



Already have a plant? What
Eco-Efficient Comminution
could mean for you.



NORTHERN STAR
RESOURCES LIMITED

NSR WA Infrastructure



Site	Commenced	Age
Jundee	December 95	24
Kanowna Belle	August 93	26
Jubilee	October 87	32



Eco-Efficient Comminution

- What does this mean to you?
 - Mechanical efficiency
 - Flowsheet efficiency
 - Power supply
 - Maximising existing asset profitability
- Synonymous with
 - Lower power intensity
 - Lower processing cost per tonne
 - Mine profitability



Maximizing Asset Profitability

Key Drivers -

- Profit! Revenue & Cost
- Historically high \$A gold price
- Improving comminution efficiency =
 - Lower power costs, or
 - More tonnes through existing infrastructure
- Company organic growth
 - Resource replacement is largely more successful than Greenfields discovery

Processing Fundamentals

To increase an existing assets value:

- Evaluating what can be achieved with the ore type and equipment available
- If you see 75 or 106 um P80 target – then be sceptical!
- Stress test recovery impacts with increasing grind size
- Reduce costs
- Are site KPIs meaningful - Is energy intensity per tonne milled a KPI?
- Increasing asset value \neq large capital cost

Value barriers

- New flowsheet design - Available capital expenditure
- Inherent team culture
- Recovery impact

