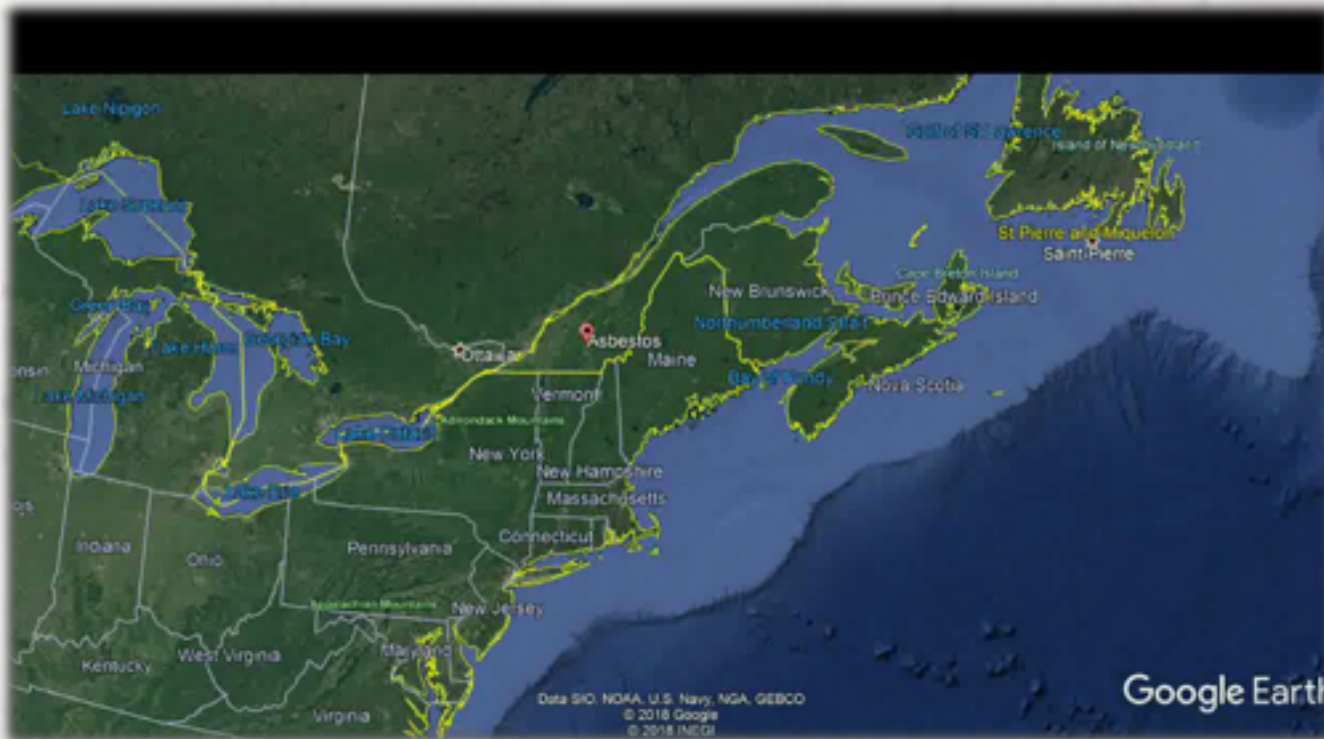


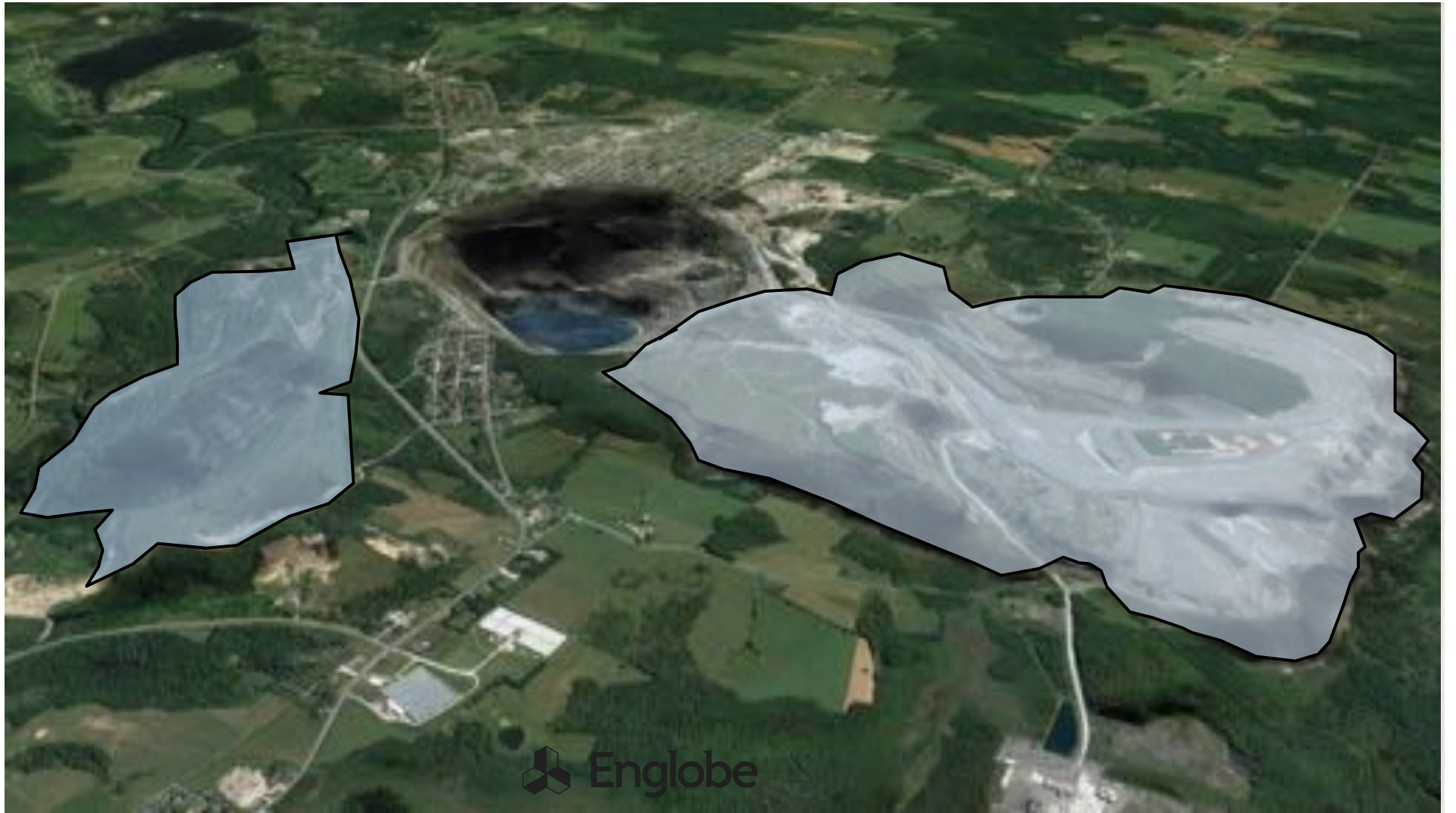
# Jeffrey Mine Reclamation Project: Simply Amazing

