A SUMMARY TECHNICAL REPORT ON THE MINERAL RESOURCES AND MINERAL RESERVES OF LKAB, SWEDEN - MALMBERGET MINE

December 2023

Malmberget town in the foreground and Malmberget Mine

REPORT PREPARED UNDER THE PAN-EUROPEAN REPORTING STANDARD, 2021 (PERC)

PERC PAN-EUROPEAN RESERVES + RESOURCES REPORTING COMMITTEE

RC asbl no. 0.521-825-257 registered Bruxelles 7 March 2013

http://percstandard.org/

Table of Contents

List of Tables

List of Figures

List of Technical Appendices

1 SUMMARY

This report describes LKAB's mining and processing operations at Malmberget Mine located near Gällivare in northern Sweden. The Company plans to extract a Mineral Reserve totalling 317 Mt comprising 306 Mt at 40.4% Fe magnetite ore and 11 Mt at 46.6% Fe hematite ore, which are classified as Proven and Probable Mineral Reserves (reference point is the sorting plant). Extraction is planned over a period of 22 years to 2045. Ore will be processed into iron products at the Company's facilities on site at the Vitåfors industrial area and products then transported by rail for shipping to customers from ports at Narvik, Norway and Luleå, Sweden.

Mineral Resources of 1779 Mt at 49.3% Fe classified as Measured, Indicated and Inferred Mineral Resources are declared in addition to the Mineral Reserves. Mineral Resources include 5 Mt at 7.8% Fe "Must Take" material.

Mining is by the sub-level caving method and is scheduled at an average annual production rate of 17.3 Mt/y scheduled for 16 years to 2039 with around 40 Mt to be mined at the end of the life of mine plan. The mine's main products are iron ore pellets and fines. LKAB recognise risks and uncertainties arise in their operating environment, and the potential impact these may have on future Mineral Resources and Reserves. This includes mining at depth and the potential impact of this on operations; in this regard LKAB conduct extensive technical studies and are implementing measures to mitigate impacts. LKAB also work with regulators and stakeholders to enable the necessary environmental and other permits to be granted so that mining can continue as planned.

As part of the Company's participation in the Hybrit project to develop technology to use hydrogen in iron and steel making, the Company is undertaking and planning various trials at Malmberget. The project may influence future operations and Mineral Reserves, the impact of which is currently uncertain.

An independent financial assessment of the Mineral Reserves has demonstrated the value of the Project, which has potential to be enhanced further particularly given the potential for the Mineral Resources and Mineral Reserves to be increased following ongoing exploration and assessment.

Mineral Resources and Mineral Reserves presented herein have been estimated in accordance with the PERC Reporting Standard (2021).

The observations, comments and conclusions presented in this report represent the opinion of the Competent Persons as of 31 December 2023 and are based on a review of the operations at Malmberget Mine, documentation provided by the Company and discussions with the Company.

2 GENERAL INTRODUCTION

LKAB is a state-owned Swedish mining company that was founded in 1890 and has been operating the Kiirunavaara and Malmberget mines since 1899. Today, the LKAB mines and processing plants are in Kiruna, Malmberget and Svappavaara, which produce some 28 million tonnes of refined iron ore products annually. The main products (iron ore pellets and fines) are transported by rail to ports in Luleå and Narvik and shipped to customers around the world.

LKAB is the largest iron ore producer in the EU with about 80% of annual production coming from the company. It currently employs more than 4500 people in 12 countries.

This summary technical report (STR) outlines the work undertaken by LKAB that has been prepared in accordance with the PERC Reporting Standard (PRS) to support LKAB's Mineral Resource and Mineral Reserve Statement for the Malmberget Mine for the year ended 31 December 2023.

In line with the PERC standard, and included in this STR, LKAB has discussed the Reasonable Prospects for Eventual Economic Extraction (RPEEE) assumptions as well as a summary of the environmental, social and governance (ESG) status and development requirements of the operation. A discussion of the key risks and uncertainties regarding the declaration of the Mineral Resources and Mineral Reserves is provided.

2.1 Company Approach

LKAB's strategy, which aims for zero carbon-dioxide emission from its processes and products by the year 2045, has a focus on "mining iron ore profitably and safely at greater depths", by incorporating the benefits of digitalisation, automation and electrification in its operations; building capacity to produce sponge iron, or DRI (Direct Reduced Iron), and assessing the potential for by-products from iron production including those derived from rare earth metal oxides and phosphorous.

LKAB's participation in the Hybrit project with SSAB and Vattenfall aims to develop technology to use hydrogen instead of coal for the processes of iron and steel making.

2.2 Context for Public Reporting

LKAB is wholly owned by the Swedish state. The Government Offices of Sweden administers companies through the special organisation for administration of state-owned companies that is part of the Ministry of Finance. To achieve active and professional company administration the owner has developed a corporate governance model that includes a number of tools and processes. In the state's ownership policy the government describes missions and objectives, applicable frameworks and important matters of principle related to corporate governance in state-owned companies.

In accordance with the government's requirements, LKAB aims to set an example and to be a leader in sustainable enterprise. In alignment with these aims, LKAB use the definitions and follows the principles and guidance defined in the PERC Reporting Standard for Public Reporting of Exploration Results, Mineral Resources and Mineral Reserves.

The PERC Reporting Standard is aligned with the CRIRSCO International Reporting Template for the Public Reporting of Exploration Targets, Exploration Results, Mineral Resources and Mineral Reserves, November 2019 (the 'CRIRSCO International Reporting Template 2019') developed by the Committee for Mineral Reserves International Reporting Standards (CRIRSCO). Participants in The Pan European Reserves and Resources Reporting Committee (PERC), which includes the Fennoscandian Association for Metals and Minerals Professionals (FAMMP), promote the use of the PERC Reporting Standard to promote consistency and best practice in minerals reporting in Europe.

The Competent Persons have satisfied themselves that at the time of reporting extraction of Mineral Reserves are reasonably justified as being technically achievable, environmentally and socially acceptable, economically viable, and that all material modifying factors have been considered, and that Mineral Resources have a reasonable prospect of eventual economic extraction. As a state owned, non-listed company LKAB has chosen to not detail information it considers sensitive for commercial reasons such as long term contract pricing for iron ore and other products, and for technical reasons such as the development of new processes that yield competitive advantage to LKAB's operations.

2.3 Competence

The STR is dependent upon inputs from LKAB and its external advisors. Notably, the technical information as provided to, and taken in good faith by, Mr Howard Baker of Baker Geological Services Ltd (BGS), who is the Competent Person for the Mineral Resources and Mr Tim McGurk of SRK Consulting (UK) Ltd (SRK), who is the Competent Person for the Mineral Reserves. Contributors to this STR are listed in Table 2-1.

Mr Howard Baker (FAusIMM(CP) #224239) of BGS is a geologist with 25 years' industry experience and is the Managing Director of BGS. Mr Baker has extensive experience in the evaluation of iron projects globally and is a recognised Competent or Qualified Person as defined by Internationally Recognised Reporting Codes for Mineral Resources and Mineral Reserves for iron ore projects. Mr Baker has relied upon input from LKAB technical staff, and an independent peer review of the Kiirunavaara MRE by Guy Dishaw (BSc, CPAG, PGeo), a mineral resource geologist at SRK.

Mr Tim McGurk (CEng #487211, FIMMM QMR #47795) of SRK is a mining engineer with 30 years' industry experience and is a Corporate Consultant at SRK. Mr McGurk has extensive experience in the evaluation of mining projects globally and is a recognised Competent or Qualified Person as defined by Internationally Recognised Reporting Codes for Mineral Reserves. Mr McGurk has relied upon input from LKAB technical staff, and independent peer review by colleagues at SRK of the Competent Person Report (CPR), which provides the basis for this summary report.

Table 2-1: Contributions and Responsible Persons for this Report

Description	Contributors	Responsible CP
Compilation of this report	Tim McGurk, Howard Baker	Tim McGurk
Mineral Resource Estimations	Howard Baker	Howard Baker
Mineral Reserve Estimate	Tim McGurk	Tim McGurk
LKAB technical staff	The report has been prepared by LKAB staff from exploration, geology, mine planning, processing, commercial and environmental teams expert in relevant subject matter areas at Malmberget Mine.	
External Reviewers (SRK)	Guy Dishaw; Fiona Cessford; Jamie Spiers; Mike di Giovinazzo; Renzo Misari; Inge Moors	

3 MALMBERGET MINE

3.1 Location

Malmberget is located in northern Sweden, close to the town of Gällivare and 75 km southeast of Kiruna. The town of Gällivare is an administrative, transportation, communication, and supply centre for the region of central Norrbotten county. LKAB maintains administrative, technical, operations support, and processing facilities on site.

The mining operation is located near established power and road infrastructure, accessed by paved road 10 km from the E10 and 5 km from the E45 highways. Gällivare airport is 10 km away.

Malmberget has a subarctic climate with short cool summers and long cold winters. Topography is hills, lakes, streams and marshland. Vegetation comprises spruce, birch and pine forests with scattered bedrock outcrops. Soil cover in the vicinity of the industrial area is characterised by a 30-50 cm layer of topsoil overlying compact sandy glacial till with varying thicknesses from 0 m to 40 m.

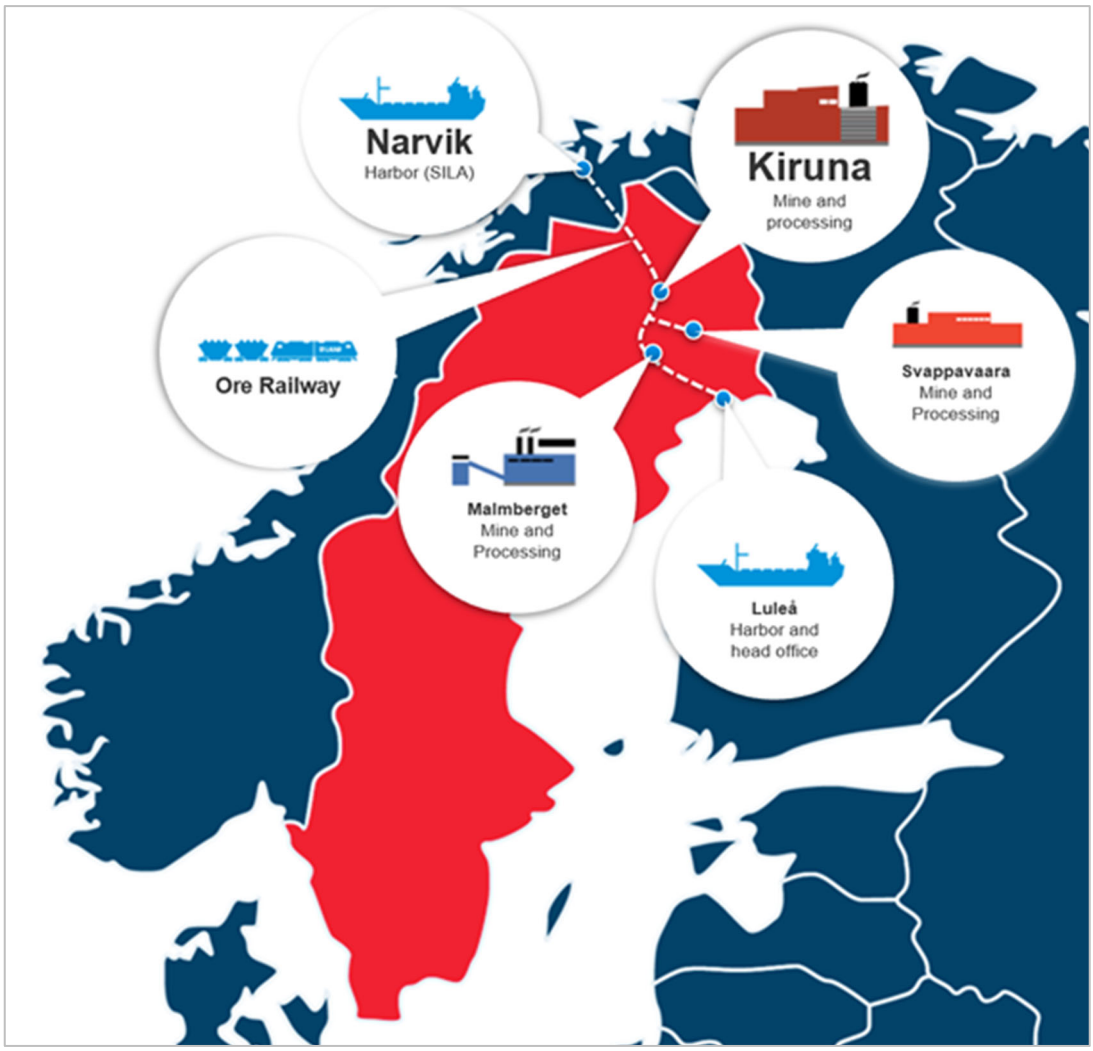


Figure 3-1: Location of LKAB Assets in Norrbotten County (Source: LKAB).

3.2 LKAB Tenure Listing

3.2.1 Exploration Permits

LKAB has six exploration permits in Malmberget (Table 3-1 and Figure 3-2).

Table 3-1: Exploration permits in Malmberget.

