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

December 2022

View of the Leveäniemi Open Pit at Svappavaara Mine

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

PERC PAN-EUROPEAN RESERVES + RESOURCES REPORTING COMMITTEE

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1 SUMMARY

This report describes LKAB's mining and processing operations at Svappavaara Mine located near to Svappavaara town in northern Sweden. The Company plans to extract a Mineral Reserve from the Leveäniemi pit totalling 97 Mt at 45.4% Fe, which are classified as Proven and Probable Mineral Reserves (reference point is the sorting plant). Extraction is planned over a period of 13 years to 2035. Ore will be processed into iron products at the Company's facilities on site and products then transported by rail for sale to LKAB's Malmberget mine, and for shipping to customers from ports at Luleå, Sweden.

Svappavaara Mine has three deposits for which Mineral Resources have been estimated, namely at Leveäniemi, Gruvberget and Mertainen. From Leveäniemi Mineral Resources of 137 Mt at 43.4% Fe classified as Measured, Indicated and Inferred Mineral Resources are declared in addition to the Mineral Reserves. At Gruvberget, 402 Mt at 51.4% Fe classified as Measured, Indicated and Inferred Mineral Resources are declared, which includes 3 Mt at 9.9% Fe "Must Take" material. At Mertainen, 149 Mt at 34.4% Fe classified as Measured, Indicated and Inferred Mineral Resources are declared.

Mining is planned from the Leveäniemi pit only. Excavation is by conventional open pit mining methods using drill and blast, and truck and shovel equipment. Production is scheduled at an annual production rate of 7.4 Mt/y for the first 12 years. Total material movement is 159 Mt with maximum rates of around 14 Mt/y for the next eight years. The mine's main products are iron ore pellets and fines. Pellet quality from Svappavaara is optimised by blending ore types: sorter plant product from the Leveäniemi pit is blended with sorting plant product purchased from LKAB's Kiruna Mine, it is also sold to LKAB's Malmberget Mine for processing in the pellet plant there.

LKAB recognise risks and uncertainties arise in their operating environment, and the potential impact these may have on future overall Mineral Resources and Reserves. These include 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.

An independent financial assessment of the Mineral Reserve has demonstrated the value of the Project, which has potential to be enhanced further particularly given the potential for the Mineral Resource and Mineral Reserve 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 2022 and are based on a review of the operations at Svappavaara 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 Svappavaara Mine for the year ended 31 December 2022.

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. The approach is being developed and trialled at other LKAB operations but would be expected to be implemented at Svappavaara when proven.

2.2 Competence

This 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 Svappavaara MRE by Guy Dishaw (BSc, CPAG, PGeo), a mineral resource geologist at SRK.

Mr Tim McGurk (CEng #487211, FIMMM #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 of the Competent Person Report (CPR), which provides the basis for this summary report by colleagues at SRK.

Table 2-1: Contributions and Responsible Persons for this Report (Fe).

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 Svappavaara Mine.	
External Reviewers (SRK)	Guy Dishaw; Fiona Cessford; Murray McGregor; Mike di Giovinazzo; Hanno Buys; Inge Moors	

3 SVAPPAVAARA MINE

3.1 Location and Background

Svappavaara is a small town situated in Kiruna Municipality, Norrbotten County, Sweden. It has approximately 400 inhabitants, is located next to the E10 highway approximately 40 km southeast of Kiruna and 70 km north of Malmberget, and is connected by rail to Kiruna and onwards to Narvik, Norway, and to Luleå. The nearest airport is Kiruna Airport which has daily flights to Stockholm, Luleå and Umeå.

Mining at the site dates from ca 1650; modern mining and processing started around 1965. The mine was closed in 1983, but processing of iron ore supplied from the mine at Kiruna continued. Svappavaara comprises three deposits: Leveäniemi, Gruvberget, and Mertainen. Leveäniemi is the only pit in operation where mining re-commenced in 2014. Iron ore products from Svappavaara are transported by rail to the port of Narvik and to the port of Luleå, or to the Vitåfors industrial area (LKAB) for pellet production.

Svappavaara is located approximately 100 km north of the Arctic Circle. It has a subarctic climate with short, cool summers and long, cold winters. The general area around Svappavaara is mixed forest and marshland.

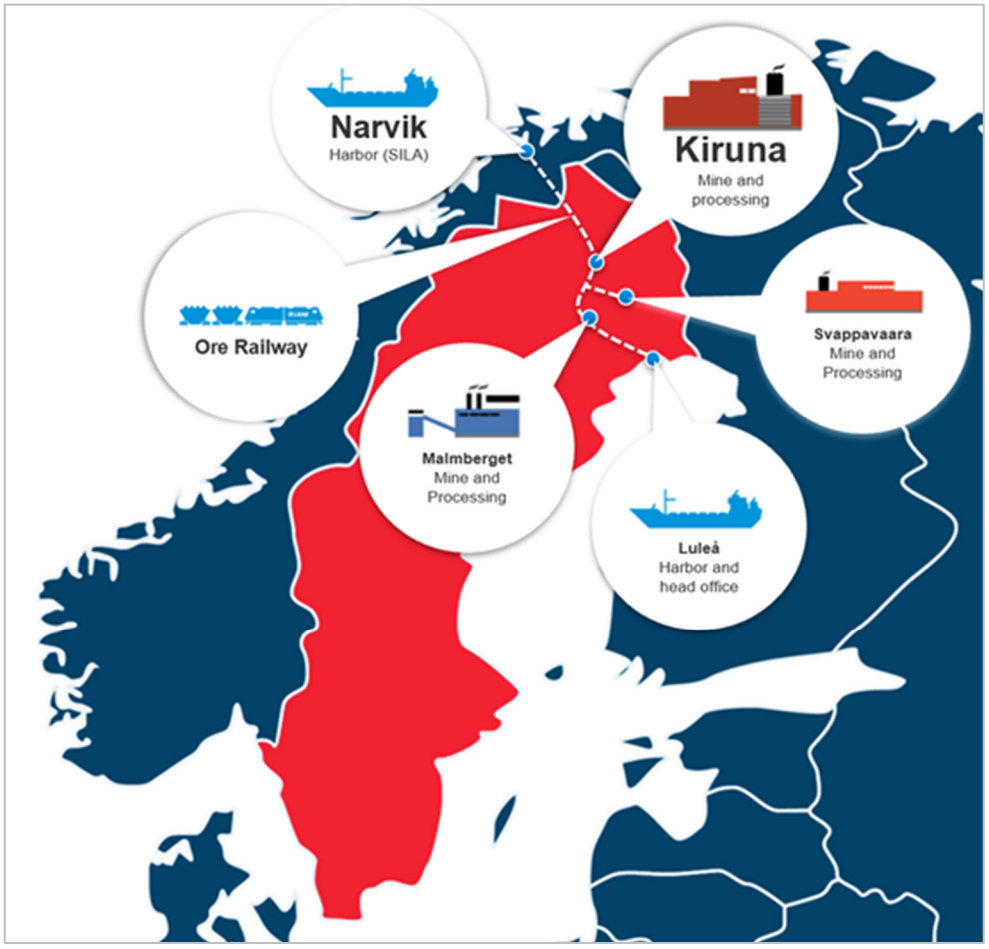


Figure 3-1: Location of LKAB Assets in Norrbotten County (Source: LKAB).

3.2 LKAB Tenure Listing

3.2.1 Exploration Permits

LKAB has two exploration permits in Svappavaara described in Table 3-1 and shown in Figure 3-2, and four exploration permits in Mertainen described in Table 3-2 and shown in Figure 3-3.

Table 3-1: Exploration permits in Svappavaara.

Exploration permit	License id	Valid from	Valid until	Year	Extension
Leveäniemi nr 1	2008:263	2008-11-05	2025-11-05	15	expires
Leveäniemi nr 2	2021:2	2021-02-17	2024-02-17*	2	1st

*not subject to the “covid-extension”, due to the fact that the permit was not valid on July 1st 2020

Table 3-2: Exploration permits in Mertainen.

Exploration permit	License id	Valid from	Valid until	Year	Extension
Kuosanen nr 3	2019:88	2019-11-21	2024-11-21	4	1st
Mertainen nr 1	2008:46	2008-02-12	2025-02-12	15	expires
Mertainen nr 3	2019:63	2019-07-12	2024-07-12	4	1st
Mertainen nr 4	2021:3	2021-02-17	2024-02-17*	2	1st

*not subject to the “covid-extension”, due to the fact that the permit was not valid on July 1st 2020

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

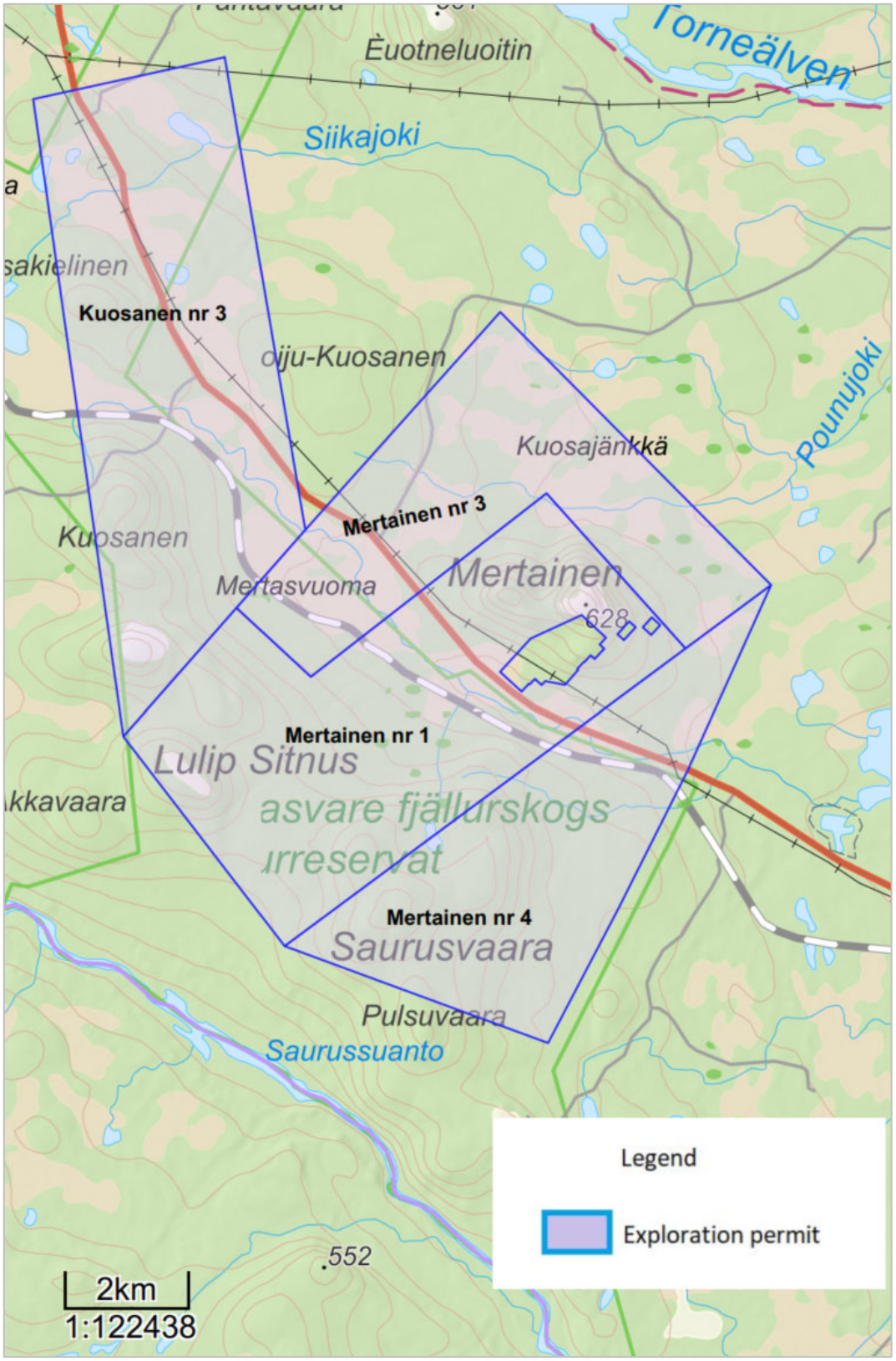


Figure 3-3: Exploration permits in Mertainen.

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 three exploitation concessions in Svappavaara described in Table 3-3 and shown in Figure 3-4. Two land designations in favour of Leveäniemi K nr 1 and Gruvberget K nr 1 are valid as long as one of the respective concessions is valid.

The exploitation concession Leveäniemi K nr 1 will be extended without an application provided regular exploitation operations currently in progress are still ongoing in 2025. There is no regular exploitation operation within the concession Gruvberget K nr 1 and if that is the case in 2024, LKAB will need to apply for an extension 6 months before the period of validity expires.

Table 3-3: Exploitation concessions in Svappavaara.