Nicholas S. Leblanc  
October 17<sup>th</sup> 2019



## The Jeffrey Mine – Asbestos Qc.



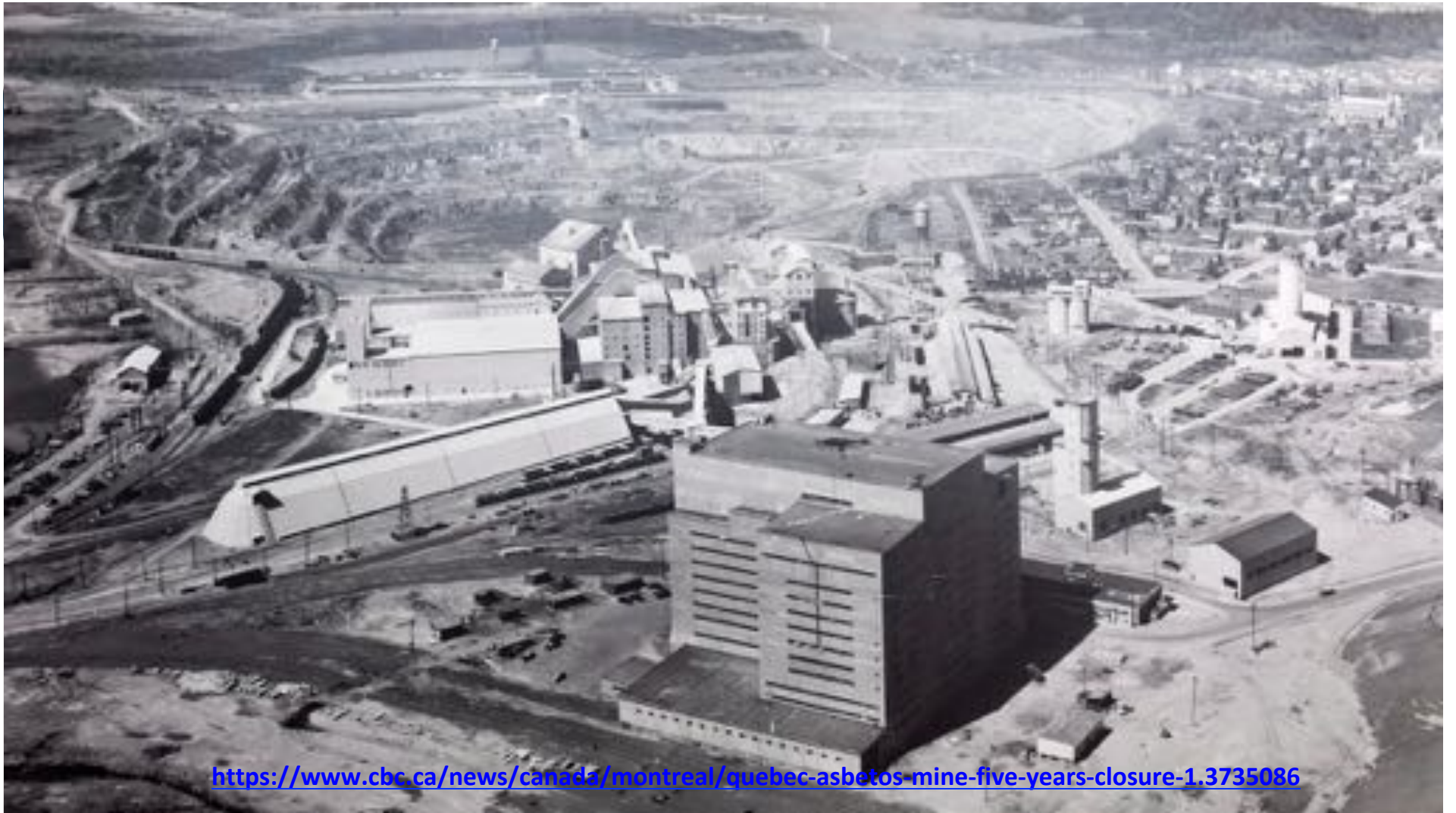


## History of the Jeffrey Mine

### THE WORLD'S LARGEST OPEN-AIR CHRYSOTILE ASBESTOS MINE

- Exploitation of the mine began over a century ago by the Johns-Manville Co.
- The Mine once met 80% of the global demand for the mineral
- Once the 'raison d'être' for the town of Asbestos
  - If not for the land, and the mineral found in it, the community as it was and as it is would not exist
- Closed for good in 2012





<https://www.cbc.ca/news/canada/montreal/quebec-asbestos-mine-five-years-closure-1.3735086>



## Between Pride and Protest

- Residents are cognizant of the wealth of jobs and local development opportunities provided by the mine.
- Even after its closure, many residents feel a continued attachment to the mine as it remains a strong fixture in the local identity.
- After the closure, the town declared that 2012 would be the year of asbestos in order to try and counter the negative reports coming out of the US EPA relating to the health hazards of asbestos





