



Gemfields plc
Operational Update (Unaudited)
5 August 2009



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Gemfields' Existing Assets

Gemfields plc

Kagem Emerald Mine
(Zambia)

75%

Mbuva-Chibolele
Emerald Mine (Zambia)

100% (mothballed)

Kamakanga Emerald
Mine (Zambia)

100% (mothballed)

Kariba Amethyst Mine
(Zambia)

50%

15 Madagascar exploration
licences (rubies, sapphires
and emeralds)

Zambian emerald
exploration licences

Cutting and Polishing
Facility in Jaipur, India

(being scaled down)

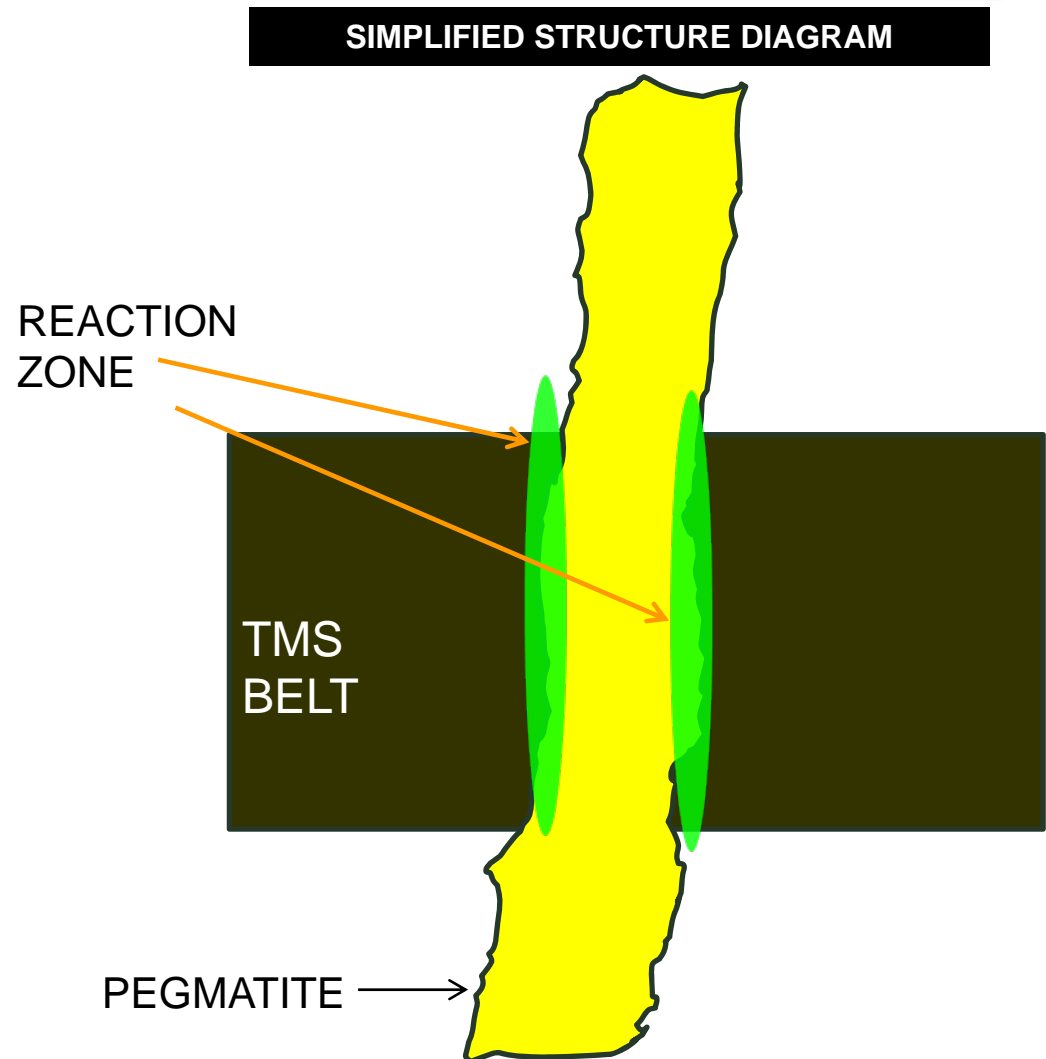
Fabergé Licence for
Coloured Gemstones

Equity Stake in
TanzaniteOne Ltd

(11%)

