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Research permit - Fjallabak nature reserve

The Environment Agency of Iceland has received an application from Lancaster Environment Centre, dated 11th of June 2024, for research permit within Fjallabak nature reserve.

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.

Description of the project:

The project is a volcanological study of c.877 CE Hrafntinnuhraun eruption. The location of the research is Hrafntinnuhraun lava field. The timing of the research/fieldwork is from 3-24th of August 2023. Four participants (briefly six on 5th of August) will be conducting the research from 27th of July to 17th of August.

The main aim of this project is to research the c.877 CE Hrafntinnuhraun eruption. In the application there are details regarding the fieldwork and maps that show the zones that the research aims to look into. Four objectives are listed in the application.

- 1. Log and sample the proximal Pyroclastic Pile.
- 2. Map the Northeast Chain of rhyolite domes and small lava flows.
- 3. Map the Southwest Vent, which comprises a scoria cone and lava flow.
- 4. Map the vent area of the Main Lava Field.



The applicants will avoid walking on vegetated slopes, and when walking within the lava flows they will avoid walking in the centre of troughs as these are prone to collapse and damage any flora growing there. Even though there are no marked trails within the lava flows, it will be taken care to ensure that sampling sites are not identifiable to any hikers who walk through the lava, the collection of rock samples will done carefully to ensure that the minimum amount of damage is cause.

The applicant will be using a 4x4 to gain access to the area but there will be no offroad driving.

Impact assessment:

The Environment Agency of Iceland considers the project to be unlikely to affect the natural environment of the area. 10-20 rock samples will be collected from the lava, and around 50 small samples of pyroclastic material. The applicant specifies that careful attention will be paid to finishing so that visible disturbance will be at an absolute minimum. The research will positively impact the conservation value of the area by increasing knowledge of the Torfajökull volcano's activity, particularly the development of the 877 eruption and rhyolite volcanism in Iceland.

Conclusions and conditions:

The Environment Agency of Iceland hereby grants Lancaster Environment Centre permission on its behalf to conduct research within Fjallabak nature reserve as described above on the following conditions:

Permit 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.
- When it is necessary to go off-path, extra care must be taken not to cause damage to terrain, including vegetation, soil and geological formation. All traces of activity must be removed afterwards.
- Crew members should always stay on authorized paths/tracks/roads.
- The crew must follow rules of conduct that apply to the area.
- Every measure must be taken not to cause damage to the site and limit the size of the construction/filming site.
- All traces of the work must be removed carefully from the site by the end of the work/project.
- If any complications occur during the project, please contact the ranger or the Environment Agency of Iceland, tel. +354 591 2000.



- 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 vehicles used during field exploration must be labelled with the identity of the researcher's institute. All participants in the project must wear high-visibility clothing during field work, labelled with the identity of the researcher or the research institute.

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 (<u>www.ni.is</u>).

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.

Sincerely

Daníel Freyr Jónsson site manager

Sveinn Kári Valdimarsson advisor