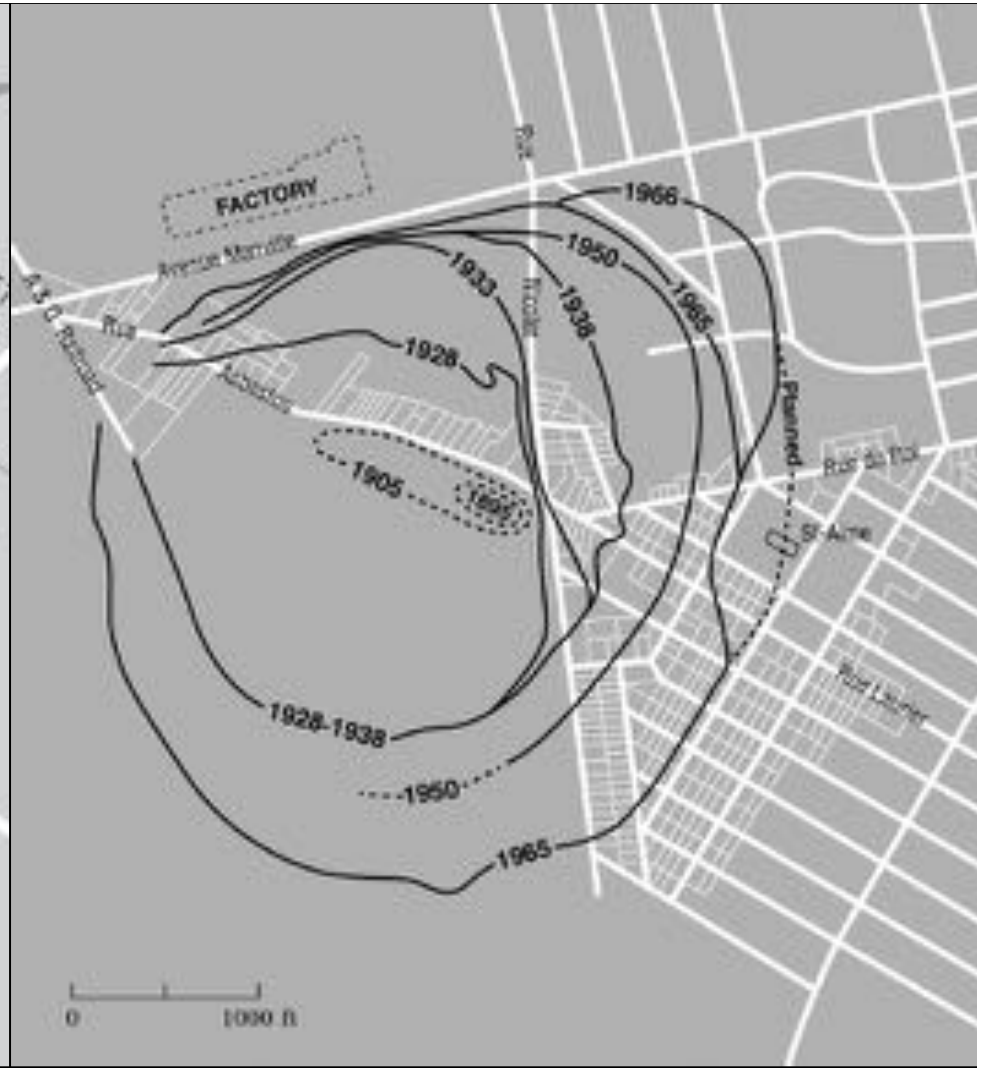
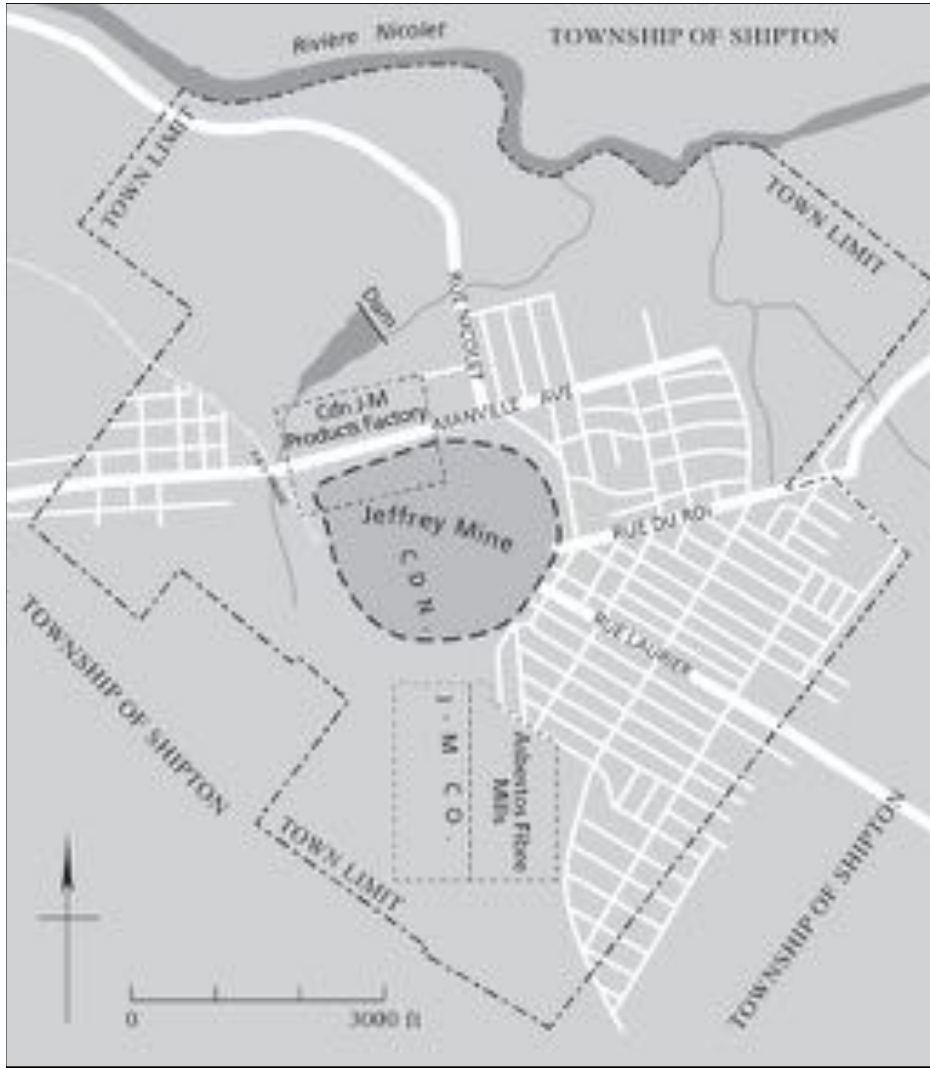


