# Article information:

First field application of cyclic soft stimulation at the Pohang Enhanced Geothermal System site in Korea - NASA/ADS
<https://ui.adsabs.harvard.edu/abs/2019GeoJI.217..926H/abstract>

# Article summary:

1. The concept of cyclic injection schemes has been applied for the first time at field scale at the Pohang Enhanced Geothermal System (EGS) site in Korea.

2. A total of 52 induced microearthquakes were detected in real-time during and shortly after the injection, with a maximum magnitude of Mw 1.9.

3. The major factors that limited the maximum earthquake magnitude are believed to be: limiting the injected net fluid volume, flowback after the occurrence of the largest induced seismic event, using a cyclic injection scheme, and applying a traffic light system.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy as it provides detailed information about the application of cyclic injection schemes at field scale at the Pohang Enhanced Geothermal System (EGS) site in Korea. The article is well-researched and provides evidence for its claims, such as data on induced microearthquakes and hydraulic data sets which exhibit pressure-dependent injectivity increase with fracture opening between 15 and 17 MPa WHP. Additionally, it provides an explanation for why the maximum magnitude of the induced seismicity was below target threshold of Mw 2.0 by citing factors such as limiting injected net fluid volume, flowback after occurrence of largest induced seismic event, using a cyclic injection scheme, applying a traffic light system etc.

However, there are some potential biases in the article which should be noted. For example, it does not provide any counterarguments or explore alternative solutions to mitigate large-magnitude fluid-injection induced seismic events other than cyclic injection schemes. Additionally, it does not provide any information on possible risks associated with this method or how they can be mitigated if they arise. Furthermore, it does not present both sides equally as it only focuses on presenting evidence for why this method is effective without exploring any potential drawbacks or limitations associated with it.

# Topics for further research:

* Alternatives to cyclic injection schemes for mitigating fluid-injection induced seismic events
* Risks associated with cyclic injection schemes
* Mitigation strategies for risks associated with cyclic injection schemes
* Advantages and disadvantages of cyclic injection schemes
* Limitations of cyclic injection schemes
* Impact of cyclic injection schemes on the environment

# Report location:

<https://www.fullpicture.app/item/0718333425ab8513ac5c69bb22253ec0>