Emerald and Beryl Geology – The Basics

1. Reaction Zone (“RZ”) is created when a pegmatite cuts through a layer or belt of talc-magnetite-schist (“TMS”).
2. A complex reaction between the pegmatite and the TMS results in a layer of RZ of varying thickness and quality. This reaction gives rise to emerald and beryl crystals.
3. RZ contains emeralds. Both TMS and pegmatite are essentially devoid of emeralds and beryl.
4. TMS belts are typically 10-40 metres thick.
5. Pegmatites vary from a few centimetres to tens of metres thick.



Kagem Annual Summary

KAGEM Annual Production Summary	Units	Year to 30 Jun 06	Year to 30 Jun 07	Year to 30 Jun 08	Year to 30 Jun 09
Gemstone Production (Emerald+Beryl)	million carats	10.2	9.4	9.9	28.0
Ore Production (Reaction Zone)	'000 tonnes	22	29	42	80
Grade (Emerald+Beryl/Reaction Zone)	carats/tonne	462	325	233	349
Waste Mined (including TMS)	million tonnes	1.8	2.8	5.1	4.0
Stripping Ratio		83	96	120	50

Production figures for year to 30 June 2009 are unaudited.

- Gemfields was contracted to manage Kagem in November 2007.
- Gemfields acquired 75% of Kagem in June 2008.
- Gemfields has been successful in increasing annual gemstone production approximately three-fold.
- Ore grade has been broadly in line with the historic long term average.

Kagem Quarterly Production to 30 June 2009

KAGEM Annual Summary to 30 Jun 09	Quarter Ending:	30-Sep-08	31-Dec-08	31-Mar-09*	30-Jun-09*	TOTAL
Gemstone Production (Emerald+Beryl)	million carats	9.4	5.3	7.3	6.0	28.0
Ore Production (Reaction Zone)	'000 tonnes	21	19	18	22	80
Grade (Emerald+Beryl/Reaction Zone)	carats/tonne	438	286	409	268	349
Waste Mined (including TMS)	million tonnes	1.7	1.0	0.8	0.5	4.0
Stripping Ratio		81	53	43	22	50
Total Operating Cost*	USD million	8.0	6.2	*	*	*
Unit Production Cost (per carat)*	USD/carat	0.85	1.16	*	*	*
Unit Production Cost (per tonne of ore)*	USD/tonne	372	332	*	*	*

