Optimising mine productivity responsibly through planning excellence, a focused and performance-driven workforce and safety and environment best practices has long been part of our DNA as a leading mining service provider.

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Introduction

From planning and processing to mine closure and rehabilitation, our specialist expertise lies in providing flexible and innovative one-stop mining solutions that are aligned with growing worldwide demand for natural resources. As a subsidiary of the world’s largest contract miner, with significant mining experience in remote and often harsh environments, Leighton Asia focuses on the safe and efficient extraction and processing of resources and the development of integral mine-related infrastructure, from mine camp facilities and haul roads to ports, jetties and material handling facilities. We also benefit from employing our own trained local workforce wherever we operate. Together with our Leighton Group companies, we own, operate and maintain large fleets of modern plant and machinery, making us the world’s biggest buyer of Caterpillar mining and earth-moving equipment and Liebherr excavators.

Our mining services include:
- Contract mining of commodities, including coal, gold, copper, nickel and iron ore
- Feasibility studies, concept planning and cost studies
- Mine planning and production engineering
- Equipment selection and fleet management
- Beneficiation and processing of ore
- Coal washeries and material handling
- Infrastructure development and operation
- Site rehabilitation and environmental management

Our material processing and handling services include:
- Washing
- Screening
- Crushing
- Blending
- Concentrating
- Loading
- Transportation

As part of our modern mining practice, we can backfill the pit and cover backfill areas with topsoil and vegetation once mineral extraction is complete.

Our mine infrastructure services include:
- Access and haul roads
- Earthworks for tailings dams and water control structures
- Reinforced concrete foundations
- All structural, electrical and mechanical aspects of the mineral extraction process
- Loading facilities
- Waste management and treatment facilities
- Accommodation and associated services for mine site personnel

Our mine rehabilitation services include:
- Mine closure
- Plant and equipment decommissioning and removal
- Site remediation
- Site rehabilitation and revegetation
Wahana Coal Mine
Indonesia

Indonesia is the world’s biggest exporter of thermal coal with reserves in Sumatra, Kalimantan, Java, Sulawesi and Papua. The largest coal deposits are found in East and South Kalimantan and in South Sumatra.

The Wahana Coal Mine is located near Satui in South Kalimantan and has a 78-square kilometre area containing coal deposits suitable for mining. Currently our biggest award in Indonesia, the mining operation involves the extraction of 69 million tonnes of coal and 897 million bank cubic metres of waste material over 10 years.

We provide project management, mine planning, surveying, supervision, site security, materials, equipment, equipment maintenance, labour, transportation, medical services, consumables and site infrastructure. Our work involves drilling and blasting, loading and hauling overburden, the provision of coal mining equipment and hauling coal to the client’s port facility 22 kilometres away from the mine. Kalimantan has good access to coastal areas, where port facilities can be built to load coal onto ocean-going vessels, and is relatively close to major Asian export markets, including Japan, South Korea, China and Taiwan.

Mahakam Sumber Jaya Coal Mine
Indonesia

Our open-cut mining services contract at the MSJ Coal Mine was twice extended and expanded. The current six-year contract provides for approximately 43 million tonnes of coal and 444.5 million bank cubic metres of waste material from three separate mining areas. We are responsible for land clearing, and drilling and blasting. Our work involves removing overburden, the provision of coal mining equipment as well as providing project management, mine planning, surveying, supervision, site security, equipment maintenance, labour, transportation, medical services, consumables and site infrastructure. We also partially constructed and maintain a 48-kilometre long haul road for transporting coal to the port, located north of Samarinda in East Kalimantan.
Martabe Gold and Silver Mine
Indonesia

The project site is in steeply sloping jungle terrain that is seismically active and subject to significant rainfall. Despite the gold and silver mine’s relative isolation, the project is supported by key transportation infrastructure, including the Trans-Sumatra highway and port facilities in the town of Sibolga 40 kilometres away.

Martabe currently has a total of 7.5 million ounces of gold and 72.6 million ounces of silver. We are responsible for significant elements of the project, from establishing a camp and other mine infrastructure to contract mining.

We are providing excavators and articulated dump trucks to mine and haul approximately 20 million bank cubic metres of ore and waste material, rehandling ore to the crusher, building environmental protection and sediment control structures, constructing many kilometres of haul and access roads and establishing office, workshop and other site facilities.

Martabe Gold and Silver Mine – Civil Works
Indonesia

In addition to our contract mining work at the gold and silver mine on the western side of Sumatra Island, we are involved in related civil works projects, including warehouse construction, concrete works and field piping. We are supplying and erecting structural steel warehouses and workshop facilities and providing various concrete works for a power station, pipe racks, crushing plants, conveyor and tank foundations, a gold room and other permanent structures associated with the gold processing plant.