Exploration permit	License id	Valid from	Valid until	Year	Extension
Malmberget nr 20		2008-03-25	2025-03-25	16	expires
Malmberget nr 24		2015-09-07	2023-09-07	9	3rd
Malmberget nr 25		2019-08-13	2024-08-13	5	1st
Malmberget nr 26		2020-06-02	2025-06-02	4	1st
Malmberget nr 27		2020-06-04	2025-06-04	4	1st
Malmberget nr 28		2021-10-13	2024-10-13	3	1st

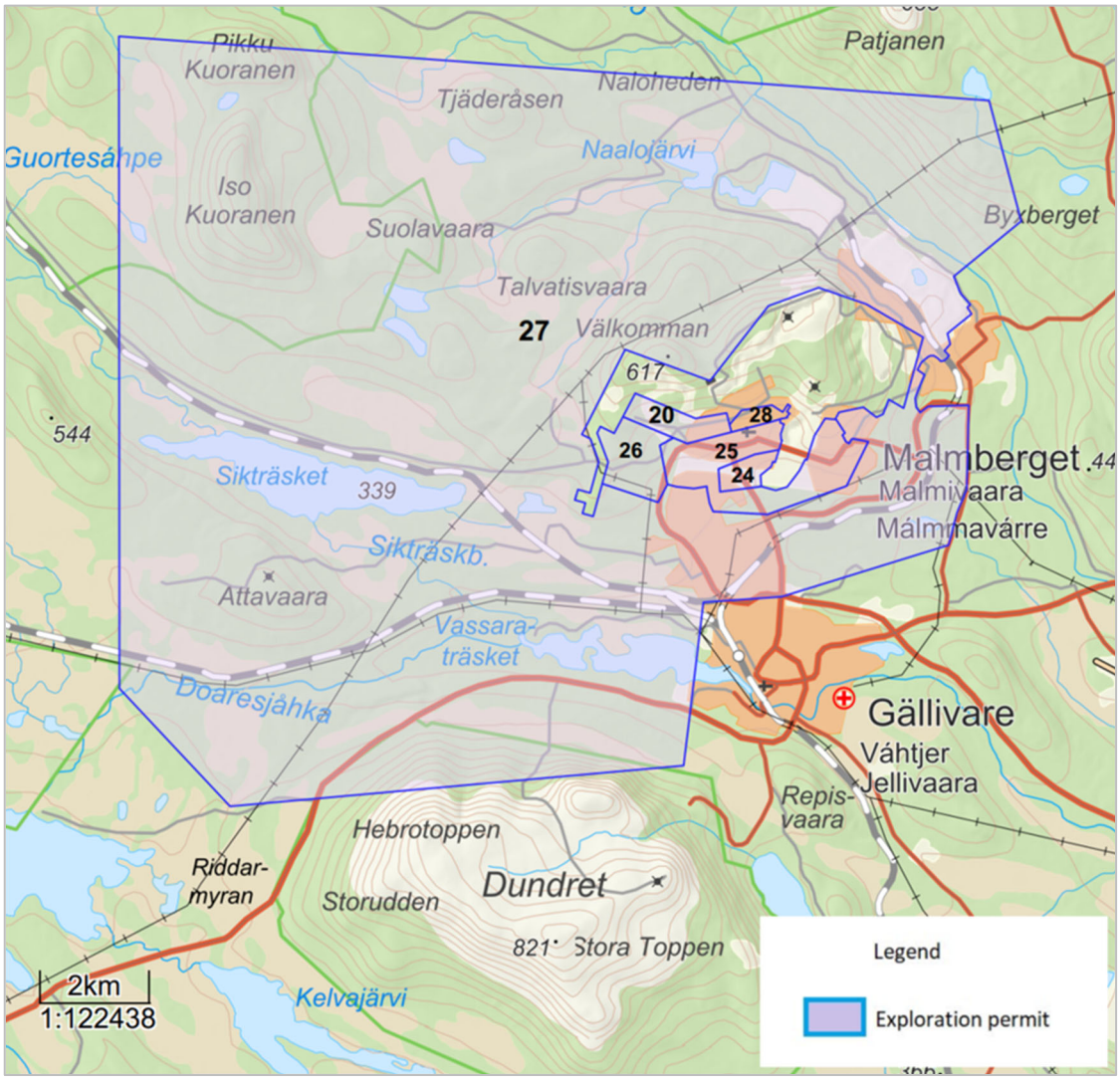


Figure 3-2: Plan view of the exploration permits in Malmberget.

After exploration permits expire an application for a new exploration permit regarding land in the same area cannot be considered for at least one year without exemptions from the Chief Mining Inspector.

3.2.2 Exploitation Concessions

LKAB has seven exploitation concessions in Malmberget (Table 3-2 and Figure 3-3). Since regular exploitation operations were in progress when the period of validity expired in 2022, the exploitation concession Malmberget K nr 1 was automatically extended by ten years. No special application is required for such an extension.

LKAB has one land designation in favour of Malmberget K nr 1 and two in favour of Malmberget K nr 1-7. The land designations are valid as long as one of the respective concessions is valid.

Table 3-2: Exploitation concessions in Malmberget.

Exploitation concession	Valid from	Valid until
Malmberget K nr 1	1997-06-26	2032-06-26
Malmberget K nr 2	1999-12-16	2024-12-16
Malmberget K nr 3	2003-05-12	2028-05-12
Malmberget K nr 4	2007-03-27	2032-03-27
Malmberget K nr 5	2013-03-26	2038-03-26
Malmberget K nr 6	2016-08-31	2041-08-31
Malmberget K nr 7	2017-05-03	2042-05-03

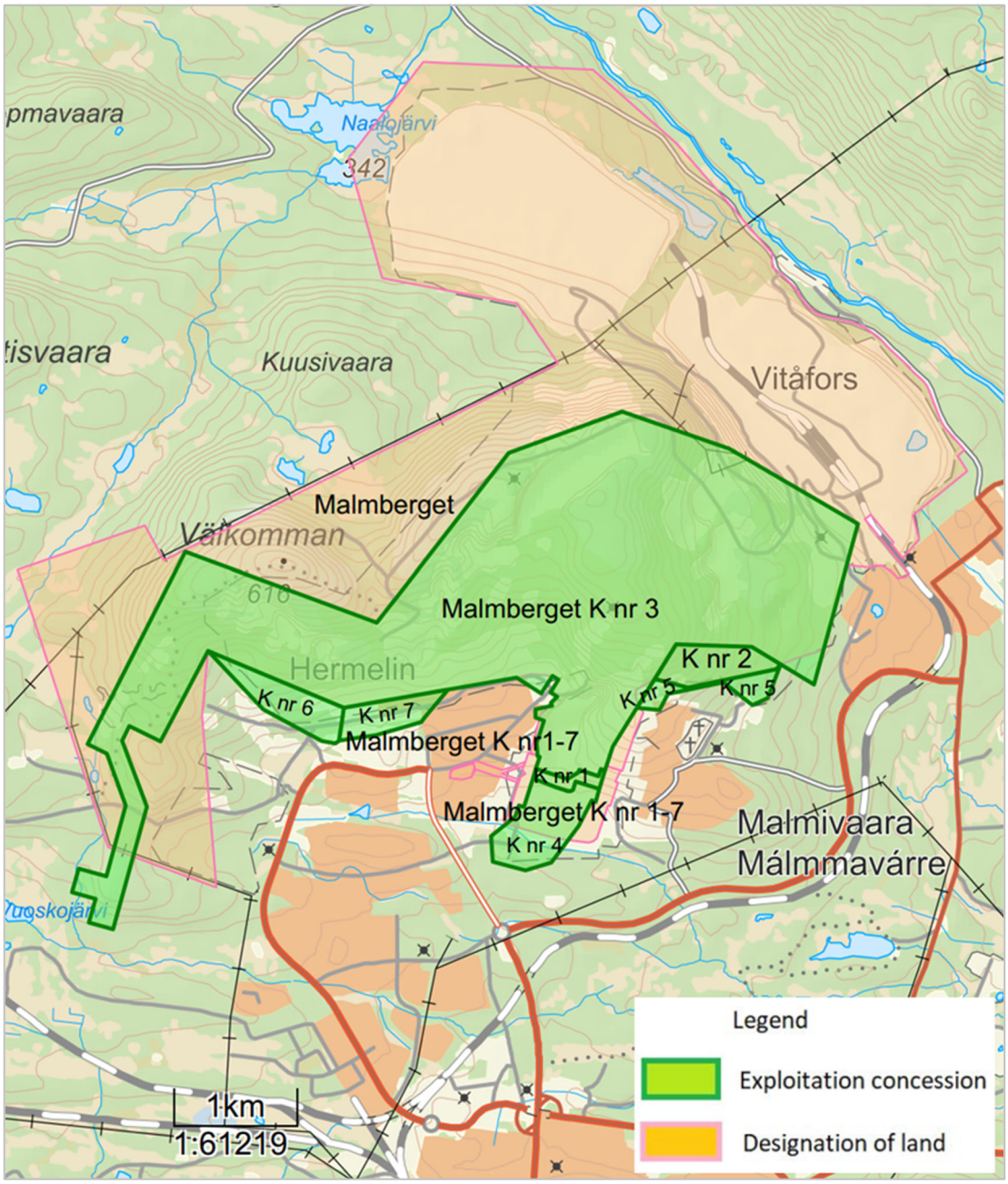


Figure 3-3: Plan view of the exploitation concessions in Malmberget.

If regular exploitation operations are in progress in the concession area of Malmberget K nr 2 when the period of validity expires in 2024, the validity time will automatically be extended by ten years. If not, an application is required for extension of the validity time at the latest six months before the validity time expires.

Figure 3-4 shows the land designations for exploration and exploitation by LKAB and areas of public interest in the Malmberget area.

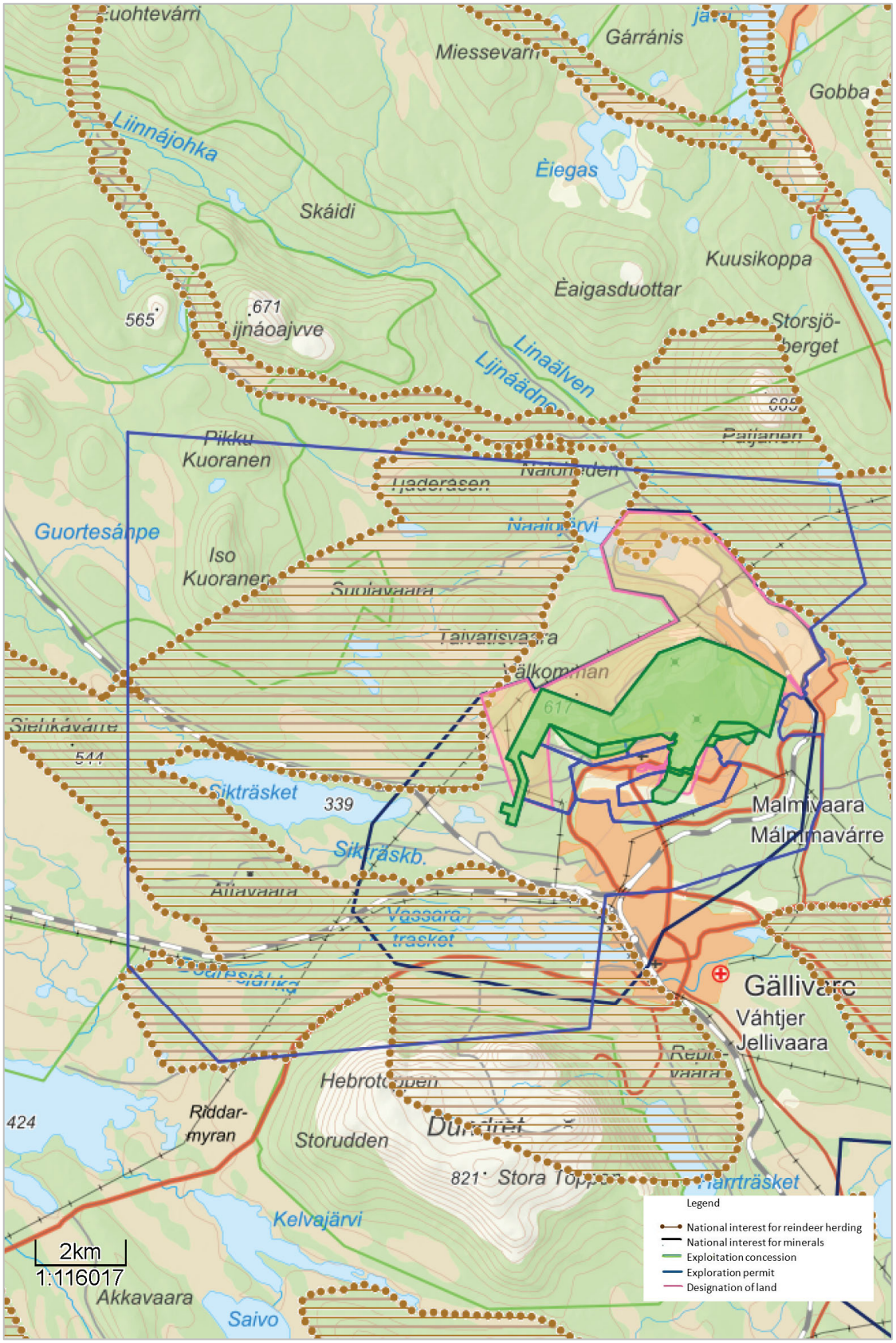


Figure 3-4: Land designations and areas of public interest in the Malmberget area (Source: LKAB).

4 GEOLOGY

LKAB's 2023 Mineral Resources Estimation Summary Report (December 2023) details the basis for Mineral Resources at Malmberget and LKAB's other mines and projects.

4.1 Regional Geological Setting

The bedrock in northern Norrbotten (Figure 4-1) comprises three main elements:

- Archean (2.7-2.8 Ga) basement, dominated by granites and gneisses discordantly overlain by Karelian and Svecofennian rocks.
- Paleoproterozoic (2.5-1.9 Ga) Karelian rift-related metavolcanics (volcanoclastic and chemical metasediments).
- Late Paleoproterozoic (1.9-1.8 Ga) Svecofennian supracrustal sediments, as well as a "Porphyrite Group" comprising andesites and basalts.

These units extend from northern Sweden into Finland and parts of northern Norway and are a result of deposition in volcanic settings related to tectonic subduction.

