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Artisanal Mines and World Gold Markets

Wayne Lau



(This article was first published in the January 2018 edition of the Alchemist, LBMA publications (www.lbma.org.uk))

Though artisanal and small-scale mining (AM) employs 90% of the workforce behind gold extraction, an AM typically produces a fraction of an industrial mine. Thus AMs receive much lower gold prices, and often must sell to intermediaries with uncertain reputations.

How can AMs do better? A key gateway is provided by gold refineries who buy or receive doré gold and, ideally, process it into pure

In practice, it is difficult to justify transporting doré internationally for shipments much under 10kg. This provides the opening for traders who buy doré from AMs at big discounts to world gold prices on then aggregate shipments for sale to large refineries.

gold for sale on world markets. There are two types of refineries: those accredited by the London Bullion Market Association (LBMA), and those that are not.

Non-LBMA refineries range from serious companies to small local operations that produce gold below the purity demanded for top gold prices. Many are willing to accept artisanal mined gold from legitimate sources. Challenges are inefficiencies in transporting doré to the refinery, and a refiner's capacity. Both ultimately result in discounts to world market selling prices. A local refinery may not be large enough to process nor to finance the purchase of doré from an AM.

This often forces the AM to transport production to a larger refinery in another country. The secure transport of gold involves cost and risks which, on a per gram basis, escalate dramatically with small shipments even when hand carrying doré on a commercial flight.

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LBMA refineries essentially are the world's legitimate gold market, processing about 85-90% of world production. In 2014 they refined 4,921 tonnes of gold which exceeded world industrial mine production of 3,131 tonnes, the difference mainly being recycled gold. They produce gold bars on the LBMA Good Delivery List which is the de facto standard for sale on major gold exchanges at world market prices.

LBMA refineries also offer virtually limitless capacity to accept doré with transparent purchasing. The refinery can either sell refined gold on world markets for the AM or deliver the gold to whomever the AM may wish. They also offer superior cash flow

where the bulk of payment (typically over 90%) is made upon receipt of the doré with the rest a few days later after the exact quantity of pure gold as well as actual world price of sale is determined. The very best refineries will also pay the AM for the by-products of refining containing silver, platinum and other precious metals.

Their challenges are that a) refinery margins are very thin so large volumes are required and b) gold is nearly as fungible as currency, so LBMA refineries are examined with regulations close to banking industry standards. Small deliveries and the cost of monitoring AM clients are the main reasons why most LBMA refineries avoid dealing with AMs.

Among the 70 LBMA refineries, Swiss or Swiss owned LBMA gold refineries account for 65-70% of annual worldwide gold refinery output.

There are a few LBMA refineries, both Swiss and non-Swiss, which are willing to consider dealing with AMs.

However, all LBMA refineries are subject to LBMA Responsible Gold Guidance (www.lbma.org.uk/assets/downloads/responsible%20sourcing/Responsible_Gold_Guidance.pdf).

The Guidance has the following specific directive when dealing with the Artisanal Mining Sector

2.1.2 Mined Gold from Artisanal and Small-Scale Mining (ASM)

Refiners should gather evidence to determine, as applicable, the factual circumstances of gold extraction, trade, handing and export. Refiners should, with reference to Appendix 1 of the OECD Supplement on Gold, consider measures to create economic and development opportunities for artisanal and small-scale miners and assist legitimate ASM producers to build secure, transparent and verifiable gold supply chains from mine to market.

Measures should include:

Identification of the origin of the gold based on reasonable and good

faith efforts, such as:

- Identification of the suppliers of ASM gold sources to local gold exporter, including local artisanal mining team, association or cooperatives using reliable, independent source documents data or information. It is however not expected to identify the individual diggers;
- Assessment whether artisanal mining team or association can be considered to be involved in legitimate ASM;
- Collecting and assessing mining practice, including extraction, processing and transportation method and assessing human right abuses risk.

In practice, this means that an LBMA refinery will usually require the following policies from an AM. Examples of some specific policies and practices adopted by Cameroon Inc. (CMINC) can be found at www.camerooninc.com/policies.

- 1) Anti-Money Laundering - this is to prevent the sale of gold to finance terrorism and other illegal activities. It requires serious assurances that an AM can identify the source of its gold and has robust Know Your Customer (KYC) practices for purchased doré.
- 2) Child Labor – an AM should not employ any child labor nor purchase gold obtained with child labor under its KYC practices.
- 3) Mercury Use (Environmental)

Fairmined (www.fairmined.org) is an assurance initiative which specializes in ethically produced gold from AMs. In recompense for the effort and resources needed for ethical certification of an AM's mine, Fairmined will assure that gold is sold at a fair price (equal or higher to 95% LBMA gold price) and a premium of 4000 USD/kg of gold to world market prices for further sale to ethical jewelry makers and other downstream consumers.

Alliance for Responsible Mining (ARM),

– an AM should not use mercury nor purchase gold obtained using mercury under its KYC practices.