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## Between Pride and Protest

- The mine's history is dotted with strong opposition and protest
  - Land expropriation with questionable consent
  - Losses and injuries due to constant expansion
  - Dust events making the town unlivable for families
  - Increased awareness of the health hazards of airborne asbestos fibers









## Jeffrey Mine: Facts & Figures

Throughout the years, the mine produced massive quantities of tailings accumulated over 800 ha of neighbouring land.

1950s: produced 60% of Canada's asbestos fiber export

1954: produced 735,852mt of asbestos fiber

1960: mined 30,000mt of rock and ore daily

The tailing mounds reach up to 250m (820ft) in height.



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## Englobe Background

Englobe was established in Canada over 50 years ago and is one of Canada's largest firms specializing in the areas of soil, residuals management and materials and environmental engineering.

Brownie  
Awards 2016





## Englobe Background

50 years of growth through the acquisition of renowned companies such as:

- DST Engineering
- Crandall Engineering
- Biogénie
- LVM
- Tanknology

Approximately 2,500 employees in 53 Canadian offices.

Majority shareholder is ONCAP ONEX



Régénérons vos sols

## First Years

- Englobe's revitalization work began in 2004.
- As a residuals manager, the mine provided a valuable backup outlet for materials that could not be placed at our other, more sustainable recycling options such as land application.
- The main fertilizing residuals used at our mine in Asbestos are:
  - Paper mill sludge
  - Wastewater biosolids
  - Autumn leaves in bulk
  - Calcium sulfate
  - Food processing biosolids







