



## **Kearl EPO Update 42 – November 29<sup>th</sup>, 2023**

*Imperial is committed to complying with an environmental protection order that was issued by the Alberta Energy Regulator (AER) related to industrial wastewater at our Kearl oil sands operating site. We regret these incidents and are making every effort to learn from it and apply preventative measures.*

*Imperial will provide regular updates to communities and potentially affected stakeholders. Updates will be posted to Imperial's website weekly and notifications will be sent via e-mail.*

*There are two separate incidents included in the order issued on Feb. 6. We are working with the regulator on next steps for both.*

### **Imperial continues monitoring and assessment at Kearl site**

Imperial continues to provide regular updates on work underway at its Kearl oil sands facility to address four areas of shallow seepage of industrial wastewater from its operating lease area. The company can confidently report that the seepage has not reached any waterways, including the Firebag River, the Muskeg River, the Athabasca River or any other waterbodies including those in the Northwest Territories. This has been confirmed by our testing, which includes more than 2,000 samples taken from more than 500 locations, as well as testing by government. Independent testing has been undertaken by communities.

#### **Current status:**

- Monitoring and assessment ongoing following the completion of construction on mitigations
- Initial data shows that the mitigations are working as intended
- Equipment in mitigation areas prepared for winter season
- Water sampling data stable, no indication of adverse impacts to the Firebag River or Waterbody 3
- No indication of adverse impacts to local wildlife or fish populations, expanded monitoring continues
- Enhanced notification protocols with communities, supporting independent testing

Construction work was completed in June on key mitigation efforts, which included expanding the existing seepage interception system with additional drainage structures, pumping wells and vacuum systems. Winterization plans have been completed for all four areas.

Monitoring and assessment work continues, which includes additional delineation work in the area to determine if any further mitigations are required. As part of this work, Imperial installed additional monitoring wells during the summer and more are planned.

As part of ongoing assessment work, Imperial engaged a third-party to develop a site environmental model, which included the review of extensive drilling and sampling data, as well as work to understand potential surface and groundwater flow paths and receptors in the area.

This site model will continue to be updated as we gather more data and will be key in informing our ongoing groundwater action plans including remedial actions. The model was shared with the Alberta Energy Regulator and communities.

The results from the model continue to support our assessments to date that there is no indication of adverse impacts to wildlife or fish populations in nearby river systems or risks to drinking water for local communities.

This follows a third-party review of the source control and containment mitigations for the four identified shallow seepage locations. This review was completed in September and submitted to the Alberta Energy Regulator and shared with communities. Initial data shows that the mitigations are working as intended and preventing further off-site migration of impacted water at those locations. Monitoring of these mitigations and water sampling is ongoing. Additional run time and data will be used to enhance the mitigations if necessary.

Enhanced water and wildlife monitoring continues in the area and fencing around infrastructure remains in place to prevent access. To date, there is no indication of adverse impacts to wildlife or fish populations in nearby river systems or risks to drinking water for local communities.

Imperial is also supporting independent testing and site tours for local Indigenous communities and is providing opportunities for input into our approach to environmental monitoring activities. Indigenous communities are also conducting independent technical reviews of the company's mitigation and monitoring plans. Community notification protocols have also been updated to ensure communities are informed early and through multiple channels.

The company also continues to provide information to regulatory officials from the Alberta Energy Regulator and government departments and has been hosting regular site tours by officials. Imperial provides monitoring data/reports to the Alberta Energy Regulator every two weeks, which are also shared with communities.

### **Culvert erosion**

Earlier this month, Imperial responded to an operational issue at our Kearl site whereby water collected from rain, snow and run-off in a catchment basin was released into a channel containing elevated levels of silt and sediment above regulatory guidelines. The water collected is not part of our operations, nor does it come into contact with our operations and has no chemical contaminants. We are providing this information to further clarify details of the event and reinforce that it was not connected to tailings or the Environmental Protection Order (EPO).

The presence of soil was due to erosion caused by the clean water passing through a culvert during its return to the environment. This was quickly identified by field personnel and water flow was stopped and materials were placed within the channel to slow the flow of the water and prevent further migration of soil particles. Field data collected from the channel the next day indicated that the water once again met release criteria.

The clean water passing through the culvert met all regulatory parameters for return into the environment. While this is clean water run-off, we conduct regular testing prior to the water's release to ensure release criteria are met as prescribed by the regulator.

We continuously work to ensure our business operates in a safe and environmentally responsible manner. When this incident occurred, we took immediate steps to put mitigations in place and notified regulators and communities. We regret this happened and are applying the learnings from it to inform any additional preventative measures that are identified.

### **Additional information**

We have shared a factsheet about Imperial's response at Kearl on our website: [Getting the facts - Imperial response at Kearl \(imperialoil.ca\)](https://www.imperialoil.ca/getting-the-facts)

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