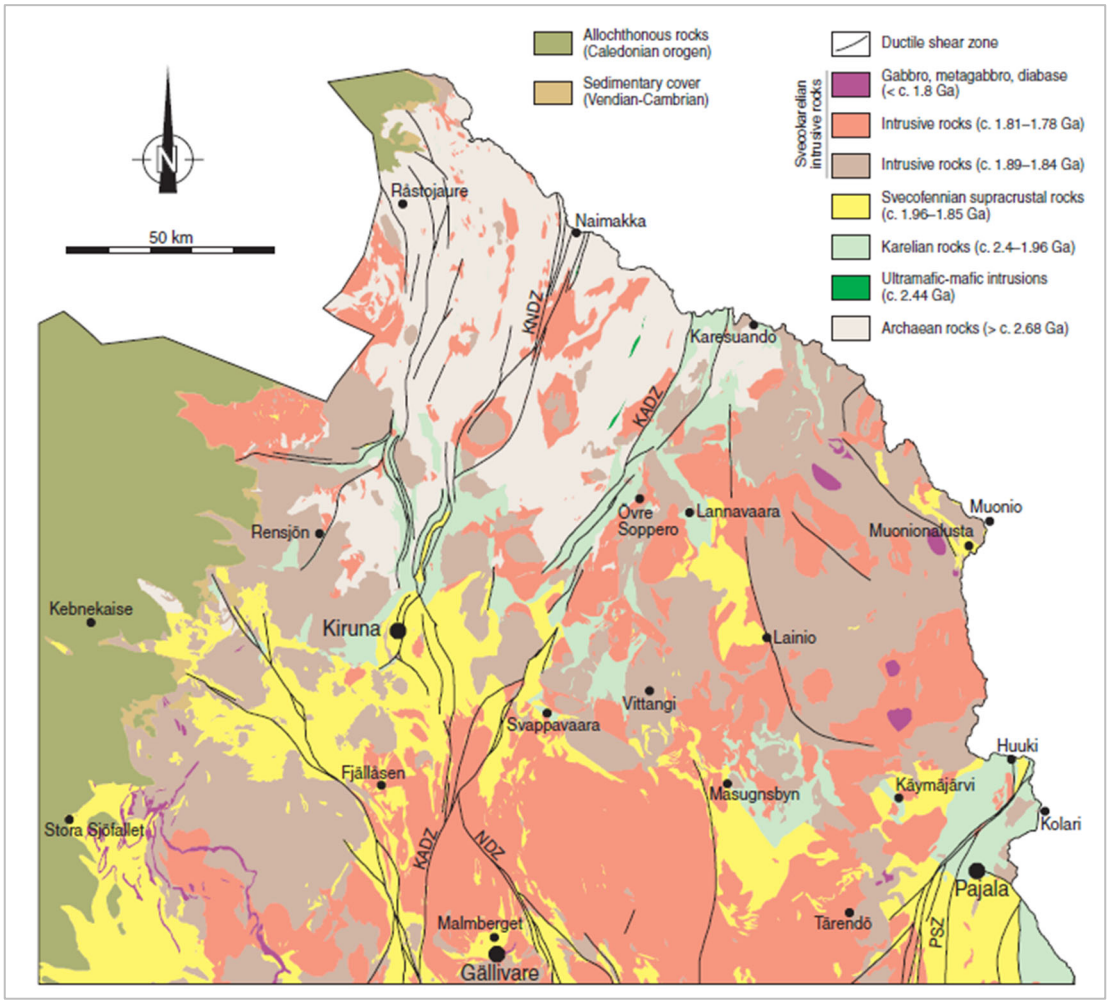


Figure 4-1: Bedrock Map of the Norrbotten Area (Bergman et al., 2001). KNDZ = Kiruna-Naimakka zone, KADZ = Karesuando-Arjeplog zone, NDZ = Nautanen zone, PSZ = Pajala shear zone.

The lithostratigraphy of the northern Norrbotten area is shown in Figure 4-2. In the Kiruna area, the oldest formations are the Karelian (2.3−2.0 Ga) greenstones of the Kiruna group (Martinsson 1997) that occur in the western part of the area. The Archean basement that forms the deposition surface of the Paleoproterozoic formations is not exposed in the Kiruna area. The Kiruna group greenstones are composed of ultramafic volcanic rocks, basalts, sulphide and graphite-bearing volcano-sedimentary rocks and carbonates. Younging directions are consistently towards the east.

The Svecofennian succession begins with the Kurravaara conglomerate that was deposited on top of the Kiruna greenstones. The conglomerate is in turn overlain by the predominantly volcanic/volcano-sedimentary Kiirunavaara group, which hosts the iron oxide-apatite ores in two different stratigraphic positions. The youngest meta-supracrustal unit in the Kiruna area is the Hauki quartzite that overlies the rocks of the Kiirunavaara group.

Intrusions of the Perthite-Monzonite suite (1.88−1.86 Ga) are found in the northwestern part of the area. In addition, in the footwall of the Kiirunavaara deposit, the volcanic trachyandesite of the Hopukka formation grades into a subvolcanic syenite intrusion towards the west (Geijer 1910). Regionally, the youngest intrusive suite is the ~1.80 Ga Lina granite, which is widespread in northern Norrbotten.

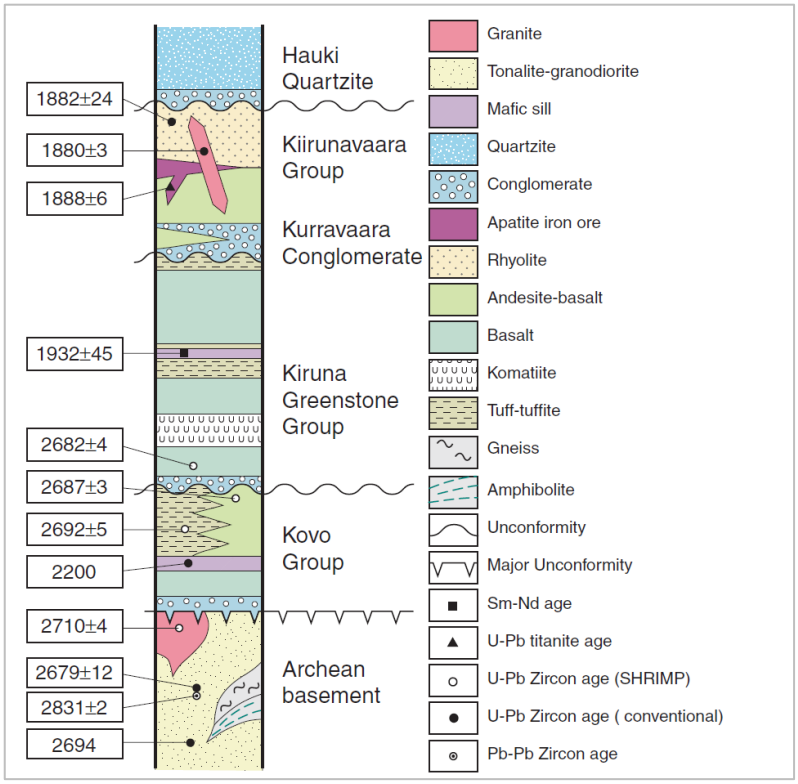


Figure 4-2: Lithostratigraphy of the Norrbotten Area. Modified from Martinsson (2004).

The most important mineral commodities in Norrbotten are iron and copper (Cu), which occur throughout the province. The iron oxide-apatite mineralisation varies in size from small metre-scale showings to world-class deposits like Kiirunavaara. In addition, the area hosts banded iron formations, mafic intrusion-hosted iron, and skarn iron ores. The Cu deposits comprise several different types and some of them contain gold (FODD 2019).

4.2 Structural Geology

4.2.1 Regional Structure

Crustal-scale deformation-zones in northern Norrbotten have two dominant trends from NNE to SSW and from NNW to SSE. Foliations in the Gällivare-Malmberget area are generally steep and strike NNW parallel to the NDZ. North of the Malmberget area foliations bend into the Karesuando-Arjeplog Deformation Zone ("KADZ"), indicating a component of dextral movement (Bergman et al., 2001). Linear structures are moderately plunging, with varying trends. The major fold structures in the Norrbotten supracrustal belts commonly have axial surface trends between NW–SE and N–S, with varying plunges. However, local areas deviating from the regional structural patterns exist (Bergman et al., 2001).

4.2.2 Local Structure

The Gällivare-Malmberget area constitutes a relatively low strain zone situated between the KADZ and the NDZ. During east-west compression at ca. 1.80 Ga, the area was presumably squeezed towards the south (Wanhainen et al., 2005). Four phases of deformation can be recognised in the Malmberget deposit, two phases of ductile deformation and two phases of brittle deformation (Bauer et al., 2018 and references therein). The two phases of ductile deformation characterise the shape of the Malmberget deposit and have resulted in transposition of the bedding and the originally horizontal ore bodies, forming a complex, large-scale fold-thrust structure (Bergman et al., 2001; Bauer et al., 2018).

4.3 Deposit Geology

The host rocks to the Malmberget mineralisation comprises a package of mafic to felsic, mildly alkaline, volcanoclastic to sub-volcanic metavolcanic rocks (Figure 4-3 A and Figure 4-3 B; Geijer, 1930; Bergman et al., 2001; Sarlus et al., 2020). The ore bodies and the metavolcanic rocks have been intruded by dolerite dikes, as well as, several generations of pegmatitic and aplitic dikes, and granitic bodies (Lund, 2013). U-Pb dating of oscillatory zoned zircons from the metavolcanic rock yields magmatic ages between 1.89 and 1.87 Ga and metamorphic ages between 1.80 and 1.77 Ga (Sarlus et al., 2020).

Amphibolite facies metamorphism, deformation and several phases of hydrothermal alteration have transpositioned primary bedding, and partly to completely destroyed the primary features of the ore and the volcanic rocks (Skiöld and Cliff, 1984; Bauer et al., 2018). The high metamorphic grades have significantlly coarsened the grainsize of the Malmberget rocks.

Alteration typically consists of pervasive K-feldspar and albite alteration, and patchy to disseminated amphibole-, biotite-, hematite- and magnetite-alteration. High temperature metamorphism is more prevalent in the western part of the deposit, proximal to the large Lina type granitic intrusion, typically evident as sillimanite- and muscovite-bearing gneisses. Massive biotite zones (i.e., biotite schist) occur in the proximity of the ore-zones and are interpreted to be mylonites that were formed as a result of strain partitioning between the metavolcanic host rock and the massive ore during deformation (SRK, 2012; Bauer et al., 2018).

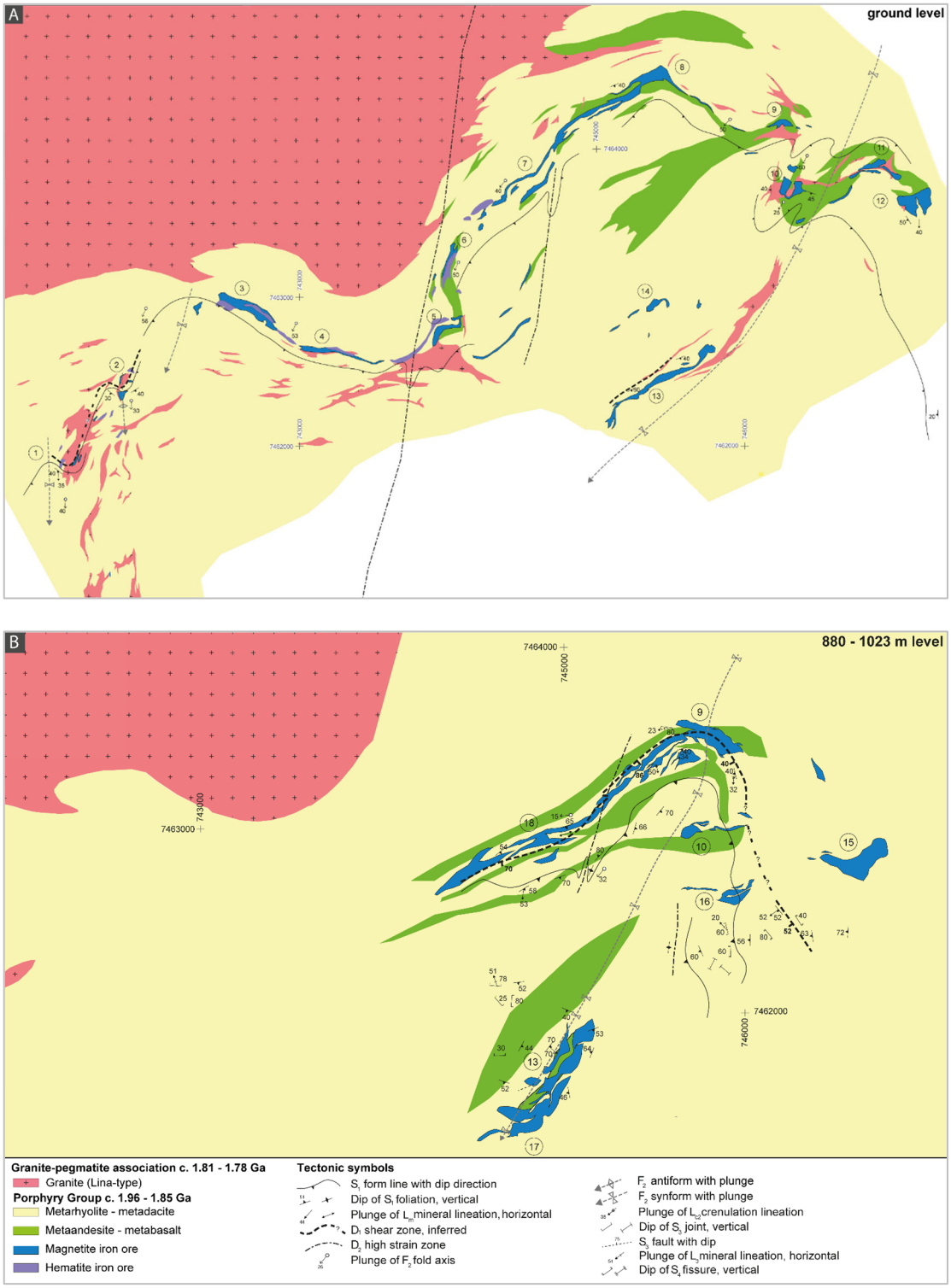


Figure 4-3: Geological maps with structural measurements and structural interpretation of the Malmberget deposit at (A) ground level and (B) 880 – 1023 m level.

The number in Figure 4-3 refer to orebodies: 1 Bergmäster; 2 Sparre; 3 Välkomman; 4 Baron; 5 Johannes; 6 Skåne; 7 Josefina; 8 Tingvallskulle; 9 Alliansen; 10 Dennewitz; 11 Hvitåfors; 12 Koskullskulle; 13 Kapten; 14 Selet; 15 ViRi; 16 Parta; 17 Fabian; 18 Printzsköld (modified from Geijer, 1930 and Bauer et al., 2018).

4.3.1 Apatite Iron Ores

The Malmberget deposit is considered an amphibolite facies equivalent of the Kiirunavaara deposit. The origin of IOA deposits have been subject to a long-going scientific debate and several different modes of formation have historically been proposed, namely, hydrothermal exhalative, hydrothermal replacement, and high-temperature magmatic (Geijer, 1910; Parák, 1973; Hildebrand, 1986). Recent evidence predominantly supports a high-temperature origin, either by magmatically derived fluids, or by direct crystallisation from an iron-rich magma (Jonsson et al., 2013; Knipping et al., 2015; Tornos et al., 2017; Troll et al., 2019). Fe-O isotope thermometry on massive magnetite samples from the Fabian and Viri ore bodies in Malmberget indicates magmatic formation temperatures at ≥ 800 °C (Henriksson et al., 2022). U-Pb dating of zircons from the Kiirunavaara ore suggest formation of the IOA mineralisation between 1.88 and 1.87 Ga (Westhues et al., 2016).