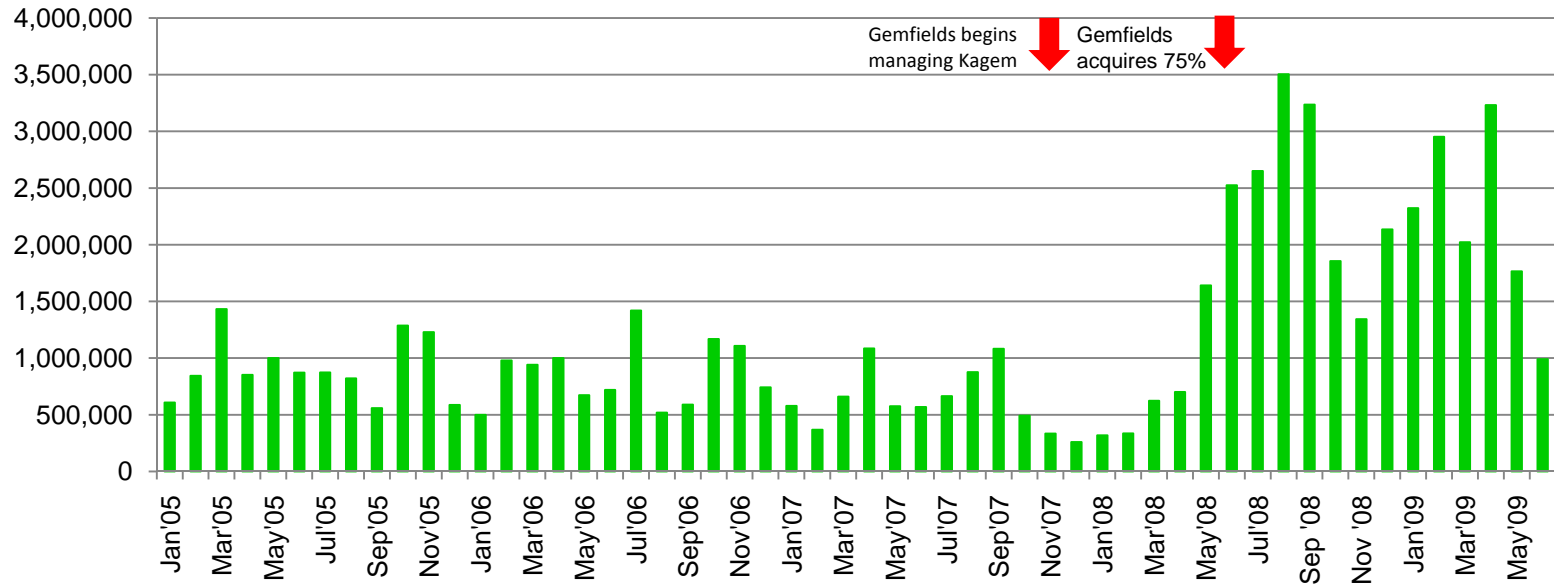
**Cost figures for March through June are available but could form the data necessary to calculate an approximate figure for future profits and therefore cannot be published before being audited or reported on in accordance with Rule 28.6(a) while Gemfields is in an Offer Period under the City Code on Takeovers and Mergers.*

Production figures for March and June 2009 are unaudited.

- Cost-reduction measures have delivered material improvements during the last nine months.
- The stripping ratio is expected to rise toward the end of the calendar year.
- Average grade over the year has been broadly satisfactory despite quarterly fluctuations.

