



MINERAL RESOURCES AND MINERAL RESERVES

LKAB is an iron ore producer with over a 150 years of mining history at our three operating locations in northern Sweden. LKAB produces over 45 million tonnes of iron ore every year.

This year's update of the mineral resources and mineral reserves shows continued good results from the exploration efforts started 2019. LKAB is also for the first time reporting its mineral resources for phosphorus as well as its mineral resources and mineral reserves from its UK operations.

Mineral resources and mineral reserves are the basis of a mining company's operations and require successful and continuous exploration. Besides exploration, mining costs and the ore price are also important factors affecting the level of mineral resources and

mineral reserves. The exploration initiatives over the past year have resulted in a considerable increase in the mineral resources at Kiruna, Svappavaara and Malmberget.

LKAB compiles its mineral resources and mineral reserves annually. LKAB's reporting method follows the reporting standard PERC 2017 (Pan-European Reserves & Resources Reporting Committee), aimed at a balanced assessment of the value of LKAB's mines and deposits. This report covers the reporting period from 1 January 2020 to 31 December 2020.

MINERAL RESOURCES AND MINERAL RESERVES IN 2020

Mineral resource and mineral reserve estimates are reported in accordance with the PERC Reporting Standard for the second year in a row. Ongoing application of the PERC 2017 Standard gave a robust and transparent approach for classifying the level of confidence in the estimates. The PERC Reporting Standard is consistent with the definitions contained in the CRIRSCO Template (Committee for Mineral Reserves International Reporting Standards).

Kiruna

Mineral reserves have increased as a result of increased mineral resources and updated extraction factors based on review of mine production performance, which together have more than offset depletion of mineral reserves from mining. Mineral resources have increased significantly from continued exploration in the north down dip extension of the deposit. Significant additions to the mineral resource have also been realized through ongoing validation of historical data and the treatment of this information in the estimates.

Malmberget

Mineral reserves decreased due to mining although depletion of mineral reserves was partly offset by new mineral resources being converted to mineral reserves. Successful exploration of down dip extensions of Fabian, Printzsköld-Alliansen, and Western Field deposits has resulted in significant additions to the mineral resources this year.

Svappavaara

Leveäniemi

Mineral reserves have decreased for the year due to mining depletion. Limited exploration drilling combined with only minor changes to the geological model have resulted in only minor changes to the mineral resource.

Gruvberget

Significant exploration drilling down dip on the south half of the deposit, combined with updates to the geological model have resulted in a significant increase in mineral resources, particularly in the inferred category.

Mertainen

No updates to the geological model were completed in 2020, although application of The PERC Reporting Standard did not result in any change in mineral resources. Development of the mineral process continued during the year.

Operations at Dimmock Cote Quarry and Bracken Quarry in the UK

For the first time, LKAB is reporting mineral resources and mineral reserves from its UK operations under the PERC Standard.

MINERAL RESERVES, UK

AS AT 31 DECEMBER 2020

Dimmocks Cote Quarry, Wicken, Cambridgeshire, UK

	Limestone			
	2020	2019	2020	2019
	Kt ¹	Kt ¹	Kt ²	Kt ²
Proved	0	0	0	0
Probable	698	0	471	0
Total	698	0	471	0

¹ Included in planning permission.

² Not included in planning permission.

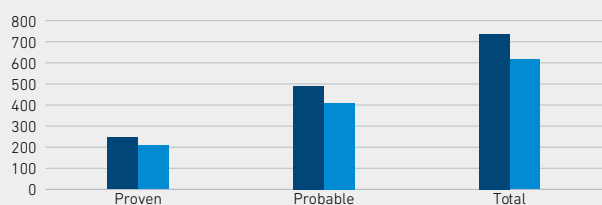
MINERAL RESERVES

AS AT 31 DECEMBER 2020 (INCLUDING SORTING PLANTS)

	Quantity, Mt		Percent, Fe	
	2020	2019	2020	2019
Kiruna				
Proved	246	208	42.6	42.5
Probable	491	408	40.9	41.5
Total	737	616	41.5	41.8
Malmberget magnetite				
Proved	79	94	38.2	38.1
Probable	186	187	39.5	39.5
Total	265	282	39.1	39.0
Malmberget hematite				
Proved	6	7	44.6	44.9
Probable	9	9	43.7	43.7
Total	15	16	44.0	44.2
Leveäniemi				
Proved	81	86	50.3	48.8
Probable	10	11	36.8	35.4
Total	91	97	48.9	47.3

