

# Lost in translation

Financial Assurance, Closure Cost Estimates and Asset Retirement Obligations for Mining Projects – Different Numbers for Different Reasons

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**Practice Leader**



# Contributors

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**How is value lost?**

# Who





# Estimate, calculate, communicate, **repeat**



# The doers



Operations  
Team

Corporate  
Accounting

External  
Auditors

# Operations Team Closure Cost Estimates

Internal Cost  
Short-Term

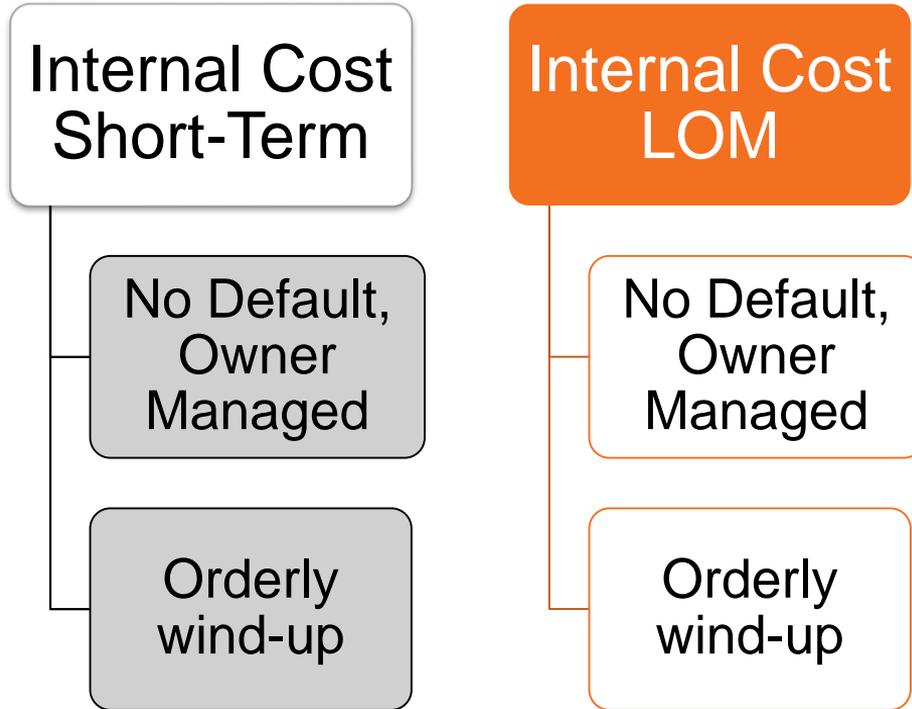
No Default,  
Owner  
Managed

Orderly  
wind-up



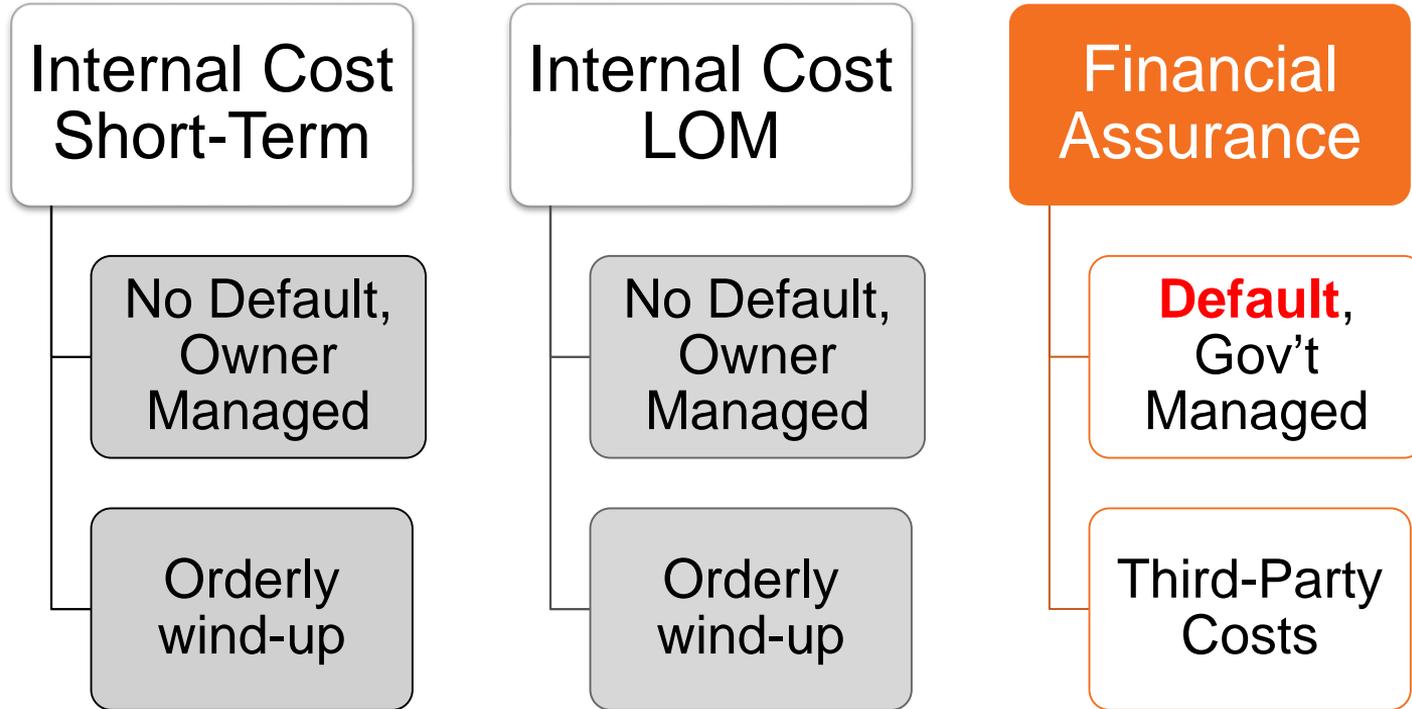
# Operations Team

## Closure Cost Estimates



# Operations Team

## Closure Cost Estimates



# The managers



Yep, we reclaimed 2 acres, disturbed an additional 10 acres for borrow material and changed the mine plan. We also delayed expansion of our waste rock dump.



In the last quarter <year>, was there a change in our area of disturbance? If so, does this increase our legal financial obligation in terms of reclamation/closure?

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# Corporate Accounting Manager of Financial Reporting

- Calculates the Asset Retirement Obligation
- Interprets ARO accounting guidance:
  - An entity has a **present obligation** as a result of a **past event**
  - It is probable that an **outflow of resources** will be required to settle the obligation
  - A **reliable estimate** can be made of the amount of the obligation



**Table 1: Summary roll-forward of 2016 ARO obligation**

Beginning balance as of January 1, 2016	33,758,708
2016 accretion expense	776,450
2016 settlements	-
2016 adjustments	(1,667,504)
Additional liability assumed	-
Balance as of December 31, 2016	32,867,654



## Valuation Assumptions

Costing Year	2015
Applied Inflation Rate	1.80%
Discount rate	2.30%
NPV	\$33,758,708

Check



## IFRS ARO Estimate

	Total	2015	2016	2017	2018	2019	2020	2037	2038
<i>Applied Inflation rate</i>		1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%
