Paasivaara

Alternative Names: PV Reef, Paasivaara Reef
Occurence type: deposit

Commodity	Rank	Total measure	Total production	Total resource	Importance
platinum group metal	1	33,5 t	NA	33,5 t	Medium sized deposit
palladium	2	12,9 t	NA	12,9 t	Medium sized deposit
platinum	2	20,2 t	NA	20,2 t	Medium sized deposit
copper	3	14000 t	NA	14000 t	Small deposit
rhodium	3	0,4 t	NA	0,4 t	Small deposit
gold	3	3,05 t	NA	3,05 t	Small deposit
nickel	3	NA	NA	NA	NA
ruthenium	4	NA	NA	NA	NA
iridium	4	NA	NA	NA	NA
sulphur	5	31500 t	NA	31500 t	Small deposit

Easting EUREF: 407516,543
Northing EUREF: 7300376,513

Easting YKJ: 3407652
Northing YKJ: 7303431

Discovery year: 1981
Discovered by: Outokumpu Oy
Province: Portimo (PGE, Cr, Ni)
References: 2, 3, 4

Mineral deposit type

Group: Metallogenic deposit
Main type: Ultramafic (magmatic)

Dimension

Expression: exposed
Form: concordant
Shape: NA
Length (m): 15000
Width (m): NA
Thickness (m): 1
Depth (m): NA

Area (ha): NA
Dip azim: 315
Dip: NA
Plunge azim: NA
Plunge dip: NA
Orientation method: NA

Holder history

Current holder: Kingsrose Exploration Oy
Years: 2021
Holding type: Application for exploration permit

Previous holders:

Company	Years	Holding type	Comments
Gold Fields Arctic Platinum Oy	2014-2016	Reservation	NA
Kylylahti Copper Oy	2012-2014	Reservation	NA
Gold Fields Arctic Platinum Oy	2003-2008	Claim (old law)	NA
Arctic Platinum Partnership Ay	2000-2003	Claim (old law)	NA
Outokumpu Finnmines Oy	1988-1991	Claim (old law)	NA
Lapin Malmi Oy	1981-1986	Claim (old law)	NA

EXPLORATION ACTIVITY

Kingsrose Exploration Oy

Years	Activity type	Geologist	Exploration result	Ref
2022	detailed geophysics	NA	key geological features	8
	UAV magnetometric survey			

2021	core drilling	Andrew Tunningley	mineral occurrences	6, 7
	Reanalysing Outokumpu core			
	Intersections			
	HoleID	SI/KI-49		
	From-To	9,9-11,5		
	Length	1,6m		
	palladium	3,7ppm		
	platinum	8ppm		
	gold	1,4ppm		
	nickel	0,2%		
	copper	0,3%		
	HoleID	SI/KI-51		
	From-To	10,4-12		
	Length	1,6m		
	palladium	4ppm		
	platinum	6,8ppm		
	rhodium	0,19ppm		
	gold	1ppm		
	nickel	0,18%		
	copper	0,63%		
	iridium	0,14ppm		
	ruthenium	0,32ppm		
	HoleID	SI/KI-63		
	From-To	33,5-36,1		
	Length	2,6m		
	palladium	5,8ppm		
	platinum	6,5ppm		
	gold	0,9ppm		
	nickel	0,3%		
	copper	0,3%		

Outokumpu Oy

Years	Activity type	Geologist	Exploration result	Ref
1999-1999	detailed geophysics	Jarmo Lahtinen, Timo Huhtelin	NA	

1999-1999	subsurface exploration	Jarmo Lahtinen, Timo Huhtelin	NA	

1999-1999	mining pilot	Jarmo Lahtinen, Timo Huhtelin	NA	

1982-1983	core drilling	J Lahtinen	mineralized zone identified	
	18 DDHs, for a total of approximately 2200 m.			

1981-1981	detailed geology	Jarmo Lahtinen	NA	
	Resampling and assaying in 1981 resulted in the finding of high PGE contents.			

1960-1999	detailed geology	Jorma Kujanpää	NA	
	Sulphide bearing outcrops on the Paasivaara Hill were found on 1960 by Outokumpu Oy, but the PGE was not assayed.			