We are also installing approximately 28 kilometres of piping above and below ground and testing and pre-commissioning all high-density polyethylene, carbon steel and stainless steel piping, spools, fittings, valves, inline instruments, pipe supports and associated works.
PT Freeport Mine Accommodation Works

Located in the remote highlands of Papua, some 2.6 kilometres above sea level, the camp facilities provide accommodation for over 6,000 workers. The camps vary in size from 150 to 1,500 people and include barracks containing singles and bachelor quarters. Our work spans engineering design services, construction and refurbishment works, including site preparation and architectural, landscaping, concrete, mechanical, civil, steel, structural and electrical works, as well as construction and project supervision. We also provided site offices and other temporary support facilities along with fire protection, potable water and wastewater reticulation systems. As the site is very remote, the camps were constructed in Jakarta in modules with separate bathrooms and bedrooms before being delivered to the site for final assembly.

Toka Tindung Gold Mine

Situated about 35 kilometres northeast of Manado on the island of Sulawesi, the gold mine has one pit to the north of the site and four smaller pits to the south. Toka Tindung has a current total of 1.75 million ounces of gold, of which 1.1 million ounces will be mined.

We are providing the equipment to load and haul ore from the pits to the processing plant for treatment and stockpiling waste material in nearby individual dumps and disposal areas. We also cleared and prepared the ground for construction bases and mining locations and built workshop facilities.

To train and develop a workforce to maintain and repair heavy plant and equipment, we run apprentice training programmes that ensure the project benefits from a supply of highly trained mechanics recruited from the local community and across our projects in Indonesia.
Sebuku Wash Plant and Port Load Out Facilities

Indonesia

As part of a build, own, operate and transfer contract, we designed and constructed a coal processing plant at the Sebuku Coal Mine in South Kalimantan. The plant has an annual capacity of 2.5 million tonnes of coal. The contract required us to transfer the facility to the client after a 10-year period or after producing 12 million tonnes of coal.

Multi Harapan Utama Coal Mine

Indonesia

We were required to extract coal from two geographically spread out pits situated 23 kilometres and 40 kilometres from the port. Our open-cut mining services included land clearing, drilling and blasting, loading and hauling of overburden, coal mining and hauling to the port. The coal mine is near Tenggarong in East Kalimantan.
Producing one-sixth of the country’s gold, the gold mining project on Masbate Island is the largest of its kind in the Philippines. Annual gold output averages more than 200,000 ounces, up from over 150,000 ounces in the first year of operation in 2009. The first gold was poured on 12 May 2009 and, following a contract adjustment to ramp up production, we are required to remove some 42 million bank cubic metres (BCM) of waste material and mine about 41 million BCM of ore over eight years. Under a successful alliance agreement designed for performance excellence, cost transparency and mining efficiency, we are responsible for all mining operations, including drilling and blasting, and loading, hauling and feeding ore to the crusher. We also constructed haul roads and designed and built the process plant within two years after the acquisition of the project when a 30-megawatt heavy fuel oil power station for the project was constructed and installed without a single lost time injury. The site is situated about 350 kilometres south of Manila.
Mongolia
Ukhaa Khudag Coal Mine
Mongolia

At almost the size of western Europe but sparsely populated, Mongolia is a landlocked country that experiences some of the most severe and unpredictable weather conditions in the world.

Our first and currently largest mining project in Mongolia is the Ukhaa Khudag (UHG) Coal Mine, located in the South Gobi Desert. The remote site is subject to sandstorms in the summer and bitterly cold and harsh winters, when temperatures can plunge to about 50 degrees Celsius below freezing. The mine site contains thick coal seams at shallow depths and our scope of work included pit de-watering, drilling and blasting, removing overburden, loading and hauling of coal as well as mine planning and engineering.

To help safely and efficiently train the workforce, we brought in a state-of-the-art mining equipment training simulator, the first of its kind to be used in Mongolia. The simulator is specifically designed to benefit our local operator training with onscreen Mongolian and English messages and realistic graphics that mirror the mine’s pit layout, haul roads and workshop area. The sophisticated simulations allow training under different operating conditions, including rain, snow, dust, night shift work, emergencies, machine breakdowns and fires as well as shutdown, startup and general operating procedures.
Our work in developing and operating the Khushuut Coal Mine included mine planning and technical management, drilling and blasting, loading and hauling of overburden, loading and hauling of coal and constructing and maintaining a 30-kilometre long haul road and mine rock dump.

The Khushuut Coal Mine has high quality coking coal and is located 1,350 kilometres from Ulaanbaatar in a remote part of western Mongolia, where existing infrastructure is very limited and the terrain is seismically active.
Ulaan Ovoo Coal Mine

Mongolia

This thermal coal deposit has a river running through it and is situated in a remote area about 450 kilometres north of Ulaanbaatar and just 7 kilometres from the Russian border. We were required to mine an initial 250,000 tonnes of coal for the domestic market. We provided all the equipment and major plant, a temporary camp and related infrastructure as well as a temporary workshop and office.