



MCL NEWS

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HIGHLIGHTS

ZAMCOAL Diggers win promotion

Honorable Minister of Energy
& Water Development visits
Maamba

Fire fighting preparedness in
the Thermal Power Plant

Sipuumina Village Gets a Foot Bridge

Mining operations intensify at Izuma 'A' Pit



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On the cover
ZAMCOAL Diggers Soccer team



Executive Messages



■ Mr Ashwin Devineni - Resident Director

Foreword by the Resident Director(RD)

In this issue, I am pleased to reflect on the successful loading of both our 150 MW units – a testament of the invaluable contribution of all the concerned stakeholders. With MCL providing the much needed electricity to the national grid, there has been an immediate impact– with reduced load-shedding serving as a timely Christmas gift for the people of Zambia.

The next few months are crucial as we look towards taking over the plant from the EPC Contractors, and I am confident that we will continue to work together towards full commercial operations and power offtake by ZESCO.

With the Thermal Power Plant becoming operational, I am happy to note this issue covers the all-important issue of readiness of the TPP for handling an emergency – in the unlikely event of a fire at the plant. I urge personnel of the Plant as well as all staff at their workplaces to look after the fire-fighting equipment, which will help save lives in an emergency.

I would like to congratulate the Zamcoal Diggers and wish them continued success in the First Division!

Most importantly, for the festive season - I would like to wish each one of you and your families a Merry Christmas, Happy & Prosperous 2017 and only the very best! Happy Reading

Ndalumba kapati, Natotela sana, Dzikomo kwambiri



■ Rear Admiral (Retd.) Mr. Venkat Shankar - CEO

Message by the Chief Executive Officer (CEO)

It is yet again that time of the year which urges one to look back on the year gone by and take stock of achievements, accomplishment of goals, failures and challenges in both our personal and professional life.

On the professional front, I am happy to state that both our Power Plant units, each of 150MW, have been proved with full load and commercial operations of the plant have started from December 2016. Naturally, this has been possible only due to the team work and dedication of the entire MCL team, our EPC Contractor SEPCO, our O&M Contractors NEZL and SMECH, our Mining Contractor SUNCREST and many others involved in the project. I must also acknowledge the support that this project has been getting from the community of Maamba.

The export of power from Maamba has been welcomed by one and all in Zambia and has contributed to MCL becoming a household name and a harbinger of good tidings and less load-shedding in the coming year. Naturally, even as this makes us proud, it also makes us conscious of our responsibilities and the need to rise to the expectations of fellow Zambians. I am sure MCL and all others associated with the project will be equal to this task!

I wish the MCL employees and their families a very Happy and Prosperous New Year.

I also take this opportunity to extend my greetings to all our stakeholders and the readers of 'MCL News' and wish them success in all their endeavours.

I wish all the members of MCL team a productive quarter ahead.

Christmas "gift" to Zambia

As some of the readers may be aware, Unit 1 of the Thermal Power Plant (TPP) was successfully synchronized with the Zambian National Grid in July 2016, and inaugurated by H E the Republican President Mr. Edgar Chagwa Lungu. We are happy to report that Unit 2 was synchronized during the period under review making it a timely Christmas 'gift' to the Zambian people. This 'gift' assisted ZESCO in reducing the load shedding of electricity to 4 hours on a daily basis.

The Table on the right shows the amount of power exported to the National Grid.

Month	Power Exported (MWh)
July 2016	2764.39
August 2016	26791.15
September 2016	35240.56
October 2016	66106.68
November 2016	80591.33
December 2016	67701.49



■ Maamba Thermal Power Plant



■ Maamba Thermal Power Plant at night



■ Honorable Minister of Energy & Water Development touring MCL plant

Visit to MCL by the Hon. Minister of Energy and Water Development, David Mabumba

At the invitation of Maamba Collieries Limited, the Honourable Minister of Energy and Water Development, David Mabumba, visited the Thermal Power Plant on Thursday, 27th October, 2016. The visit was aimed at familiarizing himself with operations and performance of the Plant after inauguration of the 1st Unit by the President His Excellency Edgar Chagwa Lungu, on 7th August, 2016.