RESOURCES AND RESERVES

Most recent

Type:	Company:	Year:	Date:	Calc Method:	Reference:
Resource	Outokumpu Oy	1990	NA	Non-compliant resource estimate	2
	Category:	**Inferred mineral resource**			
	Tonnage:	**5 Mt**			
	copper	0,28 %			
	gold	0,61 ppm			
	palladium	2,58 ppm			
	platinum	4,04 ppm			
	rhodium	0,08 ppm			
	sulphur	0,63 %			
	platinum group metal	6,7 ppm			
	Cutoff:	**NA**			
	Comments: PGE grade calculated by GTK.				

GEOLOGY

Host rock: Ultramafic rock

Ultramafic rock (Host rock)

Rock type: Host rock
Proportion: present
Grain size: NA
Color: NA
References: 1, 5
Comments: The Paasivaara reef is erratic in nature, and base metal sulfides and PGM are hosted by a peculiar transition zone that forms the topmost part (up to 40 m) of Megacyclic Unit IV. The Transition Zone is composed of plagioclase±augite±bronzite ad-orthocumulates and a mixed rock, which itself is composed of irregular patches of poikilitic gabbro embedded in a plagioclase matrix.

Textures
Cumulate

Metamorphic description:

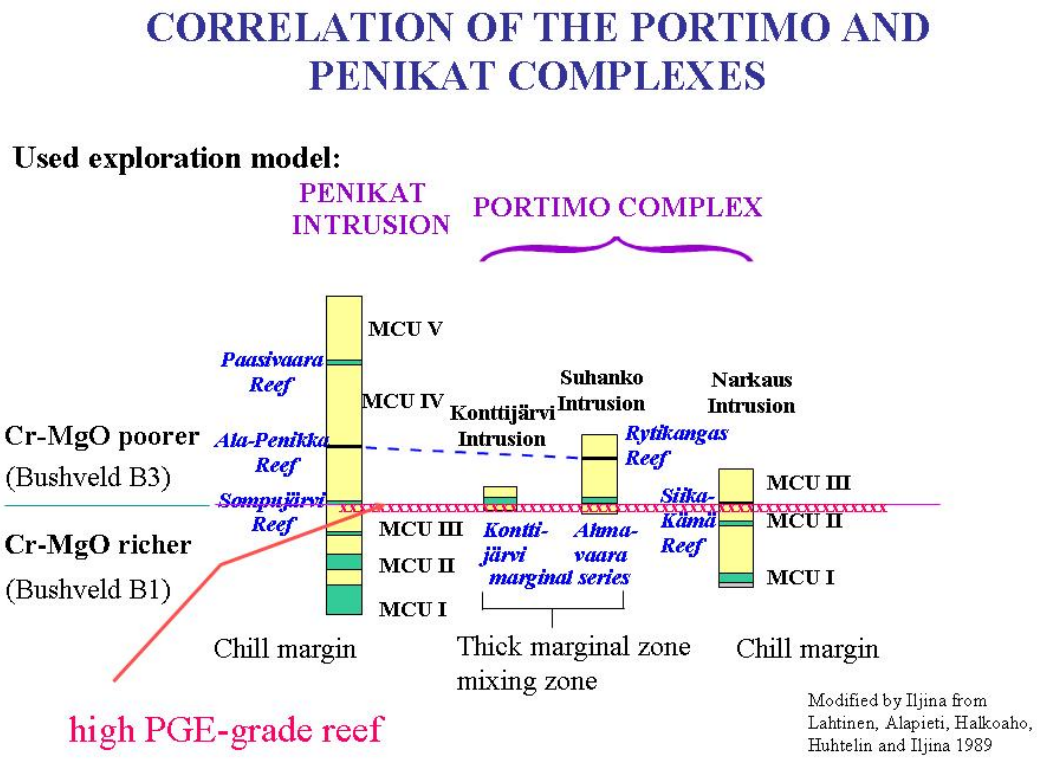
Type:	Facies:	Degree:	Relation to mineralization:	Min P- Max P (kbar)	MIn T- Max T (°C)
Regional	greenschist metamorphic facies	low metamorphic grade	NA		