Exploitation concession	Valid from	Valid until
Gruvberget K nr 1	2000-05-10	2025-05-10
Gruvberget K nr 2	2015-02-02	2040-02-02
Leveäniemi K nr 1	2000-05-02	2025-05-02

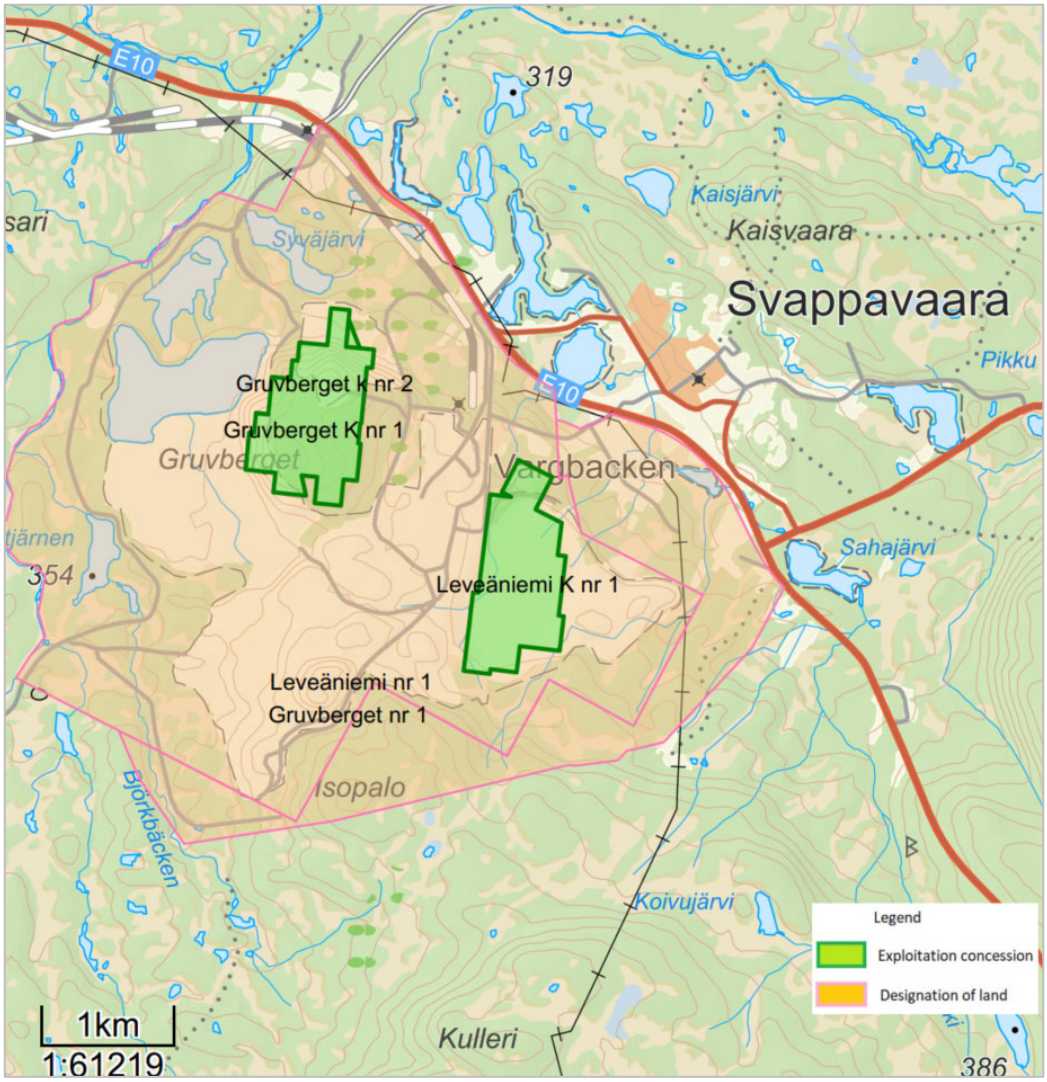


Figure 3-4: Exploitation concessions in Svappavaara.

Figure 3-5 shows the land designations for exploration and exploitation by LKAB and areas of public interest in the Svappavaara area.

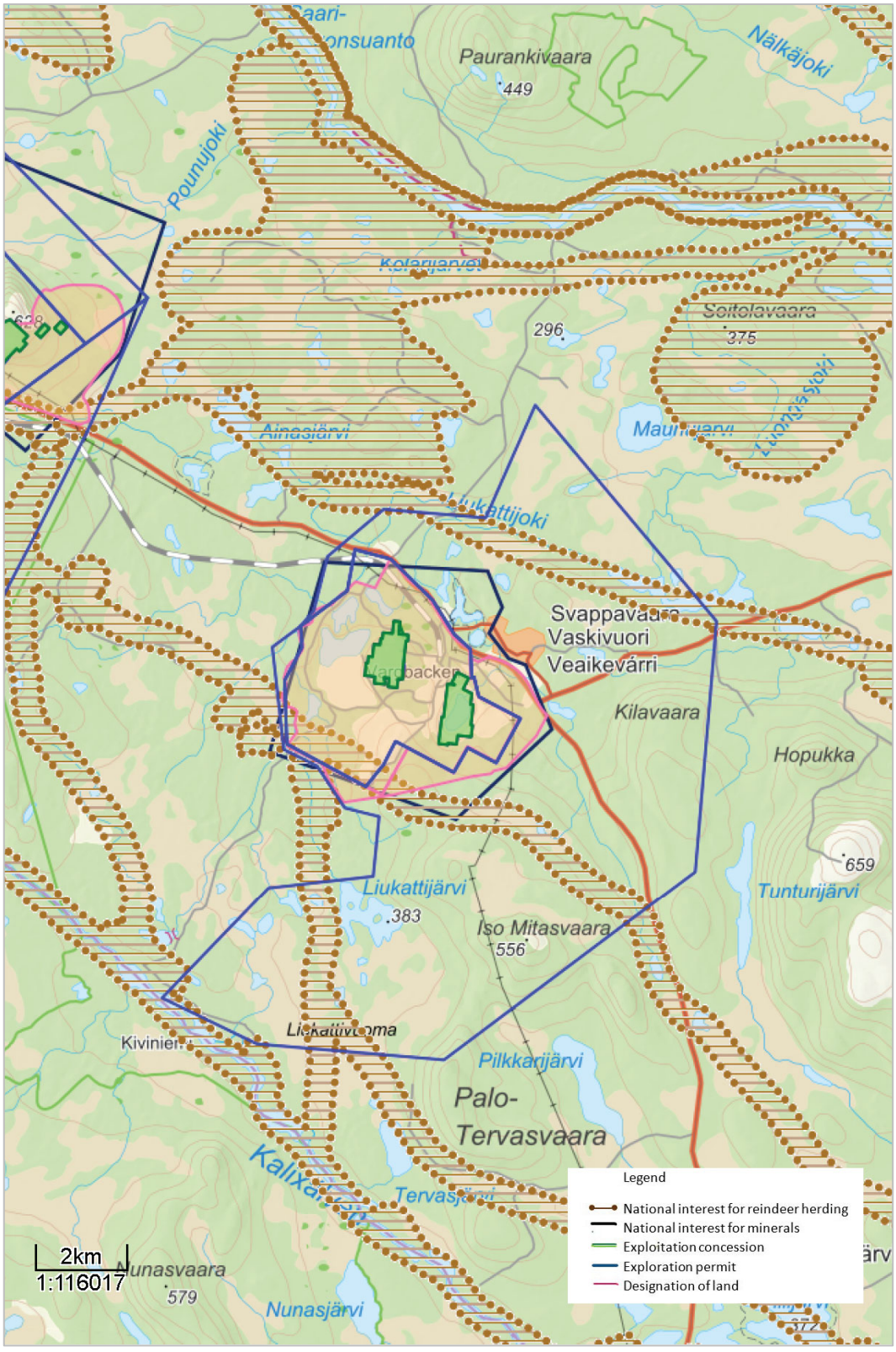


Figure 3-5: Land designations and areas of public interest in the Svappavaara area (Source: LKAB).

LKAB has three exploitation concessions at Mertainen described in Table 3-4 and shown in Figure 3-6.

There are no regular exploitation operations within the concessions in the Mertainen area, and if that is the case in 2024 LKAB will need to apply for an extension 6 months before the period of validity expires. LKAB has one land designation in favour of Mertainen K nr 1. The land designation is valid as long as the respective concession is valid.

Table 3-4: Exploitation concessions in Mertainen.

Exploitation concession	Valid from	Valid until
Mertainen K nr 1	2000-04-19	2025-04-19
Mertainen K nr 2	2000-04-19	2025-04-19
Mertainen K nr 3	2000-04-19	2025-04-19

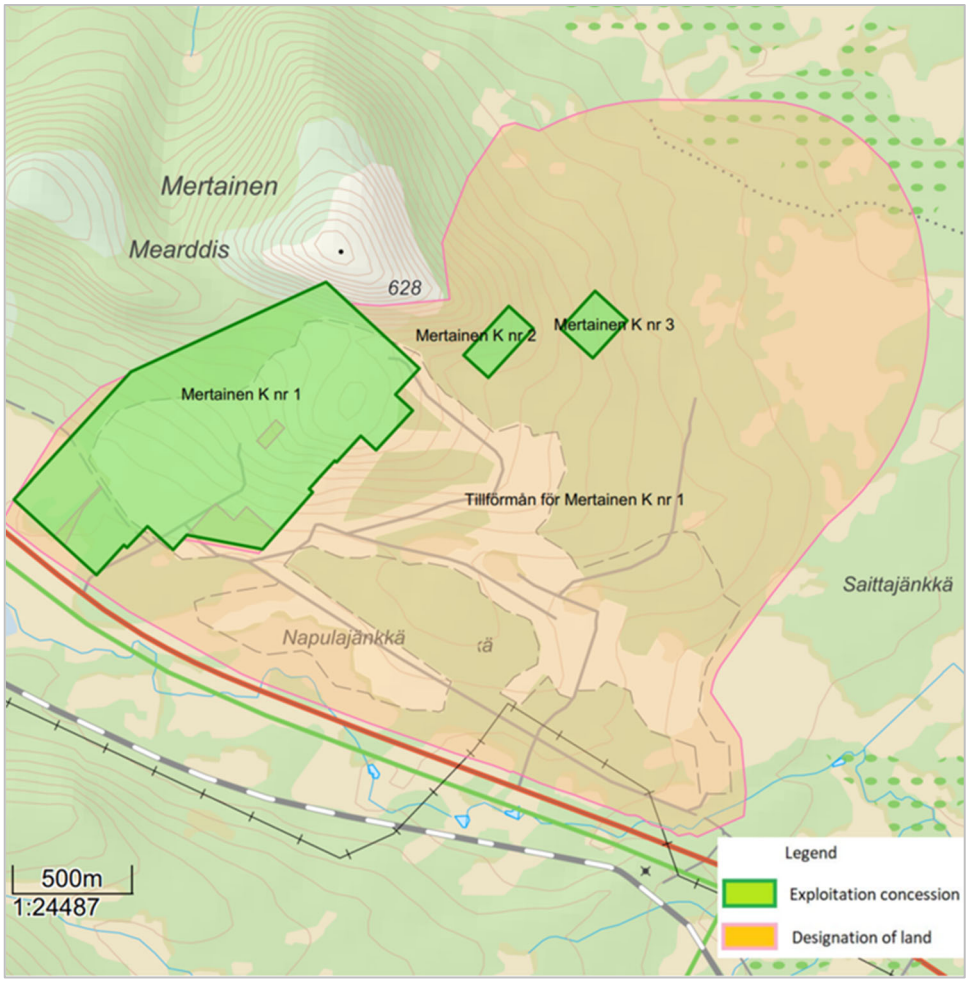


Figure 3-6: Exploitation concessions in Mertainen.

Figure 3-7 shows the land designations for exploration and exploitation by LKAB and areas of public interest in the Mertainen area.

