

News Release

Calgary Head Office
Suite 1000, 250 – 5 Street SW
Calgary, Alberta T2P 0R4
Canada

www.aer.ca

AER responding to seismic events in the Fox Creek area

For immediate release.

Calgary, Alberta (February 19, 2015)...The Alberta Energy Regulator (AER) has announced new seismic monitoring and reporting requirements for hydraulic fracturing operators in the Fox Creek area to ensure safe, orderly, and environmentally responsible development of energy resources.

The [subsurface order](#) outlines how operators in the Duvernay Zone must monitor and report seismic activity and follow a “traffic light” process. This process defines the stages at which operators need to take action when seismic activity is observed, including reporting activities to the AER, implementing response plans, and, at certain levels, ceasing operations. The order comes after several seismic events—possibly related to hydraulic fracturing—were recorded in the Fox Creek area. These events did not impact public safety, infrastructure, or the environment.

“While these seismic events have not impacted public safety, it is our job to take this precautionary step to ensure energy resources in this area are developed in a safe and responsible manner,” said AER president and CEO Jim Ellis.

On February 3, 2015, shortly after reports of seismic activity, the AER released [Bulletin 2015-03: Observed Seismicity and Oil and Gas Operations; Operators’ Responsibilities](#). That bulletin reminded licensees of their responsibility to ensure well control and subsurface integrity at all stages of drilling, completion, and injection operations.

The AER ensures the safe, efficient, orderly, and environmentally responsible development of hydrocarbon resources over their entire life cycle. This includes allocating and conserving water resources, managing public lands, and protecting the environment while providing economic benefits for all Albertans.

FOR BROADCAST USE:

The AER announced new seismic monitoring and reporting requirements for hydraulic fracturing operators in the Fox Creek area to ensure safe, responsible, and environmentally responsible development of energy resources.

- 30 -

Background

Seismicity in Alberta

inquiries 1-855-297-8311
24-hour
emergency 1-800-222-6514

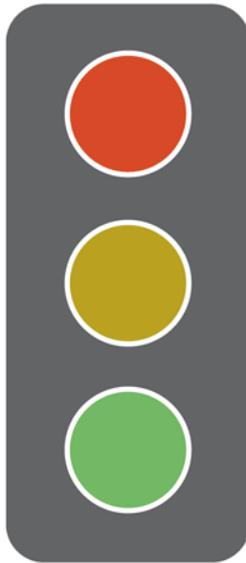
Calgary, Alberta (February 19, 2015)...

- [Hydraulic fracturing](#) has been used in Alberta since the 1950s and is one of several well-established methods to enhance the recovery of oil and natural gas and extend the life of older wells in mature oil and gas fields.
- Hydraulic fracturing has been observed to induce subsurface seismic events since the 1960s. Most of these events have been too small to be felt or to cause surface impacts.
- In December 2014, the Alberta Energy Regulator was notified about a cluster of 18 seismic events in the Fox Creek area, with magnitudes between 2.7 and 3.7 local magnitude (M_L). In January 2015, several events were recorded between magnitudes of 2.4 and 4.4 M_L .
- In response to the cluster of seismic activity, the Alberta Energy Regulator has issued Subsurface Order No. 2, regarding monitoring and reporting of seismicity in the vicinity of hydraulic fracturing operations in the Duvernay Zone near Fox Creek. The order sets out the following requirements:
 - Before conducting hydraulic fracturing operations, licensees must assess the potential for induced seismicity caused by or resulting from hydraulic fracturing operations and adopt, and be immediately prepared to implement, a response plan to address potential seismic events.
 - Licensees will follow a traffic light process with staged thresholds. If there are no seismic events observed, operations can proceed as per the AER's usual requirements. The order requires licensees to immediately report to the AER seismic events of 2.0 M_L or greater and invoke their response plan.
 - The order requires operators to cease hydraulic fracturing operations altogether if a seismic event of 4.0 M_L or greater is detected in the vicinity of their operations. In these circumstances, licensees will not be permitted to resume operations without AER consent.

Backgrounder

AER Traffic Light System – Duvernay Zone, Fox Creek

inquiries 1-855-297-8311
24-hour emergency 1-800-222-6514



>	4.0M_L cease operations, inform the AER
>	2.0M_L inform the AER, invoke response plan
<	2.0M_L no action required

February 2015

Alberta Energy Regulator

For more information, please contact:

Peter Murchland, AER Office of Public Affairs

Phone: 403-297-3516

E-mail: peter.murchland@aer.ca

Media line: 1-855-474-6356

[NR-2015-02]