Piilola

Occurence type: prospect

Commodity	Rank	Total measure	Total production	Total resource	Importance
gold	1	NA	NA	NA	NA

Easting EUREF: 600723,906
Northing EUREF: 7137955,194
Easting YKJ: 3600937
Northing YKJ: 7140944

Discovery year: 2003
Discovered by: Geological Survey of Finland
Province: Kuhmo (Ni, Ag, Au)
District: Kuhmo (Au)
Comments: Discovery in an outcrop of auriferous, arsenopyrite-rich, altered mica schist during the local exploration campaign.
References: 1, 2, 3, 6

Mineral deposit type

Group: Metallogenic deposit
Main type: Orogenic (metamorphic hydrothermal)
References: 4

Dimension

Expression: exposed
Form: NA
Shape: NA
Length (m): NA
Width (m): NA
Thickness (m): NA
Depth (m): NA
Area (ha): NA
Dip azim: NA
Dip: NA
Plunge azim: NA
Plunge dip: NA
Orientation method: NA
Dimension comments: Two lodes 2(?) km apart. Mineralisation plunges to the NNW.

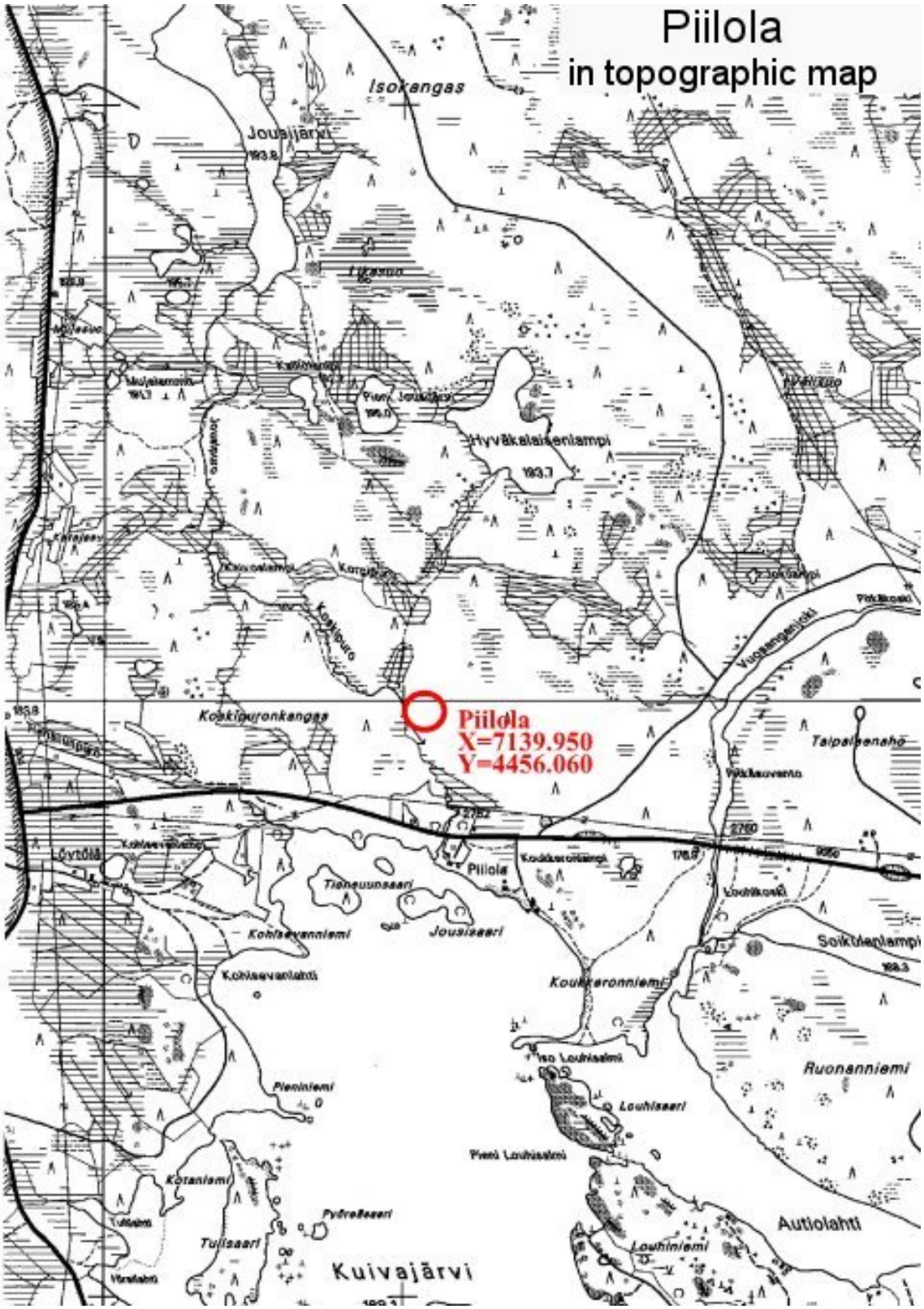
Holder history

Previous holders:

Company	Years	Holding type	Comments
Magnus Minerals Oy	2021	Application for exploration permit	NA
Mineral Exploration Network (Finland) Limited	2009-2010	Claim reservation (old law)	NA
Geological Survey of Finland	2003-2004	NA	NA

Figures

Piilola location:



EXPLORATION ACTIVITY

Mineral Exploration Network (Finland) Limited

Years	Activity type	Geologist	Exploration result	Ref
2011-2013	detailed geochemistry	NA	favorable geological environment	3
	Detailed till geochemical survey ("soil sampling" and basal till sampling): Soil sampling on 100 x 10 meters grid (50,412 samples from the B horizon of till); basal till sampling with handheld percussion drill (2038 samples). Gold analysed(?) only from basal till samples whereas the company uses As anomalies in till as gold indicator.			