On arrival, the Minister was given a brief by the Chief Executive Officer and a boardroom presentation was made, before undertaking a conducted tour of the Plant. The Minister and his entourage were satisfied with the performance of the Plant as well as the environmental management systems that MCL has put in place to ensure that the environment is protected.

The Minister also made mention of the importance of the TPP not only for the people of Maamba and the Southern Province but for all Zambia which is clearly seen in the reduced load shedding in the country.



Sipuumina Village Gets a Foot Bridge

■ Sipuumina Footbridge during commissioning, 25th November, 2016

The nightmare of crossing a flooded Sipuumina Stream is now a thing of the past for residents of Sipuumina Village, other community members that live across the hills, as well as, school children and teachers of Siankodobbo School, as MCL has constructed a footbridge on the Sipuumina Stream. It is no doubt, that the above mentioned communities have had serious challenges in crossing the stream during the rainy season. To many of the residents, it is a prayer answered and a dream come true, after so many years of waiting for such a facility!

We urge the community to protect this vital infrastructure from any form of vandalism.



■ File photo- Residents crossing the flooded Sipuumina Stream before the construction of a footbridge.

Maamba Township Roads to get a facelift

Maamba Collieries is alive to the fact that the township roads need a facelift to bring them to acceptable standards, as driving on many of these roads is a great challenge.

MCL recently floated tenders but quotations for the work from road construction companies have been astronomical, especially considering the scope of work. The high cost quoted is attributable to the distances from major towns, where most companies are situated and cost of mobilization of equipment to Maamba.

To overcome the hurdle, MCL has decided to undertake this project in-house. State of the art road construction equipment is being sourced from the Republic of South Africa, which is expected to start arriving on the site in the next two months.

MCL has since installed a hot mixer asphalt plant and trials of the plant have been completed successfully. Road resurfacing works will be undertaken after the road building equipment arrives on site.

Unauthorised Construction on Mine Land

Following the successful privatization of Maamba Collieries Limited and the subsequent takeover of the majority of shares of the Company by Nava Bharat Singapore PTE Limited, a subsidiary of Nava Bharat Ventures Limited of India (NBV), in April 2010, Mine management has held several meetings with stakeholders to unveil its ambitious plans of expanding the mine and the construction of the 300MW Thermal Power Plant (TPP) and its related infrastructure at Maamba. The majority of the construction of the TPP and its related infrastructure has since been successfully completed. The first unit (150MW) of the TPP was inaugurated by the Republican President, His Excellency Mr. Edgar Chagwa Lungu at a colourful ceremony on 7th August, 2016.

Even as the construction was progressing, it was noticed that there were many encroachments on the MCL mine land. Accordingly, MCL has held several meetings with stakeholders to sensitize the community against encroachment on the mine land over the course of many months prior to, during and after the construction of the TPP and development of the mine. In all these meetings, MCL has been appealing to community members not to further encroach on empty mine land, as it is the land

earmarked for expansion and developmental work related to the Power Project and the mine.

MCL has committed itself not to demolish any completed building on the mine land, but needs to restrict further extension of buildings and the construction of new structures on the empty mine land.

In order to restrict the proliferation of unauthorized constructions on the mine Land, MCL, in December 2015, sought legal redress in the High Court of the Republic of Zambia to halt the unauthorized constructions currently taking place on the mine land. In this regard the High Court on 15th December, 2015 issued injunction to stop the unauthorized constructions and maintain the status quo until the court case was concluded.

MCL wishes to reiterate that, it has no intentions whatsoever to demolish the completed buildings / structures already in place. Additionally, MCL would like to join hands with well-meaning members of the community and the local council and government agencies in co-coordinating planned development in Maamba in areas outside MCL Land.