<i>Applied discount rate</i>		2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%
<b>Real Project Cost</b> (a)	<b>37,951,459</b>	-	-	-	-	-	-	<b>1,578,944</b>	<b>18,594,361</b>
<i>Inflation factor (assumes 1.15% inflation rate)</i> (b)		1.00	1.02	1.04	1.05	1.07	1.09	1.48	1.51
<b>Inflation adjusted cash flows</b> (c)	<b>58,446,236</b>	-	-	-	-	-	-	<b>2,337,856</b>	<b>28,027,228</b>
<i>Discount factor (assumes 2.25% discount rate)</i> (d)		1.00	1.02	1.05	1.07	1.10	1.12	1.65	1.69
<b>NPV of obligation</b> (e)	<b>33,758,708</b>	-	-	-	-	-	-	<b>1,417,600</b>	<b>16,612,713</b>
<b>Provision at beginning of period</b>		<b>33,758,708</b>	<b>33,758,708</b>	<b>34,535,159</b>	<b>35,329,467</b>	<b>36,142,045</b>	<b>36,973,312</b>	<b>54,421,954</b>	<b>53,335,803</b>
Unwinding of the Discount (f)	24,687,528	-	776,450	794,309	812,578	831,267	850,386	1,251,705	1,226,723
Anticipated Settlements (g)		-	-	-	-	-	-	(2,337,856)	(28,027,228)
<b>Provision at end of period</b> (h)		<b>33,758,708</b>	<b>34,535,159</b>	<b>35,329,467</b>	<b>36,142,045</b>	<b>36,973,312</b>	<b>37,823,698</b>	<b>53,335,803</b>	<b>26,535,299</b>

# The auditors



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# The auditors



# Auditors

## Public Accounting Disclosures



- ARO typically requires **management judgment** and estimates
- Liability (can be material)
- Increased scrutiny of **Fair Value Estimates** by Public Company Accounting Oversight Board
- Often leads to “testing” where the auditor checks detailed assumptions behind the ARO

**How can you create value?**

# Lessons learned



- **Operating Team:** understand the context of the ARO question from corporate
  - Schedule, Legal Obligations, Nature of Closure Activity
- **Corporate Accounting:** “Everything should be made as simple as possible, but no simpler” (Einstein)
- **Public Auditor:** Promote continuity of year-to-year documentation, provide guidance
- **Third Party Solutions**

# Estimate, calculate, communicate, repeat





# Questions



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