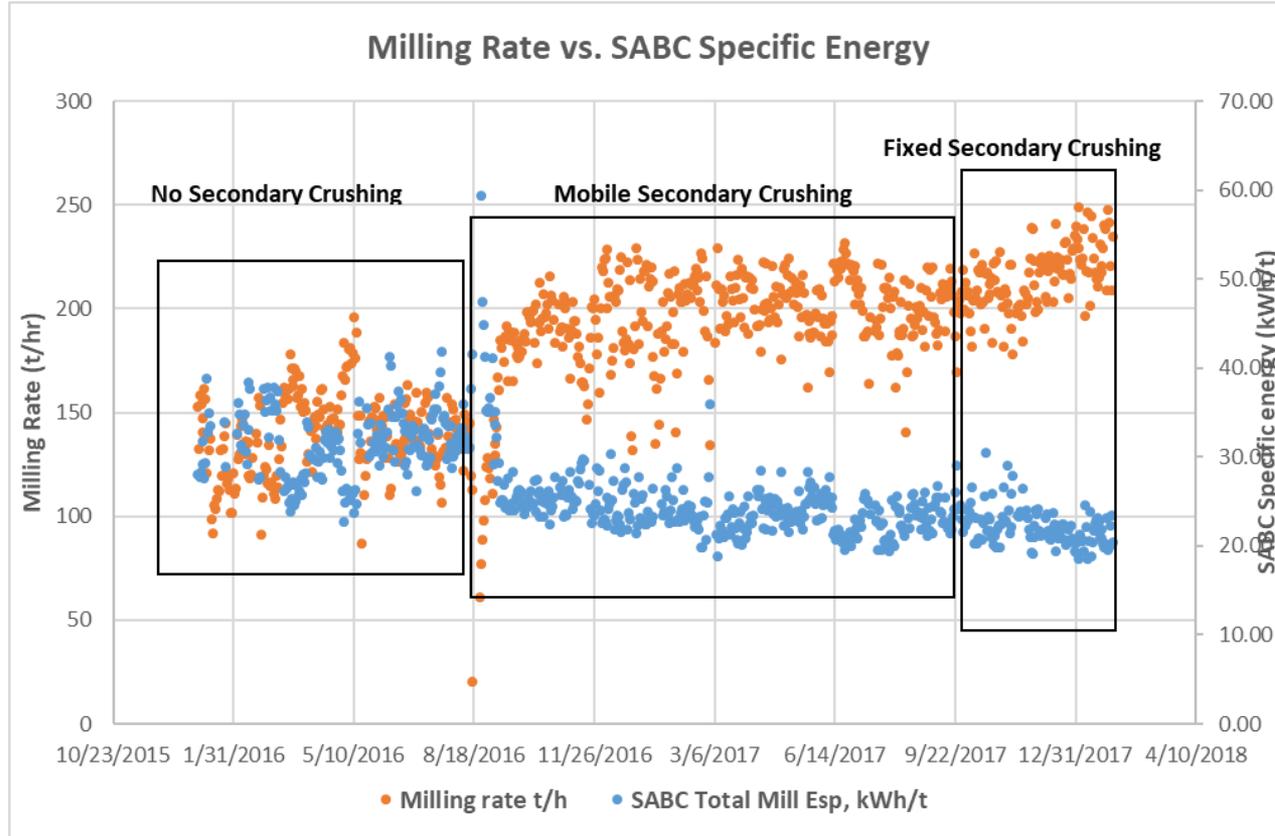
Continuously Challenging

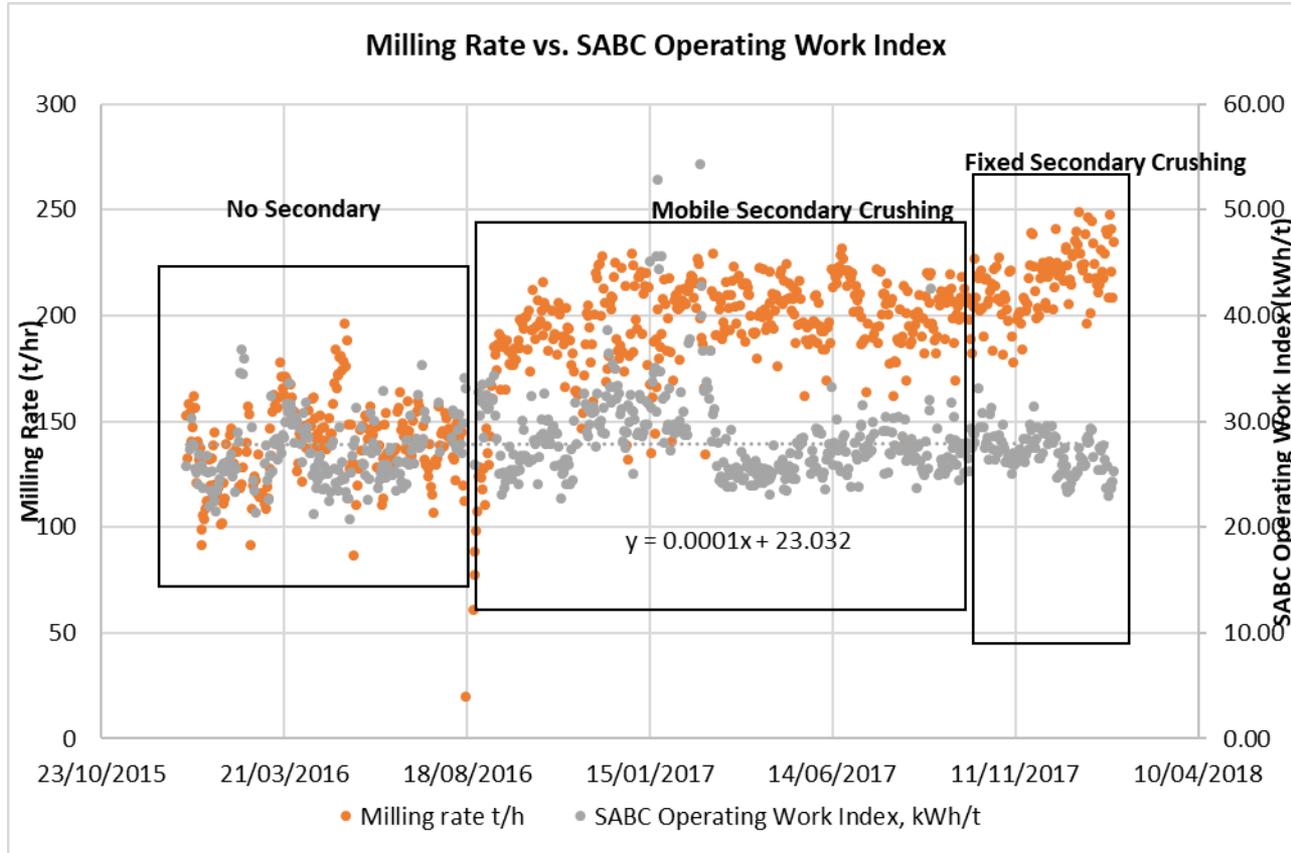
Processing

Geology

Mining







Summary



Eco-efficient comminution may sound like a sustainability play – it is, but it is also a value driver for the site that you operate.

Where is your throughput bottleneck?

What is the value proposition for your site?

The solutions do not have to be capital intensive.



THANK YOU

