XXX

MMMM YYYY

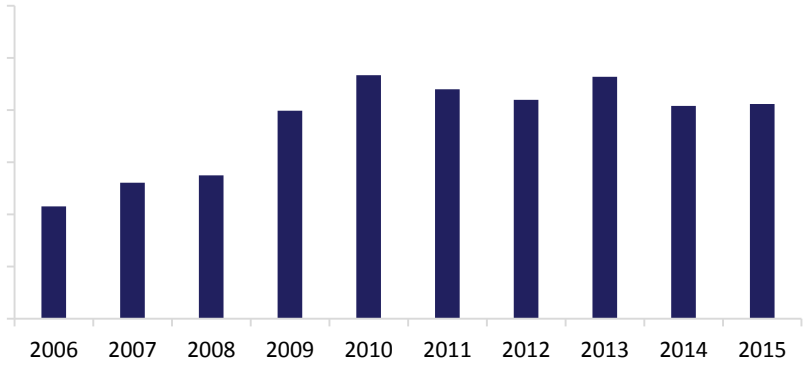
XXX LOGO

TresVista
FINANCIAL SERVICES

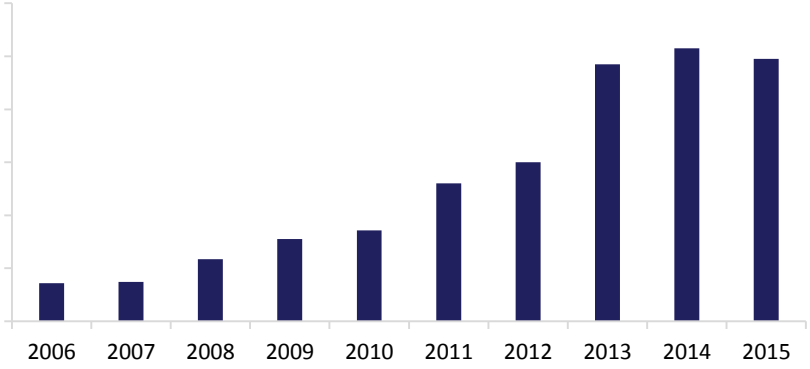
Competitive Landscape

Summary

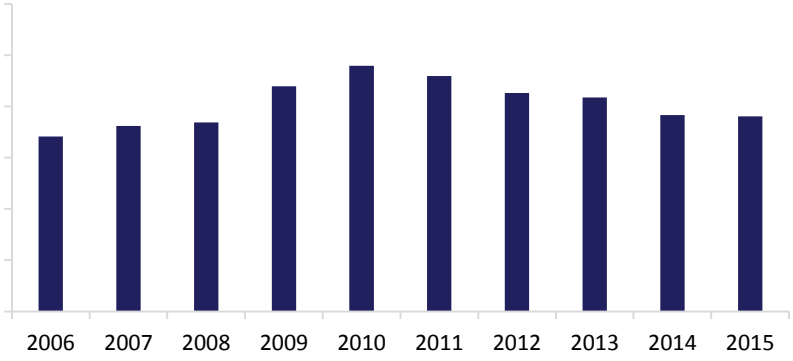
Zambia Copper Production Last XX Years (kt)



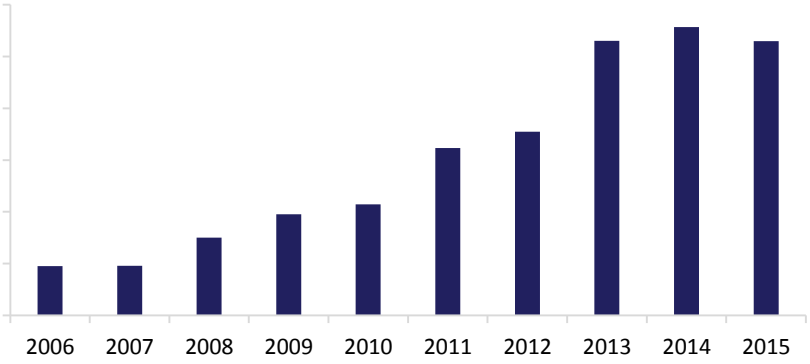
DRC Copper Production Last XX Years (kt)



Zambia Copper Production as % of Global Supply



DRC Copper Production as % of Global Supply

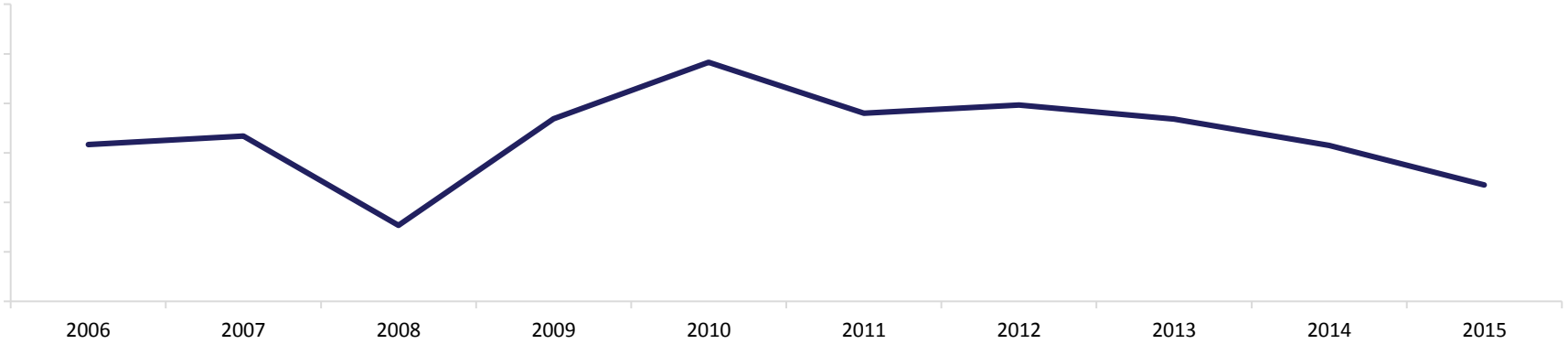


Source: xxx

Competitive Landscape

Summary

Global Copper Price Last XX Years (USD Per Tonne)