2011-2013	core drilling	NA	mineral occurrences	1, 3
	In total, 47 shallow holes drilled by MEN. Several ppm-grade intersections detected.			
	Intersections			
	HoleID	MEN036		
	From-To	NA		
	Length	4,7m		
	gold	2,26%		
	HoleID	MEN037		
	From-To	NA		
	Length	3,6m		
	gold	1,9%		

2011-2013	detailed geophysics	NA	geophysical anomaly	1, 3
	Ground magnetic, IP and resistivity surveys.			

Geological Survey of Finland

Years	Activity type	Geologist	Exploration result	Ref
2003-2004	core drilling	Kimmo Pietikäinen	mineralized zone identified	4, 5
	Core drilling (reconnaissance drilling): 30 diamond-drill holes, total 2427 m.			
	Intersections			
	HoleID	NA		
	From-To	NA		
	Length	1m		
	gold	4,2ppm		
	HoleID	NA		
	From-To	NA		
	Length	4m		
	gold	3,5ppm		
	HoleID	NA		
	From-To	NA		
	Length	5,1m		
	gold	4,4ppm		
	HoleID	NA		
	From-To	NA		
	Length	1m		
	gold	5ppm		
	HoleID	NA		
	From-To	NA		

	Length	1m
	gold	6,6ppm
	HoleID	NA
	From-To	NA
	Length	0,5m
	gold	17,3ppm
	HoleID	NA
	From-To	NA
	Length	1m
	gold	7,5ppm

2002-2005	detailed geophysics	Kimmo Pietikäinen	geophysical anomaly	4, 5
	Ground electromagnetic, magnetic and IP survey. A distinct positive chargeability anomaly (IP survey) due to rocks containing sulphide dissemination; within the anomaly, there is a negative apparent resistivity anomaly (IP survey) which is due to the gold-mineralised zone detected. There are other similar anomalies in the claim area, which still (2006) aren't checked by drilling.			

2002-2005	detailed geology	Kimmo Pietikäinen	mineralized zone identified	4, 5
	Discovery of an outcrop of auriferous, arsenopyrite-rich, altered mica schist during the local exploration campaign.			

2002-2005	detailed geochemistry	Kimmo Pietikäinen	geochemical anomaly	4, 5

1994-1994	regional geophysics	Erkki Luukkonen	key geological features	4, 5
	Low-altitude airborne magnetic, electromagnetic and radiometric survey			

1990-2001	regional geochemistry	Markku Tenhola	geochemical anomaly	
	Greenstone belt-wide till-geochemical survey with 16 damples per one sq.km			

1988-1988	regional geochemistry	Markku Tenhola	geochemical anomaly	2, 4, 5
	Country-wide till-geochemical survey			

GEOLOGY

Host rock: Schist
Wall rock: Greywacke, Pegmatite

Schist (Host rock)

Rock type: Host rock
Proportion: major
Grain size: NA
Color: NA
References: 4, 5
Comments: Mineralisation is in a contact zone ('quartz-sericite rock') between mica schists and metagreywackes of the Neoarchaean Kuhmo greenstone belt in the west and TTG granitoid gneisses in the east. Located at the eastern magrin of the regional N-S trending shear zone.

Ore minerals:

Mineral	Proportion	Mineral texture
Arsenopyrite	major	
Pyrite	minor	

Alteration:	Distribution:	Degree:	Relation to mineralization:
sericitic alteration	NA	NA	NA
Comments: Likasuo: grossular, wollastonite, vesuvianite.			
silicification	NA	NA	NA
Comments: Likasuo: grossular, wollastonite, vesuvianite.			

Geological age:

Geological era:	Max age - Minage (Ma):	Inferred age (Ma):	Age of mineralization:
Archean (4000-2500 Ma)	2500-4000		N

Greywacke (Wall rock)

