RioTinto
2014 Half year results
Cost saving case studies
Emerging market suppliers

From this time last year we have now achieved

- **Average 40% decrease in price**
  - $2 million saved on hydraulic cylinders sourced from Indonesia
  - More than 30% saving and rapid turnaround
  - Large resource pool were able to deliver this project in a tight timeframe

- **Average 60% decrease in price compared to previous supplier**
  - $5.5 million saved on underground roof supports sourced from China
  - Tailored specification (fit for purpose), more efficient installation

- **Improved security of supply, greater competitive pressure on existing suppliers, diversification of supply base and productivity improvements through standardisation.**

Improvements since this time last year

RTCA has built on Rio Tinto’s experience in sourcing capital items for emerging markets and expanded this to include high volume operating items as well as strategic products and services.

In addition to reduced costs, benefits include improved security of supply, greater competitive pressure on existing suppliers, diversification of supply base and productivity improvements through standardisation.

Strong collaboration across Rio Tinto to drive next phase of this programme and expand benefits across the Rio Tinto Group.

Implementation approach

- Long term commitment to source from suppliers in emerging markets to drive savings and security of supply, while demonstrating immediate savings.

- Focus on quality assurance and risk management. Share learnings with other Rio Tinto businesses to maximise emerging markets opportunities.

From this time last year we have now achieved

- **$5.5 million**
  - Saved on underground roof supports sourced from China
  - Average 60% decrease in price compared to previous supplier
  - Tailored specification (fit for purpose), more efficient installation

- **$2 million**
  - Saved on digitally cataloguing 30 years of ore body data to optimise mining effectiveness
  - Sourced from India
  - More than 30% saving and rapid turnaround
  - Large resource pool were able to deliver this project in a tight timeframe

2014 H1 2014 Total

<table>
<thead>
<tr>
<th>Rio Tinto Coal Australia (RTCA)</th>
<th>Savings to date: US$43m</th>
<th>$646m</th>
<th>$128m</th>
<th>$774m</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2013</td>
<td>H1 2014</td>
<td>Total</td>
</tr>
</tbody>
</table>

Energy product group – Total cost savings

©2014, Rio Tinto, All Rights Reserved
Cu Copper

Rio Tinto Kennecott smelter value programme

Improvements since this time last year

- Reduced operating costs by 12% in 2013 ($24m) and by $10m in first half 2014 (compared to 2012).
- Over a 1/3 reduction in production costs per tonne smelted in the last two years.
- Record productivity and quality at the smelter (tonnes per employee) in first half 2014.

Implementation approach

- Fostering and maintaining a burning platform for change and a business mind-set amongst our employees – ‘protect the present but earn our future’.
- Leadership in the field - daily coaching and mentoring of frontline leaders, setting clear expectations with our workforce, and then following up on these.
- Rapid acceleration of LEAN – focus on quality, quantity and time; Mandate employees to accelerate change, and sustain behaviours around execution of standardised work.
- Any cost savings are real.

Copper product group – Total cost savings

- Set a goal of reducing the unit cost of copper production per tonne smelted by 2018
- Savings to date: $34m

2014 Half year results cost saving case studies
Training transformation

Improvements since this time last year

- ~255,000 hrs/year released as productive time, no longer spent in training or assessment activities
- 7% reduction in actual Training FTEs
- 9% improvement in training team service ratio (efficiency)

Implementation approach

- **Streamlining Systems and Processes**
  Streamline the work through standardised training systems, processes and organisation.

- **Training Smarter**
  Develop fit for purpose training aligned to the requirements of the role and the individual.

- **Assessing Better**
  Design a less complex and more effective system of assessment.

For our people this means...

- **20-30 hours**
  saved per year for a heavy equipment operator

- **~25 hours**
  saved per year for a mobile equipment maintainer

...with a focus on building proficiency rather than compliance

Iron Ore product group – Total cost savings

- $351m
- $254m
- $605m

2014 Half year results cost saving case studies

©2014, Rio Tinto, All Rights Reserved
Productivity and cost reductions

Alma increased its productivity by implementing a reorganisation of work supported by the lean philosophy.

Standardising tasks across the plant allowed the Alma smelter to:

- Improve work quality, efficiency and operational stability
- Increase productivity by optimising worked hours
- Reduce workforce

Results

The Alma smelter increased its productivity by 16% from 2011 to 2014 (621 tonnes per employee to 721 tonnes per employee)

Implementation approach

The challenge was ensuring that the new standardised tasks were accepted and followed after their implementation and increases to productivity did not compromise on safety.

Key success factors:
- Renewal of the labour agreement provided flexibility
- Alma Works focused on a proactive strategy to implement reorganization of work
- Standardisation of workforce planning

Aluminium product group – Total cost savings

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>H1 2014</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$574m</td>
<td>$228m</td>
<td>$802m</td>
</tr>
</tbody>
</table>
Argyle Diamonds power project

Improvements since this time last year

- 15% increase in Argyle’s use of power network capacity.
- Reduction of greenhouse gas emissions by 23,300 tCO₂-e per year.
- A significant reduction in diesel use and a nomination for a Golden Gecko Award in 2014.

Implementation approach

- The team set out to more efficiently access available grid power to reduce reliance on diesel generators onsite.
- Optimisation of the onsite 30 MW power station.
- Working with our power providers to design and implement a new control mode called import/export control.

Achievements since last year

- Argyle can now vary the loading of the onsite generators to maximise the use of grid power, resulting in reduced Mega Watts per hour being required from the onsite diesel generators.
- To put this into perspective this additional power accessed has enough power to illuminate 200,000 40W light bulbs!

Set out to reduce onsite demand for generator power through energy efficient projects and utilising power station capacity

- Savings to date: $6.2m

Diamonds & Minerals product group – Total cost savings

<table>
<thead>
<tr>
<th></th>
<th>H1 2014</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost savings</td>
<td>$60m</td>
<td></td>
</tr>
<tr>
<td>Cost savings</td>
<td>$51m</td>
<td></td>
</tr>
</tbody>
</table>

©2014, Rio Tinto, All Rights Reserved
In recent years, coking coal prices have decreased and the thermal coal market has evolved – these changes created a marketing opportunity for the Hail Creek mine. Traditionally a coking coal operation, the mine has created a range of new thermal coal products from by-product that was previously stockpiled, delivering a higher yield on material mined and bolstering both production and sales.

**In September 2013**
Investigation commenced for a trial thermal coal product

The trial was successful
With minimal changes required in our current coal washing process

First production
Was reported in Q3 2013

This project:

- Takes advantage of the lower sulphur content of the Hail Creek resource which is a marketing advantage for Rio Tinto
- Provides higher margins for the business due to lower costs of conversion/processing
- Has contributed to the record H1 thermal coal production results

> 1 million tonnes (Rio Tinto share 821,000 tonnes) of thermal coal produced from by-products to 30 June 2014 since the start of the trial