Global Copper Outlook on Demand and Supply

Demand Side

- Copper prices fell roughly by XX% in YYYY compared to YYYY
- China is the key demand driver as it accounts for approximately XX% of global copper consumption
- In the first XX months of fiscal YYYY, Chinese real estate development enterprises purchased XX% less land for future construction compare to previous year
- It is forecasted that this trend will continue in YYYY

Supply Side

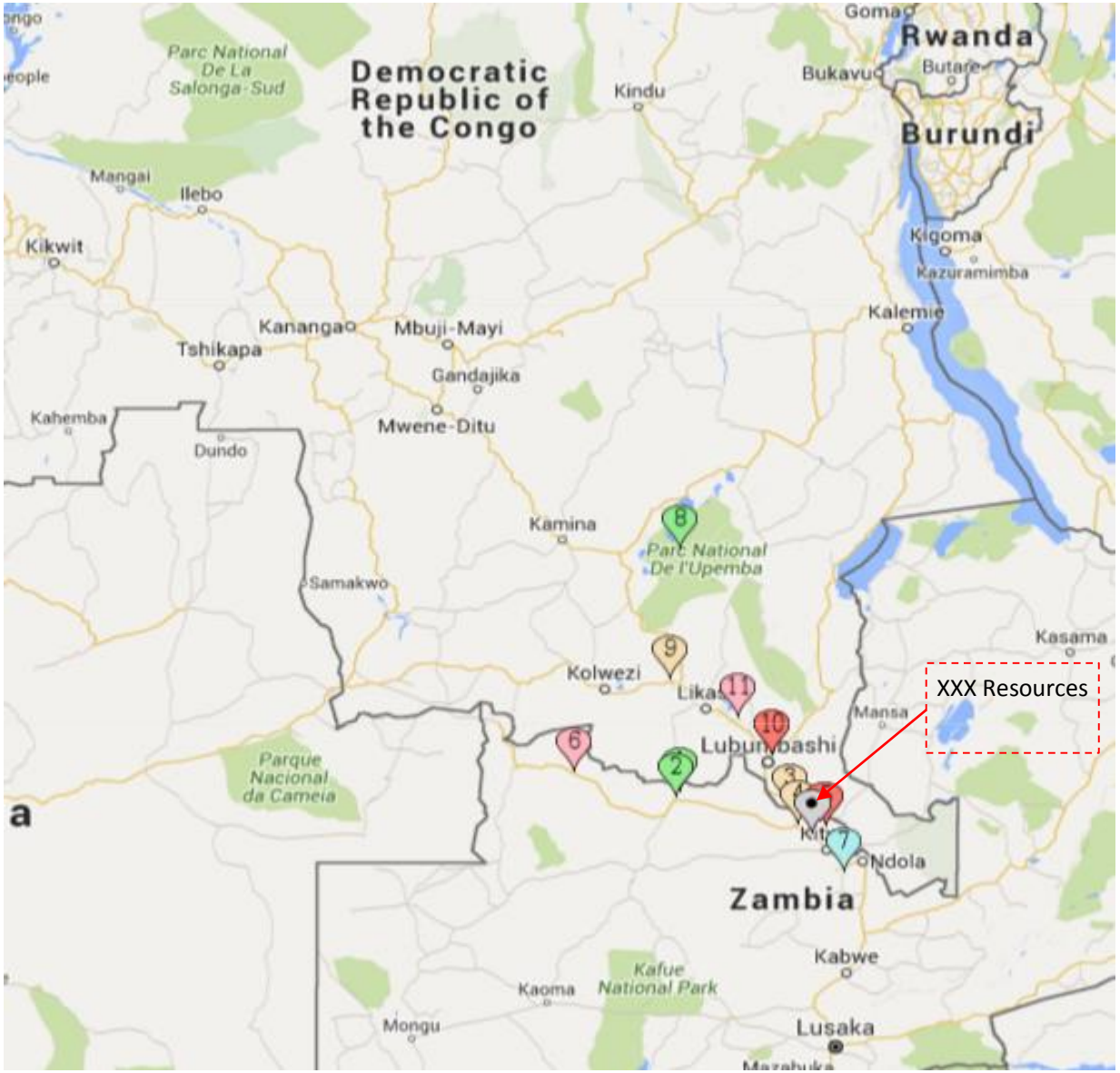
- As far as supply is concerned market will be impacted by the supply cuts announced by copper producers including major players like XXX and YYY
- XXX copper production is expected to increase by XXkt in fiscal YYYY despite announcing production curtailments in YYYY
- Copper production of YYY is expected to decrease by XXkt by the end of YYYY due to series of production cutbacks in YYYY
- ABC, which is the largest global copper miner, expects its YYYY copper production to be similar to last year's level

Copper market is expected to be in surplus

Source: xxx

Competitive Landscape

Geographic Footprint



1 XXX

2 XXX

3 XXX

4 XXX

5 XXX

6 XXX

7 XXX

8 XXX

9 XXX

10 XXX

11 XXX

Competitive Landscape

Benchmarking

Key Miners	Country	Cu Production 2015 (kt)	No. of Mines	Type of Mine	Ores Mined (kt)	Cu Grade (%)	Cap-Ex	Financial Leverage[1]	Credit Facility[1]
XXX	Zambia	XX	XX	XXX	XX	XX	XX	XX	XX
XXX	Zambia	XX	XX	XXX	XX	XX	XX	XX	XX
XXX	Zambia	XX	XX	XXX	XX	XX	XX	XX	XX
XXX	Zambia	XX	XX	XXX	XX	XX	XX	XX	XX
XXX	Zambia	XX	XX	XXX	XX	XX	XX	XX	XX
XXX	DRC	XX	XX	XXX	XX	XX	XX	XX	XX
XXX	DRC	XX	XX	XXX	XX	XX	XX	XX	XX
XXX	DRC	XX	XX	XXX	XX	XX	XX	XX	XX
XXX	DRC	XX	XX	XXX	XX	XX	XX	XX	XX

