000 ISK** according to art. 29. a. in the agency's tariff no. 206/2023.

Supervision:

The Environment Agency will supervise the project. The supervisor will be a ranger from the Environment Agency.

Sincerely

Valdimar Kristjánsson
advisor

Guðbjörg Gunnarsdóttir
advisor