



Canadian Explosives Industry Association  
Association Canadienne de l'Industrie des Explosifs

# IMESA FR QRA

August 17, 2021

- IMESA FR -probabilistic risk assessment tool
- Canadian Explosives Industry and ERD use

- Specifically MPU use at non-quarry/mine.
- Submit a Quantitative Risk Analysis

- Default Probability of Event:  $3.08 \times 10^{-4}$
- 3.08 events every 10,000 years
- Impacted only 15% of submitted QRA's
- The other 85% could have proceeded using the default

IMESA FR is very specific. “Quality” of outcome is equal to “Precision” of input

- Correlation of Explosives & People  
100% vs 5% (pumping hours per year vs people present per year)  
Commercial Storage vs Pumping  
8760 hr/year vs 20 hr/year (5 days @ 4 hours per day)
- Certainty  
People, construction, car counts etc.. (certain, somewhat certain, uncertain)  
Guess vs Actual

### Possible Exclusion Triggers:

- Built Up Areas( more than x many homes )
- Schools
- Hospitals

Would be forbidden/not considered for QRA