XXX and YYY are the largest producers in the Zambian copper belt and DRC respectively

Source: xxx

Key Copper Producers - Zambia

XXX (1/2)

XXX LOGO

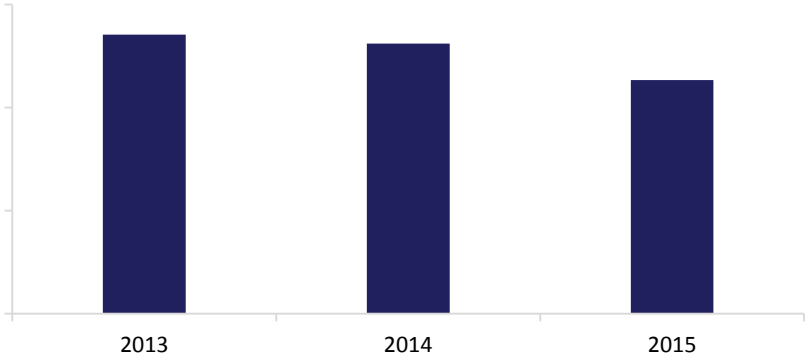
Overview

- XXX operates two copper mines in Zambia, Kansanshi and Sentinel
- ABC mine was acquired by XXX in August YYYY and is located north of YYY
- Construction activities at ABC, located in the north western province of Zambia, were completed in YYYY and the first physical production was realized in February YYYY
- Operations at ABC began in YYYY
- ABC smelter declared commercial production in July YYYY
- The ABC copper deposit in Zambia is a high-grade resource, allowing the company to remain profitable in a weak-price environment
- Copper production at ABC for YYYY was down XX% as compared to YYYY and copper production at XYZ for YYYY totalled XXkt

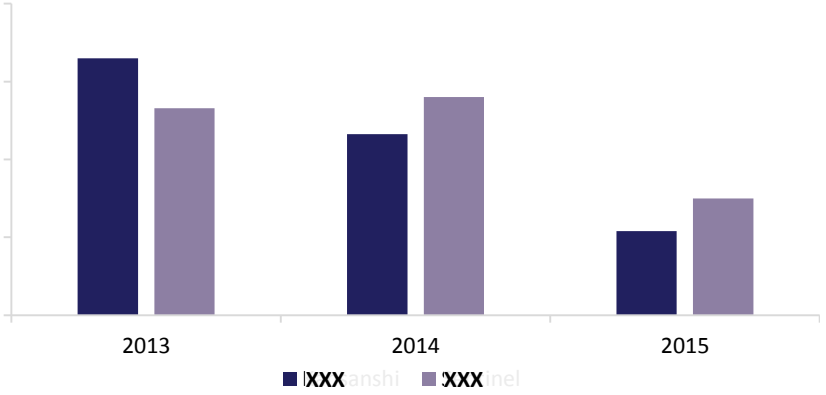
Key Metrics

$ mm	2013	2014	2015
Revenue[1]	XX	XX	XX
EBITDA[1]	XX	XX	XX
Leverage Ratio[2]	XX	XX	XX
Credit Facility[2]	XX	XX	XX
Copper Production[1] (kt)	XX	XX	XX
Per Unit Cost of Production[1] (kg)	XX	XX	XX
Ore mined[1] (kt)	XX	XX	XX

Copper Production Levels (kt) – Zambia



Capital Expenditure ($mm)



Curtailed throughput at the ABC plant and power shortages led to a drop of XX% in copper production in YYYY as compared to YYYY

Source: xxx

Key Copper Producers - Zambia

XXX Ltd. (2/2)

XXX LOGO

Key Developments for ABC

- The ABC copper smelter was successfully ramped up in YYYY. It produced XXkt of copper anode, XXkt of sulphuric acid and achieved copper recovery of XX%
- Throughput at the ABC plant was intentionally reduced in the first half of YYYY to match acid consumption from the smelter's production
- Gold production of XX ounces in YYYY was XX% lower than that of YYYY, reflective of lower feed grades
- Currently, the Company's Zambian operations are being consistently provided a total of XX MW, which allows for normal operations at the ABC mine and smelter complex and for XYZ to achieve nameplate capacity throughput for periods
- Additional power to ABC has been offered by XXX through additional power imports

Key Developments for XYZ

- On MMMM D, YYYY, retrenchment of XX workers from the XYZ mine was announced
- Construction of the XYZ mine was completed in YYYY but only partial operations have been possible due to power shortages and softer transitional material that is present in the ore. A permanent solution to address the challenges presented by the transitional ore was implemented in the fourth quarter of YYYY
- First filtered concentrate was produced at XYZ in MMMM YYYY and production was ramped up over the course of the year, with higher copper production achieved in each successive quarter of YYYY
- Although XYZ has been able to reach design capacity at times with the current XX MW allocation, the full power requirement is progressively increasing with harder ore from the mine. XYZ is expected to reach commercial production levels in the second quarter of YYYY once the allocated power is increased by XX%
- Additional power to XYZ has been offered by ABC through additional power imports

Future Outlook

- Management guidance for production of Copper at ABC and XYZ stands at XXkt and XXkt respectively for the year YYYY

Copper production from the mines is expected to rise with the completion of the smelter at ABC

Source: xxx

Key Copper Producers - Zambia

XXX (1/2)