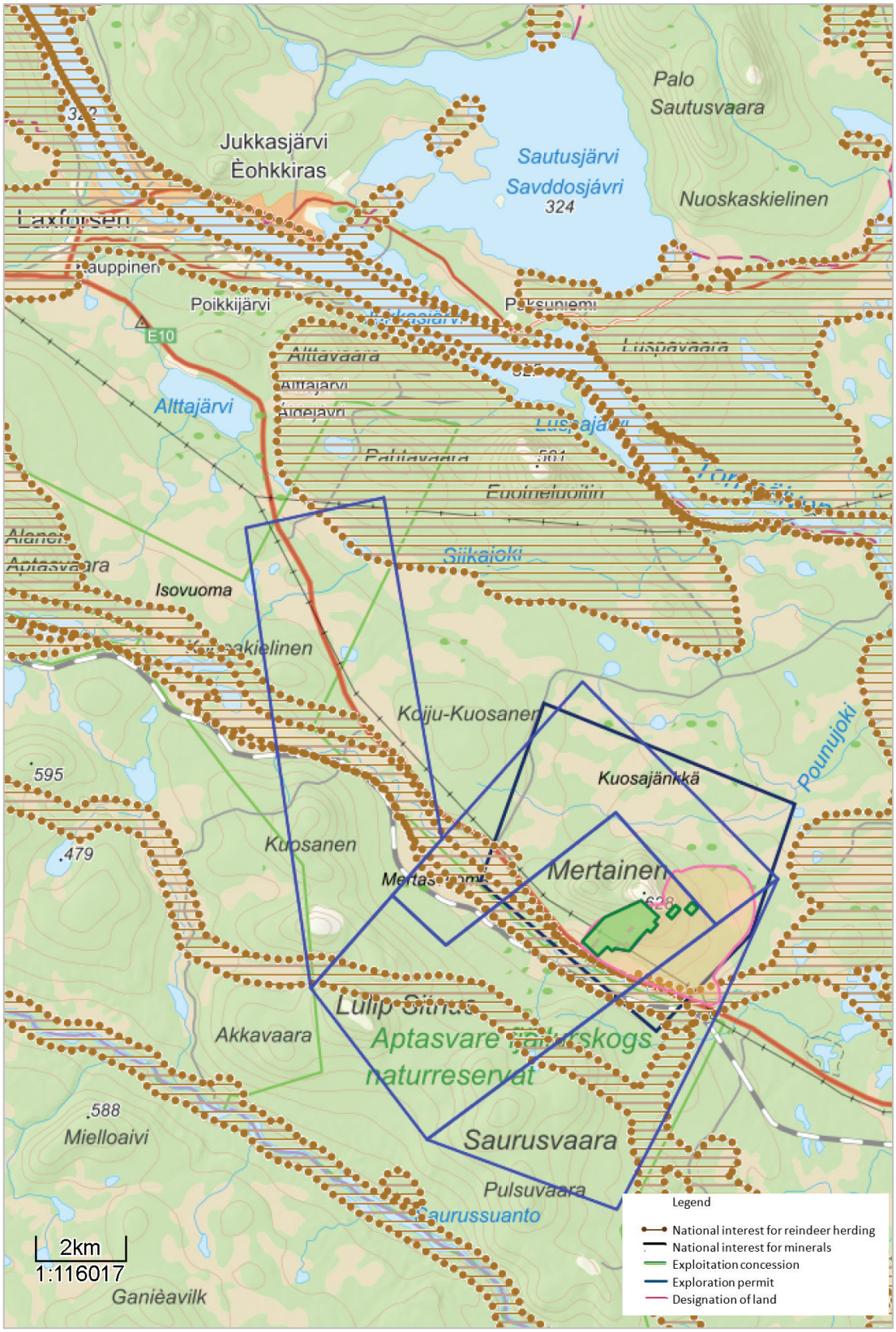


Figure 3-7: Land designations and areas of public interest in the Mertainen area (Source: LKAB).

4 GEOLOGY

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.

The Svecokarelian meta-supracrustal rock sequence is extensively mineralised and hosts various types of Fe oxide-Cu-Au mineralisation, most notably, the giant Kiruna-type Apatite-Iron Oxide (AIO) deposits in Kiruna, Malmberget and Svappavaara (Martinsson et al., 2016). The Svecokarelian rocks are underlain by Archean rocks and early Paleoproterozoic pre-orogenic greenstone belt rocks. In the westernmost segment of the province, the Precambrian basement is overlain by Ediacaran to Cambrian metasedimentary rocks, which subsequently have been overthrust by Caledonian nappes (Bergman et al., 2001; Bergman, 2018).

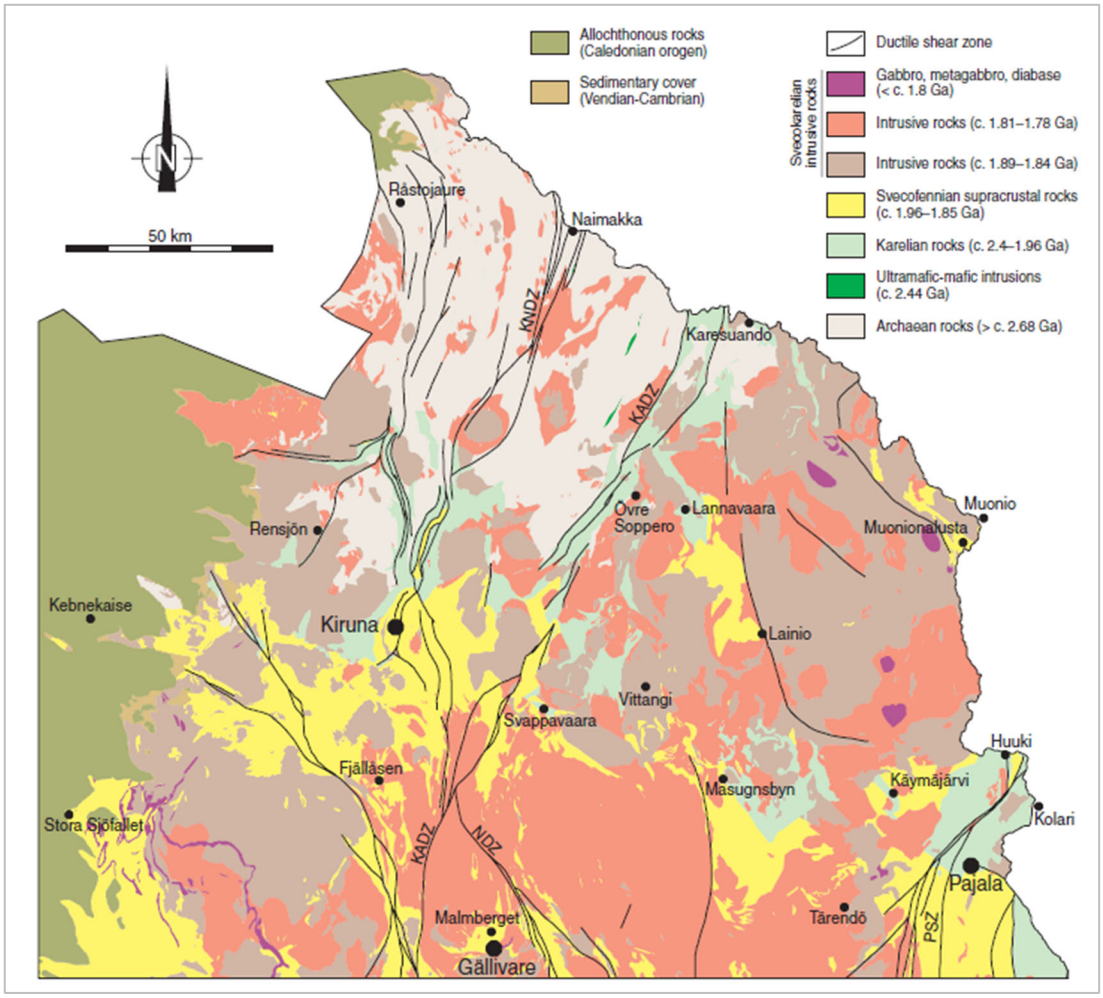


Figure 4-1: Bedrock Map of the Norrbotten Area (Bergman et al., 2001). KNDZ = Kiruna-Naimakka zone, KADZ = Karesuando-Arjeplog zone, NDZ = Nautanen zone, PSZ = Pajala shear zone.

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.

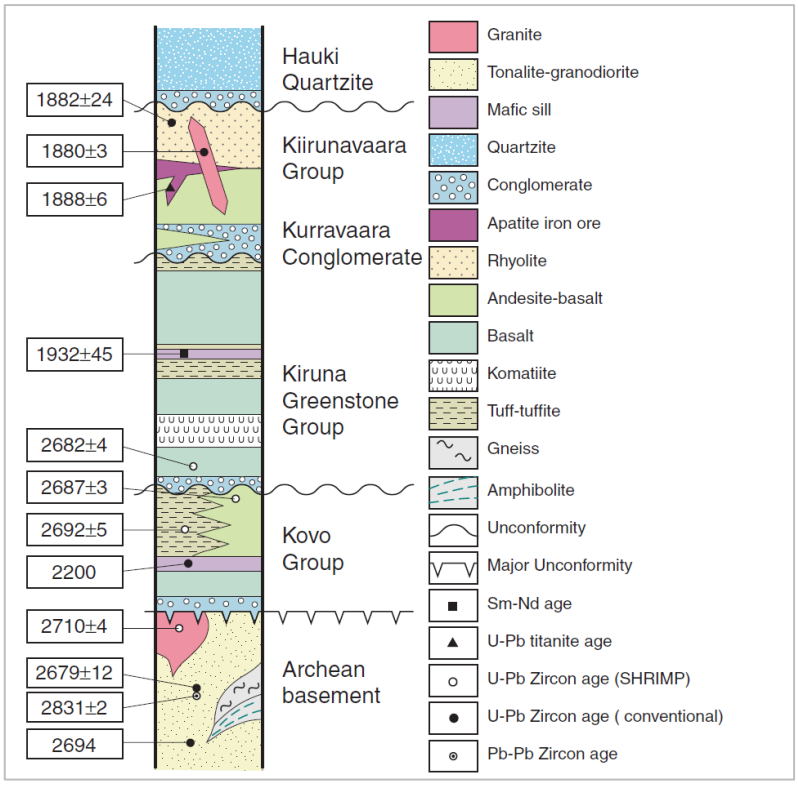


Figure 4-2: Lithostratigraphy of the Norrbotten Area. Modified from Martinsson (2004).

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 contain gold (FODD 2019).

4.2 Structural Geology

4.2.1 Regional and Local Structure

Crustal-scale deformation-zones in northern Norrbotten have two dominant trends from NNE to SSW and from NNW to SSE (Figure 4-3). The orientations of foliations are variable and the major fold structures in the Norrbotten supracrustal belts commonly have axial surface trends between NW–SE and N–S, with varying plunges (Bergman et al. 2001).

The Svappavaara area is characterized by complex shear zone patterns with the most prominent being the Svappavaara deformation zone (SDZ), a NW-SE-trending high strain zone that separates Porphyrite and Greenstone group meta-volcanic and meta-sedimentary rocks (Bauer & Anderson 2021).

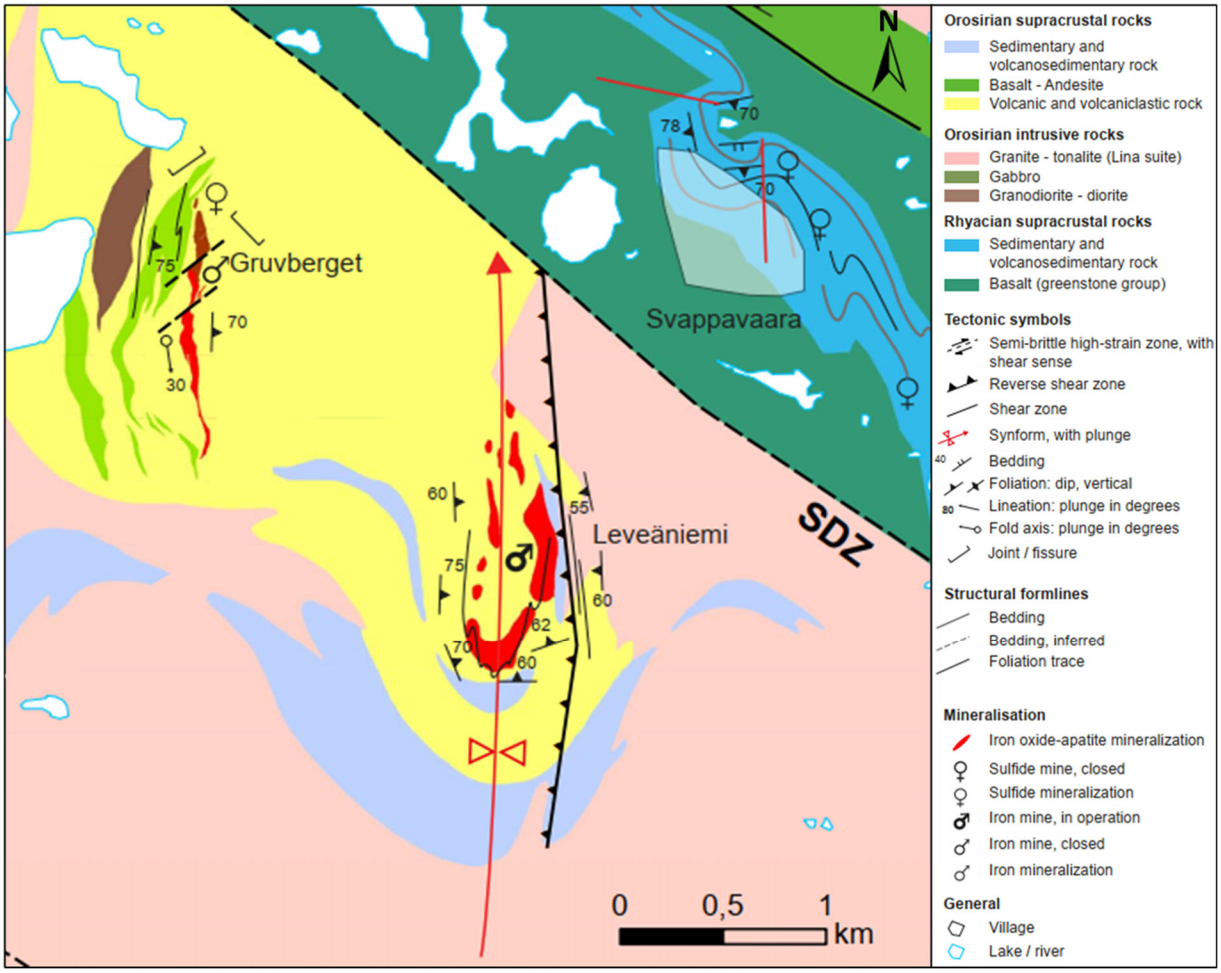


Figure 4-3: Overview of the geology and structure near mine site and Svappavaara village. Shows the general structure of the area and the prominent SDZ that separates Porphyrite and Greenstone group rocks (modified from Bauer & Anderson 2021).

