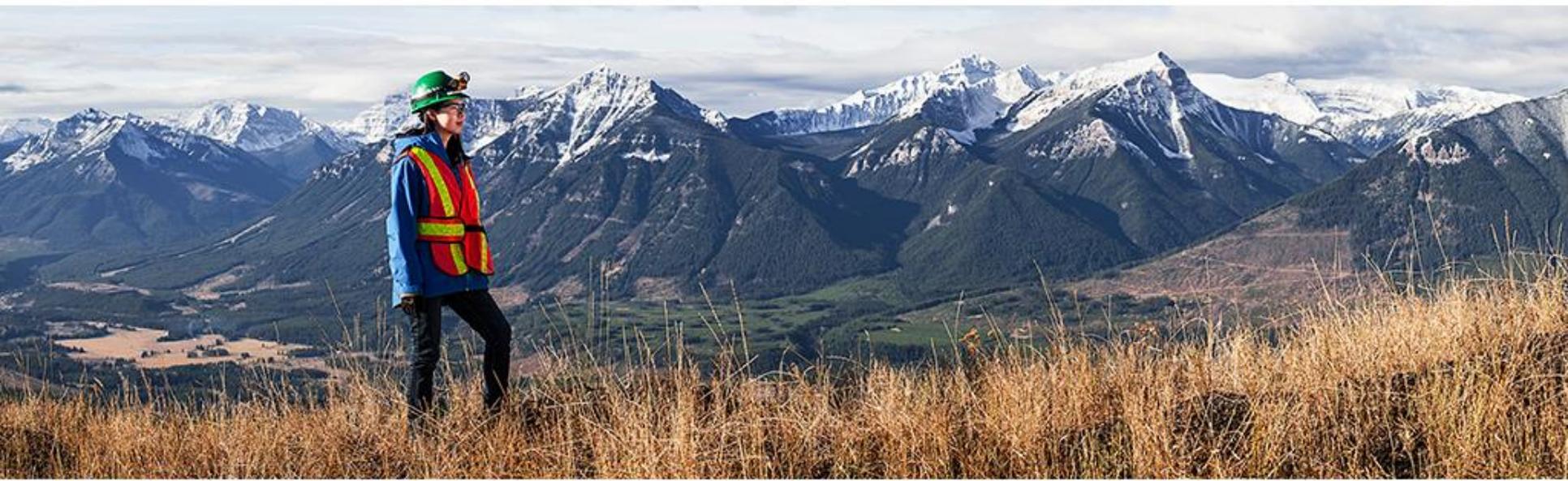


Teck

Closure – Regulation, Approaches & Transition

October 18, 2017

Mark Freberg, Director, Permitting & Closure



Who is Teck

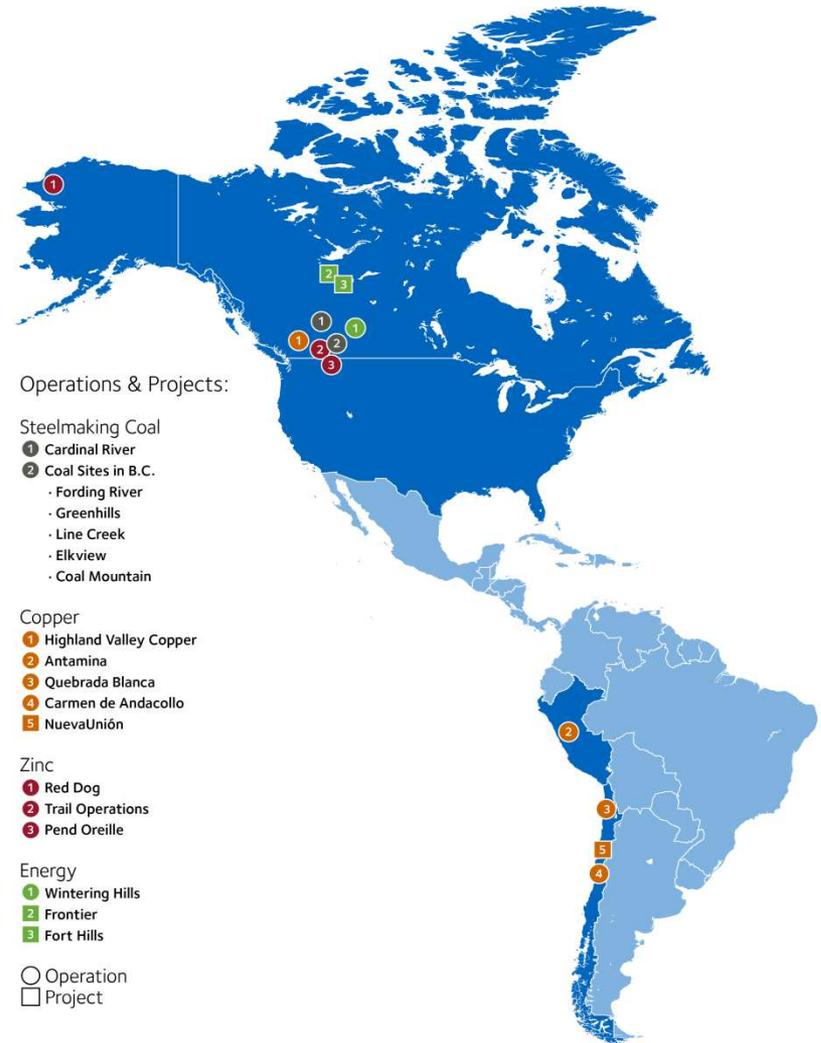
APEC mine closure checklist

Teck's approach to closure

Case study of a successful transition

Company Overview

- Diversified resource company, committed to responsible mining and mineral development
- Major business units focused on copper, steelmaking coal, zinc and energy
- Own or have an interest in 12 mines, one large metallurgical complex, and several major development projects in the Americas
- Over 100 years of experience



- **What**
 - Teck was a private sector representative on the APEC Checklist Steering Committee
- **Why**
 - Support complete and comprehensive regulation of all aspects of our industry.
 - Historically closure was done poorly
 - Industry needs all companies to do a good job
 - Clear closure regulation enables proper planning during design and operation

- Planning begins early and advances over mine life
- Progressive reclamation is a goal at all of our operations
- Community input sought and incorporated
- Governments and companies need to work together to prepare for closure
- Community preparation for closure must begin long before operations cease



- More than 100 closed sites, largely in North America
- Staff dedicated to management of closed sites
- Annual spend between 25-35 M \$CDN



- Lead/zinc/silver mine operated 1909-2001
- Surface water and groundwater affected by:
 - Acid rock drainage (sulphide oxidation)
 - Mine workings, waste dumps & tailings impoundments
- Reclamation from 1990 to 2010 (>\$70M CDN)
- Seepage collection – water management
- Water treatment



- Sullivan still a significant ‘operation’ and an important part of the community
- Ongoing water management & treatment - $\sim 1.7\text{M m}^3/\text{yr}$
- Ongoing land and forest management
- Solar energy “farm” – the SunMine