Mining operations intensify at Izuma 'A' Pit

■ Izuma 'A' Pit Operations



In order to ensure stable and continuous supply of coal to the Thermal Power Plant, Maamba Collieries has expanded its mining operations to Izuma 'A' in addition to the already operating Izuma 'B' Pit. The introduction of this pit will further extend the mine life by 20 years.

Izuma 'A' Pit started full operations in July 2016. The pit is still in its developmental stage involving creation of benches, ramps and haul roads.

The various mine pits are named after the rivers which flow through Maamba mine; Izuma is one such river and the pits where mining is carried out are named after this river.

Maamba Ward Councilor Pays Courtesy Call on MCL

The newly elected Maamba Ward Councilor, Mr. Chikete, accompanied by senior community members paid a courtesy call on MCL Management on Wednesday, 30th November, 2016. The main purpose of the visit was to introduce himself as the newly elected Ward Councillor for Maamba Ward and to pledge his support to MCL during his tenure.

The Councilor commended Maamba Collieries for its CSR Initiatives and encouraged MCL to do more to uplift people's welfare in the community. He promised to work closely with the Management to ensure that the community benefited from the investment.

MCL welcomes the new Councilor and would work closely with him in all the activities which would benefit the community.

Lenders' Technical Advisors (LTA) Visit Livelihood Restoration Projects for Project Affected Persons (PAPs)

During the month of November, 2016, two LTA officials, Ms. Laura Jones and Mr. Andrew Jones visited MCL to monitor progress of the TPP Project and related infrastructure. During the visit, the officials visited Maamba Youth Development Centre at the Catholic Church to monitor Project Affected Persons (PAPs) who are being trained in Carpentry and Tailoring in accordance with the MoU signed between MCL & Monze Diocese Development Department (MDDD). The training programme is part of the Livelihood Restoration Programme, designed to develop skills of the PAP and the officials expressed satisfaction with the progress being made by the PAPs.

The training programmes have received overwhelming response from the PAPs as well as other community members who are non PAPs, and the first intakes are likely to graduate in January, 2017.

Fire fighting preparedness in the Thermal Power Plant



■ Figure 1 Newly procured Fire Tender. MCL recently acquired a - SINOTRUK Firefighting engine with 10,000L Water tank and 1,000L Foam tank

By Gasper Choonya - Maintenance Engineer In charge of Plant Fire Fighting systems

The old adage- '**Fire is never a good master**' indicates that fire is very beneficial when burning in a controlled space and all hell break loose when the situation is reversed. For instance, furnace temperatures can soar up to 950° C in the combustion of coal to heat the water for steam generation. However, a scenario where the furnace explodes and the whole steam generator is in flames is undoubtedly an undesirable situation. It is against such rare, yet catastrophic, occurrences that systems have been put in place at all cost to safeguard the lives of personnel, equipment and any other system that would render the plant unavailable should any fire accident occur.

Simply put- a **fire** is an exothermic chemical chain reaction in which any combustible material is rapidly oxidized in the presence of heat. Essentially three things are a must if a fire is to exist namely; **Fuel, oxygen** and **heat**. Firstly, heat is required to elevate the temperature of a material to its ignition point. Secondly, fuel for a fire may be a solid, liquid or gas. The type and quantity of fuel will determine which method should be used to extinguish the fire. Lastly, Oxygen - most fires will burn vigorously in any atmosphere of at least 20 percent oxygen. Without oxygen most fuels could be heated until entirely vaporized yet would not burn. Basically, the type of the combustible material will determine the type of fire extinguishing agent that must be used for that particular class of fire.

Types of fires

Fires are categorized into different classes based on the fuel source involved. Knowing the classes of fire will help in choosing the appropriate extinguisher. The class, quantity, and placement of the fire extinguishing medium is determined by the potential size and type of fire that can occur in a particular location.

MCL Vocational Training Centre - TEVETA National Examinations

Maamba Collieries Limited has been running six (6) month TEVETA Affiliated Programmes at its Vocational Training Centre since January 2016. So far, fifty five (55) youths have been trained in Electrical, Welding and Metal Fabrication.