4.3 Deposit Geology

4.3.1 Leveäniemi

Porphyrite-group felsic to mafic meta-volcanics dominate in the Leveäniemi area (Figure 4-4). The volcanic host rocks in the hanging wall, historically referred to as leptites, are trachyandesite in character (Hobler 2013) and consist mainly of various amounts of biotite, feldspar, amphibole, quartz and plagioclase. The trachyandesites are generally massive in appearance but, depending on the amount of biotite, they can be granoblastic, ranging from locally weakly to moderately foliated.

The footwall is made up of a highly deformed schist, with biotite, and locally sericite, as the dominant mineral. This schist is generally moderate to strongly foliated. Lithogeochemical work suggests that the footwall schistose rocks originate from the same rock type as the relatively undeformed trachyandesite rocks in the hanging wall.

In the footwall of the deposit carbonate skarn units appear. This unit is a package of Mg rich carbonates and volcanoclastic rocks which have been strongly Ca altered. The magnetite mineralization occurs as veins/breccias in the trachyandesites and biotite schist and is related to extensive pervasive alterations including Na-feldspar, anthophyllite, biotite and scapolite. The whole formation is cut by numerous younger non-mineralized mafic dykes trending north-south with varying dip directions. These dykes range in thickness from 10 cm to 30 m.

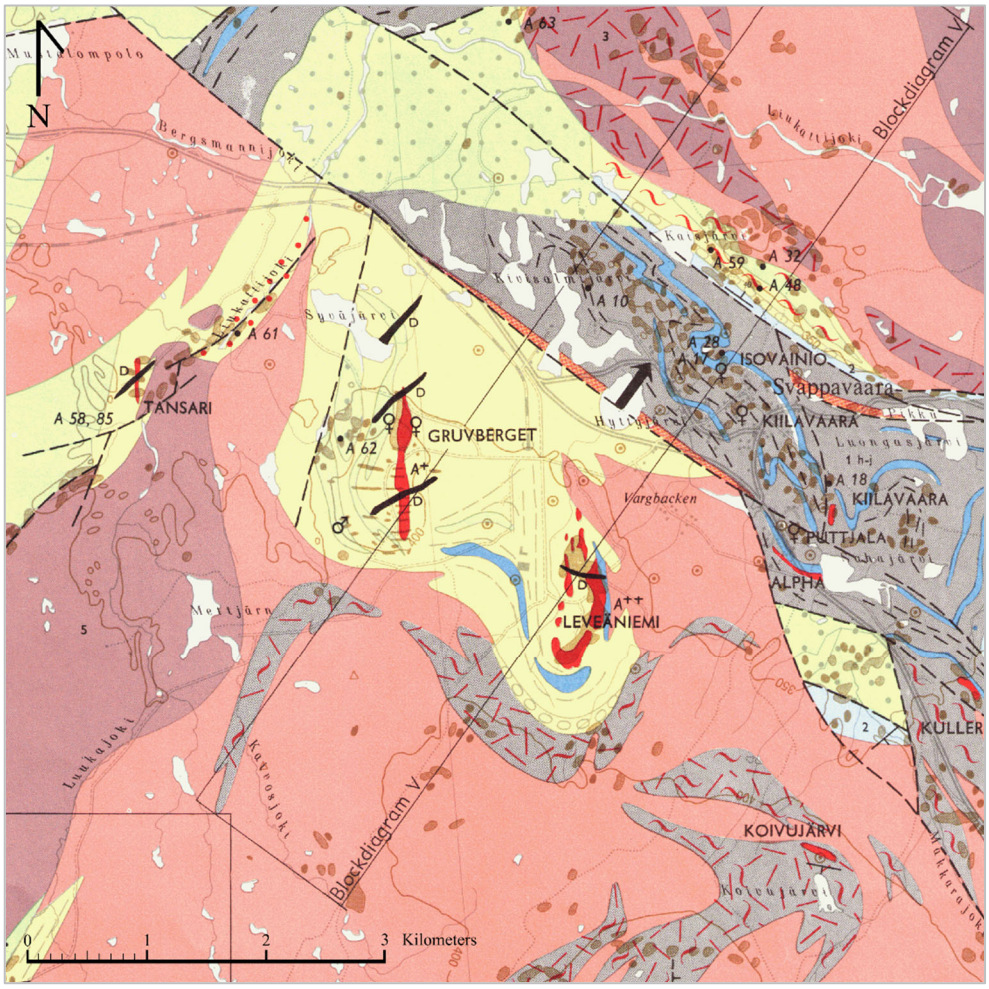


Figure 4-4: Regional geology of the Svappavaara area (yellow = metavolcanics, grey/blue = metasediments, pink = granites).

4.3.2 Gruvberget

The host rocks at Gruvberget are fine grained, mafic to intermediate metavolcanic rocks, with granoblastic to schistose texture. The hanging wall rocks, shown in yellow in Figure 4-5, are classified as rhyodacite/trachyandesite with patchy pervasive actinolite, albite, and reddish alteration. It is also common to see more localized sericite, chlorite, and limonite alterations in the hanging wall.

The footwall rocks are partly chlorite schists, andesites and basic volcanic rocks with a higher grade of TiO_2 ($TiO_2 \geq 1,1\%$). Like the hanging wall these rocks can be heavily altered but tend to show chlorite, biotite, and clay alterations more commonly. There are magnetite veins, one to five metres in width, often located in the chlorite schist or in the andesite.

Diabase dykes crosscut the wall rocks and mineralization, they run in an NNE-SSW direction (Figure 4-5). The diabase is fine to coarse grained and commonly scapolite altered. Sulphides are commonly present in the dykes.

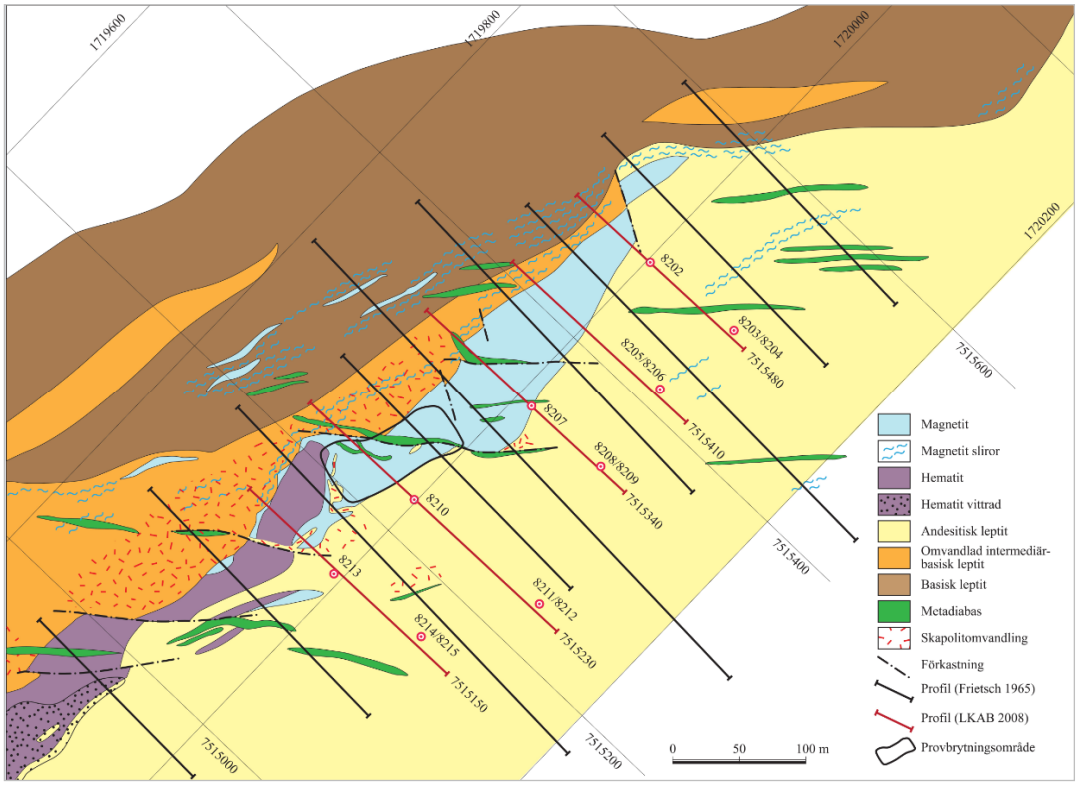


Figure 4-5: Geological map of the mineralisation in Gruvberget, modified from Frietsch 1966 and LKAB 2008.

4.3.3 Lithogeochemical Classification of Side Rock Lithologies at Svappavaara

Historically, volcanic rocks at Svappavaara have been logged as trachyandesite (TA) or biotite(-chlorite) shist (BS) with little way of discerning between volcanic units based on macro scale observations in core. To better constrain stratigraphic and structural interpretation of the Svappavaara geology, the geochemical signatures of the volcanic side rocks were studied to identify different sub-units using whole rock geochemistry.

Thirty-five drillholes, that covered the extent of Gruvberget and Leveäniemi, were analyzed using modern methods of whole rock assaying for major (XRF) and trace elements (ICP-MS) and that good quality core photographs (or access to core) were available. Drillholes were systematically relogged using downhole element plots (Al, Ti, Zr, Si, Mg, K, Na, Ca, Cr, Fe, V, P) along with core photos (and in some cases physical core). Mineralized samples (>15% Fe), visibly altered samples, and heterogenous samples (including those crossing lithologic boundaries) were excluded from the classification. Chemically distinct units identified during the relogging were then used for the classification diagram.

Ten distinct volcanic sub-units were identified which comprise an approximate stratigraphy around the deposits. Preliminary interpretations suggest that andesite 'A' is the footwall "host" rock for both deposits, but that the deposits have different hanging wall units. At Gruvberget the hanging wall is comprised of feldspar-porphyritic dacite 'A' and at Leveäniemi the hanging wall is the same unit as the footwall (andesite 'A'). Pre- and post- mineralized intrusions make up a large volume of the stratigraphy (basalt 'A', basalt 'B', basaltic-andesite) and commonly cross-cut andesite 'A' and basalt 'A' flows. The dacites are homogeneous and not mineralized and are likely sills or domes, the timing of the emplacement relative to the mineralization has not been determined (Allen 2022; LKAB 2022). Stratigraphy work is ongoing at Svappavaara and these classifications will be used as an aid to distinguish different volcanic rock types in future geological models.

4.3.4 Mertainen

The bedrock around Mertainen is dominated by altered intermediate to mafic rocks. These were historically called syenite porphyry (Geijer, 1930; Frietsch, 1957, Lundberg & Espersen, 1965) trachyte (Eriksson & Hallgren, 1975) or trachyandesite (Martinsson 2009). The deposit has two distinct lithologies based on immobile element classification. Andesitic rock occurs in the hanging wall with basaltic andesites occurring in the footwall. The units are not in direct contact, instead a graduation from andesitic to basaltic andesite is observed. This gradation could likely be attributed to the presence of brecciating mineralization. Mineralogically they are similar, being comprised primarily of plagioclase and albite with lesser and variable concentrations of alkali-feldspar, amphibole, biotite, epidote and carbonate (veining).

The Mertainen deposit is characterised as a large breccia, containing lenses or veins of massive magnetite in its central parts. A high-grade zone is surrounded by successively less magnetite-rich breccias which are more extensively developed in the hanging wall (Lundberg & Esperssen, 1965). The host rock is commonly rich in amygdales and feldspar phenocrysts and may also be rich in magnetite which occurs disseminated, in patches, and in irregular veins (Lundberg & Smellie, 1979). These textures can be seen in Figure 4-6, which pictures massive magnetite with thin veins brecciating the andesite finely and disseminated amygdales of magnetite + actinolite.

Figure 4-6: Example of mineralization in the hanging wall rocks at Mertainen.