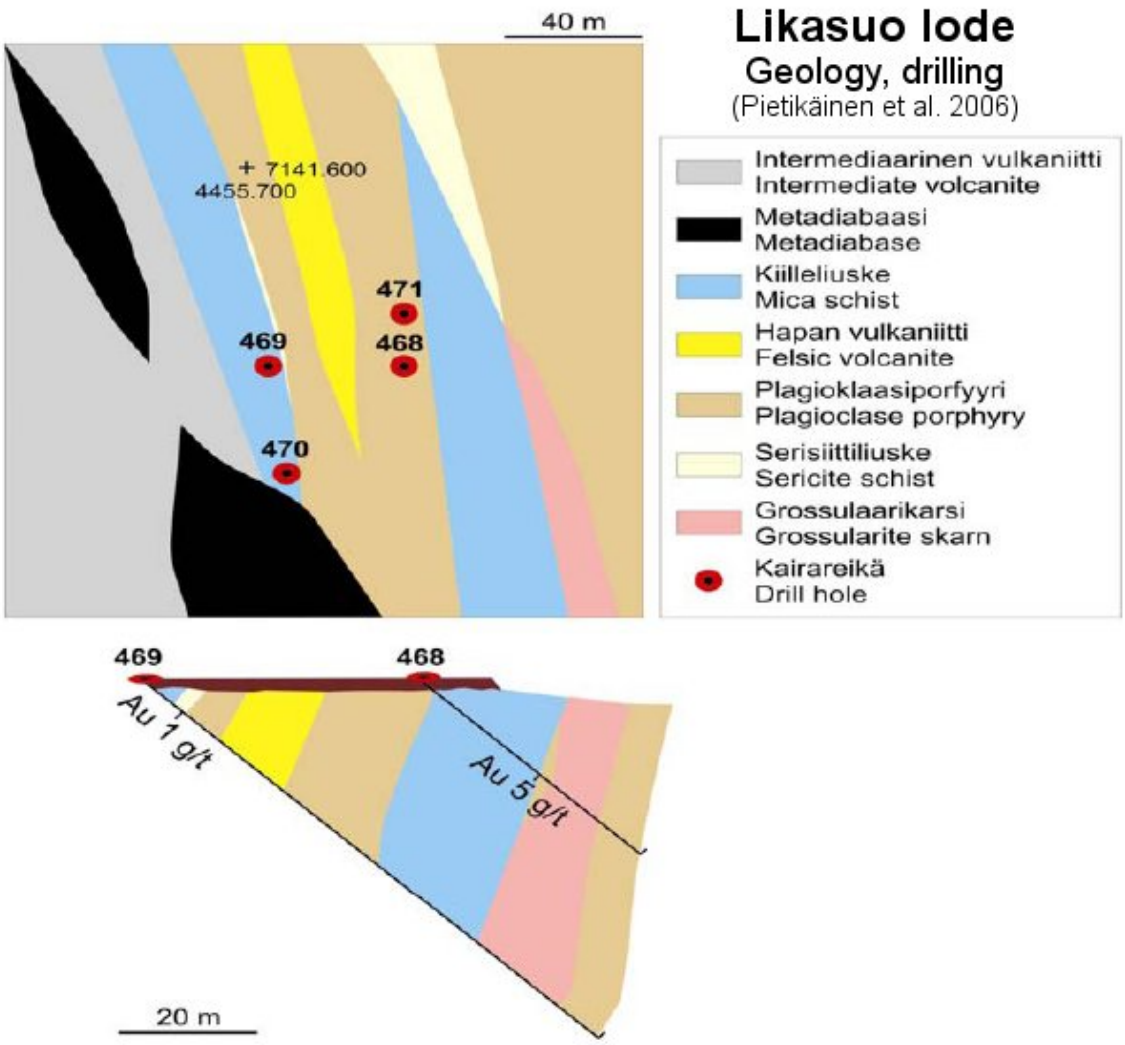
Rock type: Wall rock
Proportion: minor

Pegmatite (Wall rock)