As can be seen from the highlights of the course contents below, MCL Training Centre has a pool of suitably qualified Welders and Electricians that can be considered for recruitment by any interested firm. Our training centre guarantees you quality!!

For the benefit of potential employers, we have included the names of the graduates from our training center including their contact details.

The facilities available at MCL Training Center for different trades are:

Metal Fabrication / Welding Training Section:

- DC Welding Machines,
- AC Welding Machines,
- Rectifier Welding Machine,
- TIG Welding Set
- Gas Cylinders and various cutting discs



■ Students undergoing training in Welding and Metal Fabrication

Power Electrical Technical Training Section:

- Switches, sockets and circuit breakers of various ratings
- Electric cables and conduit pipes
- Thermo overload relays
- Coil contactors, multimeter testers
- Starters



■ MCL Vocational Training Students during a Practical lesson in Electrical Power

GRADUATES IN METAL FABRICATION

SN	SURNAME	FORENAME	CONTACT NO.
1	Kasabo	Bahati	0979999707
2	Mweemba	Danny	0972293086
3	Pasi	Paul	0968012959
4	Mdumuka	Edgar	0976765267
5	Muleya	Ephraim	0969558317
6	Muleya	Foster	0976477603
7	Mwangala	Gift Litiya	0969431937
8	Sishekanu	Hassan	0977402203
9	Simunji	Litiya	0966287259
10	Simakapu	Milton M.	0977257159
11	Kanjengo	Sydney	0970551211
12	Sikwalulwa	Vedat	0961890830
13	Mwikisa	Mutondo	0965353832
14	Chisi	Peter	0971088850
15	Manyonga	Fortune	0963100458
16	Moono	Gift	0979011590
17	Mpango	David	0962845900
18	Muleya	Sam Jason	0971011530
19	Munkombwe	Stephen	0972152662
20	Munsaka	Eston	0963100458
21	Muzyamba	Evans M.	0978665084
22	Siabulongo	Clouse	-
23	Siachigobola	Austern	0962367394
24	Siankako	Ernest	0972069895
25	Siankako	Olivia	0978682453
26	Sianoono	Fredrick	0969055366
27	Simate	Mulonda	0969109226
28	Sindele	Sibajene	0969266270
29	Chibamba	Cletus	0977171267
30	Jere	Dabson	0979035938
31	Kapaundi	Coster	0979671473
32	Manyando	Mudenda	0974713950
33	Mbewe	Julius	0973014854
34	Mpango	Maxon	0969054059
35	Muloongo	Milton	0975538060
36	Nchimunya	Mboози	0973710208
37	N'gandwe	Alphel	0972431119
38	Sikapizye	Mpengo Davie	0978191403
39	Siluya	Lackson	0971089893
40	Simatipa	Maynard	0977394575
41	Syakanobe	Aaron	0979221280

GRADUATES IN POWER ELECTRICAL

SN	SURNAME	FORENAME	CONTACT NO.
1	Chisala	Lackson	0974297566
2	Chuuzya	Leonard	0977254595
3	Harriet	Hara	0969579777
4	Sialutaba	Twaambo	0974787533
5	Muleya	Peter Mudenda	0978321616
6	Mudenda	Arson	0978665097
8	Mulala	Charles	0979047087
9	Muleya	Mutinta Esther	0950823194
10	Muloongo	Milton	0975538060
11	Muloongo	Mildred	0973777800
12	Shinamanjolo	Arthur	0978810026
13	Sinyubi	Ostricia Siantulu	0972293302
14	Mpango	Joseph Kasonde	0974365642
15	Chibbela	Prosper	0975803710
16	Chibesa	Quinety	-
17	Himoonde	Wilfred	0968281083
18	Imakumbili	Gift	0968628558
19	Kanamwanga	Boston	0965133288
20	Malaula	Anderson	0973964967
21	Mkandawire	Sifaya E	0979474113
22	Ngulube	Daniel	0962909274
23	Sianyaka	Sharon	0971078941
24	Sichibeta	Chikonga	0967561649
25	Sifaya	Simataa	0973766171
26	Simbala	Memory	0967632169
27	Simonga	Lubinda	0977415793
28	Simutwe	Cesar	0962336491
29	Singango	Chalwe	0974965394