The main gangue mineral of the massive ore is actinolite, which occurs as dispersed crystals (c. 1mm in size) or as coarse aggregates forming meandering bands through the massive ore. Biotite and calcite are secondary constituents, the biotite resulting from the breakdown of amphibole and magnetite and often observed as a vein constituent cutting through the pre-existing fabric. Calcite occurs interstitially and as a replacement phase in addition to being a common vein constituent (Lundberg & Smellie, 1979). The host rock is sodic in character and in many places scapolitized. Scapolite also occurs together with actinolite in magnetite veins (Martinsson & Virkunnen, 2004; Baker et al., 2015).

4.3.5 Mineralization

All three deposits share common characteristics to the mineralization. Magnetite is the dominantly occurring mineral followed by hematite and the iron-oxyhydroxide minerals. Typically, the main mineralization at each deposit is fine grained and massive with low amounts of gangue minerals. Iron oxides constitute 90-95% of the massive mineralization typically with amphiboles, apatite and calcite as the most commonly occurring accessory minerals. Hematite or other iron oxides are secondary minerals formed as an alteration product of magnetite. The deposits share the same contact relationship in general to the andesitic host rock, with the massive mineralization grading out into a magnetite matrix breccia followed by magnetite veining of the host rock. The breccia and veining typically share the same accessory minerals as the main mineralization.

4.4 Exploration

4.4.1 Background

Gruvberget consists of three types of mineralization: copper sulphides, hematite and magnetite. Copper mining took place at various stages between the mid-17th century and the mid-18th century. The main mineralization consists of apatite iron ore, which in the north consists of massive magnetite and grades into massive hematite in the south with a zone of mixed magnetite and hematite mineralization in between. Mining of iron ore was carried out on a small scale during the 18th century, after which there have been quite extensive investigations of the extent of mineralization through excavation and drilling during the 19th and 20th centuries. Open pit mining occurred at Gruvberget from 2010 to 2018.

The Mertainen deposit was discovered in the 18th century, acquired by the Swedish government in 1907 and mined from 1956 to 1958 (428 kt production). LKAB commenced exploration activities in 2008, which resulted in test mining operations in 2011 and 2015. The mine is currently on care and maintenance and no significant exploration activities are taking place.

Leveäniemi was first discovered in the 19th century and investigated during the 20th century and subsequently mined from 1964 until 1983 (57 Mt production). Mining re-commenced in 2015. The project consists of one conventional open pit, which has produced magnetite and hematite concentrates for pelletising. Infrastructure from the 1960s is still in place, maintained and modernized for use. The Leveäniemi project comprises of both massive and brecciated magnetite ore.

4.4.2 Historical Exploration

The long history of mining at Svappavaara has accumulated a large volume of exploration data that has been collected.

At Leveäniemi historical (pre-2017) drilling amounts to around 57,000 m in 218 drill holes. Check assessments of drill hole location identified that the differences between the converted historical data and the new survey data were minimal (<1m), and so maintains confidence in the coordinate conversion of the historical data to the X-Sweref 99 2015 coordinate system which is now used. A programme of check assays showed a strong correlation with the original analysis and the downhole plots show minimal deviation from one another. Based on the data analysed no significant positive or negative bias can be identified and LKAB therefore considers the historical assay data as validated and fit for purpose.

In the period 2017 to 2022 over 51,000 drill metres in 125 drill holes were drilled and assayed.

At Gruvberget the Geological Survey of Sweden (SGU) undertook geological mapping, geophysical measurements and drilled approximately 51 diamond drill holes for a total of 9,600 m in the period 1957-1963. In 1965, a geological map of the iron ore deposit at Gruvberget was made by R. Frietsch. In 2008, LKAB drilled 17 diamond drill holes with a total of 5,000 m in magnetite and in 2010, LKAB planned 7 drill holes in hematite but only 3 drill holes reached the target (620 m). From 2011 to 2017 LKAB targeted magnetite only with a total of 35,155 m drilled to define the ore body. From 2019 to 2022 drilling was undertaken in the hematite portion of the orebody along with the magnetite sections of Gruvberget in a new campaign designed to find the extents and structural controls on the ore body.

Mertainen has been widely explored from its discovery in 1897 by Asplund. Following acquisition in 1907, seven drifts were completed, and 10 drill holes were drilled from the drifts totalling 928 m and metallurgical testwork was conducted and 9 trenches excavated (1918 to 1920). Further drilling was completed and a geological map prepared when mining was conducted during the late 1950s and by the SGU in the period from 1957 to 1963 including magnetic and gravimetric measurements, trenching and mapping. In total, 32 holes were drilled (7276 m). Based on this new data, a historic mineral resource of 166 Mt containing 34% Fe was estimated (Lundberg & Espersen, 1965) (Baker et al., 2015). Between 1997 and 2008, the area surrounding Mertainen was explored by several mining companies (including Rio Tinto, Phelps Dodge, and Lundin Mining) targeting Cu-Au with the intention of finding mineralization of IOCG-type. Geochemical investigations on bottom till and surface till, geophysical ground measurements and some diamond drilling were conducted during these years (Martinsson & Erlandsson, 2008). LKAB recommenced investigation into the Mertainen deposit in 2007 with field mapping, a regional TEM-survey and compilation of historical ground survey data. A total of 33 holes were drilled (7720 m) in 2010 and 4 drillholes (2700 m) in 2011 and test mining commenced in 2011 with 300 kt of ore extracted. The concentrate delivered an average content of 52-55% Fe (LKAB, 2012). During 2013, 28 holes were drilled (10,424 m) and in 2014-2015 a total 84 holes (22,900 m) were drilled for infill, geotechnical and exploration (LKAB, 2014). During the first months of 2015, a second test mining phase of 200 kt was conducted (LKAB, 2015).

4.4.3 Current Exploration

Sampling is conducted at Leväniemi and Gruvberget by diamond drill core drilling. All drilling, logging and sampling data is stored in a acQuire database. In the period 1 October 2021 to 31 September 2022:

- At Gruvberget 17 holes completed for a total of 19,321 m core
- At Leveäniemi one hole was completed in LEV totalling 1,010 m in 2021 and in 2022, 18 drillholes (14,788 m) were started of which 10 achieved the target depth (10,598 m).

Difficult drilling conditions in the northern part of the deposit resulted in some drillholes being stopped before reaching target depth, due to intercepts at depth of swelling clay material in fault gouges. No information from drillholes drilled in 2022 has been used in the model update.

Four geophysical surveys were conducted on the Svappavaara Mine site and surrounding areas in 2022, seeking to determine the potential for mineralisation in the vicinity.

4.5 Data Quantity and Quality

A total of 747 drill holes, comprising 44,312 m were available for use in geological modelling and resource estimation. During 2022, a total of 48,298 m of exploration and resource definition drilling was completed.

Data is validated in an acQquire database and imported to Leapfrog Geo software along with geological mapping data and underground probe drilling data. All three available datasets are also viewed together to ensure consistency in logging and mapping of the contacts.

5 MINING, MINERAL PROCESSING AND INFRASTRUCTURE

5.1 Mining

Leveäniemi is an open pit mining operation with recent historical annual ore production targets of around 7.4 Mt/y of run of mine (ROM). The mineral mined is magnetite and mining is by conventional drill and blast mining methods for open pit. Budgeted annual production is around 14 Mt total material movement, comprising 8 Mt ore (COG 20% Fe) and approximately 6 Mt waste delivering around 7.2 Mt crusher feed at 44% Fe.

The current Life of Mine Plan (LOMP) incorporates Mineral Reserves estimated as 97 Mt ore (reference point is the sorting plant), which requires removal of 62.5 Mt waste. The LOM is estimated as 13 years with the pit expected to be depleted in 2035. Average iron grade based on the LOMP is approximately 45.4% Fe and stripping ratio is 1.52 $_{ore:waste}$.

All ore mined from the pit is sent to the Leveäniemi Crushing & Screening plant. Material is crushed in three stages to a particle size of -10 mm which is then fed through dry magnetic separators to produce mill feed.

The crushing station is located 1.3 km from the pit exit. The waste dump area for both waste rock and screen waste are about 2.5 km from the pit exit. The tailings area is 1.5 km from the pellet plant. All necessary permits are in place for managing waste rock, screen waste and tailings from the operations. The current storage volume available for waste rock is 87 Mm^3 which is the equivalent of 153 Mt of waste rock and screen waste using a bulk density of 1.8 t/m^3.

From the crushing and screening plant, mill feed is either transported to Kiruna, Malmberget or stockpiled and processed into pellets at Svappavaara. Magnetite ore from Leveäniemi contains varying amount of vanadium, which is not separable in the current process. Vanadium content in the final pellet product is limited by blending with other lower vanadium grade ores to maintain the desired quality of product. Leveäniemi mill feed provides around 30% of total mill feed into the Svappavaara pellet plant and slightly less for the Malmberget plant.

Figure 5-1 shows a satellite image of the Svappavaara area with Leveäniemi and Gruvberget pits, the tailings storage facility and waste rock storage area.

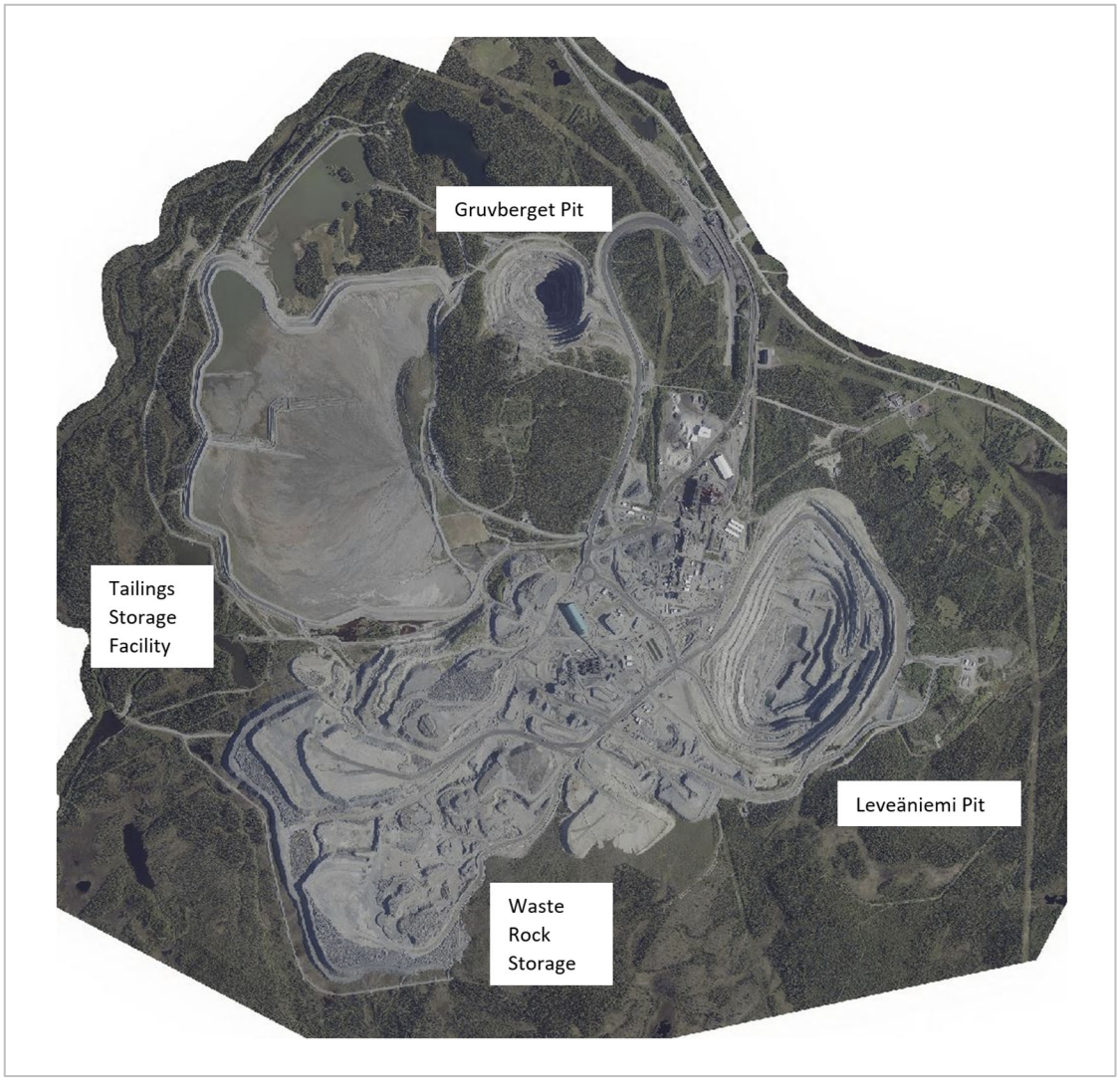


Figure 5-1: Svappavaara area showing Leveäniemi and Gruvberget pits (orthophoto 2021, fov 4km).