XXX LOGO

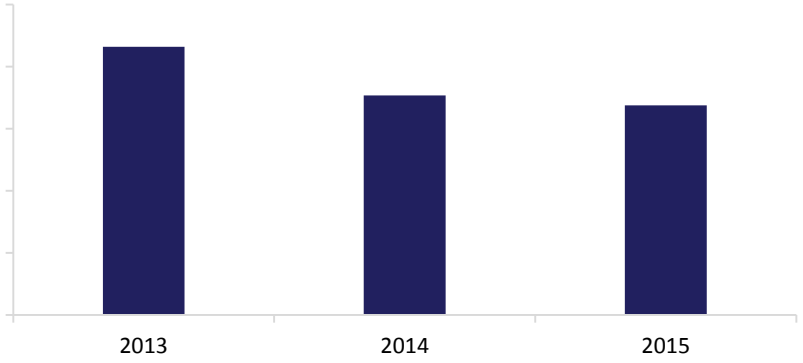
Overview

- XXX acquired a majority stake in ABC in **MMMM YYYY** following an international bidding process
- ABC has the license of copper mines at XYZ and PQR
- XYZ is one of the highest grade large copper mine in the world with mine life of XX+ years
- PQR mine was hit by lower volumes and ore grade in YYYY
- ABC owns a Tailings Leech Plant(TLP) at XYZ and a refinery at PQR
- In YYYY, TLP primary copper production was down by XX% as compared to that of YYYY

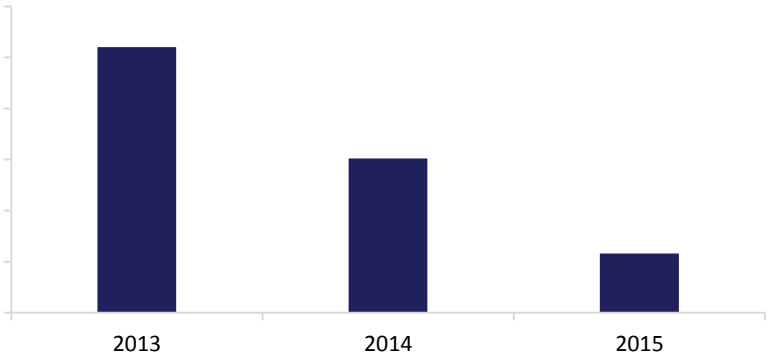
Key Metrics

$ mm	2013	2014	2015
Revenue[1]	XX	XX	XX
EBITDA [1]	XX	XX	XX
Leverage Ratio[2]	XX	XX	XX
Credit facility [2]	XX	XX	XX
Copper Production[1] (kt)	XX	XX	XX
Per unit Cost of Production (kg) [1]	XX	XX	XX
Ore mined[3] (kt)	XX	XX	XX
Cu grade (%)	XX	XX	XX

Production[1] (kt)



Capital Expenditure[1] ($mm)



From its copper mines in Zambia, XXX recorded a cumulative copper production of XXkt for YYYY

Source- xxx

Key Copper Producers - Zambia

XXX (2/2)

XXX LOGO

Key Developments

- Operational turnaround at XXX Copper Mines by implementing pivot strategy to focus on key profitable areas of production. There is a development program under way to increase the number of underground workshops and the training of frontline employees to improve the efficiency at XXX mine
- Production in FY YYYY was primarily affected by remediation and critical maintenance being carried out at ABC mine. Maintenance work at ABC also reduced copper production in Zambia
- The additional costs incurred in addressing the shaft and equipment availability issues, combined with the $XX mm effect of the higher royalty rate, reduced profitability by $XX mm
- ~XX% decline in global copper prices and increase in per unit cost of production has led to decreased revenues in the last FY
- XXX has revised down its CapEx and prioritized its capital to high return, low-risk projects. This has been done to maximize cash flows and gain the flexibility to invest further as prices of commodities improve
- Targeted production for YYYY was XXkt-XXkt. However, as per the latest production release by XXX, their total production in FY YYYY was XXkt, ~XX% increment from FY YYYY

Future Outlook

- Opportunity to increase the utilization rate of the smelter by treating third party concentrates from both within and outside Zambia as the ABC mine ramps up
- Open pit and underground operations at XYZ are reaching saturation point and therefore it is experiencing low grades and high unit costs
- The future at XYZ looks good as the flagship PQR Project has an economic life of XX+ years

XXX has realigned and reduced its Capital Expenditure and streamlined its usage as it waits for the global commodities price to recover

Source: xxx

Key Copper Producers - Zambia

XXX

XXX LOGO

Overview

- XXX operates the ABC copper mine in Zambia
- ABC mines was initially part of XYZ Mines Ltd.
- In YYYY, copper production at ABC was down by XX% as compared to that of YYYY
- In YYYY, copper ore reserves at ABC amounted to XXmt, down by XX% as compared to that of YYYY
- XXX plans to expand operations at the mine by invest $XXmm over the span of XX years

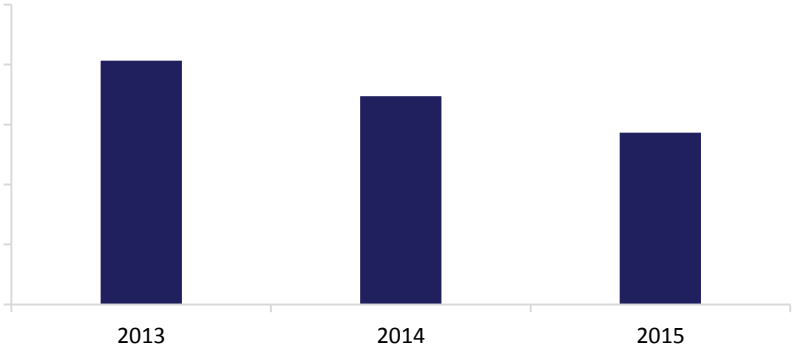
Key Metrics

$ mm	2013	2014	2015
Revenue[1]	XX	XX	XX
EBITDA[1]	XX	XX	XX
Leverage Ratio[1]	XX	XX	XX
Credit Facility[1]	XX	XX	XX
Copper Production[2] (kt)	XX	XX	XX

