
BASELINE AUDITS OF MINING COMPANIES IN DEMOCRATIC REPUBLIC OF THE CONGO TO THE CTC-STANDARD SET

Mayi Baridi Mine, Tanganyika, Katanga by MMR Baseline Audit Report
- **Executive Summary** -

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Acronyms

AFP	Analytical fingerprint
AM	Artisanal Mining/Miners
ASM	Artisanal and small-scale mining
BGR	Federal Institute for Geosciences and Natural Resources
BIC	Impôt sur le bénéfice industriel et commercial (Corporate tax)
CAMI	Cadastre Minier
CDF	Congolese franc; at the time of auditing, the CDF:USD exchange was around 900:1
CDMC	Coopérative des artisanaux mineurs du Congo
CEEC	Centre d’Evaluation, d’Expertise et de Certification des Substances Minérales Précieuses et Semi-précieuses
COCERTI	Commission de Certification
CTC	Certified Trading Chains
DdM	Division des Mines
DGRAD	General Direction of administrative and housing revenues
DRC	Democratic Republic of the Congo
EIA	Environmental Impact Assessment
EITI	Extractive Industry Transparency Initiative
EMP	Environmental Management Plan
Fe	Iron
FPIC	free prior informed consent
ICGLR	International Conference on the Great Lakes Region
INPP	Institute Nationale pour la Préparation Professionnel
INSS	Institut Nationale de Sécurité Social
IPR	Impôt professionnel sur la rémunération (Income tax)
IRE	Impôt exceptionnel sur la rémunération des expatriées (additional tax for expatriate staff)
ITRI	International Tin Research Institute
iTSCi	ITRI Tin Supply Chain Initiative
MMR	Mining Mineral Resources s.p.r.l.
MoM	Ministry of Mines
MONUSCO	Mission des Nations Unies pour la Stabilisation du Congo
Nb	Niobium
OCC	Congo Control Office
OECD	Organization for Economic Cooperation and Development
OFIDA	Office of Customs and Duties
SAESSCAM	Service d'Assistance et d'Encadrement du Small Scale Mining
SME	small, medium enterprises
Sn	Tin
Ta	Tantalum
Ti	Titanium
USD	United States dollar
W	Tungsten
ZEA	Exclusive ASM zone
Zr	Zirconium

Audited company (information as provided with the TOR)

Mayi Baridi Mine

Mine Name(s): Mayi Baridi, 100kg

Owner(s): Mining Mineral Ressources (MMR) to 100%

Address: Lubumbashi

Contact: Shaida Abdul Karim

Location: Longitude 28.1887 E, Latitude 6.0130 S, 20km North of Nyunzu, 100km west of Kalemie, Tanganyika District, Kalemie Territory, Groupment de Benze, Province of Katanga

Access: By Road from Kalemie – Nyunzu, by Air Nyunzu or Kalemie;

Minerals mined: Colombo-Tantalite (ColTan), primary in Pegmatite, secondary in weakly mineralized eluvial sands (laterite)

No of Workers: 134 according to IPIS (2009), 400 (MMR 2011) organized in the Cooperative CDMC

Introduction

The quality of mineral trade has recently changed: while in the past mining production was simply delivered against payment nowadays the clients require documented evidence of the compliance with ethical and legal standards of production and traceability along the supply chain. Existing problems in the supply chain (support of armed groups, corruption, low labour safety and work conditions, environmental impacts, conflicts and development imbalances in the surrounding communities) shall in this way be overcome by supporting responsible mining, accountable and transparent trade and increased confidence building on the consumer side. The CTC certification audit process shall support this change by the generation of practical experiences and tools in the new market environment.