5.1.1 Production Status

The Leveäniemi pit was mined from 1964 to 1982 with 57 Mt of ore and 74 Mt of waste extracted. After mining stopped in 1982 the Leveäniemi pit gradually filled with around 30 Mm^3 of water. LKAB recommenced mining with a test mining programme in the Leveäniemi pit that started in 2014 after pumping the pit dry over a two year period from September 2012 to July 2014. In 2015, pit production recommenced fully with a new mining fleet including nine CAT 793 trucks, three CAT 980 wheel loaders and two CAT 6060 hydraulic shovels. During 2023, smaller 100 t trucks will be used to haul the mine production.

5.1.2 Production Schedule

Table 5-1 shows mine production and total material movements from the Leveäniemi pit.

Table 5-1: Mine Production to date.

Year	Ore (kt)	Mill feed (kt)	Waste (kt)	Strip (waste/ore)
1964-1982	57,058	35,000*	74,160	1.30
2015	2,003	1,464	1,885	0.94
2016	3,479	2,420	5,167	1.49
2017	5,354	3,323	9,397	1.76
2018	7,720	4,500	8,883	1.15
2019	6,712	5,010	7,282	1.08
2020	6,800	5,050	7,020	1.03
2021	7,767	4,912	6,979	0.90
2022	7,730	7,739	7,382	0.95
Total	104,623	69,418	128,155	1.22

* Estimated Mill feed.

The LOMP schedules 95 Mt of ore plus 2 Mt of low grade material over 13 years to 2035 at a production rate of around 7.4 Mt/y for 12 years. The plan includes removal of 62 Mt of waste material with total material movement of around 14 Mt scheduled for the next 8 years of operation. Average iron grade based on the LOM is 45.4% Fe and stripping ratio is 1.5 $_{ore:waste}$.

Ore stockpiles are used to separate different ore grades, from which a blend of ore with a consistent ROM grade is delivered to the crusher. This procedure is required due to the complexity of ore types and the need to manage iron and vanadium grades in the plant feed. Direct feed of ore from pit to crusher is carried out when possible. Ore blends are prepared by mine staff for each blast.

5.2 Mine Production Risks and Uncertainties

LKAB recognise that management of ore grade as the mine deepens relies on improved orebody knowledge at depth and operational control measures. Reduced uncertainty in these areas reduces the threats to mine production and productivity and provides opportunities to increase value.

Ongoing work is being undertaken to advance understanding of the geology at Leveäniemi and there is a continuous improvement programme for reconciliation of ore tonnages and grade mined. This includes management of iron and vanadium grades principally to optimise orebody recovery and minimise waste generation. The introduction of smaller equipment will help the mine's grade control.

In 2022 the Leveäniemi pit was re-optimised using a 20% Fe cut off grade to incorporate low grade ore (20% to 25% Fe) that is mined and processed. This approach has increased Mineral Reserves as part of a programme to treat low grade ore during mining operations rather than to stockpile for treatment at the end of the mine life. This approach is facilitated by successful implementation of the measures described.

Mineral Reserves stated that are beyond the capacity of currently permitted waste rock storage and tailings storage facilities are based on the assumption that the work being conducted by LKAB is sufficient to achieve future permits to support the LOMP. This assumption will need to be subject to ongoing review and should there be sufficient uncertainty in the outcome, Mineral Reserves may need to curtail at the limits imposed by existing permits.

5.3 Modifying Factors and Reconciliation

The geological model used for the ore statement is a regularised block model. Modifying factors, dilution of 3.7 % and mining recovery of 97.3% is implied by re-blocking to the SMU (smallest mining unit), which is sized 15 m x 15 m x 15 m.

Reconciliation processes and their integration across LKAB continue to be developed as part of a company-wide initiative. 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 SVP includes 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.

5.4 Mineral Processing

At Svappavaara, the facilities for processing magnetite ore comprise a crushing and screening plant, a concentrating plant and one pelletizing plant. Ore feed to the crushing and screening plant is from the Leveäniemi pit. Feed to the Svappavaara concentrating plant is a combination of:

- Pre-sorted material from Kiruna mine (AMD);
- Mill feed material from the Leveäniemi crushing and screening plant (AMLB); and
- Processed material produced from marginal (low grade) ore originating from Gruvberget operations that is stockpiled at Leveäniemi (AMGBF).

Historically, trials to test mill feed from the Mertainen pit have also been undertaken.

Mill feed from the Leveäniemi crushing and screening plant known as AMLB is also sold to Malmberget mine for processing at their Vitafors plant

The main product from Svappavaara is blast furnace pellets (SPBA). In addition, direct reduction pellets (SPRD) pellets are produced, which are blended with KPRS prior to sale. To achieve the required chemical composition in the final pellet products olivine, limestone and quartzite are ground in separate mills and mixed in desired proportions depending on pellet quality. Table 5-2 summarises annual production from Svappavaara.

Table 5-2: Leveäniemi life of mine plan products.

Product	Name	Use	Quantity (Mt/y)
SPBA	Svappavaara Pellets Blast furnace Acid	Blast furnace pellets	3.5
AMLB-10	Mill feed	Mill feed to Svappavaara and Malmberget	4.3

Dry waste rock (screen waste) is transported from the crushing and screening plant to waste dumps and wet waste from the concentrating plant is pumped to the tailing dam.

5.5 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.

Electrical power is provided to LKAB by Vattenfall Eldistribution AB who owns and operates 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.

The water management system in Svappavaara 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 comprising several thickeners. The overflow water from the thickeners is re-used in the magnetite separation processes and the underflow from the thickeners, the final waste, is pumped to the tailings storage facility. Potable water is supplied by the municipality.

Tailings Storage Facilities (TSF) at Svappavaara comprise a clarification pond and recipient dam or tailings pond. The tailing pond contains dam A-C, dam C-H and the diversion dike C-K. (Figure 5-2).

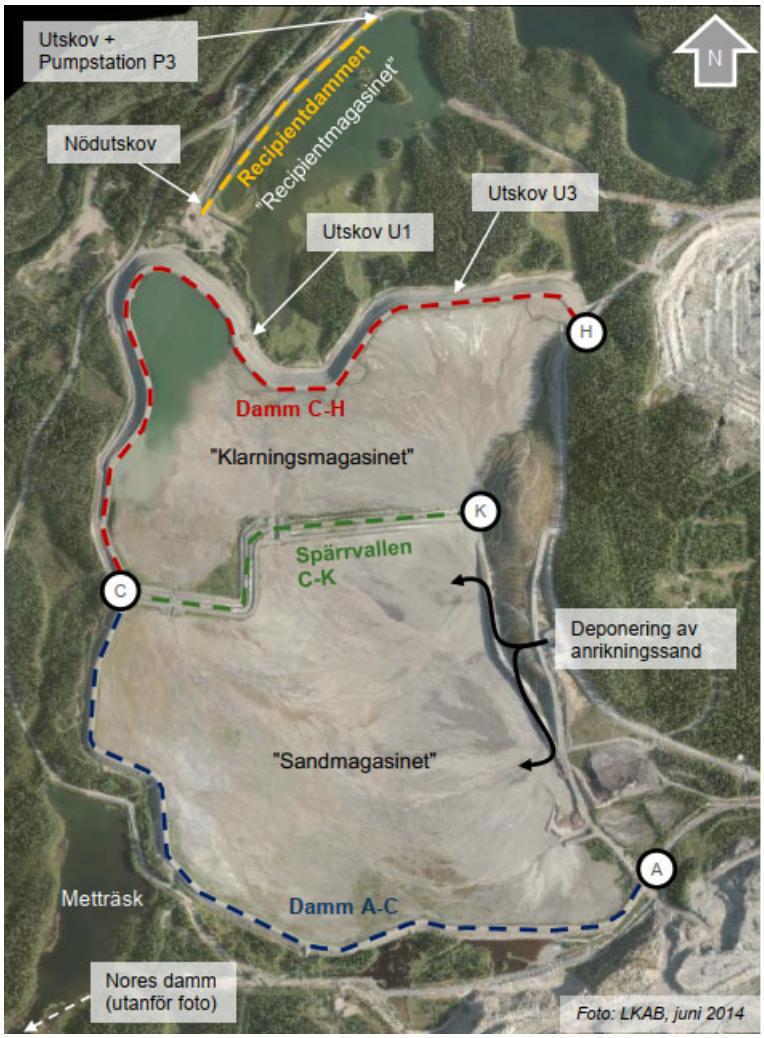


Figure 5-2: Svappavaara Tailing Storage Facility and recipient dam (EW fov 1.5km).

Tailings are deposited from a thickener placed on the west side of Gruvberget Mountain and reach both the tailing pond and the clarification pond on the east side. LKAB has calculated a total of 852 kt of concentrator plant tailings and waste from the pelletizing plant were deposited in the TSF during 2022, indicating that at the end of 2022 a total of 30.4 Mt of tailings have been deposited.

In 2017 LKAB applied for and were granted permission to raise dam A-C and dam C-H using downstream construction to increase the TSF capacity. Work commenced in 2017 and dams A-C and C-H have been raised by 3 to 9 metres. Total capacity of the tailings facilities is influenced by the tonnage to be treated at SVP considering likely import and export of sorting plant product to and from SVP.

The water from dam C-H runs via an overflow decant system to the recipient dam. The recipient dam also has an overflow decant system to handle high flows. Normal operational flow is handled by pumping water to the lake Metträsk. From Metträsk the water is pumped back to the process plant via pump station P2. Excess water can be discharged to Liukattijoki river. If required, water can be abstracted from the nearby Metträsket and Kalix rivers.

The dams are observed and monitored according to recommendations from GruvRIDAS. The instrumentation used is continuously reviewed and will be increased as required. In 2018 LKAB established the Tailings Advisory Board (TAB) to review the safe operation of the company's tailings facilities. The TAB comprises three expert members with extensive experience of tailings and geotechnical competence. The advisory board recommends measures and improvements for safe operations in the tailings. In addition, a detailed inspection of the facilities was conducted by third parties commissioned by LKAB in late 2021.

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.

Svappavaara Mine produces around 3.5 Mt/y of BF pellets and around 4.3 Mt/y of sorting plant product sold to Malmberget mine for processing.

All SVP product sales of iron ore pellets 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 McKenzie 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.

LKAB considers that the demand for high grade ore and pellets will increase 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) who 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 substantially.

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.

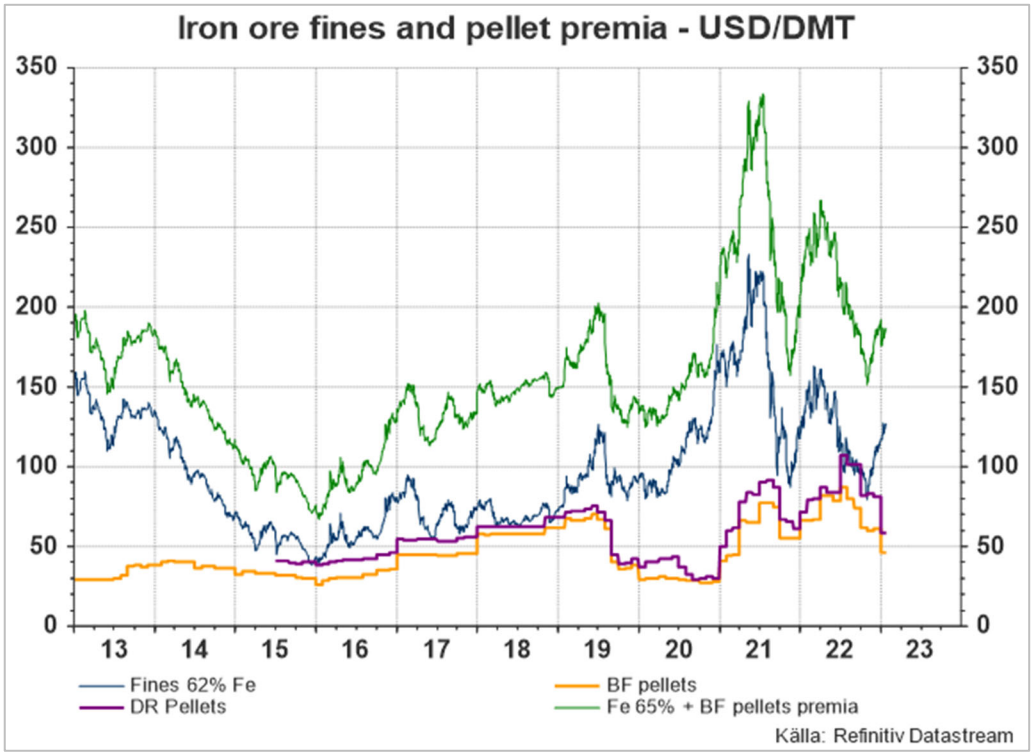


Figure 6-1: Market prices for iron ore fines and pellets, 2013-22. (Source: Reuters Data stream).

LKAB uses a long-term price for fines IODEX 62% of USD 70/t, which is compared with Wood Mackenzie prices for Q4 2022 in Table 6-1, and USD 83/t for fines 65% Fe (both set in the spring of 2022).

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

	LKAB (set spring 2022) (USD/t)	Wood Mackenzie Q4 2022 (USD/t)
IODEX fines 62% Fe	70	80

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, and hence the date of the Mineral Reserve statement, is 1 January 2023.