Kagem Monthly Gemstone Production

**Kagem Monthly Gemstone Production (carats)
Emerald+Beryl**

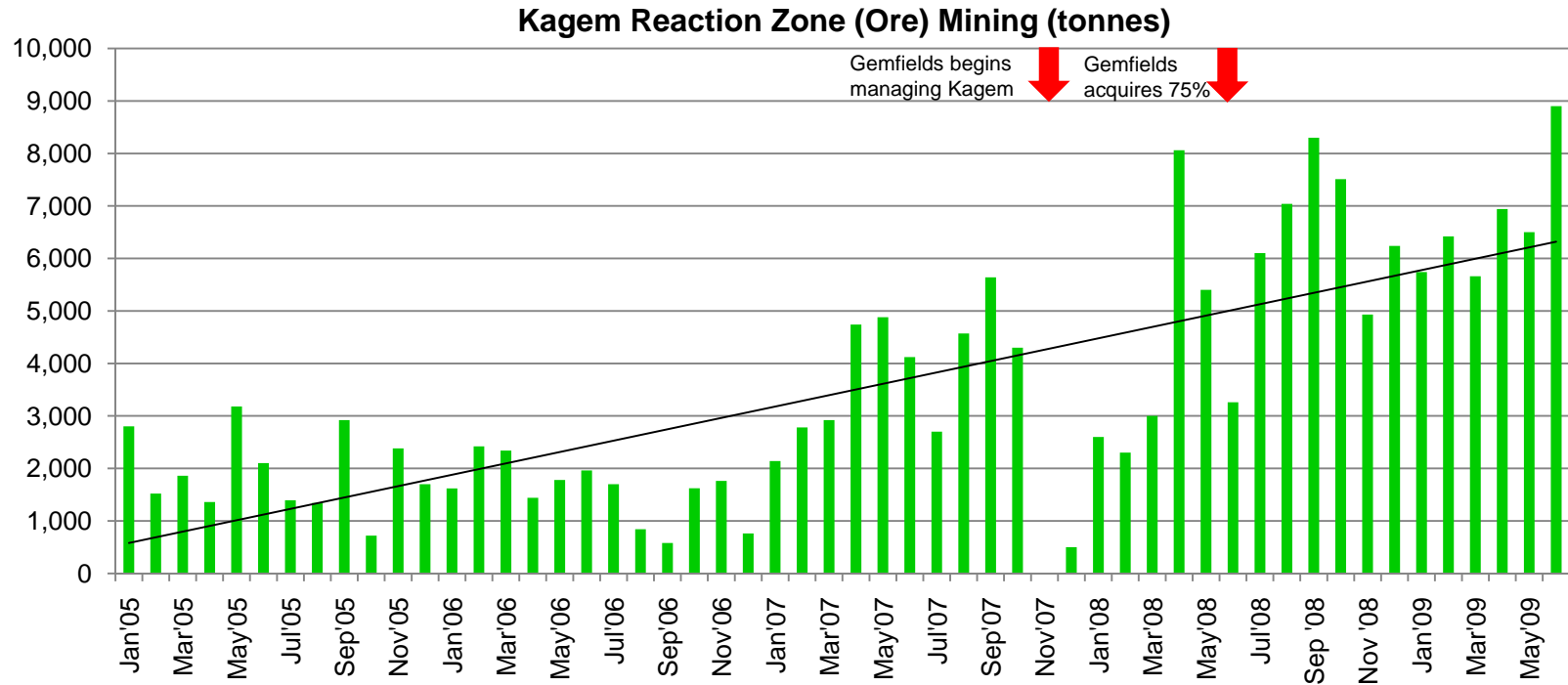


Production figures from March to June 2009 are unaudited.

- During Gemfields' period of ownership, gemstone production has averaged 2.3 million carats per month and the annualised rate has increased approximately three-fold.