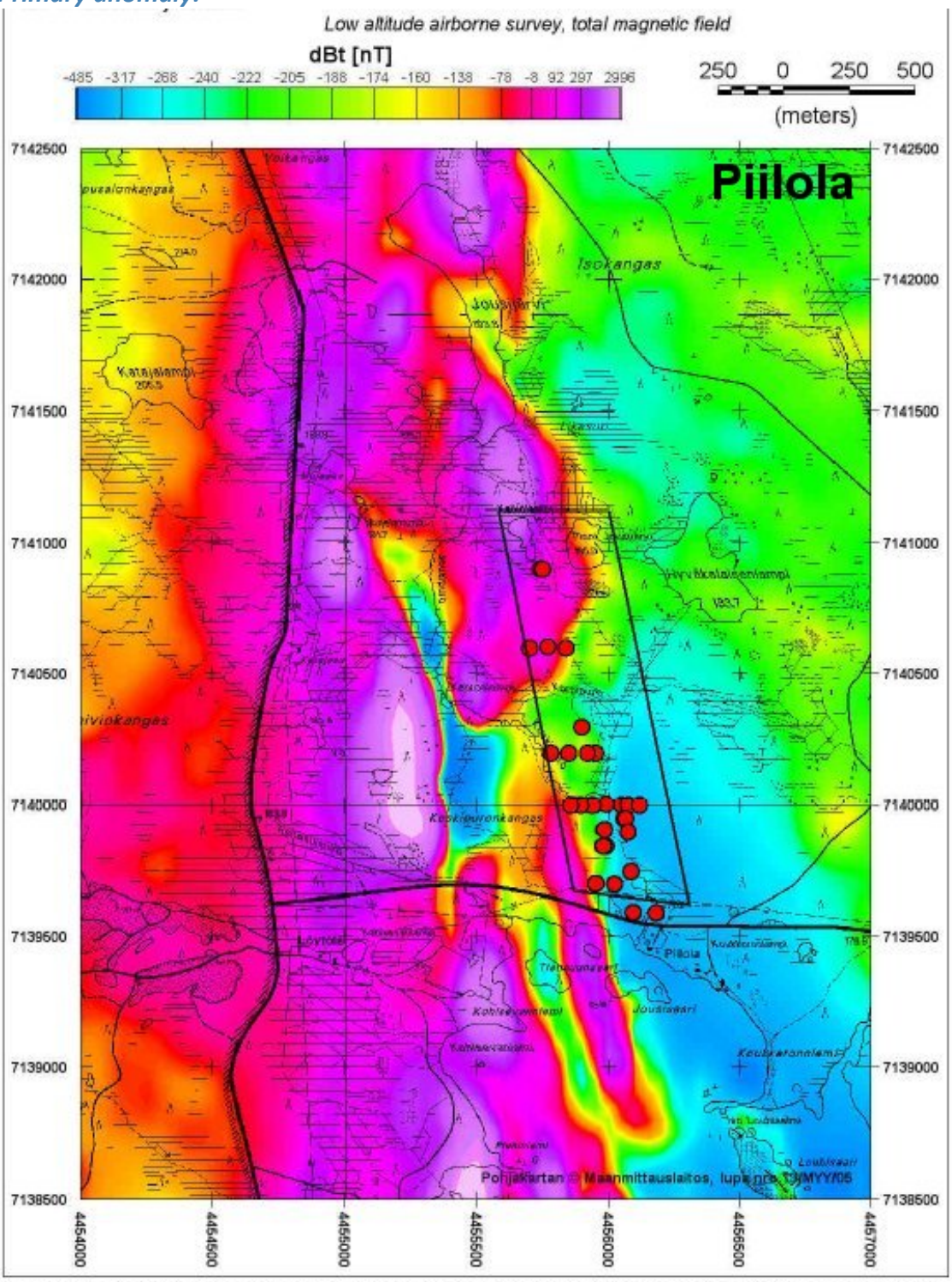
Rock type: Wall rock
Proportion: minor

Figures

Local geology:



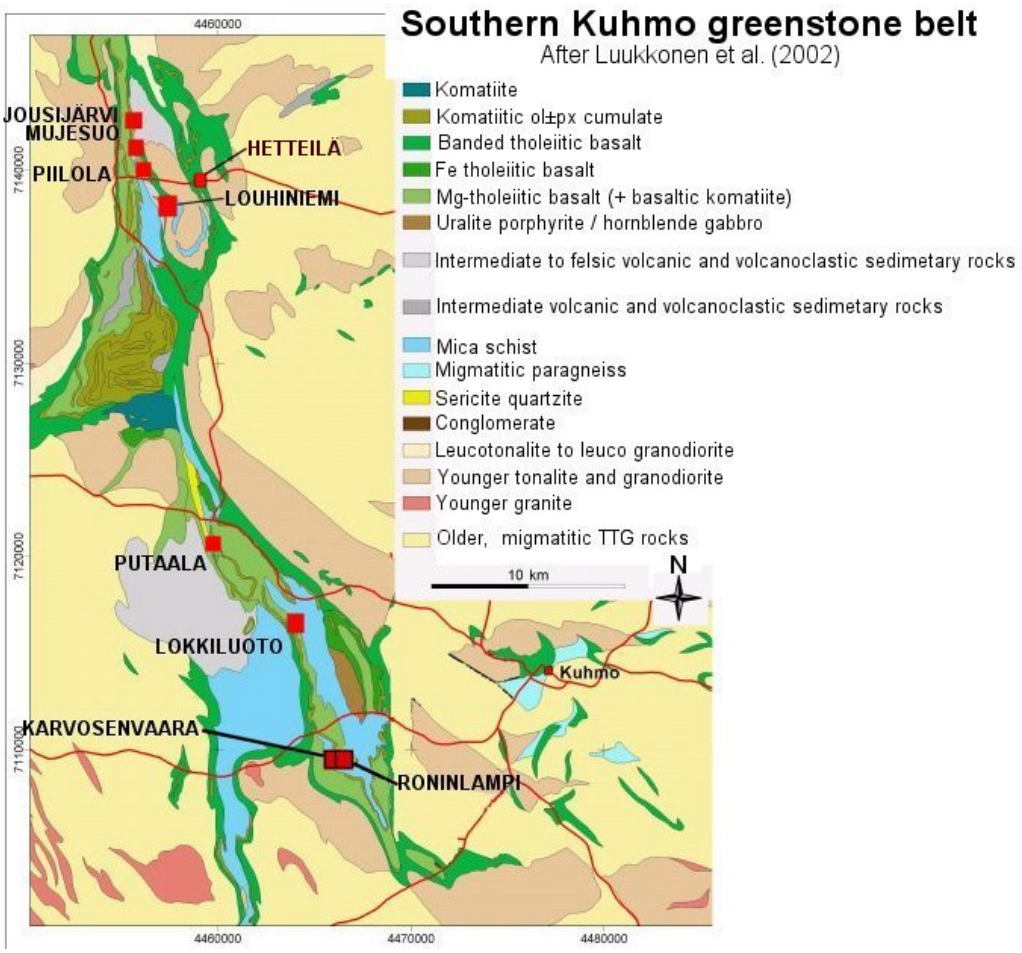
Primary anomaly:



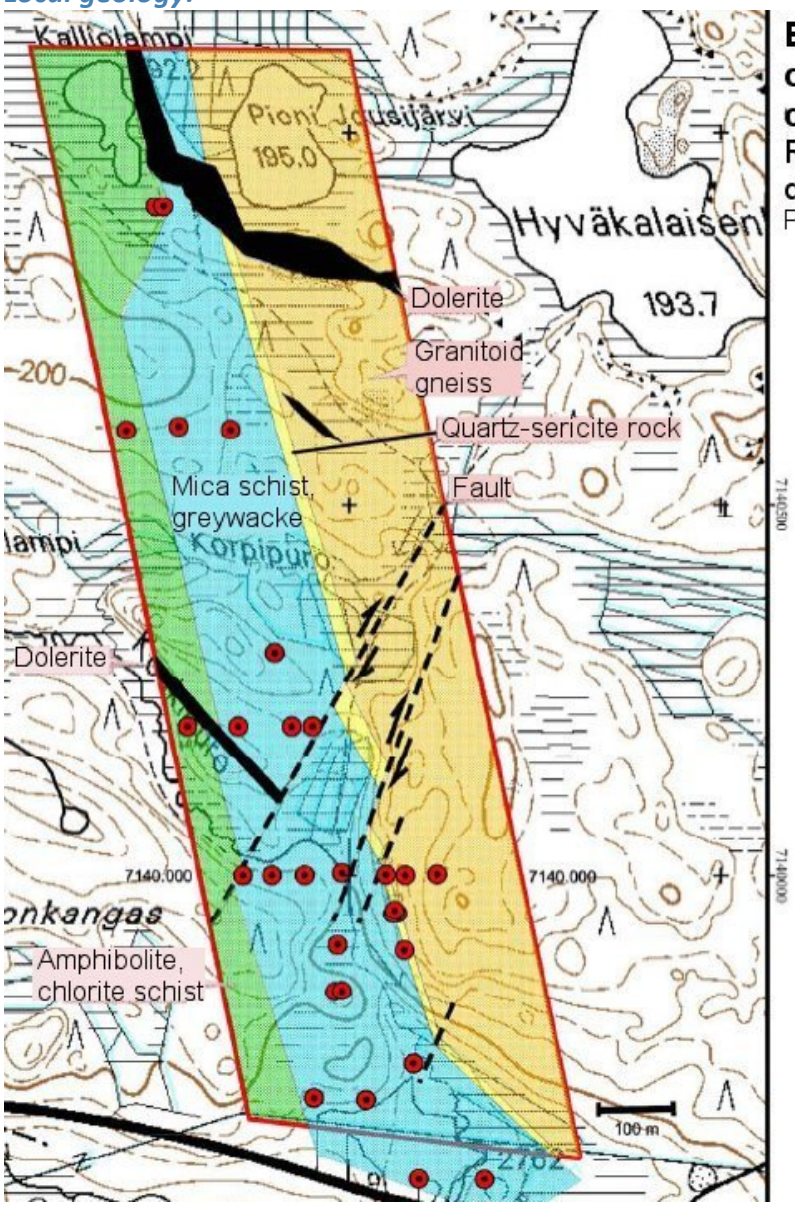
Low altitude airbourne magnetic survey, total magnetic field map of the Piilola area. The claim area of Piilola is outlined with black line. Red circles are diamond drill holes.

Pietikäinen et al. (2005)

Regional geology:

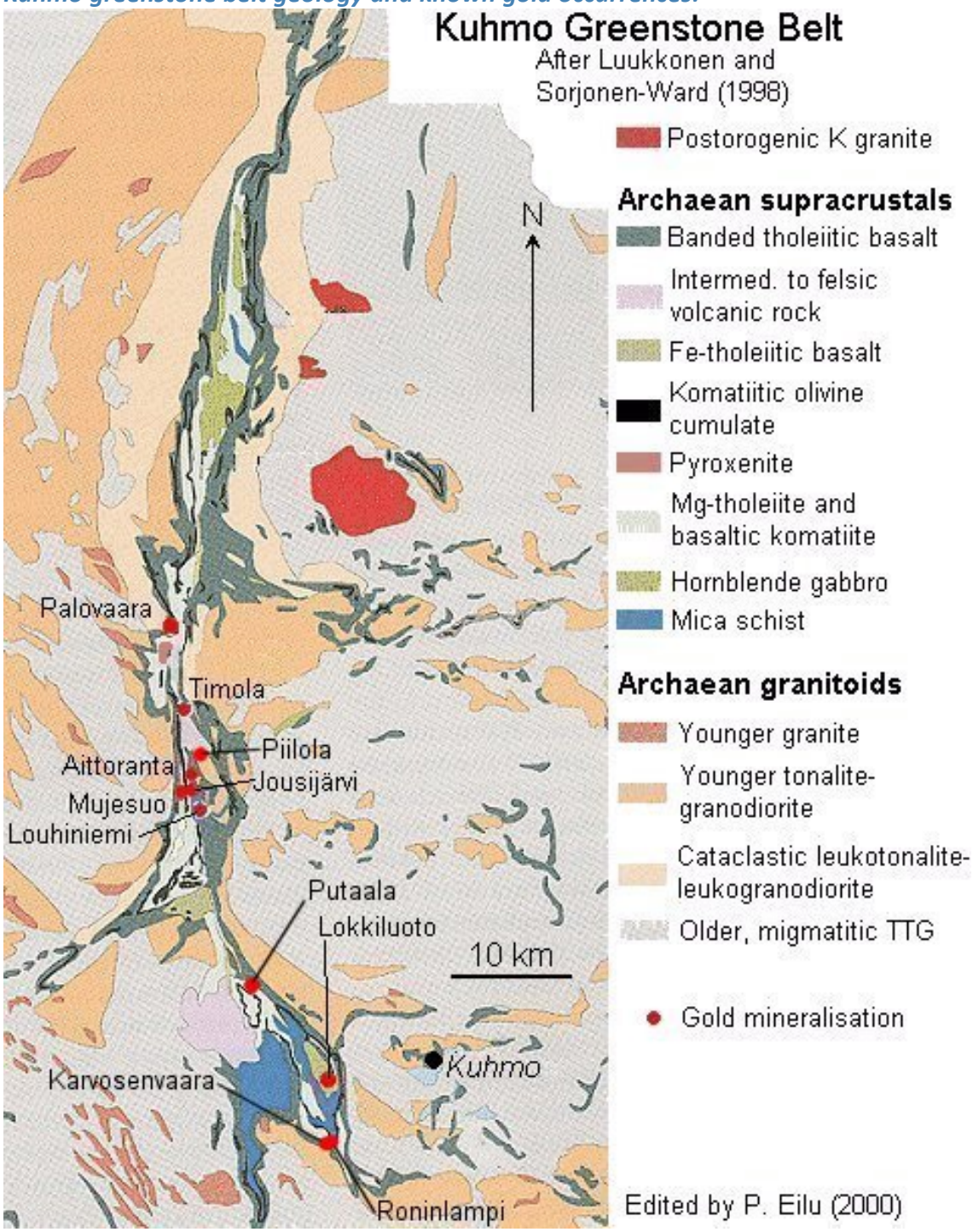


Local geology:

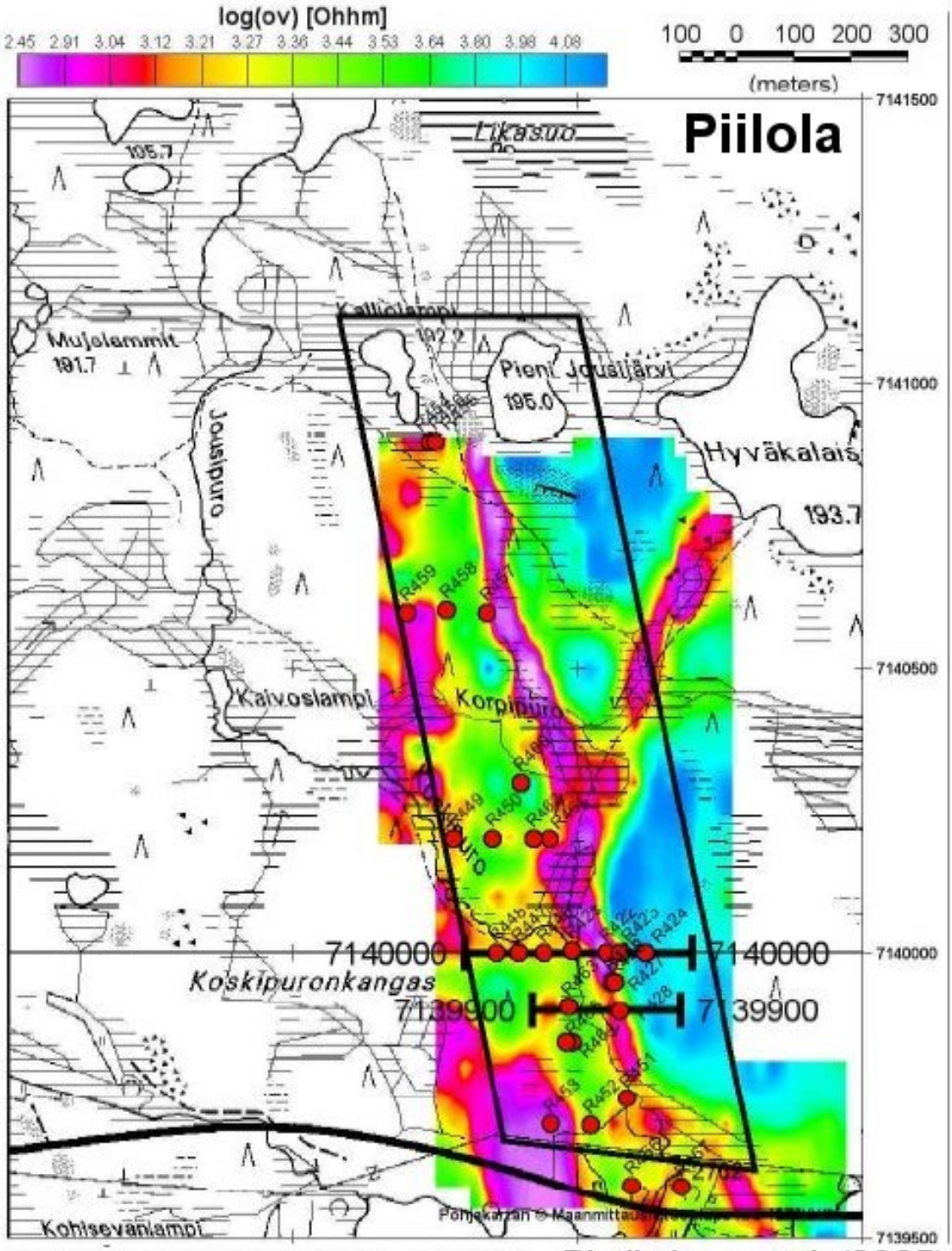


Bedrock map of the Piilola claim area
Red dots indicate diamond-drill hole collars
Pietikäinen et al. (2005)