4.4 Mineralisation

The IOA mineralisation predominantly consists of massive magnetite, but breccia-style and disseminated mineralisation also occur in the proximity of the massive ore bodies. Density plots of the Zr/Al_2O_3 vs Al_2O_3/TiO_2 data reveal that the mineralisation in Malmberget is mainly hosted in dacitic to basaltic rocks.

The Malmberget deposit is divided into historically named ore zones summarised in Table 4-1 (after Geijer, 1930; Bergman et al., 2001; Martinsson and Virkunnen, 2004).

Table 4-1: Malmberget mining areas by ore bodies

Area		Description
Western Field	Välkomma-Baron-Johannes	Western Field and Printzsköld-Alliansen form two continuous, openly folded ore-zones with moderate dips towards the south-southwest
	Hens-Josefina	
Printzsköld-Alliansen		
Eastern Field	Parta	Fabian-Kapten and Eastern Field ore zones have tabular geometries and are elongated along the plunge of the ore body at c.40° to 50° towards the south-southwest
	Dennewitz	
	Viri	
	Östergruvan	
Fabian-Kapten		

The ore mineralogy is dominated by magnetite, with subordinate amounts of hematite, fluorapatite, titanite, Cu-Fe sulphides, and REE-bearing phosphates. Gangue minerals include amphiboles, anhydrite, gypsum, and calcite.

Massive hematite and mixed magnetite-hematite mineralisation mainly occurs in the Western Field and in the hinge of the Printzsköld-Alliansen fold structure. Apatite contents have a similar spatial distribution, with high concentrations (P_2O_5 > 3%) dominantly occuring in Printzsköld-Alliansen and in the Western Field.

Magnetite differs across the ore zones. In the Western Field magnetite is charaterised by low V and high Ti contents; Eastern Field magnetite has moderate to high V (0.1-0.3%) and high Ti contents (0.2-1.0%); magnetite in Printzsköld-Alliansen zone has moderate V (0.1-0.18%) and low Ti contents (0.05-0.3%); and in Fabian-Kapten magnetite ranges from low to high V and Ti contents.

Figure 4-4 shows a plan view of mineralisation (15% Fe cut off) coloured by orezone and depleted to recent mining surfaces.

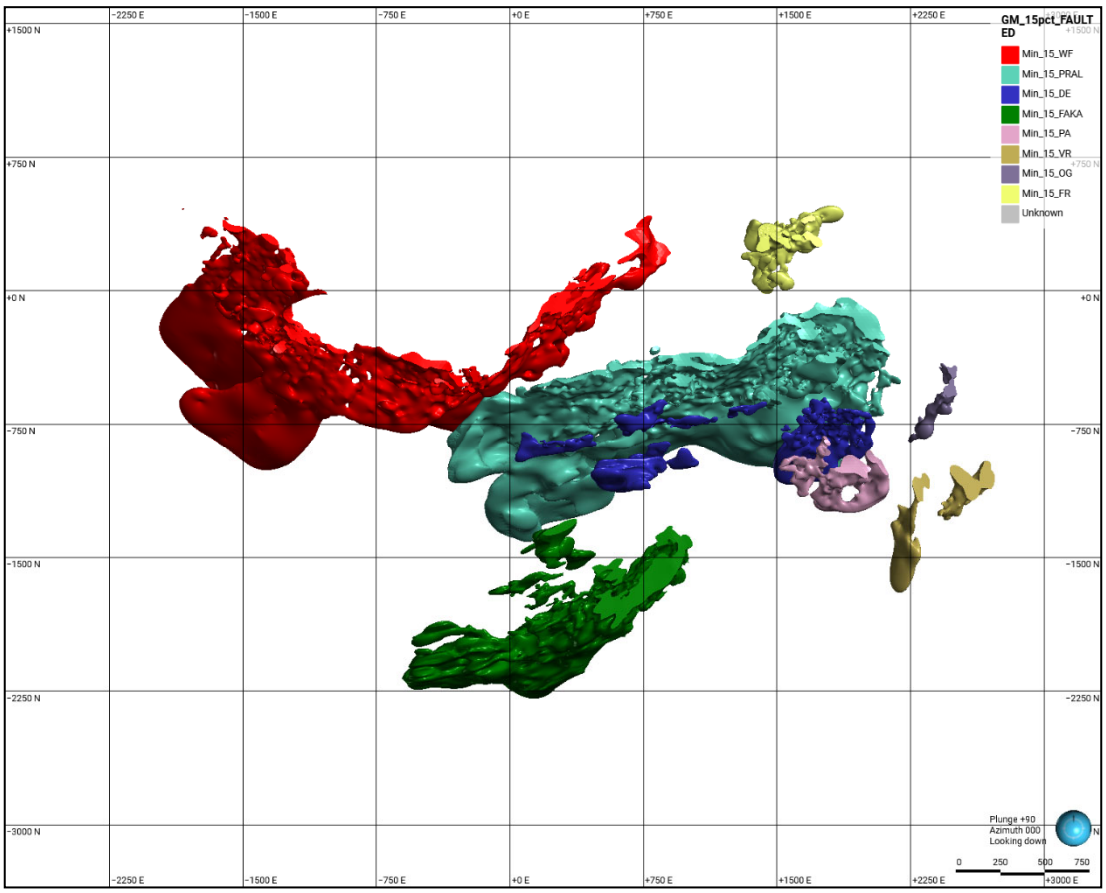


Figure 4-4: Plan view of 2023 Malmberget 15% Fe mineralisation model by ore zone (Source: LKAB).

4.5 Exploration

4.5.1 Background

The Malmberget mineralisation was first described in the year 1696 by Samuel Mört from Kengis bruk (Brunnström et al., 2015), but first occurs in the Mine Inspectorate records in the year 1704 (Berglund, 1923). Claim pegging and test mining during the 1730s was followed by several small-scale commercial mining attempts between 1745 and 1870. During this period, the ore was transported 200 km by reindeer and ackja sledge down to Meldersteins iron plant at the coast. The deposits mined during this period were Kapten, Bergmästaren, Välkomma, Johannes, Fredrika and Tingvallskulle. The steel produced from the apatite-rich Malmberget ore was very brittle, limiting the industrial demand for it. Large-scale mining firstly commenced after the invention of the Gilchrist-Thomas process in 1877 and the completion of Malmbanan in 1888.

In 1891, AB Gellivare Malmfält was formed, and all claims were united under one owner. This merger significantly increased production to approximately 600,000 tonnes per year. AB Gellivare Malmfält continued operations until 1907, when the Swedish state bought a major share of the company and subsequently renamed it Luossavaara-Kiirunavaara Aktiebolag (LKAB).

4.5.2 Historical Exploration

Due to the long history of mining at Malmberget, the amount and type of exploration data that has been collected have varied over time. Historical (pre-2017) logging and sampling procedures are poorly documented compared to current practises, but it generally agrees with the data that is currently being collected. Historical drilling, logging and assay data has been stored as hardcopies, and some have been imported into LKAB's databases; logging information is currently entered in acQuire software and stored within acQuire and Datashed databases.

4.5.3 Current Exploration

The Malmberget mineralisation is delineated by diamond core drilling, geophysical probing of percussion drillholes (known as 'Malmgränsborrning'), and underground mapping of ore contacts. Drilling of diamond drillholes is mainly conducted from exploration drifts and from footwall access drifts, whereas percussion drilling is typically done in selected crosscuts where additional data is required. Diamond drilling commonly use BQ and WL56 diameters, although longer drill holes and/or directional drill holes are initially drilled with NQ diameters.

Drill cores are transported by truck to the logging facilities at Oljevägen, Gällivare, and at level 500 in the mine for systematic logging and sampling. Sampling and logging of lithology, alteration and mineralogy are performed by LKAB geologists to a comprehensive level of detail. Rocks with an estimated Fe content above 40% are logged as ore, whereas mineralised sections with an estimated Fe content below 40% are logged as side rock and different categories of alteration are used to record the mineralisation (Mg0-2 and/or He0-2). Geotechnical logging data from exploration drillholes and geotechnical logging of "Just-in-Time" drillholes is recorded in the acQuire GIM suite 4 software. Photographs are taken of both dry and wet core, for all core trays.

4.5.4 Summary of 2023 Exploration

Between 1st September 2022 and 31st September 2023, 77 drillholes were completed for a total of 73,361 m as shown in Figure 4-5.

- At Fabian, 24 drillholes were completed during the reporting period for a total of 22,321 m.
- Towards the Printzsköld ore body, 43 drillholes were completed for a total of 43,307 m.
- Seven drillholes, for a total of 3,011 m, were drilled into the Josefina ore body.
- Eight directional surface drilling towards Western Field (started in February 2021) were drilled up until December 2022.

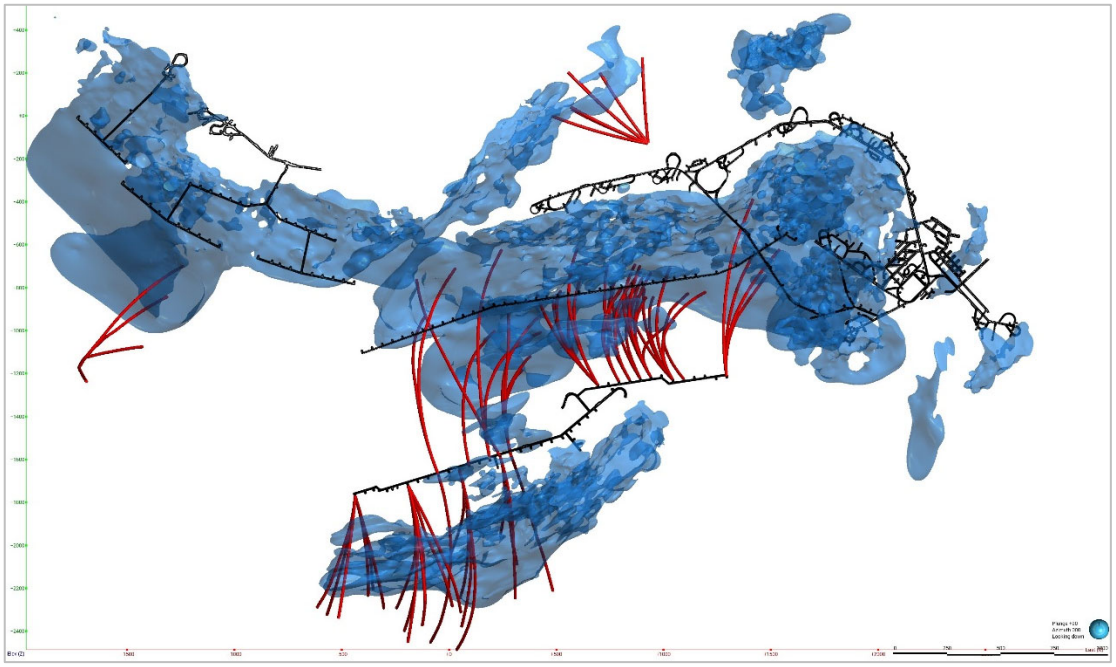


Figure 4-5: Overview showing completed exploration drillholes in Malmberget, between 1st September 2022 to 31st August 2023.

From the drill data collected, key findings included: significant intersects of massive magnetite mineralisation further confirming the thickening of the Fabian-Kapten ore body at depth and leaving the Fabian-Kapten ore body open along strike; continuation of the Printzsköld massive orebody below the -2000 m level, with an apparent thickness of around 40-80 m in the central part and 80-110 m in the eastern part and significant mineralisation has been intersected from surface drilling of the Western Field.

4.6 Data Quantity and Quality

A total of 13,421 drill holes, comprising 2,015,359 m were available for use in geological modelling and resource estimation. During 2023, a total of 85,201 m of exploration and resource definition diamond drilling was completed.

The orebodies are targeted with a drill spacing of 60 m vertical by 50 m horizontal spacing. This spacing is considered sufficient to attain Indicated classification levels of confidence in most of the mining areas. Generally, the resulting drill spacings achieved are appropriate for the geological complexity and continuity of the Malmberget deposits.

The acQuire database management system uses review tools with on-going validation of all drillhole and sample data. Validation rules consist of a series of check lists for each data table, and visual checks of collar, downhole survey issues, lithology and Fe grade data are made in 3D to ensure consistency in logging and sampling.

The Competent Person visited and inspected the laboratory preparation facilities in November 2022. Facilities and LKAB's sample preparation process were found to meet quality requirements and no material issues regarding quality were identified.

5 MINING, MINERAL PROCESSING AND INFRASTRUCTURE

5.1 Mining

Mineralisation at Malmberget mine has historically been identified to comprise 30 orebody areas which are either active, inactive or mined-out. The orebodies are distributed over an area of about 5.0 km by 2.5 km and are grouped into the Western Field, Printzsköld-Alliansen, Fabian-Kapten and the Eastern Field ore zones. Figure 5-1 shows a plan view of the Malmberget orebodies with 600 m level in grey and the 1250 m level in black.