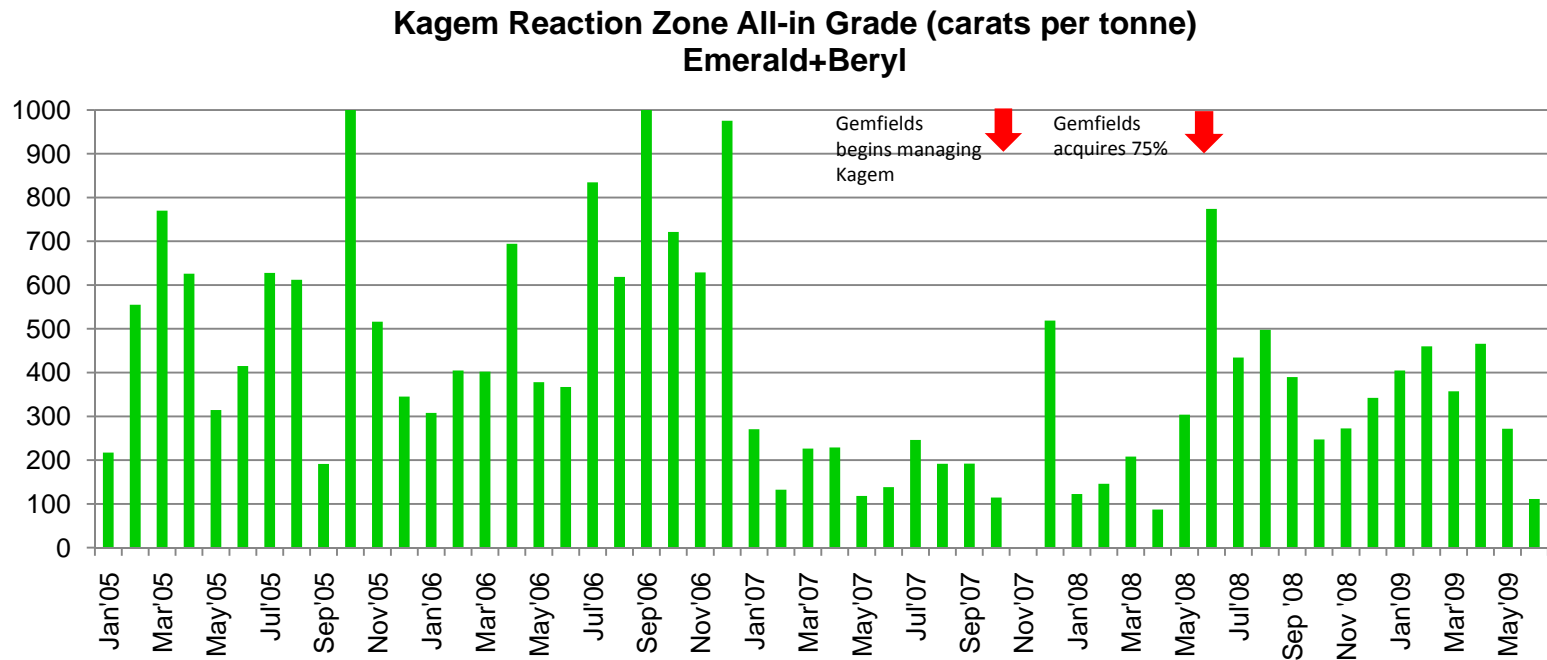
Kagem Monthly Ore Mining



Production figures from March to June 2009 are unaudited.

- Ore mining shows an encouraging trend despite significant reductions in monthly operating costs.

Kagem Monthly Ore Grade



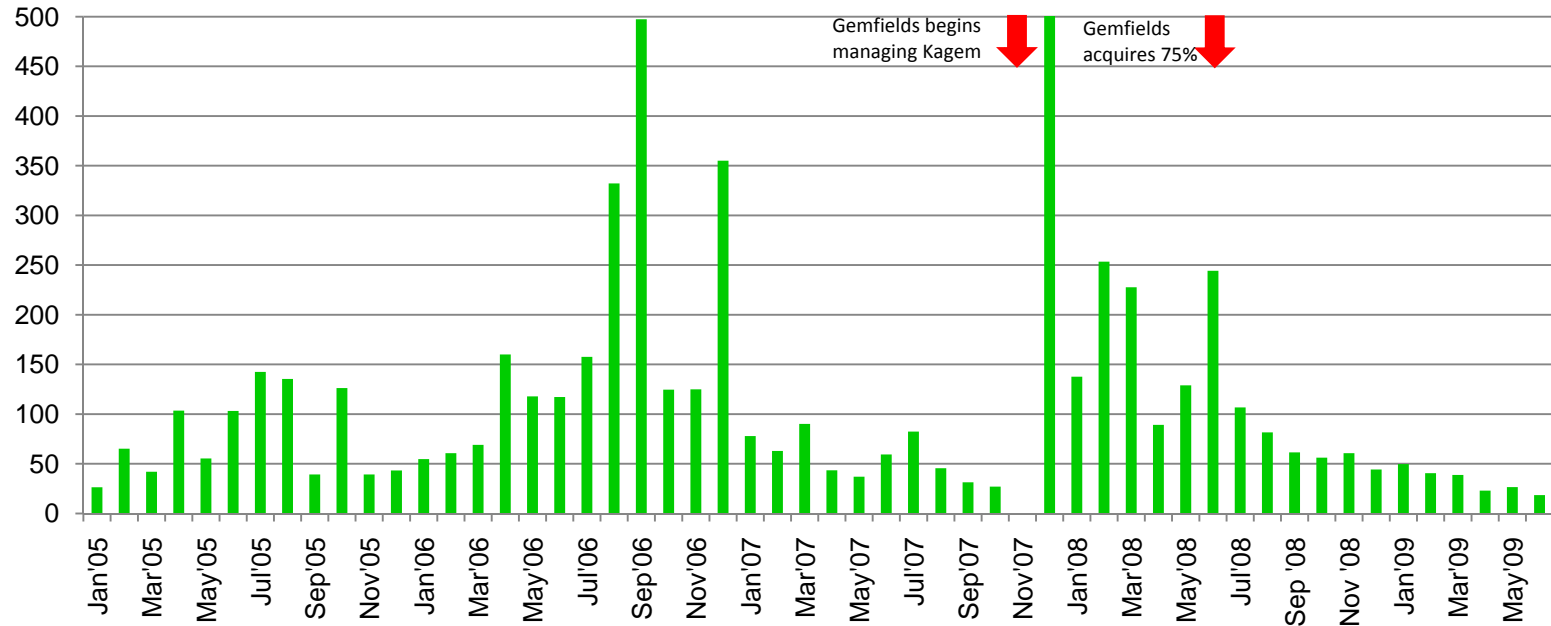
Production figures from March to June 2009 are unaudited.