Key Developments

- Investments in new shafts and a concentrator is expected to lower production costs at ABC
- On MMMM D,YYYY XXX announced that the company will suspend the ABC copper mining operation located in Zambia. Operations have been curtailed pending delivery of the capital improvement projects underway
- ABC contributed XX% to the Zambia's copper produce in YYYY and with its operations being curtailed the copper produce will be significantly hit
- In YYYY, the company reduced SO_2 emissions by XX% over YYYY, primarily due to operational changes at ABC and XYZ mines
- In MMMM YYYY, the company announced to invest $XX mm over XX years to expand operations at its ABC Mines

Capital Expenditure[3] ($ mm)



XXX operations have been curtailed that has brought down the capital expenditure in YYYY

Source: xxx

Key Copper Producers - Zambia

XXX (1/2)

XXX LOGO

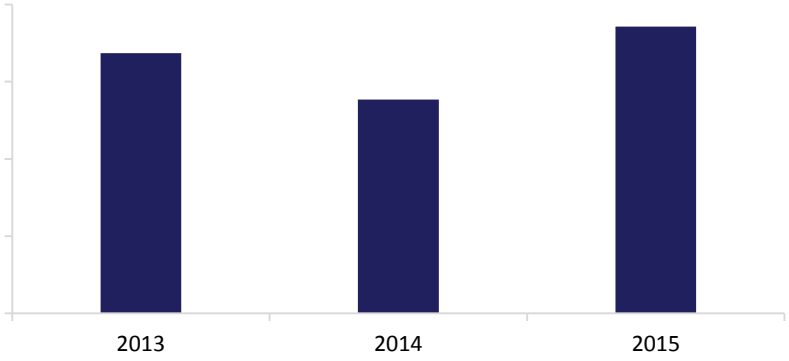
Overview

- ABC mine was commissioned in MMMM, YYYY and was acquired by XXX in MMMM, YYYY
- In YYYY, the production of copper at ABC was up by XX% as compared to that of YYYY
- The company's ABC mine produces a concentrate that primarily contains copper

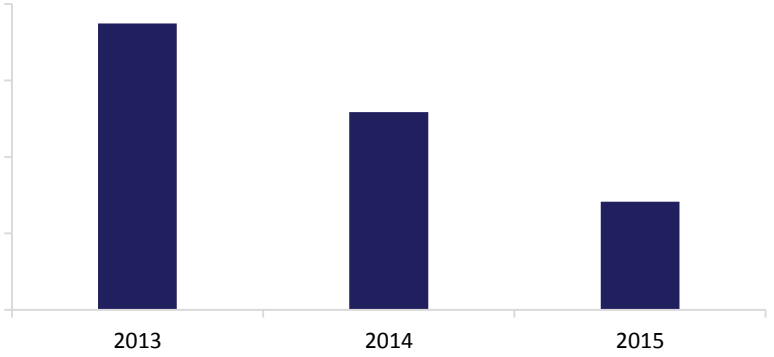
Key Metrics

$ mm	2013	2014	2015
Revenue[1]	XX	XX	XX
EBITDA[1]	XX	XX	XX
Leverage Ratio[2]	XX	XX	XX
Credit facility [2]	XX	XX	XX
Copper Production[1](kt)	XX	XX	XX
Per unit Cost of Production[1] (kg)	XX	XX	XX

Production (kt)



Capital Expenditure[1] ($ mm)



The reduced revenue in-spite of increased production can be traced to the fall in global copper prices

Source- xxx

Key Copper Producers - Zambia

XXX (2/2)

XXX LOGO

Key Developments

- Copper production for YYYY was up XX% primarily due to higher production at ABC, partially offset by decrease in production at XYZ
- In the second quarter of YYYY, there was a mill shutdown due to partial collapse of the main conveyor belt which negatively impacted production. Hence, the dip in production of YYYY compared to YYYY and YYYY
- Smooth functioning of the plants, improved wet weather preparation in the mine and an increase in operating efficiency compared to prior year led to increased productions in YYYY
- Cost saving initiatives and increased operating efficiencies alongwith decrease in depreciation lowered the cost of sales in YYYY by XX%
- Reduction in Cap-Ex by XX% in YYYY is attributable to capitalization of stripping costs coupled with the deferral of mine site sustaining expenditures
- The company is working closely with ABC Corporation Limited to fight the problems of power shortage

Future Outlook

- In YYYY, the company estimates the production to be in line with production of YYYY, driven by an expected increase in total tonnes mined and processed, partially offset by decline in quality grades

The company has successfully recovered and improved from the setback faced in YYYY

Source- xxx

Key Copper Producers - Zambia

XXX

XXX LOGO

Overview

- XXX Plc. provides nonferrous metal mining resources development related trade and service
- The company was founded in YYYY and is based in XYZ, Zambia
- It produces copper cathode and copper concentrator
- As of MMMM D, YYYY, XXX Plc. operates as a subsidiary of ABC Co., Ltd.
- In MMMM YYYY, the $XX mm ABC project was completed which extended the life of the mine and increased production by XX%. The mine will produce over XXkt of copper per annum up from the previous production of XXkt

Trends

- The projects under construction and development include ABC and XYZ
- On MMMM D, YYYY, the mining company announced its decision to halt production at its ABC Mine citing low copper prices
- The company also said it would place the mine under care and maintenance due to rising costs and an energy crisis which led to XXX being warned over job losses

Source: xxx

Copper Producers - Zambia

XXX

XXX LOGO

Overview

- The company has majority stake in ABC mine located in Zambia near the town of XYZ
- Production at the mine began way back in YYYY
- The facility has an annual production capacity of XXkt of Copper
- High power costs and lower output at the ABC mine has led to losses

Key Developments

- From MMMM YYYY onwards, royalty tax was changed from XX% to XX% for the underground mines to which ABC belongs
- Owing to the limited mine life of ABC and the falling copper prices, the company is planning to reduce production from this mine. The reduced production at the facility will lead to reduction in the employed labour force. As many as XX were let go