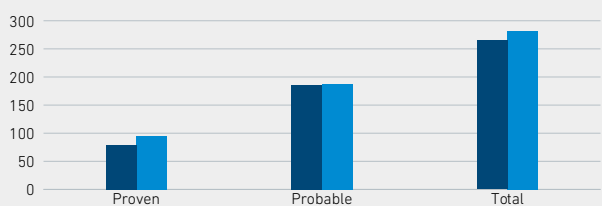
Mineral reserves, Kiruna

Quantity, Mt



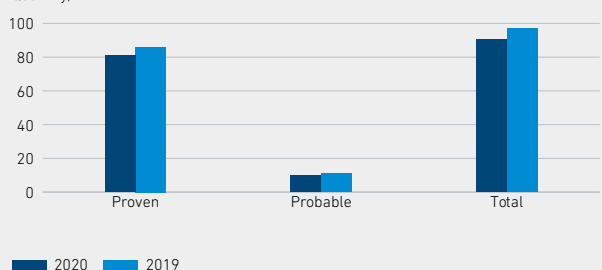
Mineral reserves, Malmberget

Quantity, Mt



Mineral reserves, Leveäniemi

Quantity, Mt



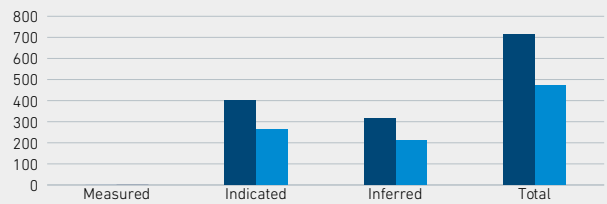
MINERAL RESOURCES (MINERAL RESERVES EXCLUDED)

AS AT 31 DECEMBER 2020 (INCLUDING SORTING PLANTS)

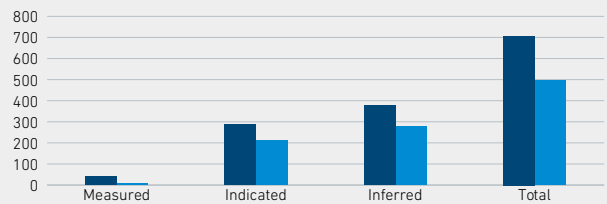
	Quantity, Mt		Percent, Fe	
	2020	2019	2020	2019
Kiruna				
Measured	0	0	0.0	0.0
Indicated	399	264	61.6	59.0
Inferred	314	210	58.3	59.8
Total	713	474	60.1	59.4
Malmberget magnetite				
Measured	40	9	56.8	57.2
Indicated	289	210	57.2	58.5
Inferred	378	278	58.7	60.4
Total	707	497	58.0	59.5
Malmberget hematite				
Measured	3	3	51.8	54.0
Indicated	44	31	53.3	53.0
Inferred	23	15	53.3	56.0
Total	71	49	53.2	54.0
Leveäniemi magnetite				
Measured	68	67	47.5	47.0
Indicated	64	70	41.6	43.0
Inferred	9	12	38.8	39.0
Total	141	149	44.2	44.5
Leveäniemi hematite				
Measured	1	1	59.5	58.0
Indicated	0	0	49.0	0.0
Inferred	0	0	0.0	0.0
Total	1	1	59.4	58.0
Gruvberget magnetite				
Measured	23	20	53.7	56.0
Indicated	24	13	50.7	55.0
Inferred	147	64	49.9	55.0
Total	194	97	50.5	55.2
Gruvberget hematite				
Measured	17	20	52.9	55.0
Indicated	17	21	50.1	55.0
Inferred	23	28	50.8	56.0
Total	57	69	51.2	55.4
Mertainen magnetite				
Measured	60	60	36.0	36.0
Indicated	97	97	38.5	38.5
Inferred	72	72	34.4	34.4
Total	229	229	36.5	36.5

Mineral resources, Kiruna

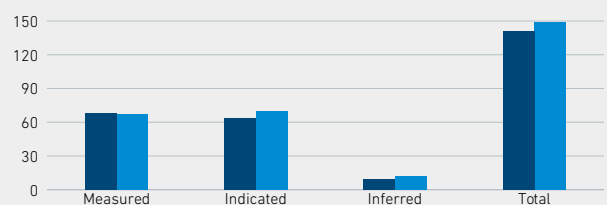
Quantity, Mt


Mineral resources, Malmberget

Quantity, Mt


Mineral resources, Leveäniemi

Quantity, Mt



2020 2019

MINERAL RESOURCES (MINERAL RESERVES EXCLUDED), UK

AS AT 31 DECEMBER 2020

Bracken Quarry, Lund, UK

	Limestone	
	2020	2019
	Kt	Kt
Measured	0	0
Indicated	0	0
Inferred	789	0
Total	789	0