The present document reports on a baseline audit carried out at the Mayi Baridi Mine, near Nyunzu, Kalemie, Tanganyika, Katanga Province of DRC by the company MMR. The audit was carried out by the author of this report, who is an independent auditor with no institutional links to the mining company, authorities of DRC or the BGR. The audit procedure took place during 4 days between February 6th and 9th 2012. During this time, a two-day field mission to the mine site was carried out. The present audit is a base-line evaluating the current state of operations in front of the Congolese CTC certification scheme. The present report evaluates the current status of compliance with the 21 CTC standards and outlines recommendations which shall guide the implementation of corrective measures to upgrade operational performance and compliance with the CTC standard. It may be followed by a final compliance audit in about 6 to 10 months time.

The audit focuses on the mining operation of MMR in Mayi Baridi, for which MMR holds an exploration license (permis de recherché) PR 10196; issued to MMR on December 2nd, 2008 and valid until December 1st, 2013. It has a size of 315 squares, is currently active and in the process of transformation in one full mining license on one part of the perimeter and a resting exploration license). See more details in the following chapter “Summary of company information”.

The research license authorizes the exploration of Cobalt, Copper, Tin, Iron, Nickel and Zinc.

The auditor was accompanied, during the audit, by several observers and representatives of the following key stakeholders in the mining sector in DRC:

- The Mining Ministry/Kinshasa, which is the ultimate authority with respect to mining policy and the management of the sector along the lines of the national Mining Law. The Mining Ministry as well hosts and leads the working group on mineral certification (COCERTI) which has developed the national certification scheme.
- The Division of Mines, a subordinate body of the Direction des Mines under the Mining Ministry; the Direction de Mines is highly decentralized, having Division provinciale offices (as well in North

Kivu) and is present with permanent staff in the mining regions. Besides other mandates, it is responsible to register the artisanal miners with the “Carte de creuseur”.

- The technical support organization for the artisanal mining subsector, SAESSCAM (Service d’Assistance et d’Encadrement du Small Scale Mining) which is mandated with the support and training of artisanal miners and their organization in cooperatives.
- The BGR support project, which advises the private and public stakeholders of the Congolese mining sector in the implementation of a certification scheme.
- MONUSCO, the UN peace-keeping mission to the Congo, which has developed a program to establish government supervised artisanal mining trading centres (Centre de Négoce) which shall buy and legally export traceable production from identified non-conflict mine sites.
- ITSCI, the tin supply chain initiative of the international tin research institute, which has developed a tagging system for the traceability of three-T minerals (tin, tungsten, tantalite)

Methodology

The audit is guided by the manual of mineral certification for the three T in the Democratic Republic of the Congo, principles, guidelines and standards, version 0, dated 22 of February 2011 and the “Assistance for conducting baseline audits of mining sites in the DRC”, based on the certification procedures developed in Rwanda and enhanced by questions and indicators related to the standards by Mrs. Dr. Nellie Mutemerie.

The process is further guided by the national Mining Law, the *Code minier*, issued as Loi 007/2002 on 11 July 2002 and the related regulations, *Règlement Minier*, issued as Decret 038/2003 the 26 March 2003.

During the audit the following methodology has been applied:

- Interviews with key stakeholders of the mining operation:
 - Management of the mining company in Lubumbashi, administrative staff of the company in Lubumbashi,
 - managing responsables of operations, mine site staff (site managers, security staff) diggers and processors at the mine site in Mayi Baridi, their supervisors,
 - representatives of their cooperative (CDMC) in Mayi Baridi and Lubumbashi,
 - local representatives of SAESSCAM and Division de Mines,
 - technical and administrative staff at the retreatment centre and depot in Kalemie and
 - the head of the CEEC office in Kalemie.
- Inspection of all important operational sites (mining operation, processing, weighing and storage facilities in Mayi Baridi, the transport way between Mayi Baridi and the reprocessing centre in Kalemie, the reprocessing and analytical facilities in Kalemie, the transport way from the centre to the port in Kalemie as well as the port facilities for the export to Tanzania.
- Inspection of documents supplied by the relevant stakeholders above cited, as evidence for the compliance with the different standards.

