

# CHAIN OF GOLD

**G4S is involved in all aspects of gold, from mining to processing and on through vaulting to transportation, reports GAVIN GREENWOOD**

**THE SKILLS AND** arts involved in extracting, moving, working and selling gold are as old as civilisation. They transcend time, geography and cultures and point to gold's elemental hold over human desires to possess the metal – originally as a

store of wealth but more recently also to utilise its unique chemical and physical properties.

And with gold prices at an all-time high, security throughout the entire process becomes even more important. →



Gold's intrinsic value lies in its scarcity and the complex and costly methods required to exploit and refine the rare metal. Refined gold in late January 2011 was selling at around US \$42 per gram, or US \$42 million per tonne. According to the authoritative World Gold Council, the five-year average supply of gold between end-2005 to late-2010 totalled 3,766 tonnes. Of this 2,209 tonnes were obtained through mining, 1,323 tonnes from recycling and 234 tonnes as a result of sales of bullion by state agencies.

G4S is involved at all stages of this complex, and at times hazardous, process that can begin with a geologist's hunch and end with an exquisite item of jewellery, a dental crown or a minute speck buried inside a mobile phone.

### **EXPLORATION AND EXTRACTION**

The exploration phase, often involving crews working for years in harsh and sometimes hostile

environments, can require extensive security in the face of both legitimate and more extreme opposition. G4S personnel or manpower provided by local affiliates play key roles in protecting exploration sites, workers and equipment.

This is not without risk. In December 2010 two security officers employed by a local G4S affiliate were shot and wounded while on duty at the Tampakan gold and copper mining concession on Mindanao Island in the southern Philippines. G4S was awarded the contract to protect the site following a series of raids by heavily armed communist guerrillas, though the latest incident appeared related to local opposition to the project. Similar events have also occurred at sites protected by G4S personnel or contractors in Africa in recent years.

The task of securing an operating mine site differs from the exploration phase primarily due to the need to ensure access controls are applied on both sides



of the fence. While pilfering of materials may be a problem at any industrial location, the illicit removal of even the smallest quantities of gold can become a major issue at a mine or processing sites.

Less obvious is the role of security companies in ensuring safety among the workforce. G4S Secure Solutions (Canada) has an explicit role in ensuring workers on remote mining – and indeed oil and gas – sites follow protocols intended to reduce the risk of injury and harm. In addition, G4S Canada has enhanced security at the numerous sites it helps protect by entering into agreements with local indigenous communities in order to reduce areas of friction that can have a major impact on any industrial activity. G4S offers work protecting mine sites to members of what the Canadian government refers to as “First Nations peoples” near to their communities.

### PROCESSING AND REFINING

Mined gold-bearing ores are subjected to various processes of crushing, leaching, refining and smelting. Much of this work is done at or near the mine site, although the smelting process may be carried out by specialist companies some distance from the mine. This is also the penultimate stage before the smelted metal is sent for final refining into a minimum of 99.9 per cent pure gold. Tight security is required as it is at this stage that the gold becomes identifiable and is a potential target for theft.

### TRANSPORTATION AND VAULTING

Moving gold, in its pre- or post-refined forms, is a specialised task that G4S International Logistics →

## ENFORCING SECURE CUSTODY FOR GOLD

**RAND REFINERY HAS** special reason to place special emphasis on quality in all aspects of its operations. Established over 90 years ago by the Chamber of Mines of South Africa to refine all the gold mined by that country, it has since processed over 40,000 tonnes of gold, representing almost 30 per cent of all gold mined in the world since antiquity.

“Rand Refinery is strongly supportive of the need to accept only gold for refining which originates from a source of known provenance, is conflict free and has been mined with due concern for the environment and has not contributed to severe abuses of human rights,” explains Chris Horley, the company’s head of resourcing.

“It has a stringent ‘know your customer’ and due diligence process in place in order to satisfy itself to all reasonable lengths that gold deposited for refining conforms to these principles. Rand Refinery also supports the Organisation for Economic Co-operation and Development’s due diligence guidance for responsible supply chains from conflict-affected and high risk areas.

“To this end, it is vital that the gold supply chain from mine to refinery remains intact and that this chain of custody can be independently audited and verified. The service providers for secure logistics from mine site to refinery are an integral part of this process. Accordingly, Rand Refinery encourages and is fully supportive of all efforts made by the logistics service providers, like G4S International Logistics, to enforce secure custody for the gold supply chain.”



performs. The transportation of gold in various forms is obviously a highly sensitive operational task, given the potential threats to such high value cargo carried over often considerable distances.

"G4S International Logistics provides services in many countries, including remote parts of Latin America, Africa and Asia," says its managing director, Chris Fergus. "The logistical requirements are unique to each mine and can include a combination of all or some of the following components: armoured vehicle, helicopter, charter and passenger aircraft, customs brokerage and vaulting. Our services are sold and coordinated from key financial centres in ten countries."

The movement of gold by G4S in Malaysia offers an example of how the metal is transported in an environment that combines modernity and traditional security threats. G4S both protects – through electronic surveillance and manned security – and transports gold from Malaysia's three main gold smelting companies to its own main vaults near Kuala Lumpur.

The company uses specially designed armoured vehicles capable of carrying the weight of the gold consignment while also being able to withstand a criminal assault or an accident. The crew are armed, as are those in the support vehicle that escorts the consignment. The convoy maintains radio and mobile telephone contact with the G4S command centre, which in turn plots its location in real time using GPS.

Any suspicious activity during the journey is immediately relayed to the command centre, with backup escorts ready to be deployed if required, and the police are kept informed of any threats that materialise. The consignment is delivered to a vault manned by armed guards and dog handlers.

"Once the gold is refined, G4S International Logistics transports the metal to major financial centres and jewellery manufacturing markets. We also provide services to central banks and offer long-term storage capability, which is becoming increasingly more important as investment demand outstrips consumption."

For many, the most important link in the gold chain is the one that brings this remarkable metal to consumers in the form of exquisite jewellery, either on its own or combined with other precious metals and jewels. Again, G4S plays an important role, not only in transporting these valuable finished products to retail outlets but also to suppliers whose customers shop online.

## WHO OWNS THE WORLD'S GOLD?

**DEMAND FOR GOLD** between 2005 and 2010 was dominated by the jewellery sector, which absorbed 2,151 tonnes, followed by investment at 1,182 tonnes, with industrial use at 433 tonnes. The total amount of processed gold known to be in existence at end-2009 was 168,600 tonnes. Around 51 per cent, or 83,700 tonnes, is held in the form of jewellery and is mainly in the possession of individuals. Investors account for 18 per cent or 29,600 tonnes, state agencies hold 17 per cent (28,900 tonnes), 12 per cent (19,800 tonnes) is used in industrial processes – ranging from electronics to dentistry – while there is no trace on the remaining two per cent (3,600 tonnes).



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Jewelry TV is a 24-hour television channel and online store which ships nearly six million valuable packages a year from its Tennessee base in the United States. G4S International Logistics was asked to review its processes in order to find ways of reducing risk and increasing efficiency and customer focus.

G4S proposed a vendor management system which now provides Jewelry TV with a secure solution that offers flexible shipping options. At the top end of the market, high value goods from their 300 vendors are now carried by G4S's armoured transport system, not just in the US but in almost every country worldwide in which G4S has a presence. ■

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