- In the year ending 30 June 2009, the ore grade averaged 349 carats per tonne.
- Gemfields' average gemstone production in the year ending 30 June 2009 was 2.3 million carats per month. Production in February '09 was 3.0 million carats and 0.9 million carats were produced in June '09.



Kagem Monthly Strip Ratio

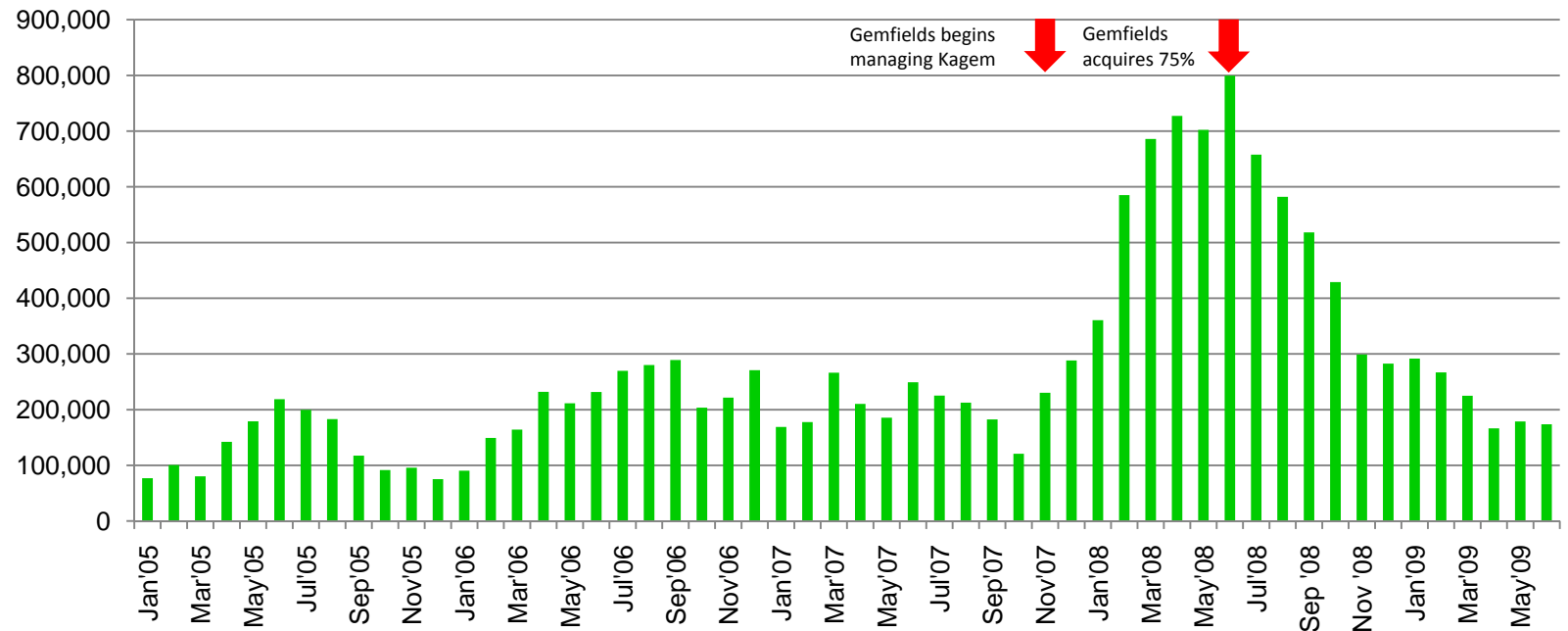
Kagem Strip Ratio (Waste+TMS:Reaction Zone)



