

Closed large metal mines in Nordic countries (end-2022)

Name	Country	Lat. N	Long. E	Metallogenic area	When mined	Resources Mt	Reserves Mt	Mined Mt	Total Mt	Resource reporting standard	Ag g/t	Au g/t	Co %	Cu %	Fe %	Mn %	Mo %	Ni %	P %	Pb %	Ti %	V %	Zn %	Genetic_type	Main metal	Comments				
Biernevatn	Norway	69.652	30.025	Ser-Varanger Fe	1908-1996, 2011-2015	146.6	130.8	150	427.4	JORC					32										Stratiform iron	Fe				
Gruvberget	Sweden	67.645	20.991	Vittangi Fe, Cu, Au, Co, Mo	1860, 1862-1863, 1866, 1872, 1892, 2010-2020	399		11,054	410.1	PERC					51.8										Apallite iron ore	Fe				
Gränsebergs mining district	Sweden	60.083	14.997	Northern Bergslagen Fe, Cu, Zn, Pb, Ag	1763-1769, 1791-1796, 1799-1881, 1883-1885, 1887-1989	145.3		132.78	261.1	N/A3-101				50.0	0.136				0.876						Apallite iron ore	Fe				
Hannukainen	Finland	67.555	23.979	Palaio-Kolari Fe, Cu, Au	1978-1992	221		4.563	225.6	Ni 43-101		0.081	0.0135	0.18	32.4											Iron oxide-copper-gold	Fe	Co grade from historic data		
Mustavaara	Finland	65.814	28.085	Koillismaa PGE, V, Ni, Fe, Cu	1976-1985	146.1		13.446	159.5	Ni 43-101				9.72							0.563	0.138			Mafic intrusion-hosted Ti-Fe±V	V				
Dannemorafallet	Sweden	60.204	17.860	Northern Bergslagen Fe, Cu, Zn, Pb, Ag	1845-1850, 1858-1927, 1933-1992, 2012-2014	7.039	31.11	34.261	72.41	JORC					35.7	2.199			0.0056					0.54	Skarn Fe-Mn	Fe				
Laisvall	Sweden	66.146	17.156	Laisvall Pb, Zn, Ag	1943-2001			64.487	64.49	Historic	9.4													0.85	Sandstone Pb	Pb				
Häksberg-Åkorsbotten-Åkenfålen	Sweden	60.196	15.201	Northern Bergslagen Fe, Cu, Zn, Pb, Ag	1858-1890, 1893, 1897-1899, 1902-1920, 1926, 1936-1979	37		19.474	56.47	Ni43-101					35.1	0.193	0.462				0.087	4.016				Stratiform iron	Fe			
Otanmäki	Finland	64.117	27.100	Otanmäki V, Fe, Ti	1953-1985	14		29.813	43.81	Historic				40								0.087	7.57	0.26	Mafic intrusion-hosted Ti-Fe±V	V				
Vihanti Zn	Finland	64.407	25.144	Vihanti-Pyhäsalmi Zn, Cu	1954-1992		9.164	27.939	37.1	Historic	25	0.44		0.48											0.36	4 VMS	Zn			
Viscaria	Sweden	67.865	20.111	Viscaria-Sautuvaara Cu, Fe, Au, Zn, Ag, Co	1982-1997	21.809		12.523	34.13	JORC	6.9	0.017		1.77												0.6	VMS	Cu		
Lekken	Norway	63.122	9.698	Steren-Lekken Cu, Zn	1654-1987	6		24	30	Historic	16	0.2	0.07	2.3	37.5										0.02	1.8	VMS	Cu		
Outokumpu	Finland	62.724	28.992	Outokumpu Co, Cu	1910-1989		0.5	28.5	29	Historic	8.9	0.8	0.24	3.8												1.07	VMS	Cu		
Stekernjök	Sweden	65.102	14.463	Grönd-Stekernjök Cu, Zn, Au	1976-1988		11.06	6.9717	18.63	FRB, Ni 43-101	53.8	0.30		1.1557											0.596	3.842	VMS	Zn		
Black Angel	Greenland	71.129	-51.229	Narsartokjidian-Rinkian Orogen	1973-1990	15.625		11.2	15.63	JORC 2004	17.9															3	8.6	MVT to Irish type Pb-Zn	Zn	
Boliden	Sweden	64.872	20.375	Skellefte District Zn, Cu, Pb, Ag, Au	1926-1967			8.3244	8.324	Historic	45.9	13.92		1.411													Epithermal	Au		

Included are deposits where the total pre-mining resource, *in situ*, has a nominal value exceeding that of 600,000 t of Cu equivalent. This nominal value, not shown in the table, is calculated by using the average annual metal prices of 2013-2022