MCL Launches the 2016 Festive Season

MCL launched the 2016 festive season by cutting the traditional cake, which was accompanied by refreshments enjoyed by all the MCL staff members, Nava Energy Zambia Limited (NEZL), SMECH and employees from other contractors on site.

During his address to staff members, the Acting CEO, Mr. David Vijay Kumar, stated, "2016 was a tremendous year for MCL as we saw a lot of developments take place. The year saw the completion of the Thermal Power Plant (TPP) and the subsequent inauguration of the 1st Unit of the TPP by the Republican President, His Excellency Mr. Edgar Chagwa Lungu, on 7th August, 2016 at a colourful ceremony.

The inauguration of the TPP has since attracted renowned companies to participate in the Operation and Maintenance and they have set base at MCL to operate and maintain the state-of-the-art plant, thereby creating the much needed employment in our community."

The Acting CEO thanked staff members for their contribution towards the great success of the Mine.

In the evening of 24th December, 2016, all staff members and their spouses were treated to a staff dinner sponsored by MCL.



■ Acting CEO, Mr. David Vijay Kumar, cutting a cake at MCL Head Office to launch the 2016 festive season



■ Acting CEO, Mr. David Vijay Kumar (left) addressing staff members during the launch of the 2016 festive season



■ Corporate Office staff during year-end dinner



■ Staff members during staff dinner at Maamba Golf Club

Maamba Private School – Our Pride & Joy!

MCL as part of CSR activities for community development, runs Maamba Private School, as a non-core business entity. The school has two sections, Pre-School and the Main School. The Pre-School offers reading, writing and other learning skills to children between the ages of 3 to 6 years. The children spend three years at the Pre-School before they graduate to Grade One at the Main School, for schooling from Grade 1 to 9.

Recently, the school received an assortment of toys sourced by Mrs. Shankar, spouse of the CEO.



■ Pre School Pupils during their Graduation Ceremony – December 2016

Humour Corner

Very interesting & meaningful msg 2 share:

If: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
is equal to:
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

Then,
H+A+R+D+W+O+R+K
=8+1+18+4+23+15+18+11 = **98%**

K+N+O+W+L+E+D+G+E
=11+14+15+23+12+5+4+7+5 = **96%**

L+O+V+E
= 12+15+22+5 = **54%**

L+U+C+K
=12+21+3+11 = **47%**

None of them makes 100%. Then what makes 100%? Is it Money?

NO!

M+O+N+E+Y
= 13+15+14+5+25 = **72%**

Leadership?

NO!

L+E+A+D+E+R+S+H+I+P
=12+5+1+4+5+18+19+8+9+16=**97%**

Every problem has a solution, only if we perhaps change our "ATTITUDE"...

A+T+T+I+T+U+D+E ;
1+20+20+9+20+21+4+5= **100%**

It is therefore OUR ATTITUDE towards Life and Work that makes

OUR Life 100% Successful.

Amazing mathematics

I believe it will be unjust if This Beautiful msg is not shared:

did you know ?

The Logo of Maamba Collieries Limited is designed keeping in view international design standards.

Each curve and the geometrical pattern as well as the colour schemes are specifically chosen as explained below.

The SIX EDGES of the logo stand for SIX core values of the company:

- 1) Customer delight,
- 2) Safety & environmental excellence,
- 3) High operational efficiency,
- 4) Team spirit,
- 5) Employee morale and
- 6) Social development.

The orange triangle is depicted with three curves rotating in clock wise direction. These curves emanating from a point signify value addition in different fields to coal mining, the core business activity of the company.

The **Blue** colour stands for financial strength.