Due to limited availability of commercial flights to and from Kalemie the company chartered a small aircraft to displace the team from Lubumbashi to Nyunzu, the part of the team from Nyunzu to Kalemie and finally the entire team from Kalemie back to Lubumbashi. As a matter of long travelling time there was only restricted at the mine site, 2,5 h and in the regional depot and retreatment centre in Kalemie, 3 h. Therefore only a limited number of interviews could be realized, hence some of the statements of the company could not be cross-verified by other stakeholder. There was no opportunity to talk to the community representatives and the civil society.

Summary of Company Information

Mayi Baridi Mine is owned and operated by the company MMR. MMR is one company within the conglomerate of Vinmart in the Congo. The entire group, which is predominantly funded by Indian capital, operates the following companies:

- MMR s.p.r.l. – Mining & Trading in Cassiterite and Coltan
- MCS - Mining Chemical Suppliers
- SOMIKA s.p.r.l. – Manufacturer of Copper & Cobalt Hydroxide
- SOTRAFER s.p.r.l. – Manufacturer of Rebars.
- TERRA s.p.r.l. – Commercial Agriculture
- SOLUTIONS FOR AFRICA s.p.r.l. – Borewell & Geological Drilling

MMR is focussing on the mineral exploitation, buying, reprocessing and exporting of Coltan, Cassiterite and Wolframite from the Katanga Province. MMR has actually a total staff of 337 Congolese and 54 expatriate members. They are based in Lubumbashi, Kalemie, at the mine site in Mayi Baridi and different trading posts throughout the province. Other mines operated are Luba and Gisengo, both as well for Tantalum, and Luena, Busanga, Manono, Mitwaba, Mane and others for Tin. MMR started the business on the 3T in Katanga in the year 2009. At this time, the ex-Mining Minister of Katanga, Mr. Juvenal, was the main driver to promote 3T mine operations and their development towards informal companies. Since April 2011, the ITSCI scheme is operating in the region. Prior to the present base-line audit under the national CTC scheme, MMR was undergoing a couple of other audits:

- ITRI in 11/2011
- IPIS/OECD Due Diligence Pilot Implementation, 11/2011 and 2/2012
- Channel research on behalf of ITRI
- Gregory Salter, on behalf of AVX
- RCS on behalf of Kemet

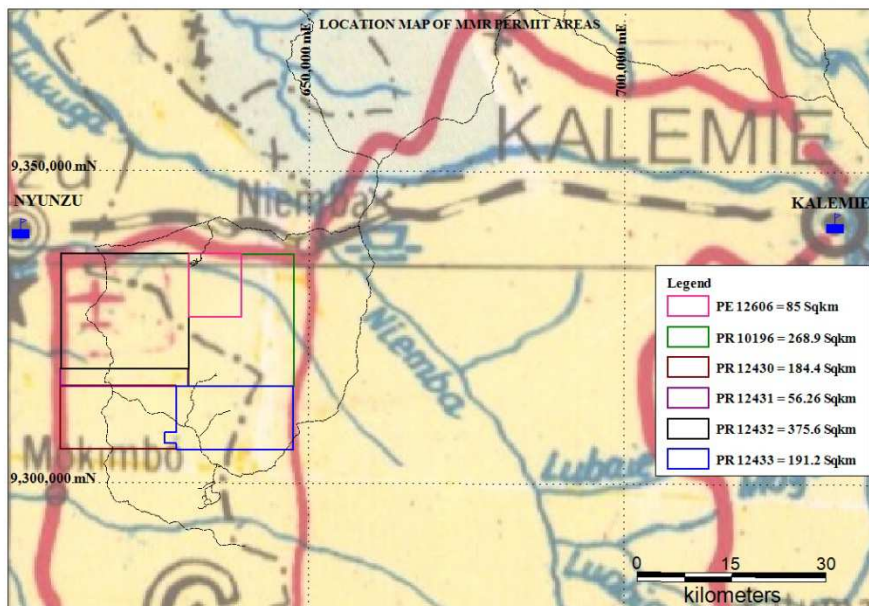
All these audits have mainly focused on traceability and legal compliance, some with a secondary focus on human rights and environment. The motivation of MMR to take part in the audit procedure has its reason in the long period of war and the suspension of mining operations in the Congo. MMR wants to prove that there is no involvement of their mining operation with conflict or armed groups. While the previous audits were initiated by clients or focusing on specific elements of the CTC standard, MMR expects from the CTC certification, besides being compliant with its legal obligation, to focus on all important elements of the production and trade chain, with respect to responsible mining and trading practice. MMR expects to create higher confidence of the international clients in its compliance with the standards. MMR expects that the CTC audit makes redundant further client-specific audits. Finally, it has experienced that each audit is a learning process, upgrades internal processes and provides new knowledge for the company. An additional surplus on the buying price on the market for the minerals is not the motivation of the company, as they already realize prices comparable to the formal world market and based on the LME quotations.