The processing route is broken down in three segments: ore sorter; enrichment; and pelletiser. For the ore sorter stage product is calculated using a fixed mass yield of 64%, and a variable product grade dependent on feed grade. Resulting average LOM recovery at Svappavaara is 82% at concentrate grade of 60%, these yields and recoveries are less conservative than those applied in the pit optimization process and further work is recommended to align the assumptions used. Assumptions used for the sorter product sold to Malmberget average 1.8 Mt/y over the LOM and also 1.8 Mt/y of sorter product is purchased from Kiruna (KUJ), both for blending purposes. The remaining sorter product is fed to the enrichment stage. A flat recovery of 93% Fe (reduced from 97% used in previous years) is assumed, to produce a 71% product, to result in an 80% mass yield as assumed by SVP. All enrichment product is fed to the pelletiser.

The pelletiser is fed with an average 3.7 Mt/y. 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.

Sales prices for pellets are FoB Narvik and Lulea, with sorter product sales to Malmberget based on mine gate. Malmberget covers 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 as noted in the June 2022 LOMP.

Operating costs are split into mining, processing, operational support, freight, logistics and other. Unit costs have been derived from the June 2022 LOMP. Mining unit costs for ore and waste have been increased annually to allow for further haulage due to the increasing depth of the pit.

Capital expenditure estimates have been prepared by LKAB to undertake the various capital tasks, such as the open pit cutback and processing plant maintenance. A total closure cost allowance has been included to be expended at the end of operations in 2034.

LKAB pay taxes on a corporate level, and not on an asset level. For the purposes of the economic viability test, a simplified tax calculation has been incorporated in the technical economic model for the SVP asset. Depreciation as per the June 2022 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 Svappavaara 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 2022 Mineral Resources Summary Report".

7.1 Mineral Resource Statements

Statements of Mineral Resources estimated in accordance with the PERC Reporting Standard for the three deposits at LKAB's Svappavaara mine, namely Leveäniemi, Gruvberget and Mertainen are show in Table 7-1, Table 7-2 and Table 7-3 respectively.

Table 7-1: Leveäniemi PERC 2022 Mineral Resource Statement for Fe Only, Exclusive of Reserves.

Material	Resource Category	Mass Mt	Fe %
Magnetite	Measured	81	44.0
	Indicated	44	44.6
	Measured and Indicated	**125**	**44.2**
	Inferred	10	31.5
	Total	**135**	**43.2**
Mixed	Measured	1	62.4
	Indicated	**1**	**60.2**
	Measured and Indicated	1	61.5
	Inferred	0.01	59.0
	Total	**1**	**61.5**
Total	Measured	82	44.2
	Indicated	44	44.8
	Measured and Indicated	**126**	**44.4**
	Inferred	10	31.6
	Total	**137**	**43.4**

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 31 December 2022.

(3) The Mineral Resources have been constrained within an optimized pit shell based on a selling price of SEK1,000 per tonne of magnetite pellets.

(4) Tonnages are reported in metric units and grades in percent (%). Tonnages and grade are rounded appropriately.

(5) 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.

(6) Mineral Resource are reported exclusive of reserves.

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

Table 7-2: Gruvberget PERC 2022 Mineral Resource Statement for Fe and P.

Mining Method	Material	Resource Category	Mass Mt	Fe %	P %
Open Pit	Magnetite	Measured	32	51.5	0.78
		Indicated	39	29.8	0.45
		Measured and Indicated	**71**	**39.5**	**0.60**
		Inferred	3	24.6	0.44
		Total	**75**	**38.8**	**0.59**
	Mixed	Measured	7	53.8	0.75
		Indicated	9	44.1	0.72
		Measured and Indicated	**16**	**48.5**	**0.73**
		Inferred	1	51.0	0.67
		Total	**17**	**48.6**	**0.73**
	Hematite	Measured	18	52.8	0.62
		Indicated	14	46.1	0.60
		Measured and Indicated	**32**	**49.8**	**0.61**
		Inferred	7	53.9	0.54
		Total	**39**	**50.5**	**0.60**
	Total	Measured	**57**	**52.2**	**0.73**
		Indicated	**62**	**35.5**	**0.52**
		Measured and Indicated	**119**	**43.5**	**0.62**
		Inferred	**12**	**45.1**	**0.52**
		Total	**131**	**43.6**	**0.61**
Underground	Magnetite	Measured	21	55.1	0.90
		Indicated	46	52.8	0.75
		Measured and Indicated	**67**	**53.5**	**0.80**
		Inferred	122	55.4	0.62
		Total	**189**	**54.7**	**0.68**
	Mixed	Measured	2	55.5	0.75
		Indicated	8	56.9	0.79
		Measured and Indicated	**9**	**56.6**	**0.78**
		Inferred	23	55.6	0.67
		Total	**32**	**55.9**	**0.71**
	Hematite	Indicated	20	60.9	0.67
		Measured and Indicated	**20**	**60.9**	**0.67**
		Inferred	27	58.6	0.61
		Total	**47**	**59.6**	**0.64**
	Must Take	Must Take	3	9.9	0.15
		Total	**3**	**9.9**	**0.15**
	Total	Measured	**23**	**55.1**	**0.89**
		Indicated	**74**	**55.4**	**0.73**
		Measured and Indicated	**96**	**55.3**	**0.77**
		Inferred	**171**	**55.9**	**0.63**
		Must Take	**3**	**9.9**	**0.15**
		Total	**271**	**55.2**	**0.67**
	Magnetite	Measured	**53**	**52.9**	**0.83**
		Indicated	**86**	**42.2**	**0.62**
		Measured and Indicated	**138**	**46.3**	**0.70**
		Inferred	**125**	**54.6**	**0.61**
		Total	**264**	**50.2**	**0.66**
	Mixed	Measured	**9**	**54.1**	**0.75**
		Indicated	**16**	**50.1**	**0.75**
		Measured and Indicated	**25**	**51.5**	**0.75**
		Inferred	**24**	**55.4**	**0.67**
		Total	**49**	**53.4**	**0.71**
Total	**Hematite**	Measured	**18**	**52.8**	**0.62**
		Indicated	**34**	**54.7**	**0.64**
		Measured and Indicated	**52**	**54.0**	**0.63**
		Inferred	**34**	**57.6**	**0.60**
		Total	**86**	**55.5**	**0.62**
	Must Take	Must Take	**3**	**9.9**	**0.15**
		Total	**3**	**9.9**	**0.15**
	Total	Measured	**79**	**53.0**	**0.77**
		Indicated	**136**	**46.3**	**0.64**
		Measured and Indicated	**215**	**48.8**	**0.69**
		Inferred	**183**	**55.2**	**0.62**
		Must Take	**3**	**9.9**	**0.15**
		Total	**402**	**51.4**	**0.65**

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 31 December 2022.
(3) The Open Pit Mineral Resources have been constrained within an optimized pit shell based on a selling price of SEK1,000 per tonne of pellets.
(4) The Underground Mineral Resources have been constrained within optimized stopes using a metal price of SEK1,000 per tonne of pellets and waste material captured within the stopes is reported as "Must Take" material.
(5) Tonnages are reported in metric units and grades in percent (%). Tonnages and grade are rounded appropriately.
(6) 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.
(7) Mineral Resources have been classified according to the PERC Reporting Standard 2021, by Howard Baker (FAusIMM(CP)), an independent Competent Person as defined in the PERC Reporting Standard 2021. Mr Baker has relied upon LKAB technical staff and an independent review of the Gruvberget deposit Mineral Resource Estimates has been performed by SRK Consulting (UK) Ltd.

Table 7-3: Mertainen PERC 2022 Mineral Resource Statement for Fe and P.

Material	Resource Category	Mass Mt	Fe %	P %
Magnetite	Measured	47	36.0	0.04
	Indicated	58	34.4	0.04
	Measured and Indicated	**105**	**35.1**	**0.04**
	Inferred	44	32.6	0.08
	Total	**149**	**34.4**	**0.05**
Total	**Measured**	**47**	**36.0**	**0.04**
	Indicated	**58**	**34.4**	**0.04**
	Measured and Indicated	**105**	**35.1**	**0.04**
	Inferred	**44**	**32.6**	**0.08**
	Total	**149**	**34.4**	**0.05**

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 31 December 2022.
(3) The Mineral Resources have been constrained within an optimized pit shell based on a selling price of SEK1,000 per tonne of pellets.
(4) Tonnages are reported in metric units and grades in percent (%). Tonnages and grade are rounded appropriately.
(5) 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.
(6) Mineral Resource are reported exclusive of *reserves.*
(7) Mineral Resource Statement includes 1.7 Mt of stockpiled material.
(8) Mineral Resources have been classified according to the PERC Reporting Standard 2021, by Howard Baker (FAusIMM(CP)), an independent Competent Person as defined in the PERC Reporting Standard 2021. Mr Baker has relied upon LKAB technical staff and an independent review of the Mertainen deposit Mineral Resource Estimates 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 the Project is presented in Table 7-4. The economic viability of exploiting this has been confirmed by the economic assessment presented later in this report. Noting that the financial analysis is based on the mining of this Mineral Reserve only; that is, making the assumption that no further Inferred Mineral Resources will be upgraded to Indicated status and assuming no further Mineral Resources are delineated.

Table 7-4: Mineral Reserve for Magnetite at Leveäniemi (31 December 2022).

	Total ROM (Mt)	ROM Grade (% Fe)
Proven	89	47.1
Probable	8	27.2
Total Proved and Probable	**97**	**45.4**

Notes:

(1) Mineral Reserves have an effective date of 31 December 2022.

(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 and contained metal content. 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.

(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 in Table 7-1above as Measured and Indicated Mineral Resource.

(9) The Mineral Reserves, based on the Life of Mine Plan are:

- *a. contained within the final pit design of and below topography survey measurement of the Leveäniemi pit dated 28 December 2022.*
- *b. Use pit design - "stage_80_V6_16NOV22.00t"; the bottom of the pit design is at 40 masl based on a pit optimisation shell prepared using Deswik Optimiser with a 20% Fe cut off grade.*
- *c. Based on the geological model: "LEV_BM_PERC_28NOV2022.bmf" which is a regularised block model and incorporates modifying factors, dilution of 3.7 % and mining recovery of 97.3% implied by reblocking to the SMU.*

(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. where there is lower confidence in the recoverability of ore from low grade ore Measured Mineral Resources in the LOMP are converted to 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 (QMR), 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 Kiruna 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 7-5: Comparison of Mineral Reserves 2021 and 2022.

	2022 (Mt)	2021 (Mt)	2022 (% Fe)	2021 (% Fe)
Proven	89	74	47.1	50.7
Probable	8	11	27.2	24.2
Total Proven and Probable	**97**	**86**	**45.4**	**47.2**

Total Mineral Reserves increased by 11.6 Mt (13.6%) to 97.4 Mt in 2022.

Net Mineral Reserves arise from -7.8 Mt due to depletion and increase by 19.5 Mt due to a change in Reserve classification and updated pit design, including a deeper pit design by 30 vertical metres to 40 metres amsl, and revised pit optimisation parameters reducing cut off grade from 25% Fe in 2021 to 20% Fe in 2022.

Proven Reserves increased from 74.3 Mt to 89.3 Mt (20%) and Probable Reserves decreased from 11.5 Mt to 8.1 Mt (-29%) in 2022.

Movement of Proven and Probable Reserves from 2021 to 2022 is shown in Figure 7-1.

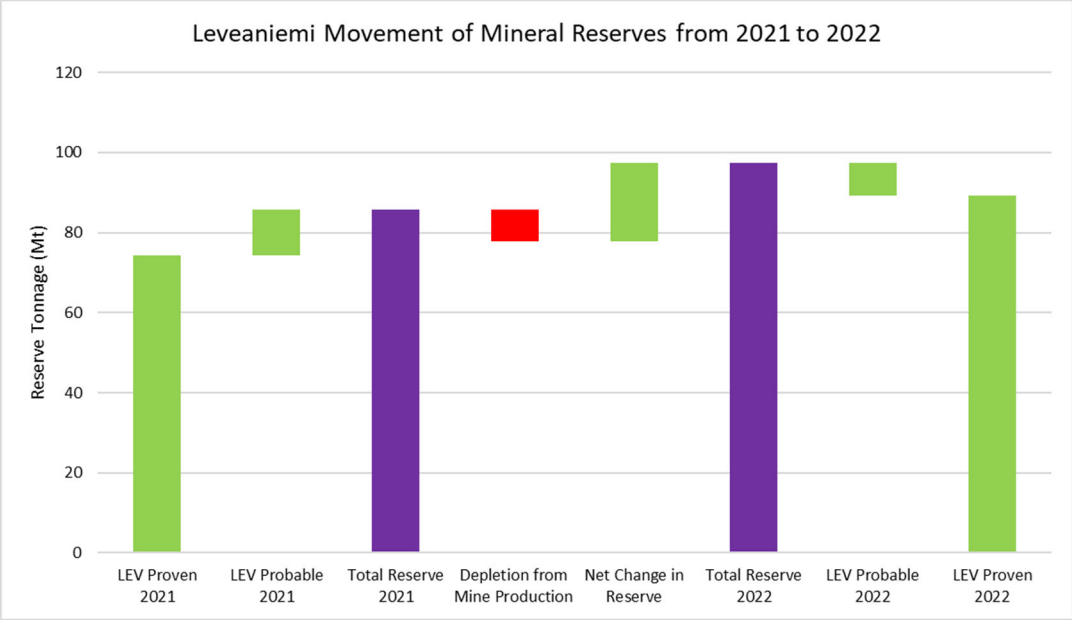


Figure 7-1: Movement of Mineral Reserves from 2021 to 2022.

