Crude-By-Rail Overview

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Source: BNSF internal data, *less petroleum, LPG and wind, **less ethanol
Rail in the Crude Oil Supply Chain

- **Exploration & Production**
- **Crude Marketing**
  - Transfer of Ownership
  - Gathering & Distribution (Truck or Pipeline)
- **Origin Transload**
- **Destination Transload**
  - Pipeline or Barge/Ship
  - Liquid Market
  - Refinery Direct
- **Crude Storage**
- **Refinery**
  - Pipeline or Barge/Ship
  - Pipeline

**Injection Point**

**Midstream**
Value Proposition of Crude-by-Rail

- Transit Times Faster
- Diversity & Optionality
- Speed to Market
- Product Integrity & Identity Preservation

Strong Rail Value
Enhancing Capacity: Northern Corridor

Capital Investment
2013-2016

$5B

+1,000 miles of CTC
+135 miles of double-track
16 new sidings added
16 sidings extended

Seattle to Chicago
BNSF’s Approach to Safety

- **Prevention**
  - Preventing rail equipment incidents

- **Mitigation**
  - Reducing the impact and consequences of an incident

- **Response**
  - Strengthening emergency response capabilities
Safe & Reliable Crude Oil Rail Transportation

- Rail is one of the safest ways to transport crude oil and hazardous materials
- 99.999% of BNSF shipments of hazardous materials reach their destination without a release caused by a train accident
- BNSF hazmat releases have declined even as volumes have grown