The Maibaridi Tantalum project covers six contiguous PR's (see Table and Figure) located 160 km NW from Kalemie town in the Nyunzu territory.

Table: Details of the Maibaridi Project PR's

PR No	Area km ²	Date of Execution	Date of Validity
PE-12606	85	19.01.2011	18.01.2016
PR 10196	353.5	2.12.2008	1.12.2013

PR 12430	184.4	19.01.2011	18.01.2016
PR 12431	56.26	19.01.2011	18.01.2016
PR 12432	375.7	19.01.2011	18.01.2016
PR 12433	191.2	19.01.2011	18.01.2016

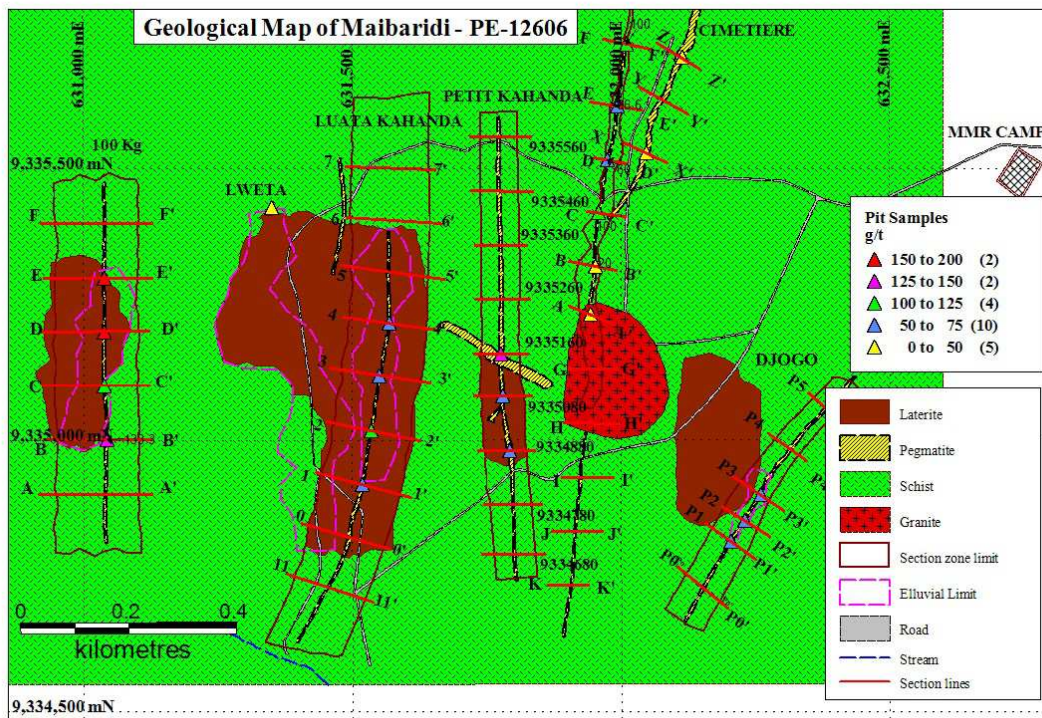


Location Map of Maibaridi Tantalum Project Permits

In Mayi Baridi, MMR is operating since 2009. Here the company is providing the legal umbrella, advice and technical equipment and a secured market for a group of artisanal miners. These have been organized in a cooperative which is working in a symbiotic cooperation with the company.