Kuhmo greenstone belt geology and known gold occurrences:

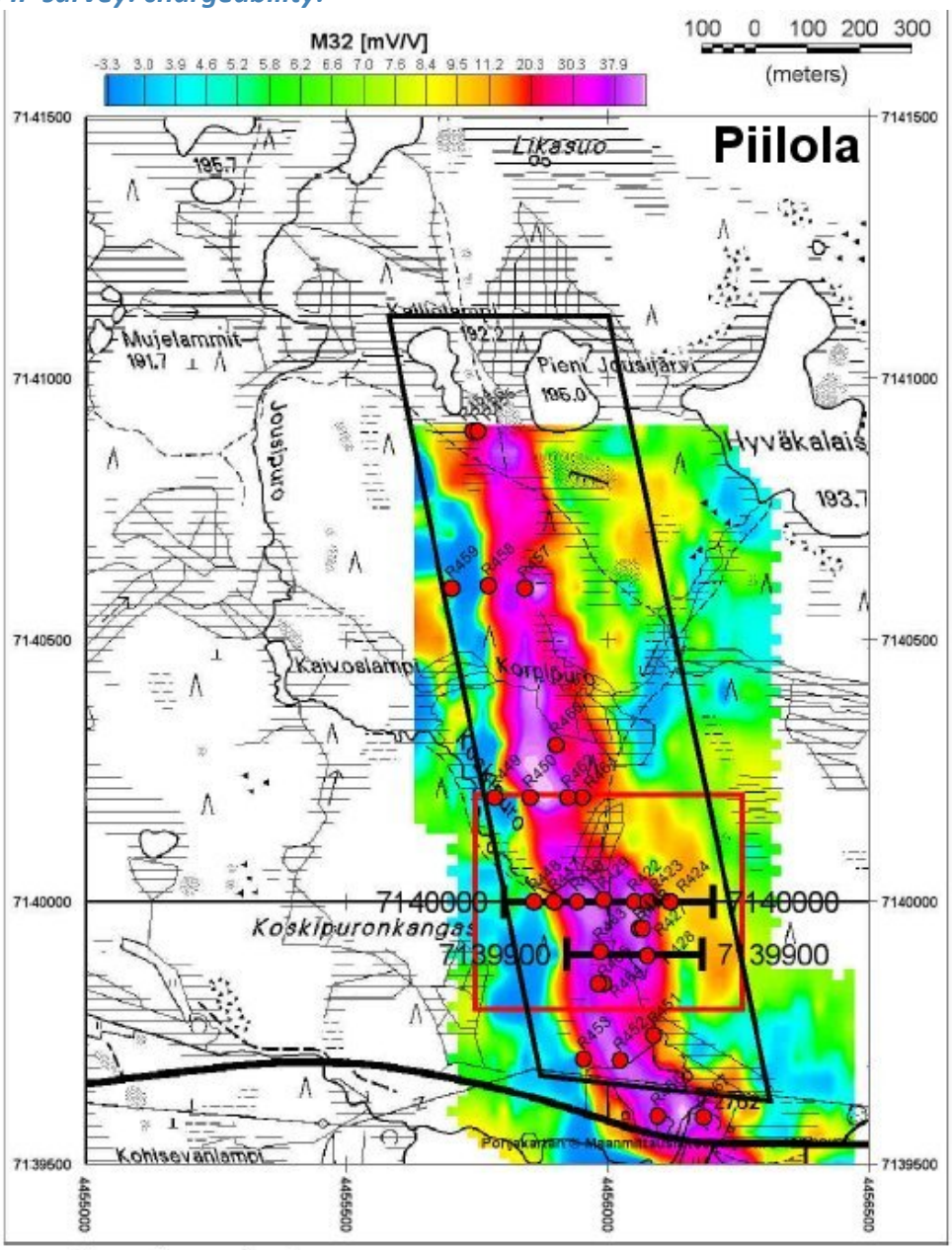


Piilola IP survey: apparent resistivity:



Apparent resistivity map of the IP measurement. Pietikäinen et al. (2005)

