

New Seismic Data Now Available for Northeast BC's Kiskatinaw Area

Vancouver, BC – June 17, 2020 – New data from a dense array of sensors to monitor ground motion (seismicity) in British Columbia's Northeast Region is now available for download through a major international seismicity database.

Earlier in 2020 a closely spaced network of seismometers, which measure seismicity, were installed as part of the Geoscience BC funded *Understanding and Mitigating Induced Seismicity Risk in the Kiskatinaw Area, BC* project. A 91-day embargo gives project partners time to analyze the data before it is released to the public. The first data from March 2020 is now available for download through Incorporated Research Institutions for Seismology (IRIS), an international seismological data hub.

The project is one of a <u>series of four research projects launched in December 2019</u> to further investigate how and why, in certain circumstances, earthquakes can be caused by hydraulic fracturing during natural gas development.

The network consists of 13 sites with seismograph equipment installed and operated by Canadian seismic monitoring technology leader Nanometrics. All of these have seismometers that measure often imperceptible ground vibrations. In addition, two sites have co-located accelerometers, which can measure larger ground accelerations that are more perceptible. The network is located within the <u>Kiskatinaw Seismic Monitoring and Mitigation Area</u> (KSMMA), which was designated by the BC Oil and Gas Commission (OGC) in 2018 to "investigate a series of low-level seismic events" arising from natural gas development in the area. The KSMMA is between Fort St John and Dawson Creek.

University of Calgary Department of Geoscience professor and project lead Dr. David Eaton said: "This world-class system is creating new public data that the research team will use to create models to inform regulatory practice and to improve natural gas operations in BC's Northeast Region."

The status of the seismograph network can be viewed here.

IRIS data download requests by researchers are usually processed in a few minutes via the IRIS BREQ_FAST Request Form here.

The research team is using the data to:

- improve calibration of the ground-motion prediction equations to inform work in the area and update previous studies;
- research fault response to hydraulic fracturing and kinematics of fault rupture; and
- provide seismic data to the public, operators and regulators.

Data from the seismographs is initially expected to conclude in July 2021, when project funding is complete, but plans are in place to extend the operations for an additional year subject to other sources of funding.

The new network complements an OGC widely spaced array that monitors regional seismicity patterns. It is part of a collaboration with Natural Resource Canada's Pacific Geoscience Centre, and can be viewed here.

Accessing Data

The Geoscience BC website project page includes details on how to download data from IRIS, which is released on a 24-hour rolling basis at 00:00 UTC, following the 91-day embargo period.

View project page

About Geoscience BC

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