Geologically the metasediments belong to the Kibarian Formation (schists) intruded by 3 to 4 phases of acidic granite and cut by multiple N10E trending mineralized shear zones. The kibaran belt contains numerous quartz and pegmatite veins hosting Tin and Tantalum mineralization associated with granites. Approximately 55% of the PE-12606 area is covered by soil/schist (see Figure below). The bedrock exposures occur in two E-W trending belts located in the north and the centre of the concession and in four small areas in between the two belts. The exposed bedrock consists mainly of schist. The schist in the southern belt contains small pods of amphibolites. The NE-SW trending pegmatite bodies generally dip at 40° to 45° to the west.

The pegmatite bodies form narrow linear features with strike lengths typically extending falling in the range of 1 to 1.5 km and 1 to 5 m wide.



Regional Geological Map of PE 12606

The series of parallel pegmatite dykes are weathered close to the surface and have formed, to a limited extent, alluvial placers. Artisanal miners are active at five sites within the area, where they are digging down through weathered medium-grained pegmatite, greisen and quartz vein to recover tantalum. The contact between the greisen and the unaltered pegmatite is gradational. Up to now the production is limited to the weathered hard rock, excavation done in small open casts with no workings in hard rock or underground.



Photo 1: geological sketch map with the parallel pegmatitic structures of Mayi Baridi

The mine, which is situated about 650km north-north-east of Lubumbashi, is situated in a flat terrain, covered with dense savannah vegetation and with scarce native population. The mine is accessed by secondary road (about 10 km) from the main road Kalemie-Nyunzu, 150 km east of Kalemie. There are airports in Nyunzu (unpaved strip, 45 min by car from the mine site) and Kalemie (about 5 h drive from the mine site). The mine is connected with VSAT communication infrastructure.

The mine production during 2011 was supposed to be low due to the mining ban and suspension of operations:

2011 month wise production of Tantalum concentrate

MONTH	PURCHASED TA KG
Jan 11	1.451,550
Feb 11	1.413,700
Mrz 11	1.596,850
Apr 11	801,200
Mai 11	683,300
Jun 11	1.451,600
Jul 11	1.540,650
Aug 11	3.165,050
Sep 11	1.063,200
Okt 11	786,800
Nov 11	669,500
Dez 11	1.198,150
Total	15.821,550

At the time of the audit there was a workforce of 280 diggers working at Mayi Baridi. This is a very low number compared to the 2800 diggers, currently working in the Luba mine, another new mining site as well in Northern Katanga.

Executive Summary

MMR's operation at Mayi Baridi has been a good selection as pilot operation for undergoing the DRC CTC certification scheme with assistance by the BGR project. The company has shown great commitment and dedication as well as responsibility and creativity to meet the standards set by the DRC national CTC certification scheme. Helpful was the fact that MMR was undergoing already a series of audits focusing on traceability and accountability. This led to a situation encountered during the present base-line audit where a number of solutions have been found which can serve as a positive example for other mines in DRC and in the entire region. These include the broad coverage with standard-specific policies, a contractual framework between the most important stakeholders, multi-stakeholder coordination structures, as well as a symbiotic relation to the miners' cooperative CDMC.

With respect to accountability and freedom of conflicts (standards 1.1 to 1.3), there is a high level of policy coverage stated. Staff at all levels show a high sensibility for the related issues and systems to monitor accountability are established. At the time of the audit, with the evidence presented there was no indication that there are armed groups involved in mining at MMR.