IMAGE 1

IMAGE 2

Source: xxx

Key Copper Players - DRC

XXX (1/2)

XXX LOGO

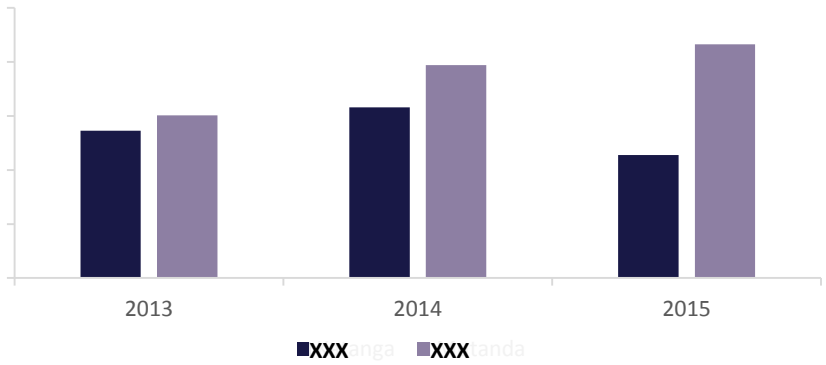
Overview

- XXX Plc is an Anglo–Swiss multinational commodity trading and mining company headquartered in ABC
- XXX owns XX% stake in ABC Ltd and XX% stake in XYZ
- Both mines are located at ABC province with Copper being the primary and Cobalt being the secondary metal

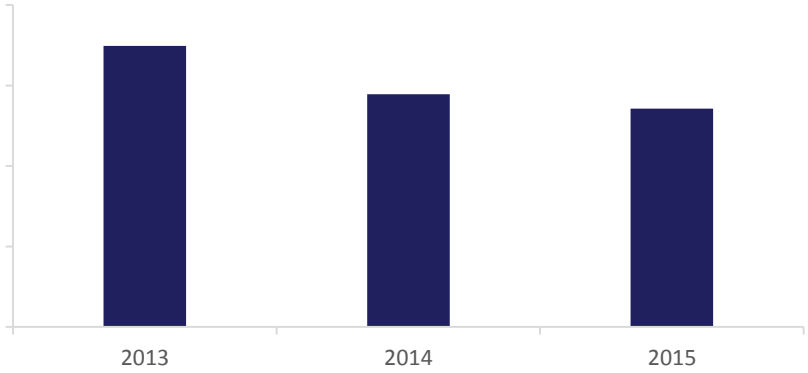
Key Metrics

$ mm	2013	2014	2015
Revenue	XX	XX	XX
EBITDA	XX	XX	XX
Leverage Ratio	XX	XX	XX
Per unit Cost of Production ($/kg)	XX	XX	XX
Cu Grade (%)	XX	XX	XX

Copper Production (kt)



XXX Capex ($mm)



Source: xxx

Key Copper Players - DRC

XXX (2/2)

XXX LOGO

Key Highlights YYYY

- Cash flows from operating activities decreased in YYYY due to the decline in profitability and increased working capital requirements, due to increased inventories and decreased payables
- Income tax recoveries were $XX million in YYYY (YYYY - $XX million)
- The decrease is due to the cessation of deferred tax recognition on tax losses carried forward in the DRC and incurred after YYYY

Outlook – XXX Mine

- Work will continue on the design and construction of the WOL Project according to the defined project plan;
- Open pit mining operations are expected to continue with focus on waste mining
- Care and maintenance activities in the underground mine are expected to continue
- Various initiatives relating to cost base reduction, consumable inventory reductions, staff training and process improvements are expected to continue to be developed

Key Past Developments for XXX

- In YYYY,
  - The converted electro-winning facility with all sections brought into operation increasing the new tank house capacity to XXKtpa of copper cathode
  - The feasibility study for extending the ABC mine into an underground mining operation was completed during YYYY
- In YYYY & YYYY,
  - During Q1 YYYY the Company increased the ore production by XX%, when compared to Q1 YYYY, due to an increase of XX% at ABC where XX new Caterpillar 793D haul trucks were commissioned in Q2 YYYY
  - ABC mill, while ramping up to XXKt per day nameplate capacity
  - XYZ plant (XYZ plant was commissioned during Q3 YYYY) resulting in a combined overall electro-winning (“EW”) capacity of XXKt per annum

Source: xxx

Key Copper Producers - DRC

XXX (1/2)

XXX LOGO

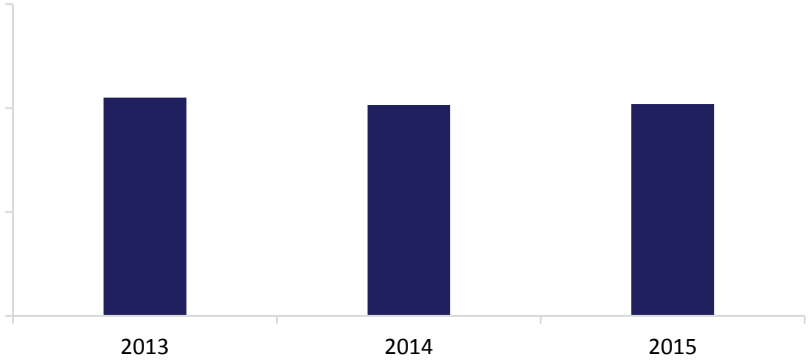
Overview

- XXX operates the ABC mine, located in the XYZ province of the Democratic Republic of Congo, through PQR S.A.
- The company holds XX% interest in the mine while XX% is with ABC Corporation and the rest is with the DRC government
- Copper production at the plant started in MMMM, YYYY
- Equipment at the mine includes XX 17 cubic metre mass excavators, XX 12 cubic metre front end loaders, XX 7 cubic feet front end loaders, XX 91 metric ton haul trucks and XX 80 metric ton hall trucks
- Copper and cobalt at the mine are extracted through an agitation leach plant
- Copper produced at the mine is sold as copper cathode