8 ENVIRONMENTAL AND SOCIAL GOVERNANCE 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. Overall corporate governing is outlaid in the below listed governing documents, all accessible at lkab.com

- 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 certified according to ISO 9001, ISO 14001, ISO 45001, and also ISO 50001 regarding systematization of energy management. The certification also includes the subsidiary railway company LKAB Malmtrafik AB, and the subsidiary companies in Norway.

Official and public follow-up and reporting is through LKAB's Annual and Sustainability report. The Sustainability report is integrated with the Group's Annual Report. Since 2008 LKAB has prepared its sustainability reports in accordance with the framework for sustainability reporting issued by the Global Reporting Initiative (GRI). For 2022 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.

LKAB has identified sustainability as being central to its 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 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 overlying 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 Current Permit Status

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

Table 8-1: Environmental Permits for mining at Leveäniemi, Gruvberget and Mertainen and processing of ore in Svappavaara processing plants.

Date	Permitting institute	Permit
Leveäniemi		
2015-04-02	MMD (M12-14)	Permit for Leveäniemi: Mining of 15 Mt/y of ore and required amount of waste. Mine construction inclusive crushing and sieving facilities. Pumping and diverting water from the mining area.
2016-10-18	MMD (M4160-15)	Separate judgment in the deferred question (U3) during probationary period regarding discharge of water.
Gruvberget and pellets processing		
2013-11-29	MMD (M3412-10)	Permit for Gruvberget and Svappavaara processing plants: Mining of 2 Mt/y of ore, crushing and sieving facilities and depositing of required amount of rock waste. Pumping and diverting water from the area. Processing of a yearly amount of 4,5 Mt pellets and depositing of tailings.
2015-12-07	MMD (M 970-15)	Permit to increase production in Gruvberget to a maximum of 2.7 Mt per year.
Mertainen		
2013-12-10	MMD (595-12)	Permit for Mertainen mining area: Mining of 15 Mt/y of ore, crushing and sieving facilities and depositing of required amount of waste. Pumping and diverting water from the area.
2019-12-18	MMD (595-12)	Extended investigation period of 4 years and a statement that LKAB shall apply for additional time if necessary due to production conditions. LKAB shall also compile ongoing investigations in an annual report to the County Administrative Board beginning in 2021. Separate judgment in the deferred question (U3) during probationary period regarding measures for the protection of reindeer husbandry at Mertainen.

Table 8-2 lists the permits regarding water operations and the tailings storage facilities at Svappavaara.

Table 8-2: Permits for water operations and the tailings storage facilities at Svappavaara.

Date	Permitting institute	Permit
1964-09-30	Övre Norrbygdens vattendomstol (A 21/1963)	Permit for construction of a dam to create a recipient pond. Permit to divert water from Liukattijoki to lake Metträsket and to divert water from Metträsket to the processing plants (max 4 Mm^3/y). To construct pump stations and pipelines etc for the operation.
1965-11-10	Övre Norrbygdens vattendomstol (A 21/1963)	Pumping and divert water from Kalix River (max 10 000 m^3 per day and 1 Mm^3/y)
1970-01-29	Övre Norrbygdens vattendomstol (A 21/1963)	Intake of water from Metträsket to the process plants (max 11 Mm^3/y). Discharge of process water. Approval of dam section C-H.
2002-04-19	MMD (M 136-01)	Capacity-enhancing measures for the Tailings Storage Facility in the form of raises of dams
2017-03-31	MMD (M 643-16)	Permit for capacity-enhancing measures in the tailings pond, in the form of raises of dams and construction of a new spillway.

8.1.2 Upcoming Permits and Future Projects for Assessment

There is no decision on upcoming permits. Future projects at Gruvberget and Leveäniemi would need new permits.

8.2 Closure Planning

LKAB has a conceptual closure plan for the mining area in Svappavaara. The mining area is defined as the area within which LKAB operates. Restoration will be carried out to achieve the objectives described in the regulation on extractive waste. The goals in the closure plan for the restoration at the closure of LKAB's mining area are to:

- Remove all safety hazards that are possible to remove; the goal is, if possible, that the area should not require any permanent barriers to avoid accidents.
- Be able to use the land in the mining area, for example for its original use (natural land, pasture for reindeer and for outdoor recreation) or to be used for other suitable purposes.
- That the pollution situation in the mining area does not lead to an exposure that constitutes an unacceptable ecological or human toxicological risk.
- That the restored mining area blends into the surrounding landscape.
- That the restored mining area should be in minimal need of supervision or maintenance in a long-term perspective.
- Preserve landscapes, buildings and remains of cultural historical interests.

Closure costs for the mining areas in Svappavaara (Gruvberget, Leveäniemi and Mertainen) are estimated at SEK 151 million (17-823E Closure Plan for Svappavaara and 18-719 Closure Plan for Mertainen), which represents the total cost for the restoration, the cost of environmental and functional control for 30 years but excludes the cost for demolition of the processing plants and other buildings. The assessment is that there is no significant risk of biological effects in the recipient from water discharges from the restored facilities in Svappavaara. Treatment of leaching and drainage water is therefore limited to measures to prevent suspended material from reaching the recipient during the closure phase.

8.3 Urban Transformation

The urban transformation in Svappavaara was concluded in 2016 when the land was handed over to LKAB's mining operation. The process, which began in 2008, aimed to enable mining to restart at Leveäniemi open pit and for forthcoming mining in Mertainen. LKAB was provided a land allocation agreement from the Swedish authority Bergstaten in relation to the mining concessions Leveäniemi K nr 1, Gruvberget K nr 1 and K nr 2.

Figure 8-1 shows an illustration of the land acquired through the Urban Transformation process for mining at Leveäniemi.

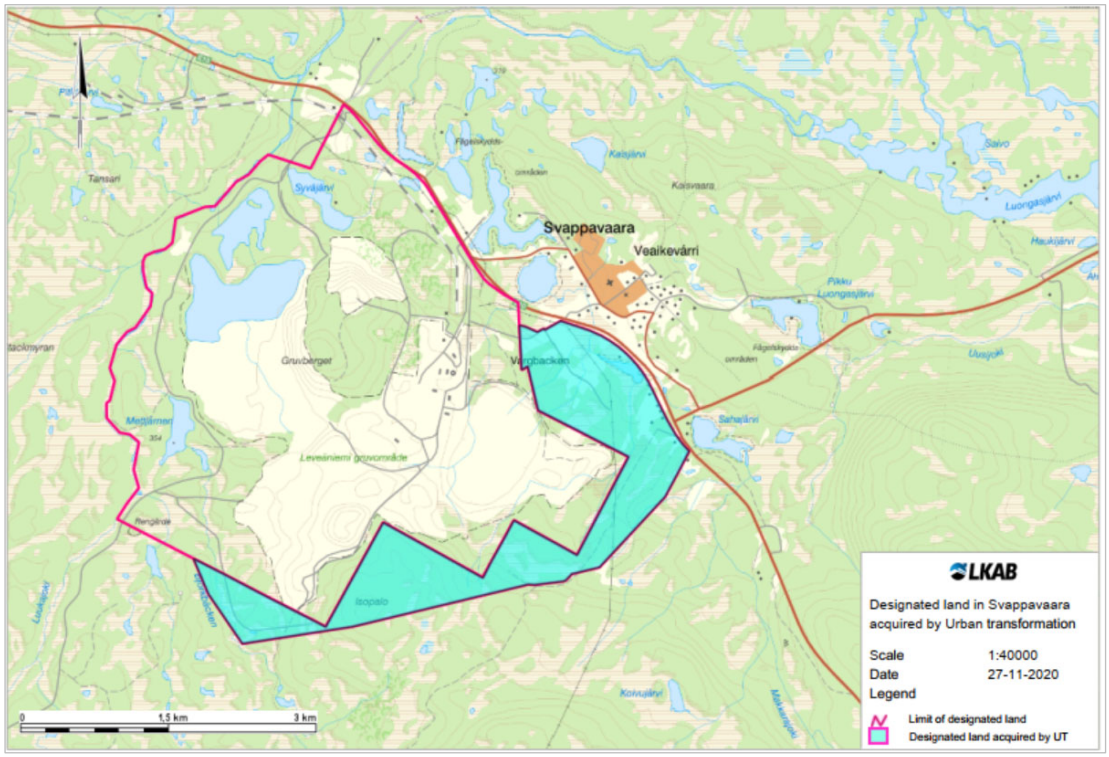


Figure 8-1: Urban Transformation Land in Svappavaara.

8.4 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.

8.4.1 Permitting Risks and Uncertainties

- The uncertain permit proceedings, with some rejections of LKAB's environmental applications at the Land and Environmental Court in 2022, make it difficult to plan how the upcoming requirements for new approvals shall be executed.
- Extensive and uncertain environmental permit proceedings may lead to consequent delays of investments and to production restrictions.
- Detailed or narrowly defined judgments or permits may restrict freedom of operation within the framework of the permit, which may lead to more permit processes being required.
- Delayed or narrowly defined judgments may impact environmental and safety measures, creating a threat that the operation is consequently not considered to be conducted in accordance with relevant regulations.
- Uncertain permit proceedings could limit or restrict access to land.

8.4.2 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.
- Insufficient international discussions, external monitoring, and ongoing building of knowledge and opportunities and ability to influence the design and implementation of new regulations and, consequently, compliance with new legislation.

8.4.3 Stakeholder Engagement Risks and Uncertainties

LKAB strives for implementing measures to reduce environmental impact. Including in areas such as development of water stewardship, techniques of water purification and with ecological remediation to enable land use by other stakeholders.

- There remains a threat of not gaining social acceptance for planned measures, ongoing operation, and urban transformation.
- There is a threat that an inferior relationship with the Sami 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.

At present, all Svappavaara Resources are reported within a depth considered suitable for the generation of Mineral Reserves and where mining methods and conditions are well understood due to current operations at Kiruna and Malmberget. Should Resources be extended at depth, particularly at Gruvberget, additional technical studies and justification may be required to report the Mineral Resource Statement at depths beyond the current extents.

Current optimisation studies at Svappavaara are based on limited metallurgical studies. This is particularly true at Gruvberget where magnetite, mixed and hematite material types exist. Currently, the optimisation makes limited distinction between the material types, and it is possible that different cut-off grades could be applied to each material type based on the recovery properties. Testwork on the Gruvberget hematite is planned for 2023 and as such it is anticipated that these results will be used in an update to the optimisation study carried out for the 2023 reporting period. The impact of the metallurgical testwork is unknown at present and as such, this presents a risk to declared Mineral Resources. Conversely, it is also possible that the magnetite and mixed material could be reported with a lower cut-off grade during the optimisation should testwork show high Fe recoveries. This would present an opportunity to increase the declared Mineral Resources.

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.

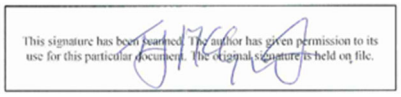
10 CONCLUDING REMARKS

This summary technical report describes LKAB's Mineral Resources and Mineral Reserves, as of 31 December 2022 at the Company's Svappavaara iron ore mining operations 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 process necessary to deliver on the Mineral Reserves stated.

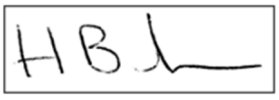
The Competent Person concludes that extraction of the Mineral Reserves can be reasonably justified at the time of reporting.

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
SVP	Svappavaara Area mining operations
TSF	Tailings Storage Facility
USD	United States Dollars

APPENDIX

A CONSENT LETTERS

Competent Person's Consent Statement

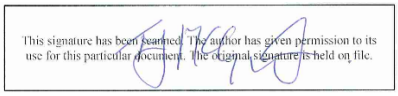
Pursuant to the requirements of paragraph 3.7 of the PERC Reporting Standard 2021

With respect to the report entitled: 'A Competent Person Report on the Mineral Resources and Mineral Reserves of LKAB, Sweden – Svappavaara Mine' on behalf of LKAB, with an effective date of report of 31 December 2022, (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 Svappavaara Iron Ore Deposit with an effective date for the Mineral Reserve statement of 31 December 2022.
- 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 2022 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:
31/12/2022

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 – Svappavaara 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 Svappavaara 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 Svappavaara 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	31/12/2022
Professional Membership:	Membership Number:
Australasian Institute of Mining and Metallurgy	224239