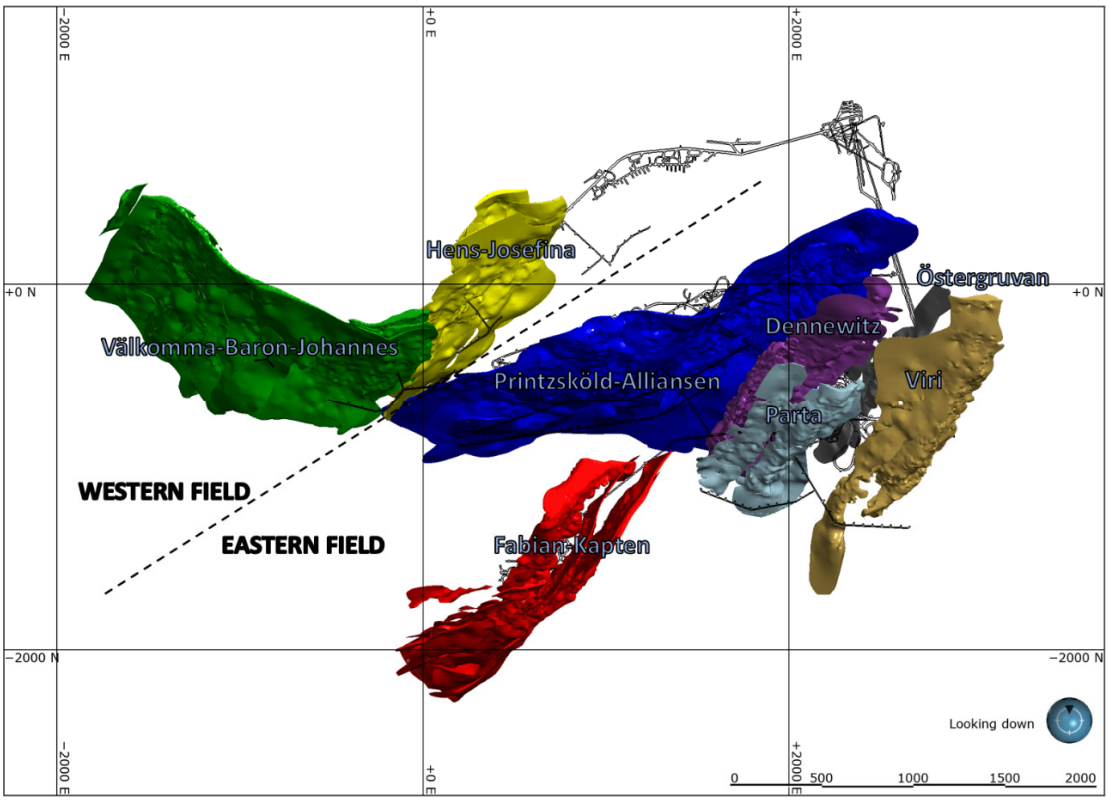


Figure 5-1: Plan view of the Malmberget orebodies

The average width of the orebodies ranges from 20 m to 100 m, and iron mineralisation is comprised around 90% magnetite and 10% hematite. The host rocks are metamorphosed volcanic rock such as gneisses and fine-grained feldspar-quartz rock called leptite. Granite veins often intrude into the ore zones.

Mining is by the sublevel caving (SLC) method which is selected for its suitability to the size, distribution, orientation, and dip of the orebodies. SLC at Malmberget uses a combination of transverse layouts of footwall drifts with crosscuts in wider sections of the orebody and longitudinal layouts with drifts set out on the strike for narrow orebodies. The method utilises a series of main levels where main infrastructure and operations are located. Mining proceeds from the top down from a series of sublevels established to extract ore. The hangingwall caves behind the extracted ore.

Ore blasted on the sub-levels is loaded by a fleet of load-haul-dump (LHD) machines and tipped into the nearest ore pass leading to the main level below. The ore is then trucked to dump points into underground storage bins at one of five underground primary crushers. Crushed ore is held in holding bins, which then each load ore by feeders onto conveyor belts for transport to one of five hoist shafts, where it is loaded into skips and hoisted to surface. The Alliansen shaft hoists ore to the surface and discharges to an above-ground storage facility. The other four hoists discharge underground onto a system of conveyors which transport ore to either another hoist or by incline conveyor to surface.

Waste rock material produced in the mine may be introduced to the run-of-mine (ROM) material as dilution up to 3,000 t/d where it is mainly extracted at the sorting plant, although some overall grade dilution does inevitably occur. Other waste rock is trucked to surface and rehandled to waste dumps.

Hematite ore is produced from the Western Field. The material is kept separate from magnetite ore: it is hoisted via the Alliansen shaft and stockpiled on surface, where it will be processed depending on the granting of a permit for increased tailings dam storage capacity. Hematite produced in the Eastern Field is treated as waste and separated from ore at the sorting plant.

5.1.1 Production Status

Historically, around 16 km of mine infrastructure development and 17 Mt of ROM production are achieved annually by LKAB and their contractors. In 2023 16.3 Mt of ROM were produced.

5.1.2 Rock Engineering

To address the challenges of mining at greater depths with more complex geological and associated geo-mechanical properties of the rock being excavated, LKAB is adapting its approach to ensure a safe operating environment in the mine. A new rock engineering section was established during 2023 to improve rock engineering practices and provide a basis for a revised approach to management and mitigation of risk in the mine. Key areas are:

- **Seismic Risk Management**: Establishment and implementation of a systematic risk management approach regarding seismicity. This includes the incorporation / update of three governing documents, namely: Ground Control Management Plan, Seismic Risk Management Plan and a Trigger Action Response Plan that comprises all existing operating rules.
- **Rock stress**: expansion of the micro seismic monitoring system and rock stress measurements to support investigation to better understand the mining-induced stress state, as well as possible ways to mitigate the effects of high stress.
- **Development**: Investigation and implementation of tunnel profiles that reduce the rock mechanical hazard including changes to drift dimension, ground support installation and control, and drift orientation.

Mining Geotechnical Characterisation

The mine collects geological and geotechnical data from drill core and from field-based geological and geotechnical observations, mapping, and characterisation. Structural mapping conducted is also incorporated into 3D modelling of geological data that is updated on a continuous basis. (Figure 5-2).

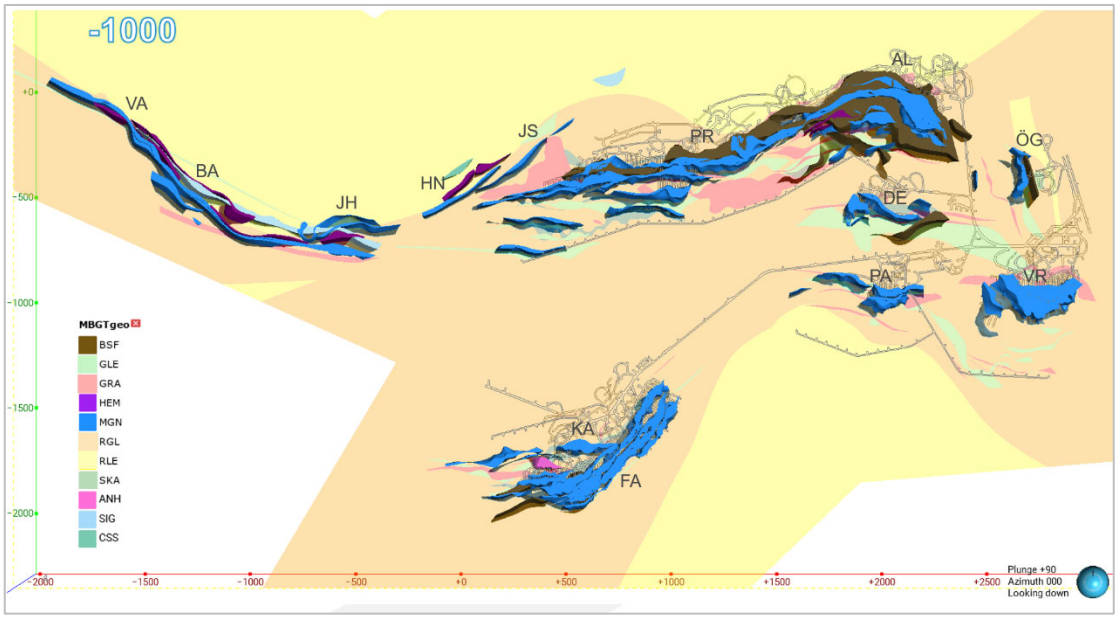


Figure 5-2: A cross-section at the 1000-meter level from the mine-scale geological model of the whole Malmberget mine (date: 2024-01-26)

The active orebodies in the western field contain mixed ores of hematite and magnetite which are fragmented and folded. Granite veins and larger bodies of strong granite and red leptite are present in the western field and rock types such as sillimanite gneiss and clay altered leptites are common close to the ore contacts. The eastern field contains predominantly larger orebodies. Several fault and shear zones have been detected in Printzsköld. Biotite schist is visible in the footwall and hanging wall near the Alliansen ore body creating squeezing rock conditions. Fabian is folded and faulted in several places with areas of clay, sand and anhydrite form weakness zones in the ore and close to the ore contacts.

A local-scale 3D structural model to characterize structures that may affect the mining operation is prepared for use in mine planning. Typical characteristics of the structures are fault zones, fracture zones and shear zones that contain significant amounts of chlorite, biotite and clay minerals. Geotechnical design parameters and ground reinforcement is based on expected use, lifespan and ground conditions, which are particularly influenced by the geology. There is ongoing review of the mine's Ground Control Management Plan, seismic management, and cave management and sequencing.

5.1.3 Production Schedule

The Mineral Reserve totalling 317 Mt (the reference point is the sorting plant) and comprising 260 Mt at 40.8% Fe the eastern field and 57 Mt at 40.1% Fe from the western field is scheduled for production over 22 years to 2045. An average annual production of 18.5 Mt/y is scheduled for 14 years to 2037. The remaining 58 Mt of Mineral Reserve scheduled at lower rates require optimisation and integration with outputs of technical studies to convert Mineral Resources to Mineral Reserves that are underway.

5.1.4 Mine Production Risks and Uncertainties

LKAB recognise threats to future production and uncertainty in Mineral Reserves arise from mining at greater depths. This includes the response of ground to higher rock stress at depth with particular note to ground conditions experienced at Malmberget.

Ground reinforcement design at the Malmberget mine is particularly influenced by the geology. The dominant rock types found at Malmberget mine are classified into three primary support classes plus support classes for rock that has an increased risk of hazardous outcomes caused by seismic events, and for exceptionally difficult rock conditions such as where clay zones are found.

Technical studies being conducted by LKAB to assess potential for successful, future deep, high-rate mining are working to identify approaches that mitigate risk from stress and seismicity on mining and infrastructure. This includes aspects such as new hoisting shaft location, mine sequencing and production rate, and product mix. Successful technical studies that generate new Mineral Reserves that are integrated into the existing LOMP will support current Mineral Reserves.

5.2 Mineral Processing

The processing of magnetite ore at Malmberget consists of a sorting plant, a concentrating plant and two pelletizing plants. Hematite is processed in a separate building close to the magnetite concentrating plant.

Malmberget products are fines from the magnetite and hematite concentration plants (product codes MAF, MAC and MHF) and pellets from the two pellet plants BUV and MK3, (product codes MPBO and MPBA).

Ore from Malmberget mine feeds magnetite to the sorting plant which provides pre-sorted material to the magnetite concentrating plant, which is also supplied with pre-sorted material from Leveäniemi mine in Svappavaara. Dry waste rock is transported from the sorting plant to waste dumps and wet waste from the concentrating plant is pumped to the tailing dam.

Figure 5-3 illustrates an overview of the processing flows at Malmberget, and Table 5-1 summarises the mine's products and annual volumes.

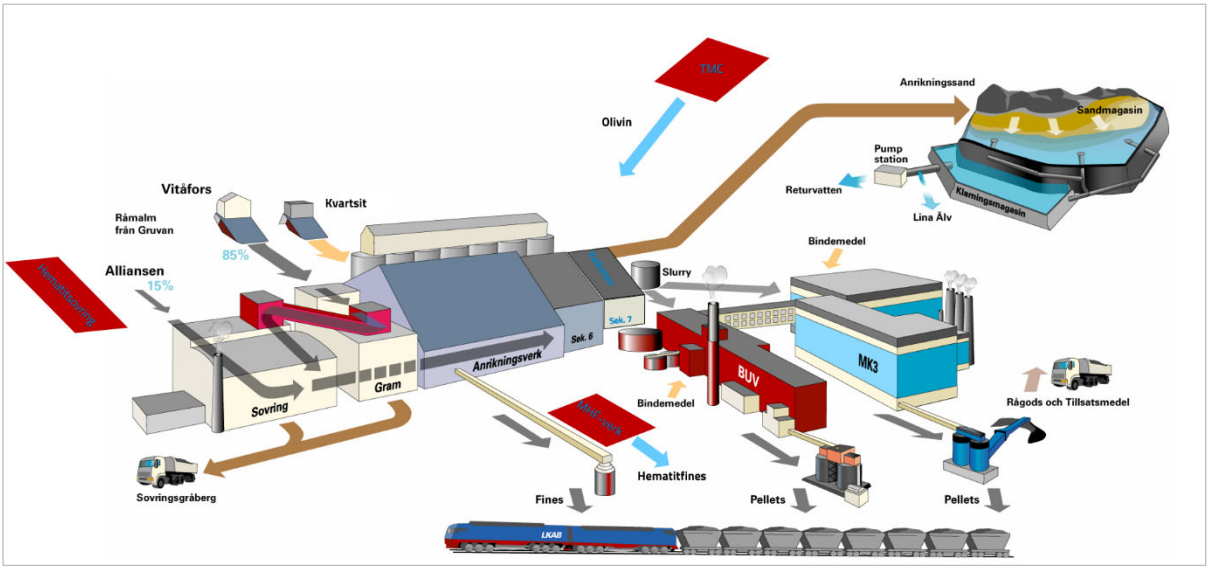


Figure 5-3: Overview of processing flows at Malmberget.

Table 5-1: Malmberget products and volumes.

Product	Name	Use	Quantity (Mt/y)
MPBO/MPBA	Malmberget Pellets Blast furnace Olivine/Acid	Blast furnace pellets	8.0
MAF	Malmberget A Fines	Fines	2.0
MAC	Malmberget A Concentrate	Concentrate for direct reduction or other use	0.4
MHF	Malmberget Hematite Fines	Fines	0.2

Non-magnetic dry waste from the sorting plants is transported by truck to the waste dumps. The wet magnetic separation process recirculates thickener overflow water to the magnetite processes and final waste from thickener underflow is pumped to the tailings storage facility.

5.3 Infrastructure

LKAB manages significant infrastructure in support of its mining operations, including water supply, connections to electric grid power, waste rock and tailings storage facilities, access roads and rail loading yards for pellet transport.

The water system in Malmberget collects, contains and clarifies water before recirculation to the process plants or controlled discharge to various receiving points. Process water is mainly taken from the recirculation water and waste system, whereas it is also possible to abstract water from the nearby Lina river. Potable water is supplied by the municipality.

Electrical power is provided to LKAB by Vattenfall Eldistribution AB who own and operate the 130 kV regional distribution grid in northern Sweden. LKAB production sites are connected by four connection points at Kirunavaara, Vitåfors, Leveäniemi and Mertainen. There will be increased demand for electrical power over the next few years as decarbonization initiatives at LKAB are realized.