## First Years

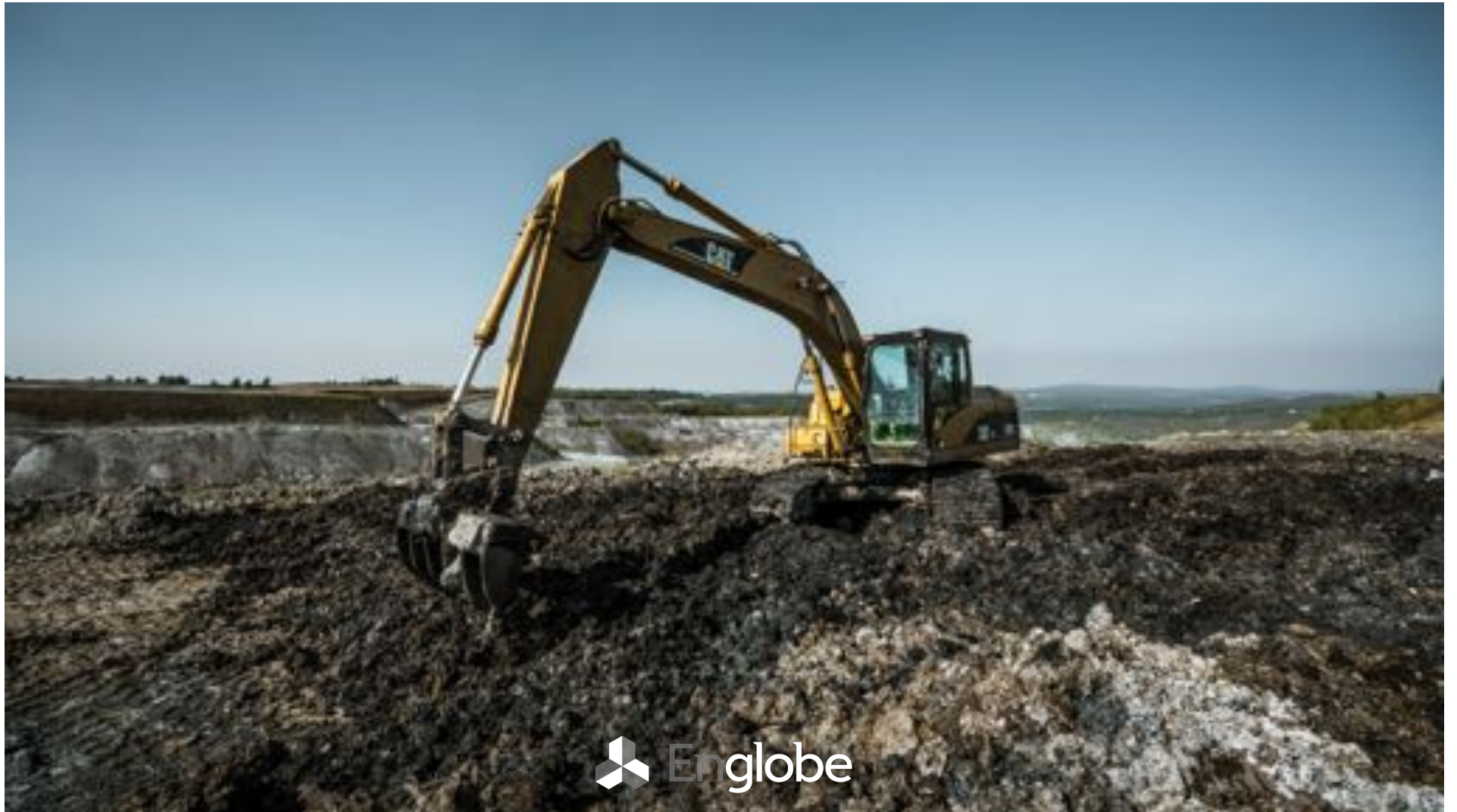
- A great plan, fantastic results, an amazing project...
- All was pretty much worthless to the residents as we missed several key factors during the initial stages of development.





## Lessons Learned

- Odors travel far and may come from many sources (materials reception, transport, etc.)
- You can't not notice the increased high volume traffic of 4 axel trailers on local roads
- We are all afraid of the unknown