4) Anti-Bribery – depending on country jurisdiction, some LBMA refineries may require assurances against bribery. A challenge is that it may be unclear exactly what constitutes “bribery” for an AM operating in a jurisdiction which may not have adequate legal definitions of bribery. The responsible Jewellery Council (RJC), an ethical standards body described below, reasons that an AM which discourages “facilitation payments” by employees is in compliance with its guidelines.

These policies are much easier to fulfill if an AM only produces doré from its own mines. It is more difficult if doré is collected or purchased from traders or individual miners.

How does a LBMA refinery ensure that a client AM is following its stated policies and practices? In an ideal world, the LBMA refinery itself would visit an AM regularly to ensure compliance. In practice, refinery margins are not robust enough to justify the expense of regular inspections for small volume producers. In practice there are several ways an AM can try to build credibility with an LBMA refinery:

Ownership and Management – credibility can be more easily established if an AM is owned and/or managed by individuals or groups

with established reputations in the world gold industry.

Transporters - the refining industry depends heavily upon a small group of international transporters such as Brink’s (www.brinks.com), G4S (www.g4s.com), and Loomis (www.loomis.com) who carry doré from an AM mine directly to a refinery’s door. By having regular contact with an AM, these trusted carriers provide a form of inspection service for a refinery. The challenges are that a) the trusted transporters typically start with a minimum of 100 kg making small shipments very expensive per kg, b) the transporters may not have a presence in the region where the AM is located, and c) if an AM does not have single source mines from which a transporter can pick up gold, the transporter cannot offer assurances to a refiner on the sources of the AM’s gold.

Certification by Ethical Bodies – certification, or even a sincere

application for certification, by one of the three major ethical industry bodies below would be a significant step in establishing credibility with an LBMA refinery. The challenges are that standards for AMs are still evolving, and that all three bodies follow a conventional “standards followed by regular third party audits” procedure. The auditing process can be expensive and time consuming. The wide variety of AMs can often make existing standards inappropriate or inapplicable.

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for Responsible Mining (ARM), the creator of the Fairmined Certification also has significant specialized ASM mining expertise which it is willing to share with candidate ASM organizations. Given their mining knowledge, Fairmined’s Standards are demanding but also realistic for most AMs who have their own source of production.

Responsible Jewellery Council (www.responsiblejewellery.com) sets standards and certifies a wide range of jewelry products in addition to gold across the entire supply chain from mine to consumer. The RJC does have certification status for traders who do not own actual mines. The RJC recognizes the Fairmined Standard for gold from artisanal mining as a responsible mining Standard under RJC Chain of Custody (CoC) Standard.

- Fairtrade International (www.fairtrade.net) is a global association of producers, labellers, and marketing organizations descended from the pioneering 1988 introduction of Max Havelaar (a fictional Dutch character) ethically sourced coffee in Holland. Fairtrade International has a consumer brand for Fairtrade gold.

FUTURE TRENDS

While it is difficult for AMs to penetrate world gold markets, trends are improving for several reasons. Firstly LBMA refineries are

increasingly recognizing that AMs may be willing to pay higher refinery margins to compensate for low volumes and high compliance costs. AM compliance costs are also gradually falling as AMs better understand compliance goals, ethical standards + audit certification becomes more efficient, and transport firms spread their networks to more areas.

Secondly, industrial gold mine production is forecasted to fall leaving unsatisfied demand to be filled by recycling as well as AM production. Financial services firm Bloomberg estimates that gold production from mines could fall by a third by 2025.

Lastly there is an evolving demand for ethical gold for which AMs may be well positioned to satisfy. Currently gold demand is supported by developing markets where per capita wealth and population are growing. But in developed markets, consumer gold demand has stagnated along with declining birth rates. Perhaps more importantly young consumers are increasingly aware of the environmental and social damage which industrial gold mining sometimes causes, making gold less fashionable for succeeding generations.

This trend creates a growing demand for gold “which does no harm” in the form of recycled gold and ethical gold as supported by the

three non-profit standards groups described above. The market premiums which Fairmined and Fairtrade can command, though small at the moment, show that such ethical demand exists even without significant market promotion.

A possible new product may be “development gold” that helps communities where gold is located by providing income and social services. This intriguing possibility might be best realized by AMs operating as community cooperatives or social enterprises focusing on small scale, shallow mining rather than large scale industrial mines focusing on deep deposits.

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Notes: This article will be presented at the 2nd Annual Global Gold Doré Forum in Dubai, 14-15 January 2018 (www.golddoreforum.com). The author Wayne Lau is a Visiting Researcher at the Centre for Sustainable Development, Department of Engineering, Cambridge University. Mr. Lau is also the Chairman of Cameroon Inc. (www.camerooninc.com) a social enterprise that seeks innovative ways to support rural village gold miners.

Disclaimer: Views are personal and not the views of the publisher.