



**Canadian Natural**

## **PRIMROSE UPDATE**

### **Reporting Period September 15-21, 2013**

#### **Operations Update**

As a result of our active clean-up efforts approximately 10,300 barrels of bitumen emulsion have been recovered to-date and daily we are seeing less than 20 barrels from all sites, coming to surface. We have further reduced the bitumen impacted area from 13.5 hectares to 7.4 hectares, a 65% reduction since our original report. The efforts of over 200 employees and contractors on site will continue to reduce the impact until the locations are fully remediated.

We completed aerial and ground surveillance across our entire Primrose operations area and we have not identified any additional bitumen emulsion seepages outside of the four reported locations. This ground reconnaissance was completed by teams on foot and with all-terrain vehicles. These teams traveled over 7000km to complete the surveillance of a 2000km network of seismic lines.

#### **Environmental Update**

On September 11, 2013 five muskrat, three beaver and two birds were returned to their natural environment, bringing the release rate to-date of animals captured live to 77%. There are four birds and four small mammals currently being cared for at a Wildlife Rehabilitation Centre.

Wildlife teams conduct sweeps for animals and monitor for birds throughout the day and night. In addition to the sweeps, we have trail cameras with remote and infrared motion sensors, to detect animal activity. As part of our wildlife mitigation program, over two kilometres of fencing and deterrents such as effigies, air horns, bear bangers and kites have been deployed in the areas. To protect wildlife, tarps cover the fissures and we built an aluminum scaffold structure over the fissure at the water body site.

#### **Investigation Update**

We are working diligently with the Alberta Energy Regulator and Alberta Environment and Sustainable Resource Development to investigate and remediate the affected locations and investigate the cause.

Canadian Natural believes the cause of the bitumen emulsion seepage is mechanical failures of wellbores in the vicinity of the controlled areas. We are in the process of identifying and investigating these wellbores. We are drilling hydrogeological and delineation wells adjacent to the affected locations to aid in the investigation.

#### **For More Information, please:**

Visit our website at [www.CNRL.com](http://www.CNRL.com)

For media, contact 403-514-7777 or [IR@cnrl.com](mailto:IR@cnrl.com)

*Photo: an ARGO ATV*