With respect to the legal status (standard 1.5), all national legal provisions are duly fulfilled, such as the mining title, business registration, tax payment, as well as registering the staff with the national social security system.

The traceability has been developed to the highest possible standard in DRC with full affiliation to the iTSCi tagging scheme.

In the principle 2, work conditions, besides having a comprehensive policy framework, there are sign posts and boards in the mine, checklists to regularly monitor the compliance with social, environmental and OSH standards, the PSE is not only available but as well used by the miners and workers in the retreatment of the concentrate, the cooperative acts as negotiator in collective bargaining with the company, and the high payment (based on the weekly CEEC reference price list) together with a number of additional benefits (PSE, working tools and food as well as health services), lead to good labour standards in non mechanized mine sites.

Similar the safety conditions, principle 3, are fulfilled to a high standard. Again, regular training, coordination of safety issues in the local production committee, the sign posts and regular monitoring of the safety situation contribute to this.

Deficiencies are seen with respect to the principle 4, community development. Even though there is a long list of investments of MMR into the communities (health, roads, lightning of public spaces, free transport of consumer goods, water wells and purification), there is no systematic approach to the sustainable development of the communities. Mobilization of disadvantaged community members, coordination between the key stakeholders from the public, private and civil society sub-sectors as well as the common outline of development plan would greatly enhance effectiveness and efficiency of MMR investment and create additional binding forces between the community members and the company. Finally, there is an approach missing, to transform the migratory digger's workforce into stable economically diversified societies.

In the environmental context, principle 5, both the policy coverage and the application of environmental management during the mining activities, as well as the monitoring of impacts, has reached a relatively high standard. Nevertheless, the lacking presence of the EIA as a guiding working tool, and lacking documentation on community arrangements for FPIC of land use had to be stated.

The report provides recommendations to the company for upgrading compliance with the CTC standards to achieve certification at a later stage. These recommendations primarily refer to the communication of policies, the integration of these into the business relations, and the strengthening of a participatory community relation and development planning.

Finally the report provides lessons learned from the baseline audit for the National DRC Certification scheme, for the company, for the Government and its subordinate service providing organisations as well as for the BGR project. These lessons learned shall encourage all stakeholders to combine efforts and sustain support for the successful establishment of an operational CTC certification scheme in DRC as well as of pilot projects with a model function.

Mayi Baridi, Kalemie, Lubumbashi and Bad Vilbel
April 2012

Dr. Michael Priester
independent auditor



List of Standards

Principle 1: Transparency
Standard 1.1: Prohibition of support for criminal organisations
Standard 1.2: Fight against corruption and fraud
Standard 1.3: Refusal to illegal funding of political organisations
Standard 1.4: Annual declaration of payments to the state according to the EITI process
Standard 1.5: Compliance with the law
Standard 1.6: Traceability
Principle 2: Decent work conditions
Standard 2.1: Abolition of child labour
Standard 2.2: Freedom of association and collective bargaining
Standard 2.3: Payment of fair wages
Principle 3: Development of communities
Standard 3.1: Directive on Hygiene, health and safety at work
Standard 3.2: Access to information and education on safety in the mine
Standard 3.3 Safety training for a sufficient number of employees
Standard 3.4: Respect for human rights
Standard 3.5: Safety audit and mine rescue plan
Principle 4: Safety
Standard 4.1: Regular consultations with the interested parties
Standard 4.2: Support of local enterprises ¹
Standard 4.3: Integral development plan requirement
Standard 4.4: Social consultations with the interested parties before using the ground
Principle 5: Environment
Standard 5.1: Study about the impact on the environment
Standard 5.2: Management and treatment plan for mining waste
Standard 5.3. Ecological rehabilitation: Plan for closure and rehabilitation

¹ Not audited