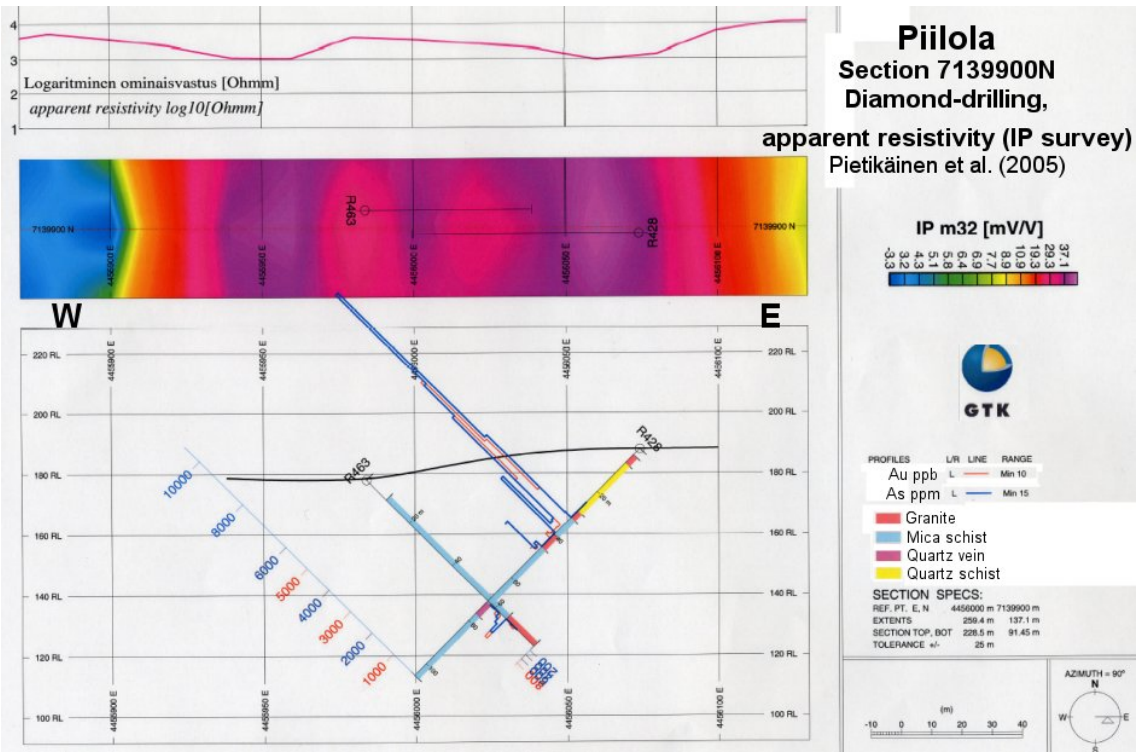
Piilola IP survey: chargeability:



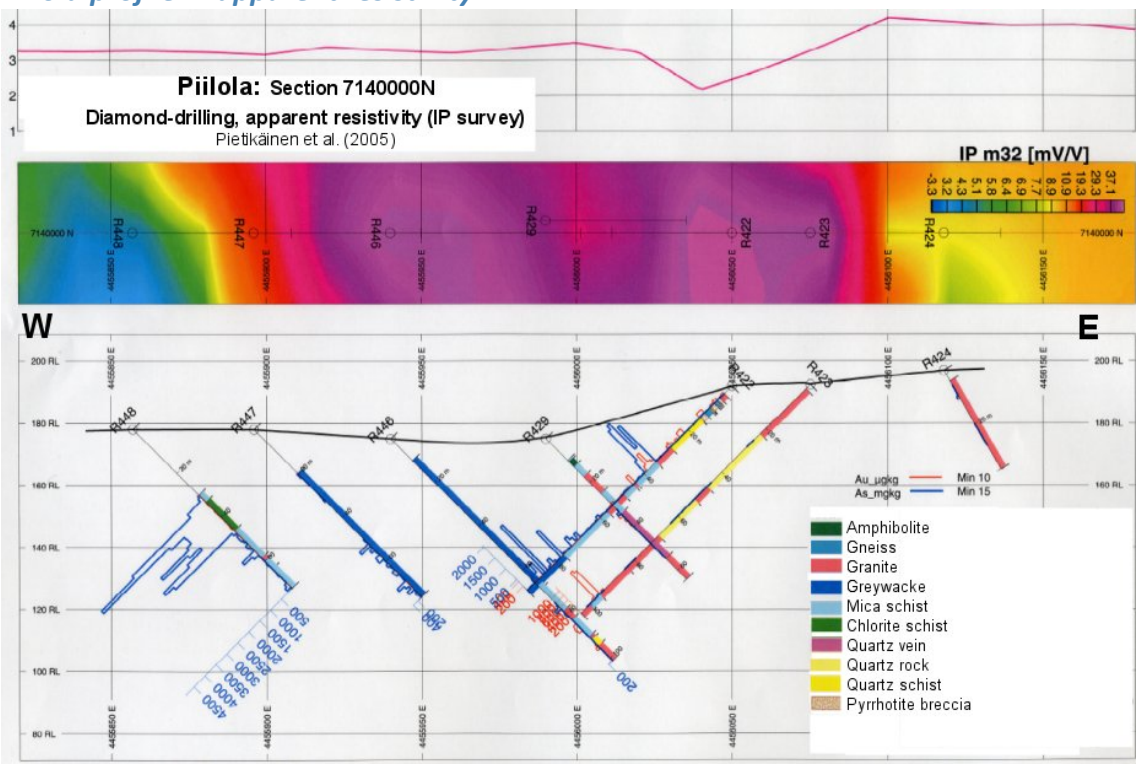
Chargeability map of IP-measurement (induced polarization). Magnetic and electromagnetic measurement was done on the area of red rectangle. Vertical sections x = 7140000 and x = 7139900 locations are also shown on the map Pietikäinen et al. (2005)

Piilola profile 1: apparent resistivity

:



Piilola profile 2: apparent resistivity :



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