Orange represents commitment and growth.



Zamcoal Diggers Promotion Cheers Maamba Residents

By Mwiinga Haamazongo

The promotion of ZAMCOAL Diggers to the First Division of the FAZ League has brought smiles to the faces of Maamba residents. The Maamba Collieries Limited (MCL) sponsored side, had an impressive run in the 2016 FAZ Division 2 South League season, which saw the team winning almost all games.

The promotion campaign started with a 2 – 0 home win over Zimba United and the '*one! one! Wanunkila!*' song echoed in the dressing room, signifying the zeal the players had for promotion to the upper league. As the league progressed, with more and more wins, more and more people began to love the "Diggers". Maamba Collieries Limited (MCL), the sponsor, brought in an additional assortment of equipment to the club. So, the matrix here became simple; Good investment brought better results and better results yielded best sponsorship, and then superb performance.

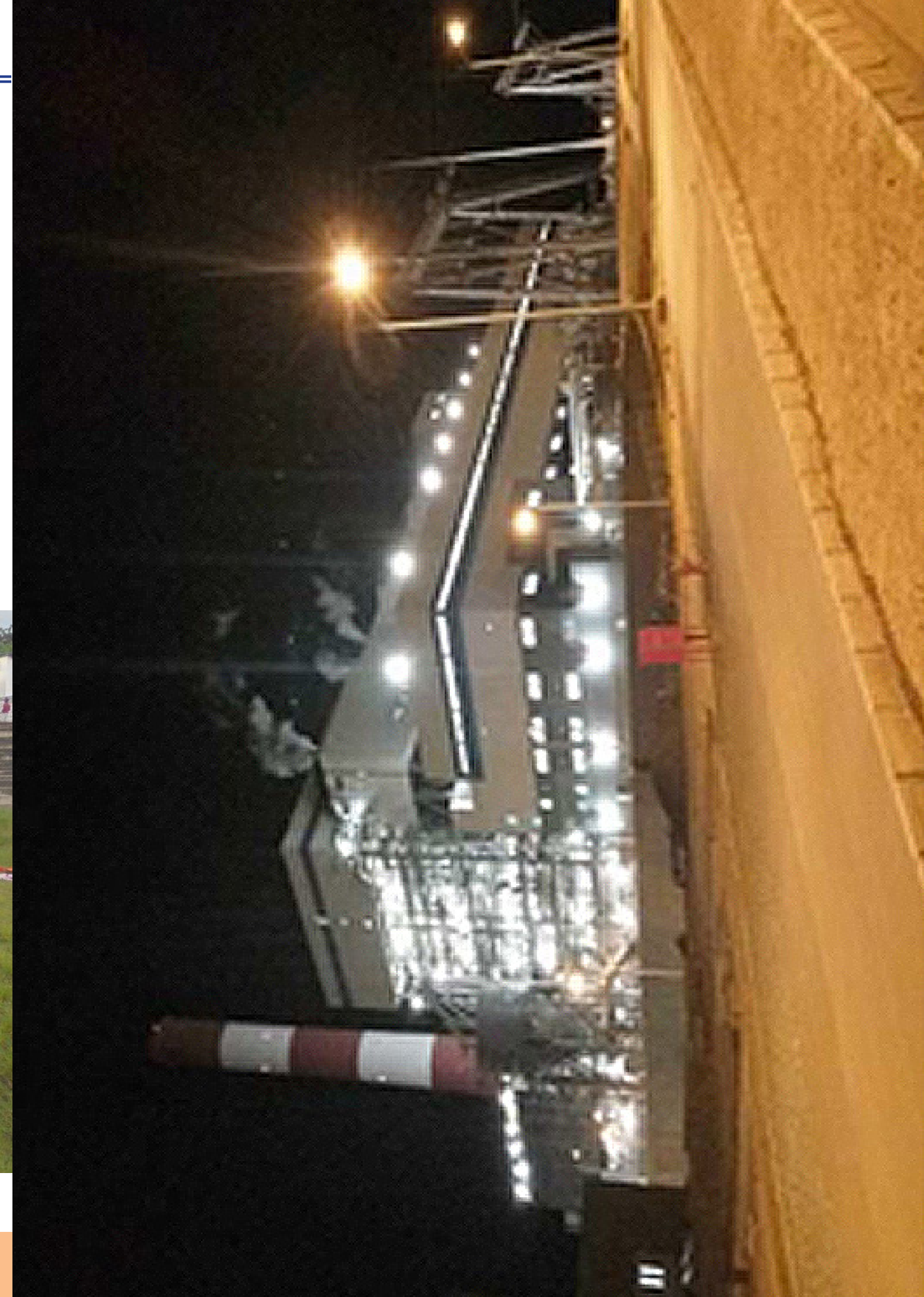
Mukabanga Siambombe, the Captain of the side, feels excited and says, "I feel extremely happy about this promotion. We have done it when everyone seemed to have lost hope in the Management team. God's time is always the best. I thank the Management of Maamba Collieries Limited, the sponsor, the supporters and the whole team for this achievement".

