Iron Ore

Iron (Fe) ore is found as concentrations of magnetite, haematite, goethite, limonite or siderite and can be associated with gold, copper, titanium, nickel and vanadium. Iron is used to make steel and accounts for 95% of worldwide metal production. Its abundance, low cost and high strength makes steel indispensable in ship building, vehicle production and engineering applications. Most iron is mined from banded iron formations (BIF), magnetite and haematite bearing Precambrian metamorphosed sedimentary rocks. Weathered BIF often forms a superficial haematite cap (>60% Fe), known as ‘direct shipping ore’ (DSO) which does not require beneficiation. Other iron ore deposits include those related to granitic rocks, layered intrusions and placers.

SRK ES offers:

**Experience** in exploration for all types of iron ore deposit, from grassroots through to pre–feasibility level in Greenland, Canada, South America, Africa, Scandinavia, Asia and the Middle East. SRK ES is currently managing the exploration and resource drilling for the Belinga iron ore project in north–eastern Gabon on behalf of the Government of Gabon. This involves completion of geological mapping, sampling, geophysics and coordination of all contractors, budgets and schedules.

**Knowledge** of the factors which must be considered at an early stage of an iron ore project including logistical and metallurgical characteristics in addition to iron ore grades and size of the deposit. Key economic parameters include the contaminants within the mineralisation (including phosphorus, silica and aluminium), the crystalinity of the mineralisation and the location of the deposit with regards to infrastructure and an end user.

It is widely accepted that there are few truly world–class iron ore deposits that remain unexplored, however, SRK ES remains well positioned and committed to being a leader in iron ore exploration and deposit development.

To find out more about our technical services or discuss your project specific needs, please contact us;

**Expertise** in management, operation and assessment of any type of iron ore exploration programme. This includes the design and acquisition of airborne and ground magnetic surveys for the delineation of magnetite–bearing magnetic bodies, followed by reverse circulation (RC) and diamond drilling programmes to define mineralisation. The completion of due diligence, technical reporting and valuations are also prepared when required.

**Innovation** by using the latest software developments for three dimensional geological and geophysical modelling and interpretation, including LeapFrog, Datamine, GemCom, Encom Discover and Geosoft Oasis Montaj.