- The early stages of Gemfields' management of Kagem was characterised by the removal of a backlog of waste to open ore areas for future production.
- The stripping ratio is expected to rise considerably toward the end of the calendar year due the Company having held back on some stripping over the past few months.

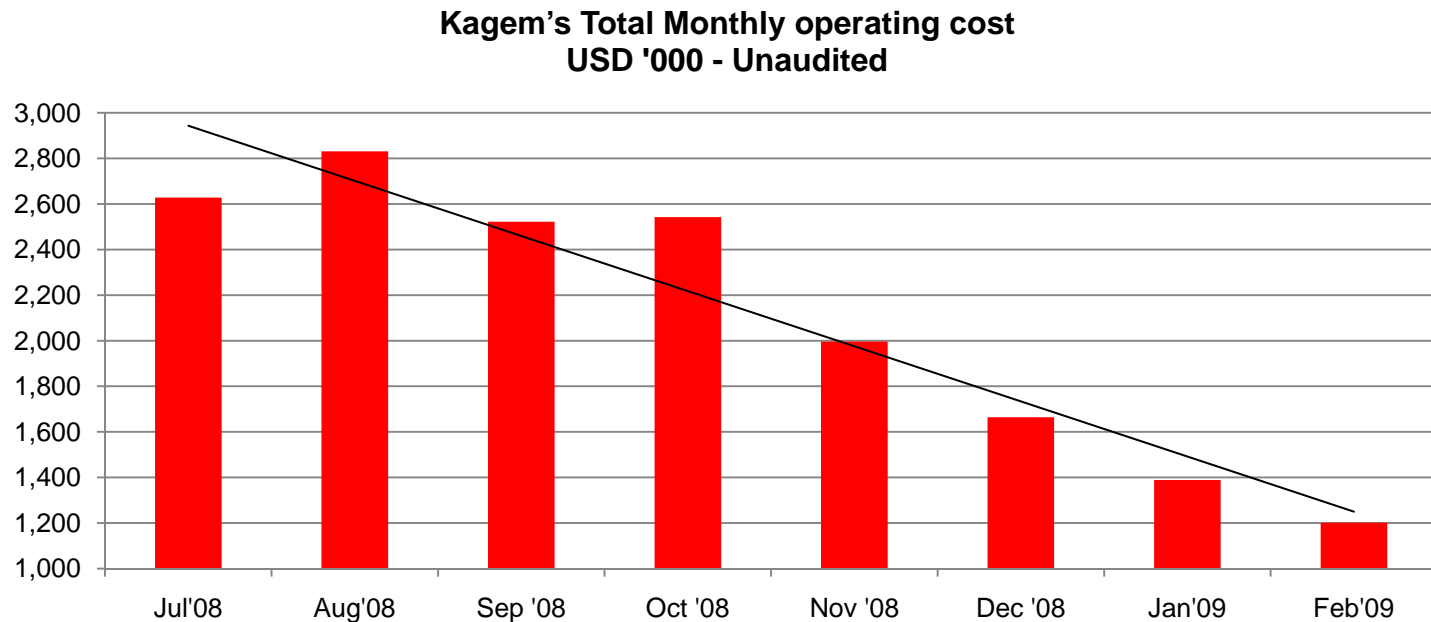
Kagem Total Monthly Rock Handling

Kagem Total Rock Handling (tonnes)