Waste rock storage (WRS) at MUJ is primarily to backfill the caved areas that arise from mining which have broken through to surface. LKAB have permission to deposit waste rock at rates of up to 6.3 Mt/y and permission to deposit waste rock in Viri when the current area being used is filled to the level of the surrounding ground. However, that permitted space for storage of waste does not fully support the LOMP. LKAB continues to work with the various agencies to secure permits necessary to achieve the LOMP and to support the Mineral Reserve.

Tailings Storage Facilities (TSF) at Malmberget comprise a tailings pond and a clarification pond (Figure 5-4). The tailings pond contains dam A-B-F which connects to higher natural moraine and a nonactive deposit for waste rock, and dam E-J1-J2 which connects to higher natural ground.

LKAB operate all its TSF according to a dam safety management system that is based on the Swedish regulations for extractive waste and dam safety as well as GruvRIDAS, the Swedish Association of Mines, Mineral and Metal Producers (SveMin) guidelines for tailings dam safety. In 2021 LKAB were granted permission to raise dam A-B-F using upstream construction to increase the TSF capacity over a 10-year period.

LKAB's Tailings Advisory Board (TAB) established to review the safe operation of the company's tailings facilities inspected and reviewed the facilities during 2023. The TAB comprises three expert members with extensive experience of tailings and geotechnical competence, who found that the facilities are being safely managed. The board made various recommendations for further documentation to support management practices and data collection to further calibrate numerical models used.

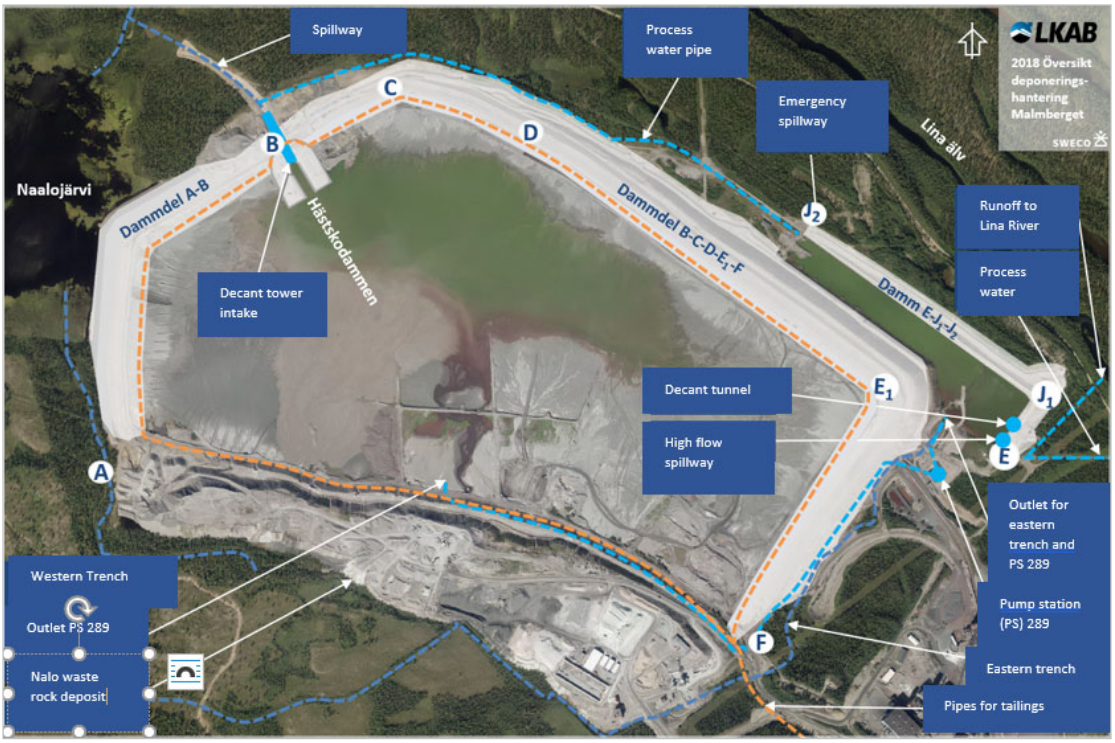


Figure 5-4: LKAB Malmberget Tailings Storage Facility and Clarification Pond.

5.4 Modifying Factors and Reconciliation

Mining modifying factors are based on recovery of blasts defined by draw rates based on operational experience and the grade of cave material that dilutes blasted material.

Reconciliation processes across LKAB continue to be developed as part of a company-wide initiative to integrate reconciliation processes. Reconciliation processes of mine to mill performance currently focus on compliance to plan measures and are being further developed to reconcile production compared with orebody models.

Modifying factors applied in the conversion of Mineral Resources to Mineral Reserves at MUJ include diluting materials and allowances for losses based on mining and processing factors, and considers other factors for infrastructure, economic, marketing, legal, ESG and permitting / regulatory requirements. The work conducted by LKAB demonstrates to the Competent Persons that, at the time of reporting, extraction can be economically justified. The reference point at which Mineral Reserves are defined is the Sorting Plant.

6 PRICES, TERMS AND COSTS

6.1 Products

LKAB mainly produces Blast Furnace (BF) pellets. The company also produces Direct Reduction (DR) pellets, which are an input material in the production of sponge iron (an area of strategic growth for LKAB) that is also called direct reduced iron (DRI), which is used to make steel in an electric arc furnace (EAF). Pellets that degrade during transport are screened and sold as a separate “fines” product.

Malmberget Mine produces around 10 Mt of product per year: approximately 7.7 Mt of iron ore pellets; 2.0 Mt of fines and 0.2 Mt of hematite concentrate.

All MUJ product sales are exported by sea. LKAB’s products are sold in Europe, Middle East and North Africa (MENA), the USA and China.

6.2 Iron Market and Product Prices

The iron ore and steel markets are analysed by multiple research companies and banks. LKAB subscribes to reports by leading research companies such as Wood Mackenzie and CRU. Comments below are based on the research from these companies and the view of LKAB.

Global iron ore demand is expected to decline by 0.6% per annum in the next 10 years. Blast furnace ore demand is expected to decline by 1% per annum while DR ore demand is expected to increase by more than 3% per annum.

Weaker demand in China and growth in developing countries is expected to result in slow growth in the coming 10 years. The demand for blast furnace pellets is expected to be stable or grow somewhat while the demand for DR pellets will grow faster. Market conditions for high grade ore is predicted to have a more positive development long term and it is likely that the price differential between high grade and low-grade ore will increase to the benefit of those companies (including LKAB) that produce high grade ore. The demand for DR pellets will increase substantially after 2030 as the steel industry decarbonises steel production from coal-based blast furnaces to EAF production. Long term, as supply of scrap cannot meet the requirements for iron raw materials in Europe and North America particularly, demand for DRI will grow.

LKAB receives a premium price over iron ore fines of standard grade (IODEX 62%) for the higher iron grade and for the pelletized products. Market prices for iron ore fines 62% Fe and 65% Fe and pellet premiums according to Platts, a research company, are shown in Figure 6-1.

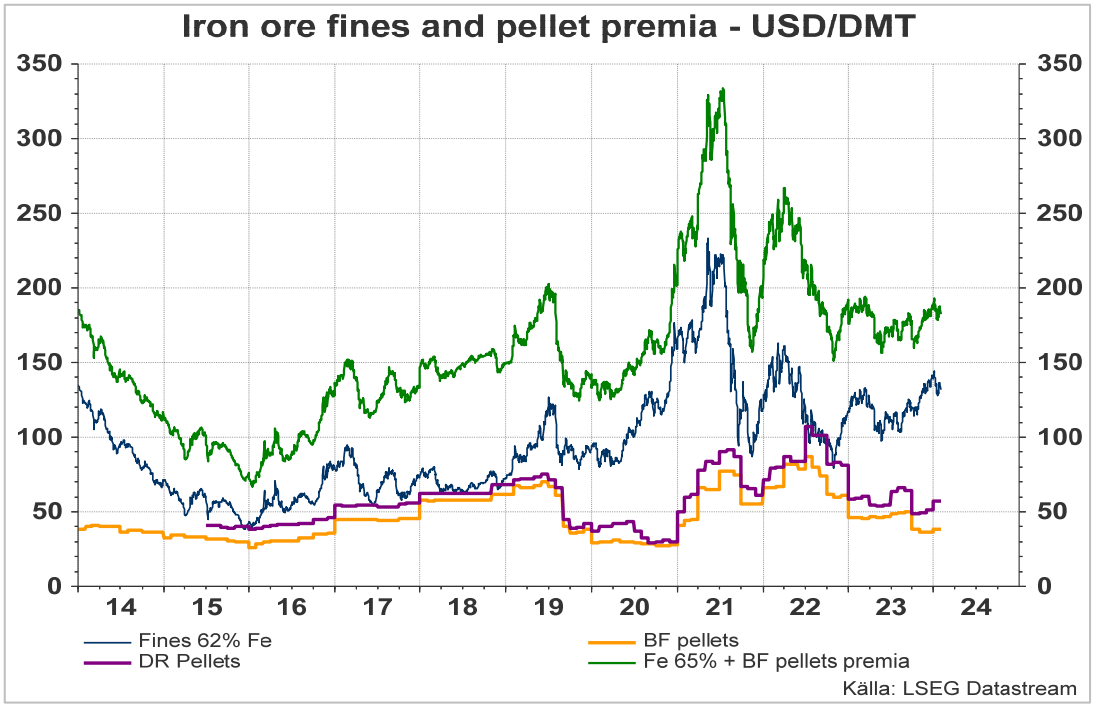


Figure 6-1: Market prices for iron ore fines and pellets, 2014-23 (Source: Reuters Datastream).

LKAB uses a long-term price for fines IODEX 62% of USD 80/t, which is compared with Wood Mackenzie prices for Q4 2022 in Table 6-1, and USD 90/t for fines 65% Fe (both set in the spring of 2023).

Table 6-1: Long term prices based on IODEX fines 62% Fe.

	LKAB (set spring 2023)	Wood Mackenzie Q4 2023	CRU Ltd Q4 2023
IODEX fines 62% Fe (USD/t)	80	75	63-66

6.2.1 Financial Assessment of Mineral Reserves

Assessment to demonstrate the economic viability of the Mineral Reserves has been undertaken independently by SRK, and is based on the LOMP, costs and capital expenditure plan provided by LKAB.

The model is in SEK and in real money terms, post-tax but pre-finance. The start date of the model is 1 January 2024 immediately following the date of the Mineral Reserve statement of 31 December 2023.

Modelling of the processing route has three segments: ore sorter, enrichment, and pelletiser. Hematite from the Western Field is processed at a separate facility, producing a hematite concentrate (MHF) at a maximum plant throughput of 1 Mt/y. For the ore sorter stage, recovery is based on a straight-line relation with feed grade. Product grade is set at 62%. Resulting average LoM recovery is 90% at a mass yield of 59%. The sorter product (on average 9 Mt/y) is fed to the enrichment stage along with between 1.6 and 2.2 Mt/y of sorter product purchased from Svappavaara (up to 2035 inclusive, by which time Svappavaara's Mineral Reserves will be depleted). A flat recovery of 98% Fe is assumed, to produce a 71% Fe product. Part of the enrichment plant product is understood to be sold as fines (MAF) at a rate of approximately 2.1 Mt/y up to 2027 inclusive, after which it reduces down to 0.4 Mt/y by 2035. The remainder of the enrichment plant product is fed to the pelletiser plant. The pelletiser plant is fed with on average 8 Mt/y (excluding the tail at the end of life). A fixed recovery of 97% is assumed, to produce a product of 67% Fe. A positive mass yield of 103% results, which is due to the addition of binding agents. The hematite plant processes a maximum of 1 Mt/y of feed. A flat recovery of 66% is assumed, producing a concentrate at 67% Fe.

Modelling of revenue incorporates sales prices for pellets and fines FoB Narvik and Luleå, with sorter product purchase from Svappavaara based on mine gate, (i.e., receiving plants cover the costs of transporting the material to their processing facilities). Original FoB prices are quoted in USD and have been converted at an exchange rate of 8 SEK/USD. Pellet product prices are a weighted average of the anticipated split of products derived from the LOMP.

Operating costs are split into mining, processing per stage, operational support, G&A, logistics and internal services. Mining costs are forecast based on historically achieved unit costs, adjusted for inflation. Generic percentage splits between fixed and variable have been applied to the June 2023 costs and used going forward. Capital cost estimates have been prepared by LKAB to undertake the various major construction aspects, such as relocation of sections of Malmberget town and extension of the tailings dams. All underground development works are assumed captured under the operating costs. A total closure cost allowance has been included in the economic assessment.

LKAB pay taxes on a corporate level and not on an asset level. For the purposes of this economic viability test, a simplified tax calculation has been incorporated in the technical economic model for the MUJ asset. Depreciation as per the LOMP has been applied as a tax deductible, but no other possible allowances have been applied. The corporate income tax rate applied is 21.4%. Due to the steady state operations at the asset, changes in working capital and VAT have not been taken into consideration. It is understood no mineral royalties are payable.

The Mineral Reserves as stated for the Malmberget mine have passed the economic viability test under the assumptions as assessed by SRK.

7 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

For further description of the Mineral Resources and Mineral Resource Estimation (MRE) process of LKAB, the reader is directed to the similarly published "LKAB 2023 Mineral Resources Estimation Summary Report".

7.1 Mineral Resource Statement

Table 7-1: PERC 2023 Mineral Resource Statement for Malmberget Mine – Fe Only, Exclusive of Reserves. Below -1275 RL, 30% Fe cut-off grade applied to the magnetite dominant mineralisation and 64% Fe for hematite dominant material.