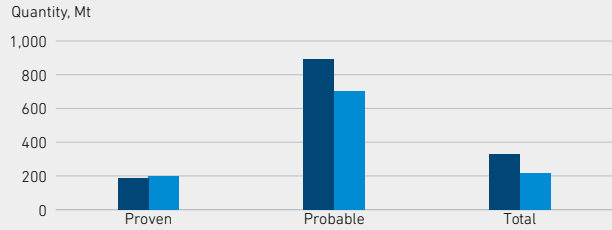
PHOSPHOROUS MINERAL RESOURCES

AS AT 31 DECEMBER 2020

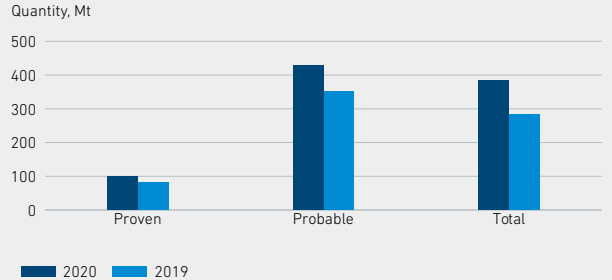
Kiruna	Quantity, Mt		Percent, P	
	2020	2019	2020	2019
Measured	188	196	0.1	0.2
Indicated	893	701	0.3	0.3
Inferred	327	217	0.5	0.4
Total	1,407	1,114	0.3	0.3

Malmberget	Quantity, Mt		Percent, P	
	2020	2019	2020	2019
Measured	99	81	0.7	0.7
Indicated	429	352	0.7	0.7
Inferred	384	284	0.5	0.5
Total	912	717	0.6	0.6

Phosphorus mineral resources, Kiruna



Phosphorus mineral resources, Malmberget



DEFINITIONS

ABOUT THE CLASSIFICATION

Mineral resources and mineral reserves are estimated separately and are divided into different categories. LKAB's mineral resources are reported exclusive of mineral reserves. Mineral reserves are those portions of mineral resources which, after the application of the modifying factors, result in an estimated tonnage and grade or quality, that in the opinion of the Competent Person making the estimates can be the basis of a viable project. When mineral resources are converted to mineral reserves, those quantities are subtracted from mineral resources. The mineral resource statement presented here has been classified following the definitions and guidelines of The PERC Reporting Standard (2017) from which the following definitions have been taken.

INFERRED MINERAL RESOURCE

An inferred mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An inferred resource has a lower level of confidence than that applying to an indicated mineral resource and must not be converted to a mineral reserve. It is reasonably expected that the majority of inferred mineral resources could be upgraded to indicated mineral resources with continued exploration.

INDICATED MINERAL RESOURCE

An indicated mineral resource is that part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration,

sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An indicated mineral resource has a lower level of confidence than that applying to a measured mineral resource and may only be converted to a probable mineral reserve.

MEASURED MINERAL RESOURCE

A measured mineral resource is that part of a mineral resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of modifying factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A measured mineral resource has a higher level of confidence than that applying to either an indicated mineral resource or an inferred mineral resource. It may be converted to a proved mineral reserve or to a probable mineral reserve.

PROBABLE MINERAL RESERVE

A probable mineral reserve is the economically mineable part of an indicated, and in some circumstances, a measured mineral resource. The confidence in the modifying factors applying to a probable mineral reserve is lower than that applying to a proved mineral reserve.

PROVED MINERAL RESERVE

A proved mineral reserve is the economically mineable part of a measured mineral resource. A proved mineral reserve implies a high degree of confidence in the modifying factors.

BASIS FOR ESTIMATES

LKAB reports its mineral resources and mineral reserves in accordance with The PERC Reporting Standard (2017). The estimation of mineral resources and mineral reserves requires judgment to interpret available geological data and subsequently to select an appropriate mining method and then to establish an extraction schedule. Estimation requires assumptions about future commodity prices and demand, exchange rates, production costs, transport costs, close-down and restoration costs, recovery rates and discount rates and, in some instances, the renewal of mining licenses. There are many uncertainties in the estimation process and assumptions that are valid at the time of estimation may change significantly when new information becomes available. New geological or economic data, or unforeseen operational issues, may change estimates of mineral resources and mineral reserves. Estimates are made based on the following underlying factors:

Metal prices

Mineral resources and mineral reserves provide a basis for the company's long-term planning. Mineral resource estimates are reported above a 20% Fe cut-off, considered by the Competent Person to represent 'reasonable prospects for eventual economic extraction'. Mineral reserve estimates are reported considering a long-term price of 65 USD/ton of iron ore (62% Fe) over the coming business cycle.

Dilution

Dilution is referred to as the waste material that is being mined along with the ore during mining operations. This varies in percentage, depending on various mining and geological factors. LKAB systematically monitors the quantity of waste rock mixed with mined ore and this data is included in all estimates of mineral reserves.

Recovery

Depending on the mining method employed, orebody geometry and other technical and geological factors, some percentage of the ore cannot be recovered. The percentage of recoverable minable mineral reserves is defined as ore recovery. This factor has been taken into consideration in the estimates of mineral reserves.

Standards, codes and recommendations

LKAB's mineral resources and mineral reserves have been estimated and listed according to the reporting standard PERC 2017.

The above text was compiled by Lazaros Dalampiras MAusIMM CP(Geo), Senior Resource Geologist, LKAB. The mineral resource and mineral reserve statements in this report have been reviewed and approved by Lazaros Dalampiras LKAB, Guy Dishaw, Principal Consultant and Tim McGurk, Corporate Consultant of SRK Consulting (UK) Limited.

January 2021

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