- Significant volumes of rock were handled in the early months after Gemfields took over management to open new production areas.
- Rock handling levels are expected to increase toward the end of the calendar year as the stripping ratio rises.

Kagem Total Monthly Operating Costs (unaudited)

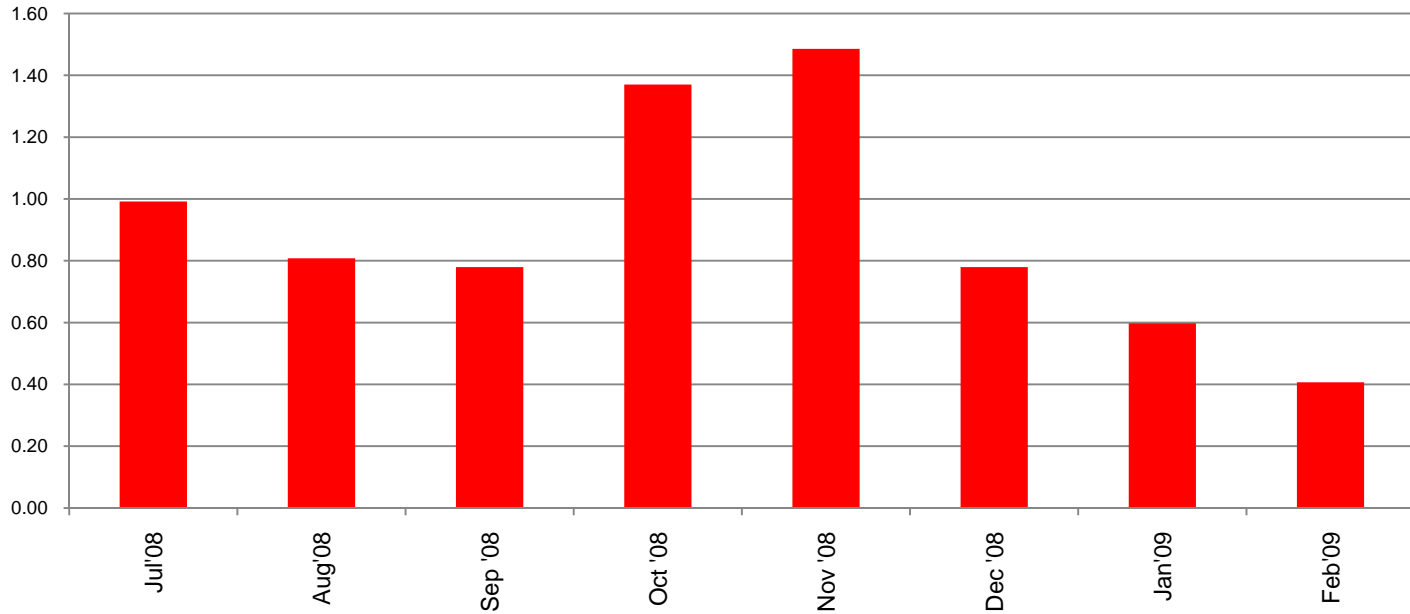


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- Significant reductions in monthly operating costs have been achieved without materially affecting ore and gemstone production.
- Operating costs may increase toward the end of the calendar year given the expected increase in stripping ratio.

Kagem Unit Operating Costs (unaudited)

Kagem Unit Operating Cost USD /Carat (Emerald +Beryl)



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End