Material	Resource Category	Mass Mt	Fe %
Magnetite	Measured	751	51.1
	Indicated	629	50.7
	Measured and Indicated	**1,380**	**50.9**
	Inferred	278	43.7
	Total	**1,658**	**49.7**
Mixed	Measured	35	43.6
	Indicated	18	46.7
	Measured and Indicated	**54**	**44.6**
	Inferred	49	44.9
	Total	**103**	**44.7**
Hematite	Measured	7	51.1
	Indicated	5	55.7
	Measured and Indicated	**12**	**53**
	Inferred	2	52
	Total	**14**	**52.9**
Must Take	Must Take	5	7.8
	Total	**5**	**7.8**
Total	**Measured**	793	50.8
	Indicated	653	50.6
	Measured and Indicated	**1,446**	**50.7**
	Inferred	329	43.9
	Must Take	5	7.8
	Total	**1,779**	**49.3**

Notes:

(1) Mineral Resources, which are not Mineral Reserves, have no demonstrated economic viability but are considered to have reasonable prospects for eventual economic extraction.
(2) The effective date of the Mineral Resource is 31st December 2023.
(3) Mineral Resources have been constrained within optimised stopes based on the mining and production of magnetite pellets and hematite concentrate.
(4) The optimisation uses reasonable cost, processing and recovery assumptions based on LKAB's operating mines.
(5) Material within the optimised stopes and above the current Reserve base level of -1275 is reported without a cut-off grade.
(6) Material below the base Reserve level of -1275 is reported within the optimised stopes and using a cut-off grade of 30% Fe for the magnetite dominant material and 64% for the hematite dominant material. This cut-off grade has been applied to reflect an anticipated increase in general operating costs below the -1275 level.
(7) The optimisation is based upon long-term metal prices for the produced pellets (1008 SEK/t magnetite pellets) and concentrate (493 SEK/t hematite concentrate).
(8) Waste material captured within the stopes is reported as "Must Take" material. This is considered material that will be captured by the mining method employed and cannot be separated out as waste material, therefore forming part of the feed to the plant.
(9) Tonnages are reported in metric units and grades in weight percent (%) for Fe.
(10) Tonnages and grade are rounded appropriately.

(11) Rounding, as required by reporting guidelines, may result in apparent summation differences between tonnes, grade and contained metal content. Where these occur, LKAB does not consider these to be material.

(12) Mineral Resources have been classified according to the PERC Standards 2021, by Howard Baker (FAusIMM(CP)), an independent Competent Person as defined in the PERC Standard 2021. Mr Baker has relied upon LKAB technical staff and an independent review of the Malmberget MRE has been performed by SRK Consulting (UK) Ltd.

7.1.1 Reasonable Prospects of Eventual Economic Extraction

As per the PERC 2021 reporting guidelines, an assessment of the Reasonable Prospects of Eventual Economic Extraction ("RPEEE") is provided for the defined Mineral Resources. The guidance given in the PERC Reporting Standard (PRS) is as follows:

The term 'reasonable prospects for eventual economic extraction' implies a judgement (albeit preliminary) by the Competent Person(s) regarding all Modifying Factors. Interpretation of the word 'eventual' in this context may vary depending on the commodity or Mineral involved.

In other words, a Mineral Resource is not an inventory of all mineralisation drilled or sampled, regardless of cut-off grade or quality, likely mining dimensions, location, or continuity. The Mineral Resource is an estimate of mineralisation, which, under assumed and justifiable technical, economic and ESG conditions, may, in whole or in part, become economically extractable.

Any material assumptions made in determining the 'reasonable prospects for eventual economic extraction' must be clearly stated, discussed, and justified in any Public Report and supporting documentation. Any adjustments made to the data to make the MRE, such as cutting or factoring grades or qualities, should be clearly stated and described in the Public Report.

The term Mineral Resource covers any Minerals which have been identified and estimated through exploration and sampling and within which Mineral Reserves may be defined following the consideration and application of Modifying Factors.

7.2 Mineral Reserve Statement

The Mineral Reserve statement has been reported using the terminology and guidelines proposed in the PERC Reporting Standard (2021).

The definition of a Mineral Reserve as defined by the PRS is "the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at the Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified".

The Mineral Reserve Statement for Malmberget Mine is presented below in Table 7-2 and Table 7-3. The economic viability of exploiting this has been confirmed by the financial assessment undertaken by SRK. The financial analysis is based on the mining of this Mineral Reserve only; that is, assuming that no Inferred Mineral Resources will be upgraded to higher levels of geological confidence and that no further Mineral Resources are delineated.

Table 7-2: Malmberget Mineral Reserves for Magnetite (31 December 2023).

	Total ROM (Mt)	ROM Grade (% Fe)
Proved	276	40.6
Probable	30	38.3
Total Proved and Probable	306	40.4

Table 7-3: Malmberget Mineral Reserve for Hematite (31 December 2023).

	Total ROM (Mt)	ROM Grade (% Fe)
Proved	7	47.0
Probable	4	46.0
Total Proved and Probable	11	46.6

Notes to Table 7-2 and Table 7-3:

(1) Mineral Reserves have an effective date of 31 December 2023.

(2) The reference point at which Mineral Reserves are defined is the point where the ore is delivered to the Sorting Plant and therefore does not include allowances for losses that occur during beneficiation or processing.

(3) Tonnages are reported in metric units and grades in percent (%). Tonnages and grades are rounded appropriately. Rounding, as required by reporting guidelines, may result in apparent summation differences between tonnes, grade. Where these occur, SRK does not consider these to be material.

(4) The Mineral Reserves are presented inclusive of losses and dilution incurred during mining. The Mineral Reserves includes external waste material introduced in the SLC mining method, and waste development.

(5) The Competent Person confirms that no Inferred Mineral Resources have been converted to Mineral Reserves. Those inferred mineral resources and hematite mineralisation that are included in the mine plan are treated as waste. They are reported as waste at 0% Fe diluting grade in Mineral Reserves and are not material accounting for 0.1% of total Mineral Reserve tonnage.

(6) The Mineral Reserve statement is exclusive of Mineral Resources reported in Table 7-1. The Mineral Reserve is therefore based on Mineral Resources that are not reported in the Mineral Resource statement.

(7) The modifying factors used are based on current mining practice using layouts and approaches to mining that have been developed and established over many years of operation. The Competent Person understands that the Company has legally enforceable mineral title to access the mineral rights for exploration, development and extraction, and through reliance on the Company's legal and permitting experts understands that all permits, ancillary rights and authorisations required for mining, processing and transport of materials are in place for ongoing operations, and where required can be obtained in a timely fashion.

(8) The Mineral Reserve comprises the tonnage of mineralisation reported above as Measured and Indicated Mineral Resource.

(9) The Mineral Reserves are based on the Life of Mine Plan prepared in December 2023, which:

- *a. Plans extraction to around the 1250 level.*
- *b. is based on the understanding that the application process being taken and time available is sufficient for permits to be granted that allow for expansion of waste rock and tailings storage facilities to meet the requirements of the LOMP*

(10) Classification of Probable and Proven Mineral Reserves are based on estimated Mineral Resources incorporated into the LOMP which are classed as Indicated and Measured Resources respectively, except:

- *a. for the Hoppet ore body where there is lower confidence in the recoverability of ore, 13.0 Mt at 50% Fe of magnitite from material classified as Measured Mineral Resources in the LOMP are converted to a lower confidence classification as Probable Mineral Reserves.*

(11) Mineral Reserves have been classified according to the PERC Reporting Standard 2021 by Tim McGurk, CEng, FIMMM, who is employed as a Corporate Consultant with SRK Consulting (UK) Ltd, and is an independent Competent Person as defined in the PERC Reporting Standard. Mr McGurk has relied upon LKAB technical staff and an independent review of the Malmberget CPR has been performed by SRK Consulting (UK) Ltd.

7.2.1 Comparison with Previous Mineral Reserves Statements

LKAB's Mineral Reserve Statements have been prepared and reported in accordance with the PERC Reporting Standard since 2019.

Table 7-4 compares 2023 Mineral Reserves with 2022 Mineral Reserves.

Table 7-4: Mineral Reserves for 2023 and 2022.

	2023 (Mt)	2022 (Mt)	2023 (%Fe)	2022 (%Fe)
Proven – Magnetite	276	247	40.6	40.3
Probable – Magnetite	30	25	38.3	37.8
Proven – Hematite	7	7	47.0	46.8
Probable – Hematite	4	5	46.0	46.3
Total Proven and Probable	**317**	**284**	**40.6**	**40.4**

Comparing Mineral Reserves for 2023 to Mineral Reserves for 2022 total Mineral Reserves increased by 32 Mt (11.4%) to 317 Mt in 2023. Net Mineral Reserves result from 16.3 Mt depletion and 48.8 Mt increase due to a change in Reserve classification.

Figure 7-1 shows the change to Mineral Reserves tonnage from 2022 to 2023. Proven Reserves increased from 254 Mt to 282 Mt (11%) and Probable Reserves increased from 30 Mt to 35 Mt (15.3%) in 2023.

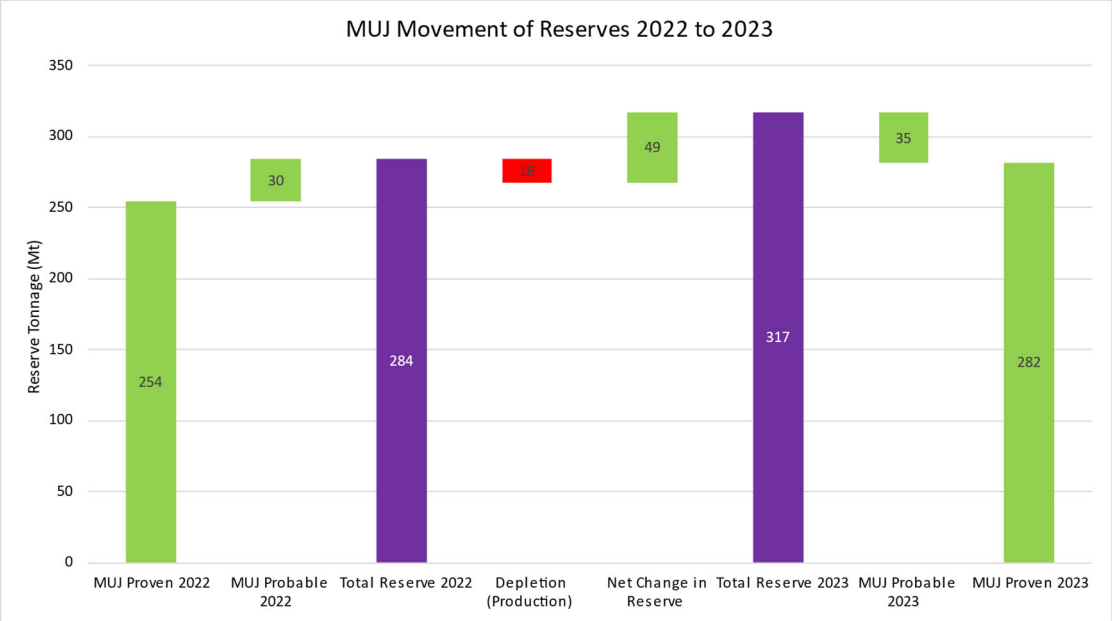


Figure 7-1: Movement of Mineral Reserves from 2022 to 2023

For 2023 Mineral Reserves it is noted that magnetite material in the LOMP classified as proven and probable both the Eastern and Western Fields totals 245 Mt. The total Mineral Reserves of 306 Mt at 40.4% Fe, comprises 245 Mt magnetite ore and 61 Mt waste rock which includes 0.4 Mt of hematite and inferred material at 0% Fe. Magnetite material located in the Hoppet ore zone is classified as Probable Mineral Reserve due to uncertainty of ore recovery that arises from the change in extraction sequence in this area of the orebody.

8 ESG AND PERMITTING

LKAB is wholly owned by the Swedish government and in accordance with the government's requirements, LKAB aims to set an example and to be a leader in sustainable enterprise.

The company has established strategic goals for the period 2022-2030. This includes climate-efficient, sustainable transformation defined by a reduction of CO_2 emissions to well below 2°C with a 25% reduction in its operations, a 10% reduction in energy consumption and increased biodiversity. Each goal has targets to 2026. Official and public follow-up and reporting is through LKAB's Annual and Sustainability report. Overall corporate governing is outlaid in governing documents, all accessible at lkab.com, as follows:

- The State Ownership policy and guidelines for state-owned enterprises
- The Swedish Code of corporate governance
- Our code of conduct
- Our supplier code of conduct
- Sustainability and human rights policy
- Finance policy
- Risk management policy
- Safety first Guidelines
- Human rights Guideline
- Our management philosophy

LKAB are also certified according to ISO 9001, ISO 14001, ISO 45001, and ISO 50001.

Since 2008 LKAB has prepared its sustainability reports in accordance with the framework for sustainability reporting issued by the Global Reporting Initiative (GRI). For 2021 the report has been prepared in accordance with the GRI Standards: Core option and includes the Mining and Metals Sector Supplement (MM). Where the GRI framework calls for detailed descriptions of specific topics, LKAB has chosen to include supplementary information and clarifications in the sustainability notes. The Annual and Sustainability Report also constitutes LKAB's Communication on Progress (COP) for the UN Global Compact, and it contains information on how LKAB are contributing to Agenda 2030 and the Sustainable Development Goals. LKAB has also begun the process of reporting according to TCFD (Task Force on Climate Related Financial Disclosures) guidelines. In 2023 LKAB commenced preparations to implement the Corporate Sustainability Reporting Directive (CSRD).

Sustainability is central to LKAB's business strategy and by identifying and acting on risks and opportunities LKAB focuses on increasing positive impacts and decreasing negative impacts. To identify important areas where LKAB can have the largest impact, LKAB conducts stakeholder and materiality analysis continuously. A comprehensive list of LKAB's material topics can be found in the Annual and Sustainability Report.

8.1 Environmental Permits

LKAB works continuously to ensure required permits for mining and processing operations and other goals and measures are met. LKAB's preventative measures aim to minimize the impact on natural areas, improve biodiversity and compensate for natural values in accordance with overlaying sustainability goals. For example, actual measures include development of water and land stewardship and extensive work on water purification techniques. LKAB has an active and ongoing dialogue with stakeholders to ensure the interaction required to conduct sustainable mining operations takes place. LKAB places considerable emphasis on being accessible, responsive, and transparent.

8.1.1 Setting

The Vitåfors industrial area is located next to the community of Malmberget in Gällivare municipality. Koskullskulle, which has around 1100 residents, is located about 2 km southeast of the processing plants. The area is within the catchment area of the water and Natura 2000 network Lina Älv (Lina River).

8.1.2 Current Permit Status

Table 8-1 lists current environmental permits for LKAB's operation in Malmberget covering activities in the mine, processing plants, for water operations and for the tailings storage facilities.

Table 8-1: Environmental permits.