Geological age:

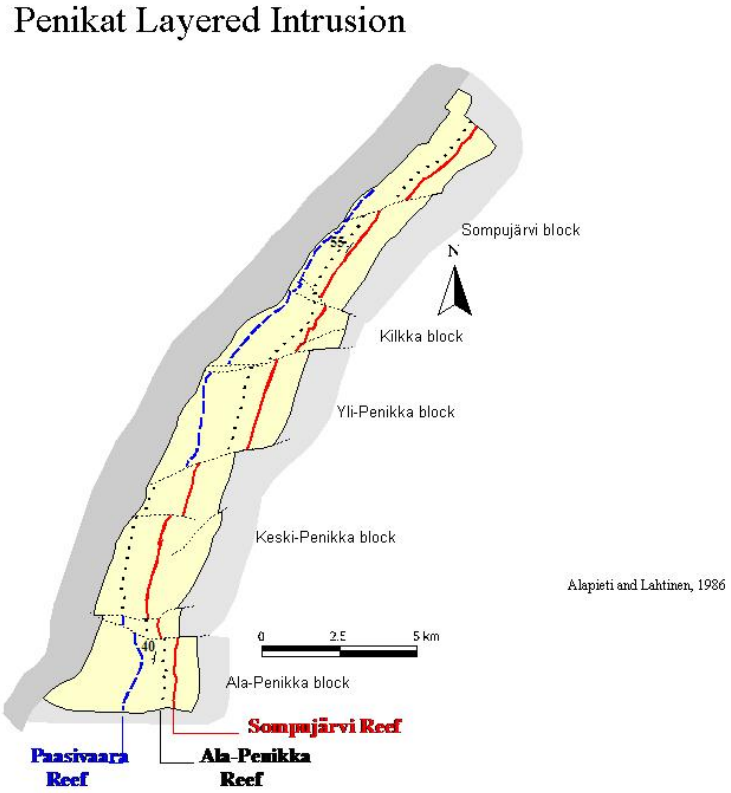
Geological era:	Max age - Minage (Ma):	Inferred age (Ma):	Age of mineralization:		
Paleoproterozoic (2500-1600 Ma)	2450-2450	2450	N		
Radiometric age:	**Method:**	**Age:**	**Error (Ma):**	**Mineral:**	**Reference:**
	NA	2450			

Figures

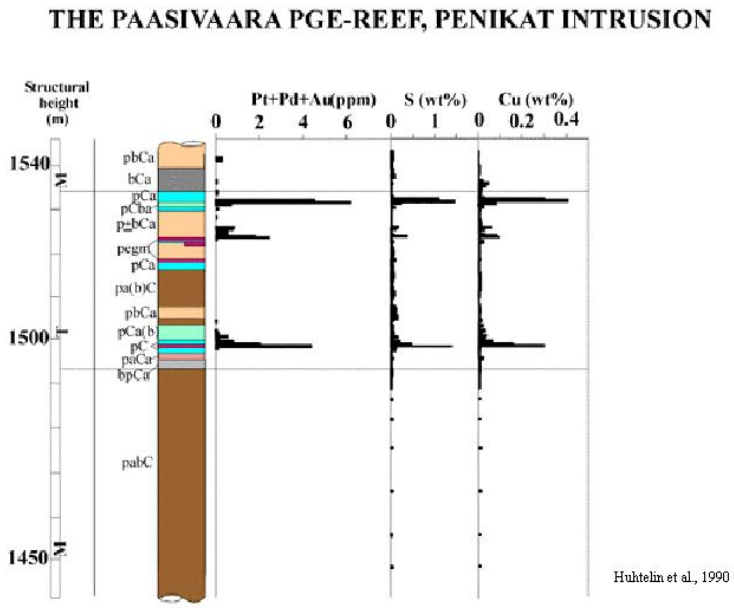
Correlation of the Portimo and Penikat Reefs:



Location of the Penikat Reefs:



Drill hole intersection of the PV reef:



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