The expectations, excitement, jubilations are over and the dust has settled down. What remains is work, work and more work to maintain a stable Division 1 outing and to pull a surprise and advance into the premier league. It is indeed ZAMCOAL Division One 2017, as we smile all the way into MTN Super Division, 'Super, Super, wnunkila'.

MCL will continue to support its own 'house team'!




■ Front row (squatting from left): Kalusa Mulanga (Goal Keeper), Sydney Kanjengo, Muma Mumba, Bwalya Bwalya, Kizito Simupopo
Standing (from Left): Mukabanga Siamboombe (Captain), Kelvin Chongo, Oscar Chishala, Kaputo Kalumba, Lucky Sibalwi, Simupopo Milton, Kabemba Davy – Coach (in blue).





Coal Product Specifications


MCL established a modern, Coal Handling and Processing Plant (CHPP) which has facilitated production of washed coal of different specifications with consistent quality and eliminated pollution of nearby streams.

Product Specifications

Washed Coal Nuts	Parameter	Min & max
	Size	+20 - 50 mm
	Inherent moisture %	1.5 - 1.9
	Total moisture %	3.0 - 9.0
	Ash %	18 - 20
	Volatile Matter %	18 - 21
	Fixed Carbon %	59.1 - 60.5
	Phosphorous % (Average)	0.0025
	Total Sulphur %	0.7 - 1.5
	Gross Calorific Value (kcal/kg)	6294 - 6482

Washed Coal Peas	Parameter	Min & max
	Size	+10 - 20 mm
	Inherent moisture %	1.5 - 1.9
	Total moisture %	3.0 - 9.0
	Ash %	18 - 20
	Volatile Matter %	18 - 20
	Fixed Carbon %	60.1 - 60.5
	Phosphorous % (Average)	0.0025
	Total Sulphur %	0.7 - 1.5
	Gross Calorific Value (kcal/kg)	6294 - 6482

Washed Coal Fines	Parameter	Min & max
	Size	+0.5 - 10 mm
	Inherent moisture %	1.5 - 1.9
	Total moisture %	5.0 - 12
	Ash %	18 - 20
	Volatile Matter %	18 - 20
	Fixed Carbon %	60.1 - 60.5
	Phosphorous % (Average)	0.0025
	Total Sulphur %	0.7 - 1.5
	Gross Calorific Value (kcal/kg)	6294 - 6482

Unwashed Coal Fines	Parameter	Min & max
	Size	+0.5 - 10 mm
	Inherent moisture %	1.0 - 1.4
	Total moisture %	5.0 - 12
	Ash %	21 - 25
	Volatile Matter %	17 - 19
	Fixed Carbon %	55 - 59.6
	Phosphorous % (Average)	0.0025
	Total Sulphur %	1.6 - 2.5
	Gross Calorific Value (kcal/kg)	5824 - 6200

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