



Summary of Incident

- On August 15, 2019 at approximately 8am MT, Bonterra identified an imbalance and began investigation.
- At approximately 1pm, discovered that an emulsion pipeline (17170-1) situated on its leased lands had ruptured resulting in a release of emulsion of an estimated 40 m³ into Washout Creek. Bonterra immediately activated its Emergency Response Plan, including immediate containment procedures and mitigation plans associated with minimizing impact, as well as notification of all appropriate parties.

Immediate Containment, Recovery and Monitoring

- Over 600 ft of booms were deployed across multiple locations (6-10) to contain and recover released fluids with the use of vac units. In addition, in areas not accessible by vehicle traffic, helicopters with barrel skimmers will be deployed to recover released fluids. Disposal of recovered fluids will be transported to an approved treatment, recovery, and disposal (TRD) facility.
- Plans have been put in place to mitigate the effect on wildlife, including setting up barriers, visual deterrents and physical human presence.
- Clean up and recovery is expected to continue for the next three weeks. The first week will involve intense recovery efforts as outlined above, while the following two weeks will include shoreline monitoring.
- Continuous monitoring and sampling to assess the ongoing effect of the release.

SUMMARY OF DAILY OPERATIONS (24 HOURS)

BONTERRA August 17

Recovered emulsion from the creek utilizing river booms and removed the collected emulsion with vac trucks. Transferred recovered fluid from the vac trucks onto tank trucks and disposed of at an approved treatment, recovery, and disposal (TRD) facility. Constructed multiple access points to the creek on existing right-of-ways to gain access and recover released emulsion. Stage additional booms at the confluence to the North Saskatchewan River as an extra precaution. Continued to set up additional booms and optimized the existing booms to increase emulsion-catching efficiency. Began removing emulsion in remote locations by deploying helicopters and barrel skimmers to recover released fluids. Removed a fallen tree, deployed two tracked vac trucks recovering the emulsion for transferring to a tank truck. Mobilized a skimmer, pump, pipe and vac trucks to remove emulsion. There are 70 personnel on duty.



Containment, Recovery and Monitoring

- Over 1200 ft of booms have been installed across multiple locations on the creek to contain and recover released fluids with the use of vac units and two drum vacuum units at particular locations on the creek. In addition, in areas not accessible by vehicle traffic, helicopters with barrel skimmers will be deployed to recover released fluids. Recovered fluids were transported to an approved treatment, recovery, and disposal (TRD) facility for disposal.
- Plans have been put in place to mitigate the effect on wildlife, including setting up barriers, visual deterrents and physical human presence.
- Clean up and recovery is expected to continue for the next three weeks. The first week will involve intense recovery efforts as outlined above, while the following two weeks will include shoreline monitoring.
- Continuous monitoring and sampling to assess the ongoing effect of the release, including background surface water sampling submitted to labs on a rush basis for testing.

EXPECTED OPERATIONS FOR NEXT 24 HOURS

- Continue to maintain, monitor and recover emulsion from Washout Creek with vac trucks, barrel vacs with helicopter support, install additional river booms paired with absorbent booms, optimize existing booms and maintain.
- Maintain and monitor containment boom within Washout Creek.
- Begin removing natural blockages to release emulsion into booms for recovery.
- Install provisions for possible future rain.
- Deploy wildlife deterrents as required.
- Continue wildlife monitoring.
- Complete SCAT Assessment.
- Conduct recovery/remediation operations.
- Collect surface water samples.