Date	Permit reference	Description
2007-12-11	Environmental court (M 2090-06)	Permission to a yearly production of up to 20 million tonnes iron ore, 14 million tonnes of products, of which up to 9 million tonnes is pellets. Deposit of tailings up to an amount of 2.2 million tonnes per year and deposit of 6.3 million tonnes of waste rock annually.
2010-06-11	Environmental court (M 2806-08)	Permission to raise the dams at the tailings pond and to build a new spillway.
2014-02-21	Land and Environmental court (M 1745-12)	Permission to raise the dams at the tailings pond and to raise the level at the spillway.
2014-05-08	Land and Environmental court (M 1746-12)	Permission of change regarding deposit of waste rock. Permit for deposit also in Tingvallskulle deposit.
2021-03-22	Land and Environmental court (M 3394-19)	Permission to deposit waste rock in ViRi when Tingvallskulle is filled to the level of surrounding ground.
2021-05-24	Land and Environmental court (M 1303-18)	Permission to raise the dams at the tailings pond and to raise the level at the spillway.

8.1.3 Upcoming Permits and Future Projects for Assessment

Recent Applications

The application regarding a Natura 2000 permit for the current operations submitted to the Land and Environmental Court in November 2019 (M 3255-19) was decided, by the Environmental Court, in April 2023. The application was rejected, the decision was not appealed by LKAB.

Current Applications

In May 2023 LKAB submitted the permit application for continued and expanded operations in Malmberget. The application includes, in addition to the ordinary mining and processing operations, further raising of the tailing ponds dams, enlargement of the clarification pond, a demonstration plant for the direct reduction of iron ore with hydrogen using Hybrit-technology, large-scale hydrogen production, an apatite plant for the extraction of the phosphate mineral apatite from residual material, and a Natura 2000 application. The regulatory agencies reviewed the application and provided their first round of supplementary requirements.

Table 8-2: Recent and/or coming applications.

Description	Authority for assessment	Time frame
Natura 2000 permit for the current operation	Land and Environmental Court	Submitted November 2019 Application rejected April 2023
New permit for the entire current and future operation at Malmberget	Land and Environmental Court	Submitted May 2023 Estimated approval in 2025

8.2 Urban Transformation

As mining progresses, areas of Malmberget are affected. For LKAB's business and the surrounding communities to continue to develop, a process of urban transformation is implemented in collaboration with those affected. The urban transformation process at Malmberget involves nearly 2,000 residences, approximately 250,000m^2 of housing and functional space and around 4,000 people.

Together with the Gällivare municipality, LKAB agree when and how the urban transformations are to be conducted and agreements are established to regulate coordination, co-operation and implementation. A local plan developed and adopted by the municipality determines how the land and water will be used and what buildings may look like within a certain area of the municipality. Mine City public parks are constructed after housing is relocated or demolished to smooth transition of the area from the city to the mine.

The urban transformation process requires public consultation and for LKAB to reach agreements with all the property owners and businesses affected. This includes purchase of properties, financing several major infrastructure projects, and payment of compensation. Municipalities are responsible for urban planning and follow legislation such as the Planning and Building Act and the Swedish Environmental Code and to work with government authorities such as the County Administrative Board, the Swedish Transport Administration and the National Property Board as required as well as with other parties and construction companies involved in building these new communities.

Stakeholders affected by the changes include property owners, trade and industry, various associations and the Sámi. LKAB work with the municipalities to consult effectively with all stakeholders, to provide information on the mine´s impact on its surroundings and to find good solutions for all concerned in a safe and secure manner. This process is often conducted over several years.

The Swedish Minerals Act requires LKAB to pay for the costs incurred when the company's mining makes the urban transformations necessary. The project portfolio regarding housing currently seems to match the needs considering the pace of decommissioning. However, over the long term LKAB foresees need for continuous realization of further housing projects.

8.3 Environmental and Social Risks and Uncertainties

Environmental risks and uncertainties outlined include threats and opportunities associated with permitting, management of environmental issues and stakeholder engagement.

8.3.1 Permitting Risks and Uncertainties

Uncertain permit proceedings, with some previous rejections of environmental applications at the Land and Environmental Court make it difficult to plan how upcoming requirements for new approvals shall be executed. Extensive and uncertain environmental permit proceedings may delay investments, limit or restrict access to land, and lead to production restrictions. Detailed or narrowly defined judgments or permits may restrict freedom of operation within the framework of the permit, which in turn may lead to more permit processes being required, potentially impact environmental and safety measures creating a threat that the operation is consequently not considered to be conducted in accordance with relevant regulations.

New environmental permit may result in stricter requirements and conditions in a variety of areas. At present, the authorities require improved measures to reduce the environmental impact. There are also higher demands on, among other things, purification of the water reaching the recipient. Additional operations with an external operator (HYBRIT) at the industrial area introduces a new dynamic that may also impact the environmental permit approval process.

It is noted that in a November 2023 judgement the Supreme Environmental court ruled that water discharge limits for uranium in Sweden are to be measured as total dissolved uranium, as legislated. This contradicts guidance associated with the EU Water Framework Directive which suggests that, where sufficient data are available, those specific metal species that impact bioavailability should be considered when deriving water quality standards. Award of future permits that rely on this ruling may require LKAB to change its modes of water management unless the Swedish regulation is amended in line with the EU guidance. This introduces some uncertainty that such changes can be achieved within timeframes the company has scheduled and if not, potentially delaying the company's plans for extended mine production and new process facilities.

8.3.2 Environmental Management Risks and Uncertainties

There is uncertainty around permitting for increased production. The operation’s proximity to watercourses which are part of Natura 2000 areas represents a risk for future permit applications: managing water quality at discharge to the requirements of the EU Water Directive is essential. Maintaining expertise through international discussions, external monitoring, and ongoing building of knowledge and opportunities will increase LKAB’s ability to influence the design and implementation of new regulations and, consequently compliance with new legislation.

8.3.3 Stakeholder Engagement Risks and Uncertainties

There remains a threat of not gaining social acceptance for planned measures, ongoing operation, and urban transformation. There is a risk that the decision-making process to implement changes that arise from stakeholder engagement take longer than anticipated and will not meet the company's schedule and objectives.

There is a threat that an inferior relationship with the Sámi arises from LKAB developing plans both for mining operations and the transition to renewable energy sources, by consuming more wind power generated electricity and the need for more wind turbines that may affect reindeer husbandry.

9 RISKS AND UNCERTAINTIES

Increased challenges associated with mining at depth are recognised by LKAB as one of the most significant threats to the declaration of deeper Mineral Resources and future Mineral Reserves of the company. Ongoing technical studies and future Mineral Resource optimisation studies will assist in the application of a depth constraint on future Mineral Resource Statements and increase confidence in the technical and economic feasibility of additional Mineral Reserves.

Aside from the technical challenges related to the declaration of Mineral Resources and additional Mineral Reserves, as described above, the time frame to complete the permitting process is a future threat to LKAB, with significant timeframes during the permitting process possible as well as the future threat that the required permits will not be granted. Where permits are granted, there is risk that conditions arising from new legislation which have greater compliance hurdles, threaten the company's plans and schedules.

Future Mineral Reserves rely on successful permitting and future technical studies. Uncertainty how future plans will interact with existing Mineral Reserves to extend the Life of Mine Plan presents some risk to existing Mineral Reserves.

The single track rail infrastructure used to transport iron ore products from Malmberget to the port at Luleå, is a single point of failure risk that makes LKAB vulnerable to the impacts of lower or zero sales from Malmberget mine when the rail line has reduced capacity or cannot be used.

LKAB's strategy to implement Hybrit technology to develop a "fossil-free value chain for iron and steel production" is a long-term commitment with inherent uncertainty as the project develops. However, its outcomes are integral to LKAB's commitment to gradual transition to carbon dioxide-free products and processes by 2045. The impact of the Hybrit programme on future Mineral Reserves at MUJ where various trials are planned and underway is uncertain and further assessment is required.

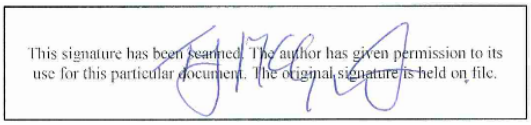
10 CONCLUDING REMARKS

This summary technical report describes LKAB's Mineral Resources and Mineral Reserves, as of 31 December 2023 at the Company's Malmberget iron ore mine in accordance with the PERC Reporting Standard (2021).

Financial assessment of the Mineral Reserves demonstrates to the Competent Person their economic viability. Ongoing technical studies will continue to improve orebody knowledge to enable extraction plans to be enhanced to increase confidence in their technical viability. LKAB's reporting of ESG context and factors that could influence extraction describe their experience of the inherent difficulties around permitting and also demonstrate the company's commitment to meeting the requirements of the permitting processes necessary to deliver on the Mineral Reserves stated.

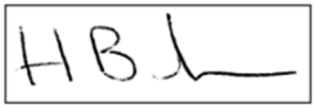
The Competent Person concludes that extraction of the Mineral Reserves can be reasonably justified at the time of reporting.

For and on behalf of SRK Consulting (UK) Limited



Tim McGurk,
Corporate Consultant (Mining Engineering)
SRK Consulting (UK) Limited

For and on behalf of LKAB Sweden



Howard Baker
Baker Geological Services Limited

ABBREVIATIONS

CP	Competent Person
CPR	Competent Persons Report
DRI	Direct Reduced Iron, also known as sponge iron
ESG	Environmental, Social and Governance
FoB	Freight on Board
KUJ	“Kiruna under Jord” - Kiruna Mine
LKAB	Luossavaara-Kiirunavaara AB
LOMP	Life of Mine Plan
Mt	Million metric tonnes
Mt/y	Million tonnes per year
MRE	Mineral Resource Estimate
MUJ	“Malmberget under Jord” – Malmberget Mine
PERC	Pan-European Reserves and Resources Reporting Committee
PRS	PERC Reporting Standard
QAQC	Quality Assurance and Quality Control
RPEEE	Reasonable Prospects for Eventual Economic Extraction
SEK	Swedish Krona
SLC	Sub Level Caving - mining method
SRK	SRK Consulting (UK) Ltd
STR	Summary Technical Report
TSF	Tailings Storage Facility
USD	United States Dollars

APPENDIX

A CONSENT LETTERS

Our Ref: MUJ 2023_Public Summary Final.docx

Competent Person's Consent Statement

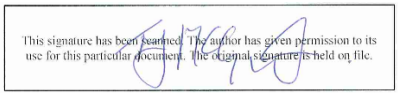
Pursuant to the requirements of paragraph 3.7 of the PERC Reporting Standard 2021

With respect to the report entitled: 'A Competent Person Report on the Mineral Resources and Mineral Reserves of LKAB, Sweden – Malmberget Mine' on behalf of LKAB, with an effective date of report of 31 December 2023, (the "Report").

I, Timothy McGurk, confirm that:

- I am a full-time employee of SRK Consulting (UK) Ltd and have been engaged by LKAB to prepare the Report for the Malmberget Iron Ore Deposit with an effective date for the Mineral Reserve statement of 31 December 2023.
- I am a mining engineer and professional member with required status namely Chartered Engineer of the UK Engineering Council (membership number 487211) and a Fellow of and Qualified for Minerals Reporting (QMR) by the Institute of Materials, Minerals and Mining (membership number 47795) being an institution named on the PERC list of Recognised Professional Organisations as updated October 2021.
- I have a B.Eng in Mining Engineering from the University of Nottingham.
- I meet the requirements of a 'Competent Person' as defined explicitly in the PERC Reporting Standard having at least five years' relevant experience in relation to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I completed Mineral Reserve estimates based on information provided by LKAB.
- I visited the site twice in 2023 during January and December for meetings and an inspection of facilities.
- I declare that this Public Report appropriately reflects the Competent Person's view.
- I have reviewed the Report to which this Consent Statement applies and take responsibility as the Lead Competent Person for the reporting of Mineral Reserves.
- I am not aware of any material fact or material change concerning the subject matter of the Public Report that is not reflected in the Public Report, the omission of which would make the Public Report misleading.
- I am independent of LKAB. I do not have, nor do I expect to receive, a direct or indirect interest in the operations of the LKAB. I have no conflicts of interest in respect of the reporting entity/issuer LKAB or the project/operation.
- I have read all the relevant sections of the PERC Reporting Standard 2021. The Public Report has been prepared under the requirements of the PERC Reporting Standard.
- At the effective date of the Public Report, to the best of my knowledge, information and belief, the Public Report contains all scientific and technical information required to be disclosed in order to make the Public Report not misleading.

Signature of Competent Person:



Date:
31/12/2023

Professional Membership:
Institute of Materials, Minerals and Mining

Membership Number:
47795

Competent Person's Consent Statement

Pursuant to the requirements of paragraph 3.7 of the PERC Reporting Standard 2021

With respect to the report entitled: 'A Competent Person Report on the Mineral Resources and Mineral Reserves of LKAB, Sweden – Malmberget Mine' on behalf of LKAB, with an effective date of report of 31 December 2022, (the "Report").

I, Howard Baker, confirm that:

- I am a full-time employee of Baker Geological Services Ltd and have been engaged by LKAB to prepare a Mineral Resource Estimate on the Malmberget project.
- I am a geologist and professional member with required status Chartered Professional Fellow (FAusIMM(CP)), Membership Number 224239, of the Australasian Institute of Mining and Metallurgy.
- I have a BSc in Applied Geology from Oxford Brookes University and a MSc in Mineral Resource Evaluation from Cardiff University.
- I am a Competent Person as defined by the PERC Standard, having at least five years' relevant experience in relation to the style of mineralisation and type of deposit described in the report, and to the activity for which I am accepting responsibility.
- I meet the requirements of a 'Competent Person' as defined explicitly in the PERC Reporting Standard.
- I have managed all aspects of the Mineral Resource Estimation.
- I have undertaken multiple site visits to LKAB and the Malmberget project since August 2021.
- I take full responsibility for all sections relating to the Mineral Resource Estimates.
- I am not aware of any material fact or material change concerning the subject matter of the Public Report that is not reflected in the Public Report, the omission of which would make the Public Report misleading.
- I declare that this Public Report appropriately reflects the Competent Person's view.
- I am independent of LKAB.
- I confirm that I have read all the relevant sections of the PERC Reporting Standard 2021. The Public Report has been prepared under the requirements of the PERC Reporting Standard.
- I do not have, nor do I expect to receive, a direct or indirect interest in the project of LKAB.
- I have no conflicts of interest in respect of the reporting entity/issuer LKAB.
- At the effective date of the Public Report, to the best of my knowledge, information and belief, the Public Report contains all scientific and technical information required to be disclosed in order to make the Public Report not misleading.

Signature of Competent Person:	Date:
HBL	31/12/2023
Professional Membership:	**Membership Number:**
Australasian Institute of Mining and Metallurgy	224239