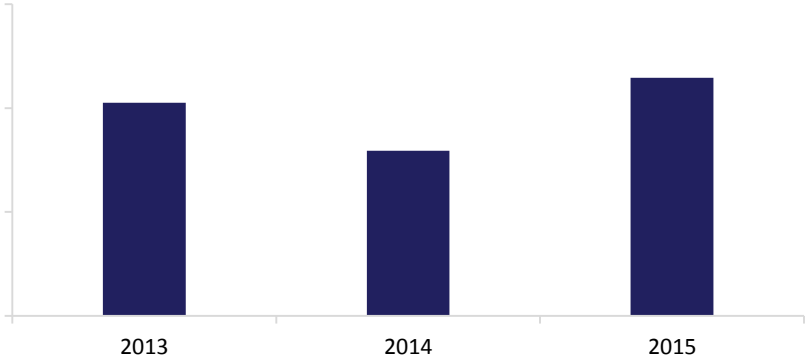
Key Metrics

$ mm	2013	2014	2015
Revenue[1]	XX	XX	XX
Leverage Ratio[2]	XX	XX	XX
Credit Facility[2]	XX	XX	XX
Copper Production[1] (kt)	XX	XX	XX
Per Unit Cost of Production[1] (kg)	XX	XX	XX
Ore mined[1] (kt)	XX	XX	XX
Cu Grade[1] (%)	XX	XX	XX

Copper Production Levels (kt) – DRC



Capital Expenditure ($mm)



XXX has consistently produced the same amount of Copper for the past XX years

Source: xxx

Key Copper Producers - DRC

XXX (2/2)

XXX LOGO

Key Developments at XXX

- Operations at the mine include open-pit mining, leaching and SX/EW (solvent extraction-electrowinning) operations
- Increased mine, mill and processing capacity was achieved with the completion of the second phase expansion project in YYYY

Future Outlook

- The company plans to reduce capital spending as well as operating, administrative and exploration costs at ABC for the year YYYY
- Adequate supply of water is expected throughout the life of the mine as indicated by a recent water exploration program and regional geological and hydro-geological conditions
- XXX continues to engage in exploration activities and metallurgical testing to judge the potential of the mineral district at ABC

The company plans to reduce spending at the ABC plant over the next year

Source: xxx

Key Copper Producers - DRC

XXX

XXX LOGO

Overview

- The company has an operating mine in DRC named ABC, and control over one development and two exploration projects
- The ABC mine has XX open pits and started production back in YYYY
- XYZ is an under construction development project situated in the ABC province located near the town of PQR
- Average produce at XYZ is expected to be XX tonnes of copper concentrate per annum
- Mineral resources available at ABC are XX mm tonnes with the grade of copper being XX%
- ABC is connected to the highway via a sealed single lane road, XX kms to the west, thereby providing easy access to infrastructure. Supply of water and power is available for mining and processing operations
- ABC and XYZ are two advanced stage exploration projects, located in the PQR province
- The ABC property has a mineral resource of XX mm tonnes at a grade of XX% copper

Key Developments

- Production of copper at the ABC mine for YYYY was on target with YYYY tonnes being produced which was XX% of the planned output
- Variable power supply has caused problems with the quality of copper cathode produced at ABC but by the end of YYYY the quality has improved. The supply of power to the mine continues to remain a concern though
- Progress at ABC was delayed owing to unfavorable ground conditions. Its set for production from the first half of YYYY
- The XYZ project is currently undergoing optimization, with money being spent on dewatering and geotechnical work

Source: xxx

Key Copper Producers - DRC

XXX (1/2)

XXX LOGO

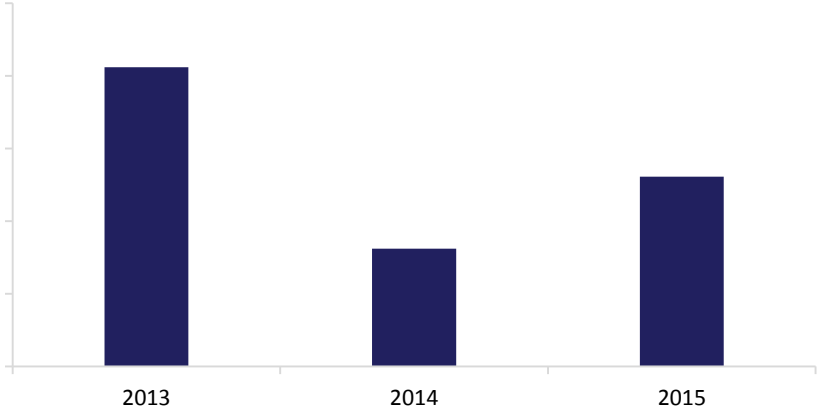
Overview

- XXX Ltd is a company focused on the discovery, development and exploration of high-grade copper/cobalt deposits in the ABC Copper Belt
- ABC Copper Project is operated by XYZ, a XX%-owned subsidiary of XXX
- The project is located approximately XXkm north-northwest of ABC in the XYZ Province
- The project hosts five known copper deposits: ABC, ABC, ABC, ABC and ABC
- Mineral resources of the ABC project is roughly XXkt of copper