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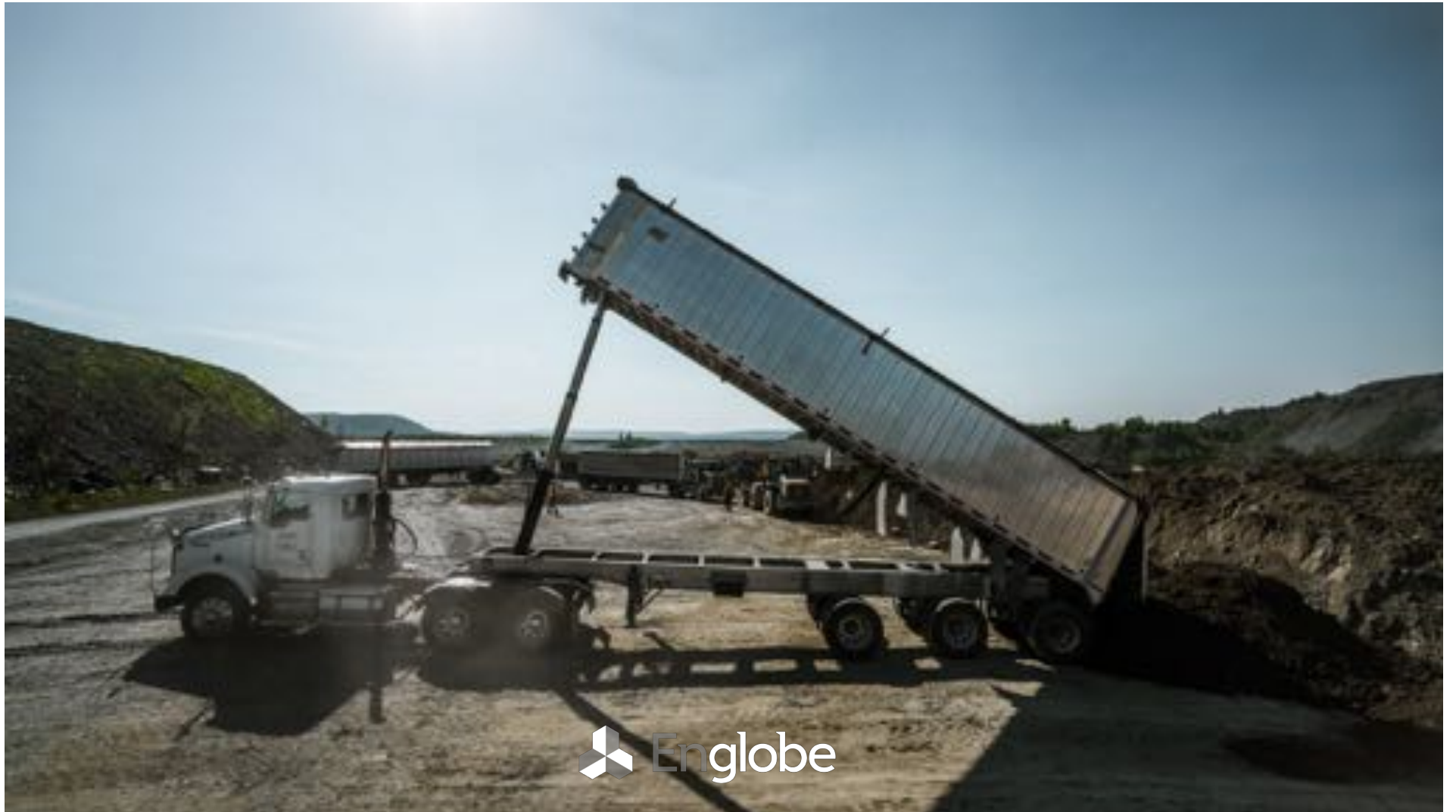






## Present

- New dynamic spreading schedule
- Strategically placed mixing and receiving areas
- Specific transport routes on industrial avenues
- Immediate & direct complaint response
- Yearly fenceline & work area air sampling campaign
- Continuous monitoring of air quality via portable air monitoring sensor







## Present

- Yearly information distribution concerning upcoming areas of activities
- Yearly public meeting at town hall for general information session
- Yearly open house days inviting for neighbours and concerned citizens
- Bi-annual meeting with the City of Asbestos to review future plans and development ideas for the area





## Present

- Public meetings with:
  - Local ATV club
  - Local brewery
  - Local business committee
  - Regional business meeting
- Sponsorships (festivals, golf tournaments, slackfest)











## Future Years

- Slackfest 3.0 Asbestos July 25-27 2020.
- Talks for the development of a regional tourism hub centered on the use of revegetated lands
  - Hiking trails with lookout points
  - Biking, dirt bike and ATV trails
  - Redevelopment of an industrial parc within the mine

More than **370,000mt** of fertilizing residuals were spread between 2004-2018.

More than 200 hectares already revegetated (approx. **400 football fields**).

More than **12,000 trees and shrubs** have been planted.



Thank you



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