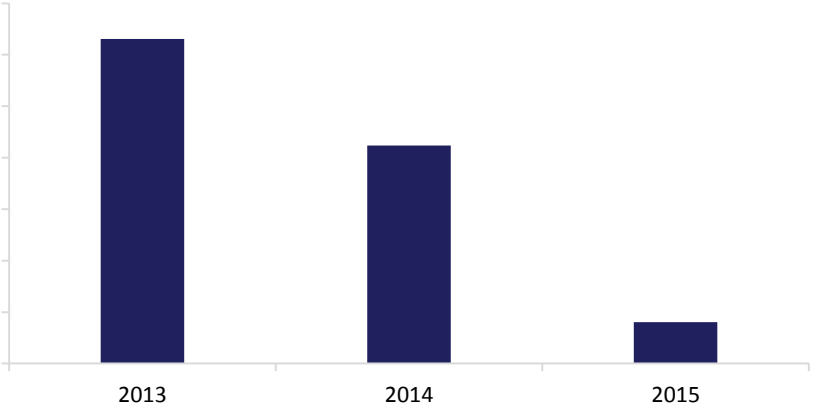
Key Metrics

$ mm	2013	2014	2015
Revenue	XX	XX	XX
EBIT	XX	XX	XX
Leverage Ratio	XX	XX	XX
Per unit Cost of Production ($/kg)	XX	XX	XX

Copper Cathode Production (kt)



Capex ($mm)



Source: xxx

Key Copper Producers - DRC
XXX (2/2)

XXX LOGO

Key Highlights

- XXkt of copper cathode was produced
- Grid power utilization increased to XX% in Q4 YYYY
- Cash operating costs stood at $XX/kg
- Engineering and costing study was completed in YYYY

Future Outlook

- Maintain high safety record
- Improve ABC operating performance to maximize incremental production gains
- Complete debottlenecking program at ABC to reduce unit costs and increase copper cathode production by XX%
- Ongoing cost reduction initiatives to improve efficiencies

Source: xxx

Production Challenges - Zambia

Power Shortage

Overview

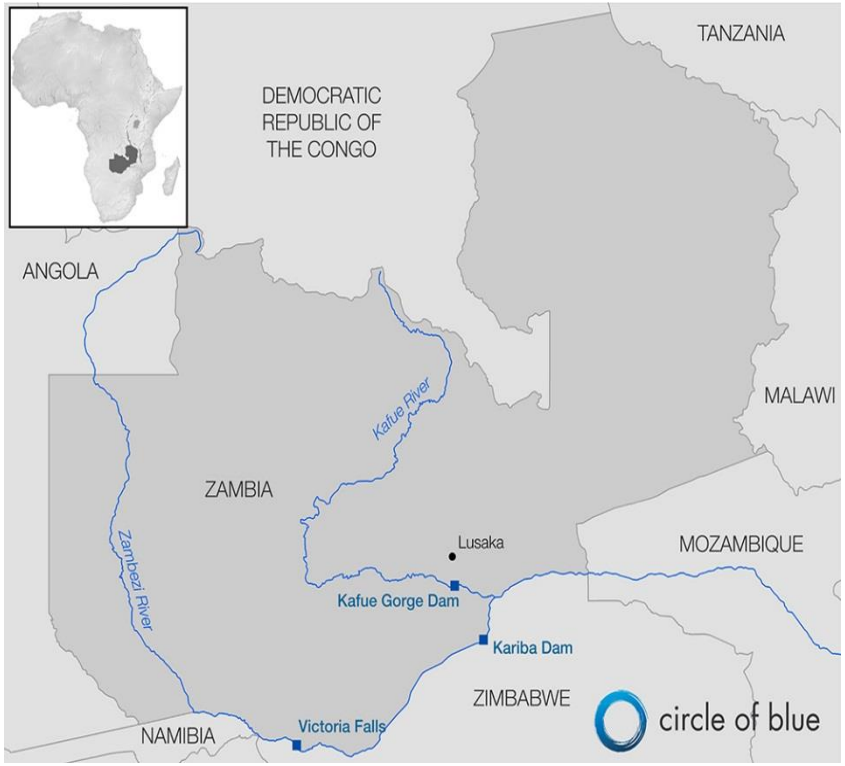
- XXX is a state-owned power company in Zambia
- It is Zambia's largest power company producing about XX% of the electricity consumed in the country
- XXX owns four major hydropower stations, namely ABC; ABC; ABC; and ABC
- The installed capacities are XX MW, XX MW, XX MW and XX MW, for ABC; ABC; ABC; and ABC, respectively

Recent Trends

- In YYYY, draught impacted power sector left the country in a XX MW power deficit
- Due to diminishing water reserves at the hydropower dam grid operators are expected to cut power supplies by XX% to the country's copper mine
- According to a statement by XXX, the company will reduce power to ABC Corp., which supplies almost all mines
- Power demand is expected to increase by XX MW annually due to growing economy of the country

Future Outlook

- To overcome the power shortage government is moving towards the use of coals in the form of renewables
- Power shortage will ease due to commencement of XX MW – XX MW ABC coal-fired in MMMM YYYY
- Also, there will be additional XX MW of power from hydropower stations



Source: xxx

Production Challenges - Zambia

Mining Tax

Overview

First half, YYYY

- Corporate income tax rate applicable on the mining operations with an exception of mineral processing was revised from XX% to XX% to increase mining
- Variable Profits Tax of up to XX%, applicable when the taxable income exceeded XX% of gross sales, was abolished
- But, mineral royalties on the normal value of base metals produced or recoverable was increased from XX% to XX% on open cast mining and XX% on underground mining

Second Half, YYYY

- Due to significant decline in copper prices which made mining operations unprofitable and unsustainable, government made following revisions to the mining tax regime
  - Corporate income tax rate was reinstated to XX%
  - Reintroduction of variable profits tax of up to XX% where the taxable income exceeds XX% of gross sales
  - Mineral royalties on the norm value of base metals produced or recoverable was revised to XX% for open cast mining operations and XX% for underground mining operations

YYYY

- To boost profits and public spending as well as to promote investments the government will implement the following mining tax regime
  - For copper price below $XX per tonne, XX% of royalty will be applied and will increase to XX% if the price varies between $XX and $XX per tonne. maximum of XX% will be applied if the copper price rises above $XX per tonne
  - President's cabinet has also approved additional measures as suspension of a XX% duty on exports of ores

Mining tax regimes are heavily dependent on global copper prices

Source: xxx